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Filed Pursuant to Rule 424(b)(4)  
Registration No. 333-193552 and  
Registration No. 333-196340

2,700,000 Shares



## Resonant Inc.

### Common Stock

We are offering 2,700,000 shares of our common stock, par value \$0.001 per share, in a firm commitment underwritten offering.

This is an initial public offering of our common stock. The initial public offering price is \$6.00 per share. There is presently no public market for our common stock. Our common stock has been approved for listing on the NASDAQ Capital Market under the symbol "RESN".

**We are an "emerging growth company" under the federal securities laws and will have the option to use reduced public company reporting requirements. Investing in our common stock involves a high degree of risk. See "Risk Factors" beginning on page 10 for a discussion of information that should be considered in connection with an investment in our securities.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

We will pay to the underwriter \$1,364,040, or 8.42%, of the gross proceeds of this offering and non-accountable expenses equal to \$175,000. For a more complete discussion of the compensation we will pay to the underwriter, please see the section of this prospectus titled "Underwriting". In connection with this offering, we have also agreed to issue to the underwriter warrants to purchase aggregate shares of our common stock in an amount up to 10% of the shares of common stock sold in the public offering (including the over-allotment to the extent exercised), with an exercise price equal to 125% of the per-share public offering price.

	Per Share	Total
Public offering price	\$6.00	\$16,200,000
Underwriting discounts and commissions	\$0.5052	\$1,364,040
Proceeds to us (before expenses)(1)	\$5.4948	\$14,835,960

(1) See "Underwriting" for a description of compensation payable to the underwriter.

The underwriter may also purchase an additional 405,000 shares of our common stock amounting to 15% of the number of shares offered to the public, within 45 days of the date of this prospectus, to cover over-allotments, if any, on the same terms set forth above.

The underwriter expects to deliver the shares on or about June 3, 2014.

## **MDB Capital Group LLC**

**The date of this prospectus is May 28, 2014**

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Neither we nor the underwriter has authorized anyone to provide any information or make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. Neither we nor the underwriter takes responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of the common stock.

Through and including June 22, 2014 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

For investors outside of the United States: Neither we nor the underwriter has done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States are required to inform themselves about, and to observe any restrictions relating to, this offering and the distribution of this prospectus outside of the United States.

## PROSPECTUS SUMMARY

*The following summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all the information you should consider before investing in our common stock. You should carefully read this prospectus in its entirety before investing in our common stock, including the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus.*

### Overview

Resonant is a development-stage company creating innovative filter designs for radio frequency, or RF, front-ends for the mobile device industry. We use a fundamentally new technology that we call Infinite Synthesized Networks<sup>TM</sup>, or ISN, to configure resonators, the building blocks of RF filters. Filters are a critical component of the RF front-end. They are used to select desired radio frequency signals and reject unwanted signals.

ISN is a technology for finding superior designs to previously intractable problems in RF filters. ISN is a systematic process that employs a comprehensive suite of patented and proprietary circuit design methods and tools to create filters. Our process starts from the ground up and is not constrained by conventional design limitations. The current approach to RF transmit filters is incremental optimization of a fundamental design patented in 1931. This approach was adequate until the recent growth in wireless data which has required an increase in the number of wireless channels or frequency bands. This increase in bands requires new classes of filter designs. We plan to use ISN to develop new classes of designs that have eluded other RF engineers. We have fabricated circuitry that demonstrates the feasibility of ISN, and have created working versions of some of our designs. We have not yet fabricated a commercially viable device using ISN.

The RF front-end is the circuitry in a mobile device responsible for analog signal processing and is located between the device's antenna and its digital baseband. We believe ISN will disrupt the RF front-end market through the following advantages:

- Significant cost reductions,
- Smaller size,
- Fewer components, and
- Improved performance.

Our immediate focus is innovative single-band and tunable filter designs for the RF front-end. These designs present the greatest near-term potential for commercialization of our ISN technology. According to Navian, the combined market for RF front-end filters (including duplexers) in mobile devices was \$2.7 billion in 2013 and is forecasted to reach \$5.2 billion by 2017. This represents a compound annual growth rate of approximately 18%.

### Our Technology

Current RF filter design techniques for mobile devices are based on technology that has changed very little over the past century. The prevailing filter design, an "acoustic wave ladder," is based on a single-topology approach with a fixed design structure. The current technology is constrained by its own design assumptions and has not bred any fundamentally new structures to address emerging industry challenges.

By contrast, our ISN technology is a universal approach that allows many components to be adjusted in order to achieve a particular set of specifications. We have fabricated circuitry that

demonstrates the feasibility of our approach and believe it will yield new generations of designs not available with the single-topology approach inherent in the current technology.

### **Challenges Faced by the Mobile Device Industry**

Rising consumer demand for always-on wireless broadband connectivity is creating an unprecedented need for high performance RF front-ends for mobile devices. Mobile devices such as smartphones and tablets are quickly becoming the primary means of accessing the Internet. The exponential growth in mobile data traffic is testing the limits of existing wireless bandwidth. Carriers and regulators have responded by opening new swaths of RF spectrum, driving up the number of frequency bands in mobile devices. This substantial increase in frequency bands has created at least two significant problems.

Both problems involve the filters and duplexers in the RF front-end. Duplexers are two filters combined into a single component which simultaneously selects both the transmit and receive signals. Today's RF front-ends have multiple filters and duplexers, and they constitute a large percentage of the physical size and cost of the front-end. We believe that filters and duplexers will comprise more than half of the RF front-end market by 2017.

The first problem is that many of the new bands require filters and duplexers that use a relatively expensive technology called bulk acoustic wave, or BAW. The second, and bigger problem, is that the rapid increase in bands is causing a corresponding increase in the number of filters and duplexers in mobile devices. Each of these problems is significantly driving up the cost and size of RF front-ends.

### **Our Solutions**

Our immediate focus is to address these problems with innovative single-band and tunable designs. These designs present the greatest near-term potential for commercialization of our ISN technology. Longer term, we believe our technology will enable more cost effective utilization of spectrum through new paradigms such as cognitive radio.

*Single-Band Designs.* We are currently developing our first duplexer design in collaboration with Skyworks Solutions, Inc., a large supplier of RF front-end modules, under the terms of a development agreement. This will be the first in a series of surface acoustic wave, or SAW, duplexer designs for RF frequency bands presently limited to the larger and more expensive BAW duplexers. We believe we can design SAW duplexers for many of these bands that can be manufactured at less than half the cost of BAW duplexers. We have demonstrated in a test environment our ability to design SAW filters that perform well in these bands.

*Tunable Designs.* We also plan to develop a series of tunable filter designs that can be electronically programmed in real time for different RF frequency bands. Existing filter designs only work with a single frequency band, which requires today's smartphones and other mobile devices to contain as many as nine duplexers and a larger number of individual filters. We believe our tunable designs will replace multiple filters and duplexers and significantly lower the cost and size of RF front-ends. Our design team has fabricated circuitry that demonstrates the feasibility of our tunable filter designs.

### **Our Business Model**

We believe licensing our designs is the most direct and effective means of delivering our solutions to the market. Our target customers make part or all of the RF front-end and sell directly to the cell phone and mobile device manufacturers. There are approximately ten companies that dominate this field, specializing in specific areas such as power amplifiers, RF switches and SAW and BAW filters and duplexers. A subset of this market (around six companies) combines two or more of these components

into integrated front-end modules. We intend to retain ownership of our designs and charge royalties based on sales of RF front-end modules that incorporate our designs. We do not intend to manufacture or sell any physical products or operate as a contract design company developing designs for a fee.

We plan to license specific, custom designs to our customers. Our plan is to charge royalties at a fixed amount per filter and not as a percentage of sales. We expect to generate substantially all of our revenues with these types of licensing arrangements. Each filter design and related royalty stream is expected to have a finite life as mobile devices continue to evolve. Our plan is to offer our customers replacement designs as existing designs become obsolete.

We have advantages that we believe present significant barriers to entry for potential competitors:

- a large and growing portfolio of patents;
- a suite of proprietary software design tools;
- a highly experienced design team; and
- a multi-year technology lead.

### **Our First Commercial Duplexer Design**

We are currently developing our first commercial duplexer design in collaboration with Skyworks Solutions, Inc. pursuant to a development agreement. Skyworks is an innovator in high performance analog semiconductors and a leading supplier of RF front-ends for mobile devices. Skyworks has developed a set of proprietary specifications for our duplexer based on the demands of its customers. We expect to complete work on a production-ready duplexer design before the end of 2014. Skyworks has an option to license our duplexer design at already agreed-upon royalty rates upon completion. We will own our duplexer design and all related intellectual property.

There is no assurance that we can complete our design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

### **Risks Related to Our Business**

Our business is subject to numerous risks, which are highlighted in the section entitled "Risk Factors" immediately following this prospectus summary. Some of these risks include:

- our limited operating history makes it difficult to evaluate our business and prospects;
- we have an agreement with only one potential customer and we will most likely be depending on a small number of customers for a significant portion of our revenue in the future;
- we may not be able to complete a design that meets our potential customer's specifications;
- even if we succeed in developing a design that meets all the specifications in our development agreement, our potential customer could decline to use our design in its product or our customer's product could fail in the marketplace;
- we are a development stage company, have a history of operating losses and we may never achieve or maintain profitability; in addition, the report of our independent registered public accounting firm on our financial statements appearing at the end of this prospectus contains an explanatory paragraph stating that our liquidity risk raises substantial doubt about our ability to continue as a going concern;
- our technologies are not yet verified in practice or on a commercial scale;

- laboratory conditions differ from commercial manufacturing conditions and field conditions, which could affect the effectiveness of our designs;
- our customers may rely on subcontractors to fabricate our circuit designs, and market acceptance of our designs could be adversely affected if the subcontractors decline to manufacture our designs;
- if our designs or our customers' products that incorporate our designs do not achieve widespread market acceptance, we will not be able to generate the revenue necessary to support our business;
- our proprietary rights may be difficult to enforce, which could enable others to copy or use aspects of our solution without compensating us, thereby eroding our competitive advantages and harming our business;
- we may be subject to intellectual property rights claims by third parties, which are extremely costly to defend, could require us to pay significant damages and could limit our ability to use certain technologies;
- our industry is subject to intense competition and rapid technological change, which may result in products or new solutions that are superior to our designs under development or other future designs we may bring to market from time to time and if we are unable to anticipate or keep pace with changes in the marketplace and the direction of technological innovation and customer demands, our designs may become less useful or obsolete and our operating results will suffer; and
- if our principal end markets fail to grow or experience declines, the amount of revenues we may be able to generate following development of our designs may decrease.

For further discussion of these and other risks you should consider before making an investment in our common stock, see the section titled "Risk Factors" immediately following this prospectus summary.

#### **Corporate Information**

Resonant Inc. was incorporated in Delaware in January 2012. Resonant LLC was formed in California during May 2012. Resonant LLC commenced business in July 2012 with initial funding from our founders. Resonant Inc. acquired all of the outstanding membership interests of Resonant LLC in June 2013, and Resonant LLC became a wholly-owned subsidiary of Resonant Inc. Resonant Inc. was dormant until that time. Our principal executive offices are located at 110 Castilian Drive, Suite 100, Goleta, California 93117. Our telephone number is (805) 308-9803.

Our website address is [www.resonant.com](http://www.resonant.com). The information contained on, or that can be accessed through, our website is not a part of this prospectus.

Unless otherwise indicated, the terms "Resonant," "we," "us" and "our" refer to Resonant Inc., a Delaware corporation.

"Resonant" and the Resonant logo are our trademarks. This prospectus contains additional trade names, trademarks and service marks of ours and of other companies. We do not intend our use or display of other companies' trade names, trademarks, or service marks to imply a relationship with these other companies, or endorsement or sponsorship of us by these other companies. Other trademarks appearing in this prospectus are the property of their respective holders.

## **Emerging Growth Company**

The Jumpstart Our Business Startups Act, or the JOBS Act, was enacted in April 2012 with the intention of encouraging capital formation in the United States and reducing the regulatory burden on newly public companies that qualify as "emerging growth companies." We are an emerging growth company within the meaning of the JOBS Act. As an emerging growth company, we may take advantage of certain exemptions from various public reporting requirements, including the requirement that our internal control over financial reporting be audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, certain requirements related to the disclosure of executive compensation in this prospectus and in our periodic reports and proxy statements, and the requirement that we hold a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until we are no longer an emerging growth company.

We will remain an emerging growth company until the earliest to occur of (1) the last day of the fiscal year in which we have \$1.0 billion or more in annual revenue; (2) the date we qualify as a "large accelerated filer," with at least \$700 million of equity securities held by non-affiliates; (3) the date on which we have issued, in any three-year period, more than \$1.0 billion in non-convertible debt securities; or (4) the last day of the fiscal year ending after the fifth anniversary of our initial public offering.

For certain risks related to our status as an emerging growth company, see the disclosure elsewhere in this prospectus under "Risk Factors—Risks Related to this Offering, the Securities Markets and Ownership of Our Common Stock—We are an 'emerging growth company,' and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors."

## THE OFFERING

The following is a brief summary of certain terms of this offering. For a more complete description of the terms of our common stock, see "Description of Capital Stock—Common Stock."

Common stock offered by us	2,700,000 shares
Common stock to be outstanding after this offering	6,487,666 shares (6,892,666 shares, if the underwriter exercises its over-allotment option in full)
Over-allotment option to purchase additional shares from us	405,000 shares
Use of Proceeds	<p>We estimate that the net proceeds from the sale of shares of our common stock in this offering will be approximately \$13,985,960 (or approximately \$16,211,354 if the underwriter's option to purchase additional shares of our common stock from us is exercised in full), based upon the initial public offering price of \$6.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>We intend to use the net proceeds we receive from this offering for product development to commercialize our technology, research and development, the development of our patent strategy and expansion of our patent portfolio, to pay accrued interest on outstanding indebtedness, and for working capital and general corporate purposes. We also may use a portion of the net proceeds from this offering to acquire or invest in technologies, solutions or businesses that complement our business, although we have no present commitments to complete any such transactions at this time.</p>
Risk Factors	See "Risk Factors" and other information included in this prospectus for a discussion of some of the factors you should consider before deciding to purchase shares of our common stock.
NASDAQ Capital Market symbol	RESN

The number of shares of our common stock to be outstanding after this offering is based on 3,787,666 shares of our common stock (including common stock issuable upon conversion of convertible notes) outstanding as of March 31, 2014, and excludes:

- 384,000 shares of our common stock issuable upon exercise of options granted pursuant to our amended and restated 2014 Omnibus Incentive Plan, or 2014 Plan, on the date of this prospectus with an exercise price equal to the initial public offering price;
- 184,500 shares of our common stock issuable upon the vesting of restricted stock units granted pursuant to our 2014 Plan on the date of this prospectus;
- 680,984 shares of our common stock issuable upon exercise of warrants with a weighted-average exercise price of \$1.10 per share;
- 831,500 shares of our common stock reserved for future grants pursuant to our 2014 Plan; and
- the shares of our common stock issuable upon exercise of the underwriter's warrant.

Except as otherwise indicated, all information in this prospectus assumes:

- the effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws in connection with the completion of this offering;
- the automatic conversion of \$7.0 million principal amount of our 6% senior secured convertible notes due September 2014 into an aggregate of 2,087,667 shares of common stock effective upon the completion of this offering;
- the automatic conversion of \$2.4 million principal amount of our non-interest bearing subordinated convertible note due September 2014 into an aggregate of 700,000 shares of common stock effective upon the completion of this offering;
- no exercise of outstanding warrants subsequent to March 31, 2014; and
- no exercise of the underwriter's over-allotment option.

## SUMMARY CONSOLIDATED FINANCIAL DATA AND OTHER DATA

The following tables summarize our consolidated financial data. You should read this summary consolidated financial data together with the sections entitled "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes that are included elsewhere in this prospectus.

The consolidated statement of operations data for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013 are derived from our audited financial statements that are included elsewhere in this prospectus. The consolidated statement of operations data for the three months ended March 31, 2013 and 2014 and for the period from May 29, 2012 (inception) to March 31, 2014, and the consolidated balance sheet data as of March 31, 2014, are derived from our unaudited consolidated financial statements that are included elsewhere in this prospectus. The unaudited consolidated financial statements were prepared on a basis consistent with our audited consolidated financial statements and include, in management's opinion, all adjustments, consisting only of normal recurring adjustments that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim results are not necessarily indicative of the results to be expected for the full year or any other period.

	Resonant LLC Period from May 29, 2012 (inception) to December 31, 2012(1)	Resonant LLC Period From January 1, 2013 to June 16, 2013(1)	Resonant Inc. Period From June 17, 2013 to December 31, 2013(1)	Resonant LLC Three Months Ended March 31, 2013(1)  (unaudited)	Resonant Inc. Three Months Ended March 31, 2014(1)  (unaudited)	Resonant Inc. Period from May 29, 2012 (inception) to March 31, 2014(1)  (unaudited)
<b>Consolidated Statement of Operations Data:</b>						
Revenue	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
<b>Operating Expenses:</b>						
Research and development expenses	141,799	195,403	926,095	141,691	394,781	1,658,078
General and administrative expenses	245,351	135,993	1,485,313	98,174	561,994	2,428,651
Depreciation and amortization	4,508	4,905	14,424	2,330	13,340	37,177
Total operating expenses	391,658	336,301	2,425,832	242,195	970,115	4,123,906
Operating loss	(391,658)	(336,301)	(2,425,832)	(242,195)	(970,115)	(4,123,906)
<b>Other income (expense):</b>						
Interest income (expense), net	73	(199,961)	(1,355,425)	(54,771)	(708,477)	(2,263,790)
Fair value adjustments to warrant and derivative liabilities	—	—	(4,520,736)	—	(2,267,366)	(6,788,102)
Bridge warrant expense	—	(247,669)	(312,486)	(247,669)	—	(560,155)
Other income (expense)	—	—	(333)	—	—	(333)
Total other income (expense)	73	(447,630)	(6,188,980)	(302,440)	(2,975,843)	(9,612,380)
Loss before income taxes	(391,585)	(783,931)	(8,614,812)	(544,635)	(3,945,958)	(13,736,286)
Provision for income taxes	(800)	(800)	(1,256)	—	(800)	(3,656)
Net loss	\$ (392,385)	\$ (784,731)	\$ (8,616,068)	\$ (544,635)	\$ (3,946,758)	\$ (13,739,942)
Net loss per share	\$ —(2)	\$ —(2)	\$ (8.62)(3)	\$ —(2)	\$ (3.95)	\$ —(2)
<b>Weighted average shares outstanding—basic and diluted</b>						
	—(2)	—(2)	999,999(3)	—(2)	999,999	—(2)

(1) The period from May 29, 2012 (inception) to December 31, 2012, the three months ended March 31, 2013, and the period from January 1, 2013 to June 16, 2013 are the results of Resonant LLC. The period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014

are the results of Resonant Inc. Effective June 17, 2013, Resonant LLC became a wholly owned subsidiary of Resonant Inc. in an exchange transaction. The results for the period from May 29, 2012 (inception) to March 31, 2014 include the operations of Resonant LLC from May 29, 2012 (inception) to June 16, 2013 and for Resonant Inc. from June 17, 2013 to March 31, 2014.

- (2) Net loss per share and weighted average shares outstanding are not shown for the period from May 29, 2012 (inception) to December 31, 2012, the three months ended March 31, 2013, the period from January 1, 2013 to June 16, 2013 and the period from May 29, 2012 (inception) to March 31, 2014 as we were a limited liability company through June 16, 2013.

- (3) Net loss and weighted average shares outstanding for the period from June 17, 2013 to December 31, 2013, used to calculate net loss per share for the period, are based on the net loss from June 17, 2013 to December 31, 2013 and the shares issued on June 17, 2013 and considered outstanding for the entire period.

	<b>Resonant Inc.</b>		
	<b>As of March 31, 2014</b>		
	<u>Actual</u>	<u>Pro Forma(1)</u>	<u>Pro Forma</u>
	(unaudited)	(unaudited)	as Adjusted(2)
	(unaudited)		
<b>Consolidated Balance Sheet Data:</b>			
Cash and cash equivalents	\$ 2,116,124	\$ 2,116,124	\$ 16,102,084
Working (deficit) capital	\$ (12,295,533)	\$ 2,099,076	\$ 16,085,036
Total assets	\$ 3,798,935	\$ 3,270,841	\$ 17,256,801
Convertible notes	\$ 8,232,929	\$ —	\$ —
Total stockholders' (deficit) equity	\$ (15,410,723)	\$ (1,016,114)	\$ 12,969,846

- (1) The pro forma column reflects (i) the automatic conversion of \$7.0 million principal amount of our 6% senior secured convertible notes due September 2014 into an aggregate of 2,087,667 shares of common stock and reclassified to additional paid in capital, (ii) the automatic conversion of \$2.4 million principal amount of our non-interest bearing subordinated convertible note due September 2014 into an aggregate of 700,000 shares of common stock and reclassified to additional paid in capital, (iii) the reclassification of \$6.7 million of derivative liability related to the senior secured convertible debt to accumulated earnings (deficit), and (iv) the reclassification of \$0.5 million of deferred finance costs to accumulated earnings (deficit), each to be effective upon the completion of this offering.
- (2) The pro forma as adjusted column reflects all adjustments included in the pro forma column and gives effect to the sale by us of 2,700,000 shares of common stock offered by this prospectus at the initial public offering price of \$6.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

## RISK FACTORS

*Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes, before investing in our common stock. If any of the following risks materialize, our business, financial condition, operating results and prospects could be materially and adversely affected. In that event, the price of our common stock could decline, and you could lose part or all of your investment.*

### **Risks Related to Our Business and Our Industry**

***We are a development stage company, have a history of operating losses and we may never achieve or maintain profitability.***

We are a development stage company. We have a limited operating history and only a preliminary business plan upon which investors may evaluate our prospects. We have never generated revenues and we have a history of losses from operations. As of March 31, 2014, we had an accumulated deficit of \$15.4 million. We are offering shares of common stock in an initial public offering to raise additional capital. There is no assurance that the proceeds will be sufficient to provide us with adequate resources to fund future operations, and we may need additional financing to continue with our plan of commercialization and for general working capital. Further, if we are unable to complete the duplexer design under the development agreement or Skyworks declines to license the design, we will require additional financing. No assurance can be given that any form of additional financing can be obtained, that the terms of such financing will be acceptable or that such financing would not be dilutive to existing shareholders. Thus, our ability to achieve revenue-generating operations and, ultimately, achieve profitability may depend on whether we can obtain additional capital when we need it and will depend on whether we complete the development of our technology and find customers who will license our designs. There can be no assurance that we will ever generate revenues or achieve profitability. In addition, the report of our independent registered public accounting firm on our financial statements appearing at the end of this prospectus contains an explanatory paragraph stating that our liquidity risk raises substantial doubt about our ability to continue as a going concern.

***Our auditors have expressed doubt about our ability to continue as a going concern.***

The Independent Registered Public Accounting Firm's Report issued in connection with our audited financial statements for the year ended December 31, 2013 expresses an opinion that substantial doubt exists as to whether we can continue as a going concern. Because we have been issued an opinion by our auditors that substantial doubt exists as to whether we can continue as a going concern, it may be more difficult to attract investors. If we are not able to continue our business as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our financial statements, and it is likely that investors will lose all or a part of their investment.

***We have an agreement with only one potential customer and expect to derive all or substantially all of our revenues from a small number of customers for the foreseeable future. Our failure to retain or expand customer relationships will have an adverse effect on our revenues.***

We currently have a development agreement with only one potential customer. This potential customer has not agreed to license our technology and may decide not to continue its relationship with us. We expect to derive our revenues from a small number of customers for the foreseeable future. Our revenues may fluctuate significantly in the future should we develop our technology and enter into new customer relationships. Our failure to retain or expand customer relationships, or any problems we

experience in collecting receivables from them, would harm our financial condition and results of operations.

***We may not be able to complete a design that meets our potential customer's specifications. Even if we succeed in developing a design that meets all the specifications in our development agreement, our potential customer could decline to use our design in its product. Further, our customer's product could fail in the marketplace. Any of these events would have a material adverse effect on our business and potentially threaten our viability.***

The development agreement with our one potential customer requires us to meet stringent performance specifications and compete against other technologies for inclusion into the potential customer's product. Our potential customer's final product will then compete against other products and technologies for inclusion into mobile devices in the marketplace. There can be no assurance that we can complete our design or that our final design will have acceptable performance and meet all specifications in our development agreement. The decision to use our design is solely within our potential customer's discretion. Even if our design meets all the specifications in our development agreement, our potential customer could decline to use our design in its product. Further, if selected for inclusion in its product by our potential customer, there is no guarantee that its final product will win out over its competition for inclusion into mobile devices. Either failure (to be selected at the design stage or the device stage) would have a material adverse effect on our business and potentially threaten our viability.

***Our designs will not gain widespread acceptance unless they significantly lower costs as compared to existing RF filter designs.***

RF front-end manufacturers are primarily concerned with the cost of RF filters, and our designs will not gain widespread acceptance unless they significantly lower costs as compared to existing RF filter designs. We cannot assure you that our SAW filter designs will cost sufficiently less to manufacture than existing BAW filters, or that our tunable filter designs can replace a sufficient number of conventional filter designs, to prove economically attractive to RF front-end manufacturers.

***We are required to fabricate test samples of the duplexer designs under our existing development agreement using a customer-approved manufacturer, and the customer will not license our design unless the manufacturer can demonstrate the ability to economically produce the design in large volumes.***

We believe our designs can be manufactured using existing technology, but we will be dependent on a single, customer approved manufacturer for the fabrication of our first duplexer design under our current development agreement. Even if we successfully design a fully compliant duplexer, the prospective customer will not license our design unless the manufacturer can demonstrate the ability to economically produce the design in large volumes. We do not have any control over the manufacturer. We cannot assure you that the manufacturer will have the necessary technology, skills and resources to successfully demonstrate manufacturability of our designs in commercial quantities.

***We use highly specialized commercially available software pursuant to annual licenses, and the inability to renew any of these licenses could adversely affect our ability to design new RF filters and thus our potential for generating revenues.***

In addition to our proprietary software, we also use highly specialized but commercially available computer software in our design process. We do not own this software and use it under the terms of annual licenses. These licenses are made available to us at prices and on terms generally available to any customer. If we were unable to renew any of these software licenses, we would have to locate or develop alternative software. We cannot assure you that suitable alternative software would be available on commercially reasonable terms or could be developed by us at reasonable cost. The loss any one of

these software licenses could adversely affect our ability to produce new RF filter designs and thus our potential for generating revenues.

***Our technologies are not yet verified in practice or on a commercial scale.***

Our technologies are in the early stage of development. They have not been tested in a commercial setting or on a commercial scale. There is no assurance that we will be able to fully develop or license our proposed designs on a timely basis, or at all. You should understand that your investment is in a development stage, technology company, with no assurances of an ability to develop commercially viable designs or obtain revenues, and such revenues may be insufficient for our operations to continue.

***Laboratory conditions differ from commercial manufacturing conditions and field conditions, which could affect the effectiveness of our designs. Failures to effectively move from laboratory to the field would harm our business.***

To date we have only carried out design development and testing in the controlled environment of a laboratory. Observations and developments that may be achievable under laboratory circumstances may not be able to be replicated in commercial manufacturing facilities or in the use of products in the field. The inability of our development stage designs to be manufactured in contract manufacturing facilities or meet the demands of users in the field would harm our business.

***Our business success relies on manufacturers to fabricate our circuit designs, and market acceptance of our designs could be adversely affected if the manufacturers are unable to or decline to manufacture our designs.***

We are a design company and will not commercially manufacture any products. Our business model contemplates licensing our designs to customers, who will manufacture our circuit designs themselves or rely on third party manufacturers, commonly referred to as fab houses, to fabricate our circuit designs for integration into the customer's overall product. Many fab houses offer potentially competitive filter technology as part of their standard product line or offer the services of in-house design teams which may consider us competition. In this case, our customers may face resistance by their fab houses to manufacture our designs. We believe the economics can be structured to make it attractive to the fab houses to manufacture our designs for our potential customers but we cannot be assured of the success in convincing them of the value of manufacturing our designs. Additionally, fab houses may lack the necessary technology, skills, resources or manufacturing capacity to manufacture our designs. The reluctance or inability of fab houses to manufacture our designs could adversely affect the market acceptance of our designs.

***We plan to be a design firm licensing our SAW-based circuit designs to manufacturers of RF front-ends for mobile devices. If our circuit designs do not achieve widespread market acceptance among RF front-end manufacturers, we will not be able to generate the revenue necessary to support our business.***

Achieving acceptance among RF front-end manufacturers of our circuit designs will be crucial to our continued success. We have no history of marketing any circuit design and we may fail to generate significant interest in our initial commercial circuit designs or any other circuit designs we may develop. These and other factors may affect the rate and level of market acceptance, including:

- our pricing relative to other competing designs and technologies;
- perception by RF front-end manufacturers and mobile device manufacturers;
- press and blog coverage, social media coverage, and other publicity and public relations factors which are not within our control; and
- regulatory developments related to manufacturing, marketing and selling our designs.

If we are unable to achieve or maintain market acceptance, our business would be harmed.

***Our SAW-based circuit designs will be complex and may prove difficult to manufacture in commercial quantities. We will be relying on our prospective customers and their circuit suppliers to manufacture our designs. Our business could fail if they encounter difficulties manufacturing our designs in commercial quantities.***

We are developing complex RF circuit designs. We have never manufactured any of our designs beyond an initial prototype. Furthermore, we will be relying on our prospective customers and their circuit suppliers to manufacture our designs. They will need to manufacture our designs in commercial quantities at an acceptable cost, and we will have little or no control over the manufacturing process. They may encounter difficulties in scaling up production of our designs currently in development or other future designs, including problems with quality control and assurance, component supply shortages, increased costs, shortages of qualified personnel and/or difficulties associated with compliance with regulatory requirements. Our business could fail if our customers and their suppliers encounter difficulties manufacturing our designs in commercial quantities.

***The complexity of our designs could result in unforeseen delays or expenses from latent defects that could reduce the market acceptance for our designs damage our reputation with prospective customers and adversely affect our future revenues and operating costs.***

We are developing highly complex filters designs using a new approach. We have not previously produced any designs that have gone into commercial production and therefore cannot be certain our methods and testing procedures are adequate to detect latent design defects. If any of our designs contain latent defects, we may be unable to correct these problems. Consequently, our reputation may be damaged and customers may be reluctant to buy our designs, which could harm our ability to attract customers and negatively impact our financial results. These problems may also result in claims against us by our customers or others.

***Our proprietary rights may be difficult to enforce, which could enable others to copy or use aspects of our intellectual property without compensating us, thereby eroding our competitive advantages and harming our business.***

Our success depends, in part, on our ability to protect proprietary methods and technologies that we develop under the intellectual property laws of the United States, so that we can prevent others from using our inventions and proprietary information. If we fail to protect our intellectual property rights adequately, our competitors might gain access to our technology, and our business might be adversely affected. We rely on trademark, copyright, trade secret and patent laws, confidentiality procedures and contractual provisions to protect our proprietary methods and technologies. We currently hold several patents and have pending patent applications related to our technology solutions. Valid patents may not be issued from our pending applications, and the claims allowed on any issued patents may not be sufficiently broad to protect our technology or offerings and services. Any patents we currently hold or that may be issued to us in the future may be challenged, invalidated or circumvented, and any rights granted under these patents may not actually provide us with adequate defensive protection or competitive advantages. Additionally, the process of obtaining patent protection is expensive and time-consuming, and we may not be able to prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner.

Policing unauthorized use of our technology is difficult. Additional uncertainty may result from changes to intellectual property legislation enacted in the United States, including the recent America Invents Act, and other countries and from interpretations of the intellectual property laws of the United States and other countries by applicable courts and agencies. In addition, the laws of some foreign countries may not be as protective of intellectual property rights as those of the United States,

and mechanisms for enforcement of our proprietary rights in such countries may be inadequate. From time to time, legal action by us may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement. Such litigation could result in substantial costs and the diversion of limited resources and could negatively affect our business, operating results and financial condition. If we are unable to protect our proprietary rights (including aspects of our technology platform) we may find ourselves at a competitive disadvantage to others who have not incurred the same level of expense, time and effort to create and protect their intellectual property.

Furthermore, we acquired the patents we currently hold from STI. Although we believe we have obtained valid assignments of patent rights from STI and STI has obtained valid assignments of patent rights from all inventors, if an inventor did not adequately assign his or her patent right to STI or STI did not adequately assign its patent rights to us, a third party could obtain a license to the patent from such inventor or STI. This could preclude us from enforcing the patent against such third party. In addition, because we acquired our patents from STI, some of the inventors of our patents are not our employees and they are not obligated to assist us in prosecuting, maintaining, defending and enforcing such patents. Without the cooperation of the inventors of our patents, it may be difficult for us to prevail in any legal action involving the intellectual property rights under our patents. Additionally, the inventors may have information, trade secrets and know-how learned while at STI that is not our property and if disclosed could provide competitors with insights that allow them to invent around our patented technology.

Accordingly, despite our efforts, we may be unable to obtain adequate patent protection, or to prevent third parties from infringing upon, misappropriating or inventing around our intellectual property.

***We may be subject to intellectual property rights claims by third parties, which are extremely costly to defend, could require us to pay significant damages and could limit our ability to use certain technologies.***

Third parties may assert claims of infringement of intellectual property rights in proprietary technology against us for which we may be liable or have an indemnification obligation. Any claim of infringement by a third party, even those without merit, could cause us to incur substantial costs defending against the claim and could distract our management from our business.

Although third parties may offer a license to their technology, the terms of any offered license may not be acceptable and the failure to obtain a license or the costs associated with any license could cause our business, results of operations or financial condition to be materially and adversely affected. In addition, some licenses may be non-exclusive, and therefore our competitors may have access to the same technology licensed to us. Alternatively, we may be required to develop non-infringing technology, which could require significant effort and expense and ultimately may not be successful. Furthermore, a successful claimant could secure a judgment or we may agree to a settlement that prevents us from licensing certain circuit designs or performing certain services or that requires us to pay substantial damages, including treble damages if we are found to have willfully infringed the claimant's patents or copyrights, royalties or other fees. Any of these events could seriously harm our business, operating results and financial condition.

***Indemnity provisions in our existing development agreement and other potential agreements we may enter into may expose us to substantial liability for intellectual property infringement and other losses.***

Our existing development agreement includes, and other potential agreements we may enter into with third parties likely will include, indemnification provisions under which we agree to indemnify third parties for losses suffered or incurred as a result of claims of intellectual property infringement, damages caused by us to property or persons, or other liabilities relating to or arising from our circuit

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designs, services, or other contractual obligations. The term of these indemnity provisions generally survives termination or expiration of the applicable agreement. Large indemnity payments could harm our business, operating results and financial condition.

***Our industry is subject to intense competition and rapid technological change, which may result in circuit designs, products or new solutions that are superior to our designs under development. If we are unable to anticipate or keep pace with changes in the marketplace and the direction of technological innovation and customer demands, our designs may become less useful or obsolete and our operating results will suffer.***

The industry in which we operate in general is subject to intense and increasing competition and rapidly evolving technologies. Because our designs are expected to have long development cycles, we must anticipate changes in the marketplace and the direction of technological innovation and customer demands. To compete successfully, we will need to demonstrate the advantages of our designs and technologies.

Our future success will depend in large part on our ability to establish and maintain a competitive position in current and future technologies. Rapid technological development may render our designs under development, or any future designs we may have, and its technologies obsolete. Many of our competitors have or may have greater corporate, financial, operational, sales and marketing resources, and more experience in research and development than we have. We cannot assure you that our competitors will not succeed in developing or marketing technologies or products that are more effective or commercially attractive than our designs or that would render our technologies and designs obsolete. We may not have or be able to raise or develop the financial resources, technical expertise, or support capabilities to compete successfully in the future. Our success will depend in large part on our ability to maintain a competitive position with our technologies.

***If our principal end markets fail to grow or experience declines, our net revenue may decrease.***

According to our business plan, our initial circuit designs will be incorporated into mobile wireless devices. Accordingly, demand for our designs is dependent on the ability of mobile wireless device manufacturers to successfully sell wireless devices that incorporate our designs. We cannot be certain whether these manufacturers will be able to create or sustain demand for their wireless devices that contain our designs or how long they will remain competitive in their business, if at all. The success of these mobile wireless device manufacturers and the demand for their wireless devices can be affected by a number of factors, including:

- market acceptance of their mobile wireless devices that contain our designs;
- the impact of slowdowns or declines in sales of mobile wireless devices in general;
- their ability to design products with features that meet the evolving tastes and preferences of consumers;
- fluctuations in foreign currency;
- relationships with wireless carriers in particular markets;
- the implementation of, or changes to, mobile wireless device certification standards and programs;
- technological advancements in the functionality and capabilities of mobile wireless devices;
- the imposition of restrictions, tariffs, duties, or regulations by foreign governments on mobile wireless device manufacturers;
- failure to comply with governmental restrictions or regulations;

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- cost and availability of components for their products; and
- inventory levels in the sales channels into which mobile wireless device manufacturers sell their products.

### ***Changes in current laws or regulations or the imposition of new laws or regulations could impede the license of our designs or otherwise harm our business.***

Wireless networks can only operate in the frequency bands, or spectrum, allowed by regulators and in accordance with rules governing how the spectrum can be used. The Federal Communications Commission, or the FCC, in the United States, as well as regulators in foreign countries, have broad jurisdiction over the allocation of frequency bands for wireless networks. We therefore will rely on the FCC and international regulators to provide sufficient spectrum and usage rules. For example, countries such as China, Japan or Korea heavily regulate all aspects of their wireless communication industries, and may restrict spectrum allocation or usage. If this were to occur, it would make it difficult for us to license our designs for use in mobile devices in that region.

### ***Our limited operating history makes it difficult to evaluate our business and prospects and may increase the risks associated with your investment.***

We have only a limited operating history upon which our business and future prospects may be evaluated. We have encountered and will continue to encounter risks and difficulties frequently experienced by companies in rapidly developing and changing industries, including challenges related to recruiting, integrating and retaining qualified employees; making effective use of our limited resources; achieving market acceptance of our existing and future solutions; competing against companies with greater financial and technical resources; and developing new solutions. Our current operational infrastructure may require changes for us to scale our business efficiently with additional technical personnel and effectively to keep pace with demand for our solutions, and achieve long-term profitability. If we fail to implement these changes on a timely basis or are unable to implement them effectively, our business may suffer. We cannot assure you that we will be successful in addressing these and other challenges we may face in the future. As a company in a rapidly evolving industry, our business prospects depend in large part on our ability to:

- build a reputation for a superior solution and create trust and long-term relationships with our potential customers;
- distinguish ourselves from competitors in our industry;
- develop and offer a competitive technology that meet our potential customers' needs as they change;
- respond to evolving industry standards and government regulations that impact our business,
- expand our business internationally; and
- attract, hire, integrate and retain qualified and motivated employees.

If we are unable to meet one or more of these objectives or otherwise adequately address the risks and difficulties that we face, our business may suffer, our revenue may decline and we may not be able to achieve growth or long-term profitability.

### ***Our management team has no experience with the implementation and administration of financial and reporting controls and procedures.***

Although our management team makes certain representations about the financial and reporting controls and procedures in our offering documentation, our management team lacks experience in

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implementing and maintaining our operations and our financial processes. Financial and reporting controls and procedures implemented and maintained by our management team, now or in the future, may not be adequate, with the result that there may be substantial deficiencies that will need remediation in the future. If there are inadequate controls and procedures, our financial statements and our reporting may be inaccurate or untimely. Investors may not wish to invest in a company with identified control and procedure deficiencies.

***The loss of the services of our key management and personnel or the failure to attract additional key personnel could adversely affect our ability to operate our business.***

A loss of one or more of our current officers or key employees could severely and negatively impact our operations. Specifically, the loss of the services of any of the following would be material to us: Terry Lingren, our Chief Executive Officer; Robert Hammond, our Chief Technology Officer; and Neal Fenzi, our Vice President of Engineering. We have no present intention of obtaining key-man life insurance on any of our executive officers or management. Additionally, competition for highly skilled technical, managerial and other personnel is intense. As our business develops, we might not be able to attract, hire, train, retain and motivate the highly skilled managers and employees we need to be successful. If we fail to attract and retain the necessary technical and managerial personnel, our business will suffer and might fail.

***We may have difficulty managing growth in our business.***

Because of our small size, growth in accordance with our business plan, if achieved, will place a significant strain on our financial, technical, operational and management resources. As we expand our activities, there will be additional demands on these resources. The failure to continue to upgrade our technical, administrative, operating and financial control systems or the occurrence of unexpected expansion difficulties, including issues relating to our research and development activities and retention of experienced scientists, managers and engineers, could have a material adverse effect on our business, financial condition and results of operations and our ability to timely execute our business plan. If we are unable to implement these actions in a timely manner, our results may be adversely affected.

***We may require additional capital to support growth, and such capital might not be available on terms acceptable to us, if at all, which may in turn hamper our growth and adversely affect our business.***

We intend to continue to make investments to support our business growth and may require additional funds to respond to business challenges, including the need to develop new technology, improve our operating infrastructure or acquire complementary businesses and technologies. Accordingly, we may need to engage in private equity, equity-linked or debt financings to secure additional funds. If we raise additional funds through future issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing that we secure in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, including the ability to pay dividends. This may make it more difficult for us to obtain additional capital and to pursue business opportunities. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, our ability to continue to support our business growth and respond to business challenges could be significantly impaired, and our business may be adversely affected.

***If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results could fall below the expectations of securities analysts and investors, resulting in a decline in our stock price.***

The preparation of financial statements in conformity with generally accepted accounting principles, or GAAP, requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, as provided in the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. Our operating results may be adversely affected if our assumptions change or if actual circumstances differ from those in our assumptions, which could cause our operating results to fall below the expectations of securities analysts and investors, resulting in a decline in our stock price. Significant assumptions and estimates used in preparing our consolidated financial statements include those related to the fair values of convertible debt instruments, derivative instruments, other financial instruments and income taxes.

#### **Risks Relating to this Offering, the Securities Markets and Ownership of Our Common Stock**

***The price of our common stock may be volatile and the value of your investment could decline.***

Technology stocks have historically experienced high levels of volatility. The trading price of our common stock following this offering may fluctuate substantially. Following the completion of this offering, the market price of our common stock may be higher or lower than the price you pay in the offering, depending on many factors, some of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include the following:

- announcements of new offerings, products, services or technologies, commercial relationships, acquisitions or other events by us or our competitors;
- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of technology companies in general;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations;
- whether our results of operations meet the expectations of securities analysts or investors;
- actual or anticipated changes in the expectations of investors or securities analysts;
- litigation involving us, our industry, or both;
- regulatory developments in the United States, foreign countries, or both;
- general economic conditions and trends;
- major catastrophic events;
- lockup releases, sales of large blocks of our common stock;
- departures of key employees; or
- an adverse impact on the company from any of the other risks cited herein.

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In addition, if the market for technology stocks or the stock market, in general, experience a loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. If our stock price is volatile, we may become the target of securities litigation. Securities litigation could result in substantial costs and divert our management's attention and resources from our business. This could have a material adverse effect on our business, results of operations and financial condition.

***Sales of substantial amounts of our common stock in the public markets, including when the "lock-up" or "market standoff" period ends, or the perception that sales might occur, could reduce the price of our common stock and may dilute your voting power and ownership interest in us.***

Sales of a substantial number of shares of our common stock in the public market after this offering, or the perception that these sales could occur, could adversely affect the market price of our common stock and may make it more difficult for you to sell your common stock at a time and price that you deem appropriate. Upon completion of this offering, we will have 6,487,666 shares of common stock outstanding. All of the shares of common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act of 1933, as amended, or the Securities Act, except for any shares held by our "affiliates" as defined in Rule 144 under the Securities Act.

Subject to certain exceptions described under the caption "Underwriting," we and all of our directors, officers and employees and certain of our stockholders beneficially owning 5% or more of our common stock have agreed not to offer, sell or agree to sell, directly or indirectly, any shares of common stock without the permission of the underwriter for a period of 12 months from the date of this prospectus. All of our other stockholders have agreed to similar restrictions for a period of 180 days from the date of this prospectus. When the lockup periods expire, we and our locked-up security holders will be able to sell shares in the public market. In addition, the underwriter may, in its sole discretion, release all or some portion of the shares subject to lock-up agreements prior to the expiration of the applicable lock-up period. See the section of this prospectus entitled "Shares Eligible for Future Sale" for more information. Sales of a substantial number of such shares upon expiration, or the perception that such sales may occur, or early release of the lock-up, could cause our share price to fall or make it more difficult for you to sell your common stock at a time and price that you deem appropriate.

Holders of up to approximately 700,985 shares of our common stock (including 430,985 shares of common stock underlying outstanding warrants and 270,000 shares of common stock underlying the underwriter's warrant, assuming no exercise of the underwriter's over-allotment option), will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also intend to register the offer and sale of all shares of common stock that we may issue under our equity compensation plans.

***Insiders will continue to have substantial control over us after this offering, which could limit your ability to influence the outcome of key transactions, including a change of control.***

Our directors, executive officers and each of our stockholders who beneficially own greater than 5% of our outstanding common stock, in the aggregate, will beneficially own approximately 42.5% of the outstanding shares of our common stock after this offering, based on the number of shares outstanding as of May 1, 2014, and after giving effect to the conversion of the convertible notes. As a result, these stockholders will be able to influence or control matters requiring approval by our

stockholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. They may also have interests that differ from yours and may vote in a manner that is adverse to your interests. This concentration of ownership may have the effect of deterring, delaying or preventing a change of control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

***Our securities have no prior market and our stock price may decline after the offering.***

Prior to this offering, there has been no public market for shares of our common stock. Although our common stock has been approved for listing on the NASDAQ Capital Market, an active public trading market for our common stock may not develop or, if it develops, may not be maintained after this offering. For example, The NASDAQ Stock Market imposes certain securities trading requirements, including requirements related to a minimum bid price, minimum number of stockholders, minimum number of trading market makers, and minimum market value of publicly traded shares. Our company and the underwriter determined the initial public offering price. The initial public offering price may be higher than the trading price of our common stock following this offering. As a result, you could lose all or part of your investment.

***We have broad discretion in the use of net proceeds that we receive in this offering, and if we do not use those proceeds effectively, your investment could be harmed.***

The principal purposes of this offering are to raise additional capital, to create a public market for our common stock and to facilitate our future access to the public equity markets. We intend to use the net proceeds that we receive in this offering for research and development to commercialize our technology, the development of our patent strategy and expansion of our patent portfolio, to pay accrued interest on outstanding indebtedness, and for working capital and general corporate purposes. We also may use a portion of the net proceeds from this offering to acquire or invest in technologies, solutions or businesses that complement our business, although we have no present commitments to complete any such transactions at this time. Accordingly, our management will have broad discretion over the specific use of the net proceeds that we receive in this offering and might not be able to obtain a significant return, if any, on investment of these net proceeds. See "Use of Proceeds."

Investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds. If we do not use the net proceeds that we receive in this offering effectively, our business, results of operations and financial condition could be harmed.

***The requirements of being a public company may strain our resources, divert our management's attention and affect our ability to attract and retain qualified board members.***

As a public company, we will be subject to the reporting requirements of the Exchange Act, and will be required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the securities exchange on which our common stock will be traded and other applicable securities rules and regulations. Compliance with these rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources. Among other things, the Exchange Act requires that we file annual, quarterly and current reports with respect to our business and results of operations and maintain effective disclosure controls and procedures and internal controls over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal controls over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, management's attention may be diverted from other business concerns, which could harm our business and results of operations. Although we have already hired additional

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employees to comply with these requirements, we may need to hire even more employees in the future, which will increase our costs and expenses.

We also expect that being a public company and these new rules and regulations will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

***We are an "emerging growth company," and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our common stock less attractive to investors.***

For so long as we remain an "emerging growth company" as defined in the JOBS Act, we may take advantage of certain exemptions from various requirements that are applicable to public companies that are not "emerging growth companies," including not being required to comply with the independent auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We may take advantage of these exemptions for so long as we are an "emerging growth company," which could be as long as five years following the completion of this offering. Investors may find our common stock less attractive because we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile and may decline.

In addition, Section 107 of the JOBS Act also provides that an "emerging growth company" can take advantage of an extended transition period for complying with new or revised accounting standards. However, we chose to "opt out" of such extended transition period, and as a result, we will comply with new or revised accounting standards on the relevant dates adoption of such standards is required for non-emerging growth companies. Our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

***We will be required to evaluate our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002, and any adverse results from such evaluation could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.***

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, we will be required to furnish a report by our management on our internal control over financial reporting the year following our first annual report required to be filed with the SEC. When required, such report will contain, among other matters, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. If we are unable to assert that our internal control over financial reporting is effective, we could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our stock price.

Our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal control over financial reporting until the later of the year following our first annual report required to be filed with the SEC, or the date we are no longer an "emerging growth company." At such time, our independent registered public accounting firm may issue a report that is adverse in the event it is not satisfied with the level at which our controls are documented, designed or operating. Our remediation efforts may not enable us to avoid a material weakness in the future.

***Because the initial public offering price of our common stock will be substantially higher than the pro forma net tangible book value per share of our outstanding common stock following this offering, new investors will experience immediate and substantial dilution.***

The initial public offering price of our common stock is substantially higher than the pro forma net tangible book value per share of our common stock immediately following this offering based on the total value of our tangible assets less our total liabilities. Therefore, if you purchase shares of our common stock in this offering, you will experience immediate dilution of \$4.07 per share, the difference between the initial public offering price of \$6.00 per share and the pro forma net tangible book value per share of our common stock as of March 31, 2014, after giving effect to the issuance of shares of our common stock in this offering. See the section entitled "Dilution."

***If securities or industry analysts do not publish research or reports about our business, or publish inaccurate or unfavorable research reports about our business, our share price and trading volume could decline.***

The trading market for our common stock will, to some extent, depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us should downgrade our shares or change their opinion of our business prospects, our share price would likely decline. If one or more of these analysts ceases coverage of our company or fails to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

***We do not intend to pay dividends for the foreseeable future and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.***

We have never declared or paid any dividends on our common stock. We intend to retain any earnings to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the future. As a result, you may only receive a return on your investment in our common stock if the market price of our common stock increases.

***Our charter documents and Delaware law could discourage takeover attempts and lead to management entrenchment.***

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect upon completion of this offering contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by the chairman of our board of directors, the chief executive officer, the president (in the absence of a chief executive officer) or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;

- the requirement for the affirmative vote of holders of at least 66<sup>2</sup>/<sub>3</sub>% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the management of our business or our amended and restated bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend our amended and restated bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquiror to amend our amended and restated bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

### **Risks Related to Government Regulation**

*Our failure to comply with U.S. laws and regulations relating to the export and import of goods, technology, and software could subject us to penalties and other sanctions and restrict our ability to license and develop our circuit designs.*

We are obligated by law to comply with all U.S. laws and regulations governing the export and import of goods, technology, and services, including the International Traffic in Arms Regulations, or ITAR, the Export Administration Regulations, or EAR, regulations administered by the Department of Treasury's Office of Foreign Assets Control, and regulations administered by the Bureau of Alcohol Tobacco Firearms and Explosives governing the importation of items on the U.S. Munitions Import List. Pursuant to these regulations, we are responsible for determining the proper licensing jurisdiction and export classification of our circuit designs, and obtaining all necessary licenses or other approvals, if required, for exports and imports of technical data, and software, or for the provision of technical assistance or other defense services to or on behalf of foreign persons. We are also required to obtain export licenses, if required, before employing or otherwise utilizing foreign persons in the performance of our contracts if the foreign person will have access to export-controlled technical data or software. The violation of any of the applicable laws and regulations could subject us to administrative, civil, and criminal penalties.

These regulations could restrict our ability to license existing circuit designs and develop new designs. For example, as a result of ITAR requirements, we are unable to supply certain products to China satellite companies or end users, which comprise a significant part of the overall satellite market. Changes in our designs or changes in export and import regulations may create delays in the introduction of our designs in international markets, prevent our customers with international operations from deploying products incorporating our designs throughout their global systems or, in some cases, prevent the export or import of product including our designs to certain countries altogether. Any change in export or import regulations or related legislation, shift in approach to the enforcement or scope of existing regulations, or change in the countries, persons, or technologies targeted by such regulations, could result in decreased use of our designs by, or our ability to export or license our designs to, existing or potential customers with international operations and decreased revenue. Additionally, failure to comply with these laws could result in sanctions by the U.S. government, including substantial monetary penalties, denial of export privileges, and debarment from government contracts.

***If we fail to comply with anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, or FCPA, we could be subject to civil and/or criminal penalties.***

As a result of our potential international operations, we may be subject to anti-bribery laws, including the FCPA, which prohibits companies from making improper payments to foreign officials for the purpose of obtaining or keeping business. If we fail to comply with these laws, the U.S. Department of Justice, the Securities and Exchange Commission, or SEC, or other U.S. or foreign governmental authorities could seek civil and/or criminal sanctions, including monetary fines and penalties against us or our employees, as well as additional changes to our business practices and compliance programs, which could have a material adverse effect on our business, results of operations, or financial condition.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled "Prospectus Summary," "Risk Factors," "Use of Proceeds," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and "Business," contains forward-looking statements. The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

- our future financial and operating results;
- our intentions, expectations and beliefs regarding anticipated growth, market penetration and trends in our business;
- the timing and success of our plan of commercialization;
- our ability to attract and retain customers;
- our dependence on growth in our customers' businesses;
- the effects of market conditions on our stock price and operating results;
- our ability to maintain our competitive technological advantages against competitors in our industry;
- our ability to timely and effectively adapt our existing technology and have our technology solutions gain market acceptance;
- our ability to introduce new offerings and bring them to market in a timely manner;
- our ability to maintain, protect and enhance our intellectual property;
- the effects of increased competition in our market and our ability to compete effectively;
- our plans to use the proceeds from this offering;
- costs associated with defending intellectual property infringement and other claims;
- our expectations concerning our relationships with customers and other third parties;
- our expectations concerning relationships between our customers and their manufacturers;
- the attraction and retention of qualified employees and key personnel;
- future acquisitions of or investments in complementary companies or technologies; and
- our ability to comply with evolving legal standards and regulations, particularly concerning requirements for being a public company and United States export regulations.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in "Risk Factors" and elsewhere in this prospectus. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for us to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in our forward-looking statements.

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You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances described in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations, except as required by law.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the Securities and Exchange Commission as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

## MARKET AND INDUSTRY DATA

Unless otherwise indicated, information contained in this prospectus concerning our industry and the markets in which we operate, including our general expectations, market opportunity and market size, is based on information from various sources, including Cisco Systems, Inc., or Cisco, The White House, and Navian Inc., or Navian, on assumptions based on such data and other similar sources, and on our knowledge of the markets for our solution. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors" and elsewhere in this prospectus. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Certain information in the text of the prospectus is contained in independent industry publications. The sources of these independent industry publications are provided below:

- (1) Cisco, *Cisco Visual Networking Index: Forecast and Methodology, 2012-2017*, March 29, 2013.
- (2) Navian, *RF Devices / Modules for Cellular 2013-2014*, October 25, 2013.
- (3) The White House, *Presidential Memorandum: Unleashing the Wireless Broadband Revolution*, June 28, 2010.

## BUSINESS

### Overview

Resonant is a development-stage company creating innovative filter designs for radio frequency, or RF, front-ends for the mobile device industry. The RF front-end is the circuitry in a mobile device responsible for analog signal processing and is located between the device's antenna and its digital baseband. We use a fundamentally new technology that we call Infinite Synthesized Networks™, or ISN, to configure resonators, the building blocks of RF filters. Filters are a critical component of the RF front-end. They are used to select desired radio frequency signals and reject unwanted signals.

ISN is a technology for finding superior designs to previously intractable problems in RF filters. ISN is a systematic process that employs a comprehensive suite of patented and proprietary circuit design methods and tools to create filters. Our process starts from the ground up and is not constrained by conventional design limitations. The current approach to RF transmit filters is incremental optimization of a fundamental design discovered in 1931. This approach was adequate until the recent growth in wireless data. The increasing number of bands requires new classes of designs. We plan to use ISN to develop new classes of designs that have eluded other RF engineers. We have fabricated circuitry that demonstrates the feasibility of ISN, and have created working versions of some of our designs. We have not yet fabricated a commercially viable device using ISN.

We believe licensing our designs is the most direct and effective means of delivering our solutions to the market. Our target customers make part or all of the RF front-end and sell directly to the cell phone and mobile device manufacturers. There are approximately ten companies that dominate this field, specializing in specific areas such as power amplifiers, RF switches and SAW and BAW filters and duplexers. A subset of this market (around six companies) combines two or more of these components into integrated front-end modules. We intend to retain ownership of our designs and charge royalties based on sales of RF front-end modules that incorporate our designs. We do not intend to manufacture or sell any physical products or operate as a contract design company developing designs for a fee.

We are currently developing our first design, a duplexer, in collaboration with Skyworks Solutions, Inc., under the terms of a development agreement. Duplexers are two filters combined into a single component which simultaneously selects both the transmit and receive signals. We expect to complete work on a production-ready duplexer design before the end of 2014. Skyworks has an option to license our duplexer design at already agreed-upon royalty rates upon completion. There is no assurance that we can complete our design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

Resonant Inc. was incorporated in Delaware in January 2012. Resonant LLC was formed in California during May 2012. Resonant LLC commenced business in July 2012 with initial funding from our founders. Resonant Inc. acquired all of the outstanding membership interests of Resonant LLC in June 2013 in an exchange transaction, and Resonant LLC became a wholly-owned subsidiary of Resonant Inc. Resonant Inc. had been dormant until that time.

Our principal executive offices are located at 110 Castilian Drive, Suite 100, Goleta, California 93117, and our telephone number is 805-308-9803. Our website address is [www.resonant.com](http://www.resonant.com). The information contained on, or that can be accessed through, our website is not a part of this prospectus.

### Our History

Our technology was originally pioneered by Superconductor Technologies Inc., or STI. STI commercialized discoveries in high temperature superconductors by developing unique RF filter technology and creating high performance RF filters for cellular towers. STI had a program from 2007 to 2010 to develop electronically tunable RF filters for mobile devices using surface acoustic wave, or

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SAW, filter technology. STI halted work on the RF filter program in 2010 in order to devote its resources to the development of high temperature superconducting wire.

Dr. Robert Hammond, STI's Chief Technology Officer during the RF filter program, continued to believe in the potential of STI's RF filter technology for mobile devices and championed its further development. Terry Lingren, then serving as Vice President of Engineering at Kyocera Communications, Inc., and Neal Fenzi, who was then serving as Chief Engineer at STI, joined Dr. Hammond to co-found Resonant LLC in May 2012.

Resonant LLC commenced business on July 6, 2012 with initial contributions from the founders and STI. The founders contributed \$200,000 and agreed to work full-time without pay until we secured adequate funding. STI contributed a patent portfolio, software, equipment, temporary office space and an early version of our development agreement with Skyworks.

We devoted the next year to pursuing additional financing and required additional interim funding from the founders. The founders loaned us an aggregate of \$200,000 during the first quarter of 2013. We issued the founders warrants to purchase units of Resonant LLC in connection with the loans. We repaid the loans in the second quarter of 2013.

We changed the form of ownership from a limited liability company to a corporation in an exchange transaction on June 17, 2013. The founders exchanged all of their units and warrants of Resonant LLC for common stock and warrants of Resonant Inc. STI exchanged all of its units of Resonant LLC for a \$2.4 million subordinated convertible note of Resonant Inc. The subordinated convertible note is interest free and matures on September 17, 2014. It is also secured by all of our assets but is subordinated to the senior convertible notes. The subordinated convertible note will convert into 700,000 shares of common stock immediately prior to completion of this offering.

Resonant Inc. was organized by STI on January 14, 2012 but had not conducted any operations prior to the exchange transaction. The common stock originally issued to STI upon the formation was cancelled in the exchange transaction, at which time Resonant LLC became a wholly-owned subsidiary of Resonant Inc.

We closed a financing on June 17, 2013. We issued \$7.0 million of senior convertible notes in a private placement to accredited investors. The senior convertible notes mature on September 17, 2014, bear interest at 6.0% per annum and are secured by all of our assets and the assets of Resonant LLC. The senior convertible notes will automatically convert into an aggregate of 2,087,667 shares of common stock immediately prior to the completion of this offering. MDB Capital Group served as the exclusive placement agent for the private placement.

## **Industry Background**

### ***Glossary***

The following is a glossary of useful terms:

- *Band, channel or frequency band*—a designated range of radio wave frequencies used to communicate with a mobile device.
- *Bulk acoustic wave (BAW)*—an acoustic wave traveling through a material exhibiting elasticity.
- *Duplexer*—a bi-directional device that connects the antenna to the transmitter and receiver of a wireless device and simultaneously filters both the transmit signal and receive signal.
- *Filter*—a series of interconnected resonators designed to pass (or select) a desired radio frequency signal and block unwanted signals.

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- *Resonator*—a device that naturally oscillates (or resonates) at specific frequencies. The oscillations in a resonator can be either electromagnetic or mechanical (including acoustic). Resonators are the building blocks for filters.
- *RF front-end*—the circuitry in a mobile device responsible for the analog signal processing which is located between the antenna and the digital baseband.
- *Surface acoustic wave (SAW)*—an acoustic wave traveling along the surface of a material exhibiting elasticity, with an amplitude that typically decays exponentially with depth into the substrate.

### ***The Mobile Internet***

Rising consumer demand for always-on wireless broadband connectivity is creating an unprecedented need for high performance RF front-ends for mobile devices. Mobile devices such as smartphones and tablets are quickly becoming the primary means of accessing the internet. According to Cisco, worldwide mobile data traffic will grow at a compounded annual growth rate of 66 percent from 2012 to 2017. Cisco further estimates that data traffic from wireless devices will exceed traffic from wired devices by 2016.

The exponential growth in mobile data traffic is testing the limits of existing wireless bandwidth. Carriers and regulators have responded by opening new RF spectrum, driving up the number of frequency bands in mobile devices. As a prime example, President Obama issued a directive in 2010 to the FCC and other agencies to make available an additional 500 MHz of RF spectrum to meet the growing demand in the United States. Similar initiatives are occurring worldwide.

Adding RF spectrum is not a complete solution. The added spectrum does not come in large contiguous blocks, but rather in small channels or bands of varying size and frequency. Thus, more data means more bands, and the result is a rapid and substantial increase in the number of bands in mobile devices.

### ***Challenges Faced by the Mobile Device Industry***

This substantial increase in frequency bands has created at least two significant problems. Both problems involve a critical front-end component called a filter. A filter selects a desired radio frequency signal and rejects unwanted signals. Two filters often are combined into a single component called a duplexer, which simultaneously selects both the transmit and receive signals of a mobile device. Today's RF front-ends have multiple filters and duplexers, and they constitute a large percentage of the physical size and cost of the front-end. We believe that filters and duplexers will comprise more than half of the RF front-end market by 2017.

The first problem is that many of the new bands require filters and duplexers that use a relatively expensive BAW technology. Mobile device manufacturers would prefer to use SAW technology because of its lower cost and smaller size. However, conventional filter designs using SAW technology do not perform adequately in high frequency bands or in bands with closely spaced receive and transmit channels, typical of many new bands.

The second, and bigger problem, is that the rapid increase in bands is causing a corresponding increase in the number of duplexers in mobile devices because traditional RF front-end solutions typically require one duplexer for each frequency band. For example, over the past two years the duplexer count in a leading smartphone increased from four to nine duplexers and a larger number of individual filters. This is dramatically driving up the cost of RF front-ends.

The growing number of duplexers is also increasing the total size of the RF front-end. In some cases, size constraints require the device manufacturer to fragment its product offering into multiple

versions, each with a limited set of duplexers customized for just one carrier network. Multiple versions of a product increase manufacturing, inventory and distribution costs. Device manufacturers would prefer to make one version of a product containing a full set of duplexers that can be electronically selected as required for a particular carrier network.

### ***Our Solutions***

We plan to commercialize our technology by creating two families of filter designs that address these problems:

- *Single-Band Designs*—We plan to develop a series of SAW duplexer designs for RF frequency bands presently limited to the larger and more expensive BAW duplexers. We believe we can design innovative SAW duplexers that meet the performance requirements for many of these bands but at less than half the cost of BAW duplexers.
- *Tunable Designs*—We also plan to develop a series of tunable filter designs that can be electronically programmed in real time for different RF frequency bands. We believe our tunable filter designs will replace multiple filters and significantly lower the cost and size of RF front-ends.

### **Our Technology**

Modern mobile devices utilize RF filters based on a design patented in 1931 by Lloyd Espenschied. The conventional design process starts with Espenschied's "acoustic wave ladder" design—a single, fixed topology. Other RF filter engineers presume the ladder design offers the best topology and do not explore alternative structures. Their focus is on incremental optimization of this single design. Consequently, the current design process has not bred any fundamentally new structures.

In addition, we believe better designs have eluded RF engineers because exploring the countless alternative structures presents a series of intractable mathematical and design problems. We have used ISN in a laboratory setting to solve those problems and demonstrate that many alternative and superior designs exist. Our design process starts at the beginning by efficiently finding and analyzing a series of potentially viable design structures. We believe it's possible with our ISN technology to find multiple, viable design structures for any given set of design parameters. We then use our ISN technology to analyze the trade-offs in performance, cost and size to determine the optimal structure for a specific function. Our ISN technology enables us to find the best solution from among the countless possible structures for any given design problem.

ISN is systematic process that employs a comprehensive suite of patented and proprietary circuit design methods and tools to create filters. Our process starts from the ground up and is not limited to the prevailing ladder design. We plan to use ISN to develop new classes of designs that have eluded other RF engineers. We have fabricated circuitry that demonstrates the feasibility of ISN, but we have not yet fabricated a commercially available device with ISN.

We believe ISN will disrupt the RF front-end market through the following advantages:

- Significant cost reductions,
- Smaller size,
- Fewer components, and
- Improved performance.

We believe our ISN technology will generate designs that can be manufactured entirely with existing components and existing high-volume fabrication processes. Our veteran team of engineers and scientists has demonstrated in a laboratory setting the feasibility of our plan of commercialization. We

designed, fabricated and tested SAW filters that use existing components in an unconventional (non-ladder) structure but with improved performance compared to the conventional structure. We also designed, fabricated and tested SAW circuitry that demonstrates the feasibility of our tunable filter designs.

### ***RF Front-Ends***

Mobile devices are two-way communication devices that work by transmitting and receiving digital information encoded as analog RF signals between the mobile device and a cellular base station. Every mobile device has a digital baseband system and an analog RF front-end.

The RF front-end is responsible for the analog signal processing required to transmit and receive RF signals between the mobile device and the cellular base station. The RF front-end is generally defined as the circuitry between the antenna and the digital baseband system. The RF front-end performs following functions:

- Amplification of low-level signals (for both the transmitted and received signals);
- Filtering to select and isolate the signals to meet performance requirements and to prevent interference; and
- Transmitting and receiving those signals to and from the cellular base station via the antenna.

The RF front-end is a critical part of the mobile device. Trade-offs in overall system performance, power consumption, and size are determined between the RF front-end and the baseband system. On the receive side, the RF front-end sets the stage for what digital bit-error-rate performance is possible at final bit detection. It is here that the receiver can, within limits, be designed for the best potential signal to noise ratio. And on the transmit side, the power amplifier is still one of the largest consumers of battery life. Making better decisions here can greatly improve a device's single-charge longevity or, conversely, allow for a smaller battery with equivalent performance.

### ***The Challenge***

Moore's Law predicts that transistor density on integrated circuits will double approximately every two years, and the digital baseband of mobile devices has improved exponentially as predicted by Moore's Law. However, major improvements to the analog RF front-end have been limited by existing filter technology, with only incremental updates to decades-old practices. Consequently, the RF-front end is taking up an ever-growing share of the cost and size of mobile devices. As the number of bands continues to increase, so will the cost of wireless components using today's conventional RF technology.

Most mobile devices sold today operate on "fourth generation" wireless technology, or 4G. There are nearly fifty 4G bands recognized worldwide today, and the list is growing. Under traditional design methods, this requires duplication of many of the RF components since many of them will only work on a single band. The RF front-end gets more complex as more bands are added.

This complexity presents a significant challenge to the RF front-end. The RF front-end must meet the growing data demands while reducing cost and size and improving battery life. Our solution involves a radically new approach to RF component design, enabled by ISN technology. Four types of RF components dominate the size and cost of the RF front-end of mobile devices. We believe our ISN designs will enable our customers to combine three of them into a single, low-cost, multi-function and multi-band component.

### ***Our Filter Designs***

Filter design for communications dates back more than 100 years. The RF filter designs currently utilized in mobile devices have changed very little over the past century. The modern mobile device RF

front-end has kept pace with increased demands primarily through dramatic progress in manufacturing methods for RF integrated circuits. However, filter design has lagged behind.

We plan to change that with our ISN technology. Our ISN technology enables a fundamentally new filter design process. The current transmit filters are merely optimized versions of Espenschied's ubiquitous "acoustic wave ladder" used in today's mobile devices. Countless alternative designs are possible, but RF engineers lack the technology to effectively generate viable alternative structures.

By contrast, our universal approach starts from the beginning by finding and evaluating a set of alternative structures. ISN makes possible an approach that allows components to be moved, even eliminated or added, in order to achieve a particular set of specifications. We have created several proprietary RF circuit design methodologies, which are supported by dozens of custom software circuit design modules. As shown in Figure 1 below, the conventional Espenschied structure uses a fixed topology and allows only minor optimization. Our approach exploits added complexity to produce what we believe will be smaller, lower cost solutions.

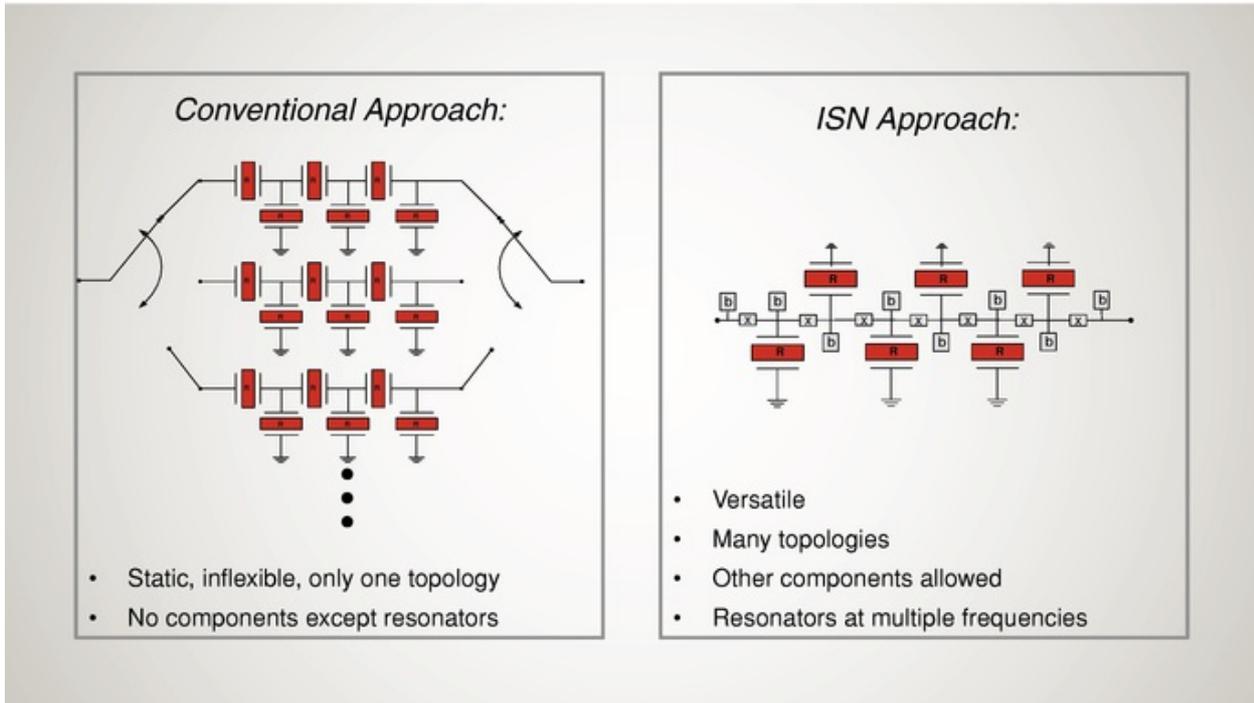


Figure 1—Conventional filter design approach versus our universal ISN approach. The universal approach allows for series, series/parallel and other arrangements of the resonators. The white boxes represent couplings which consist of various electronic components such as inductors and capacitors and may be omitted in some designs.

We have used our ISN technology to produce filter designs that are different from and superior to the ladder filter design. Our designs have improved performance in terms of the key parameters of loss and steepness of rejection.

Even more significantly, the mobile device industry has long sought the ability to design tunable filters capable of processing multiple bands. The conventional approach is to use a different filter for each band and use an antenna switch to alternate between multiple filters. The goal of a tunable filter is to replace multiple filters with a single tunable filter, saving both cost and valuable space. Our ISN technology has enabled us to produce in a laboratory setting tunable designs that operate in multiple bands.

We have used our ISN technology to produce a design in a laboratory setting for a two-band SAW filter electronically tunable between two alternate bands. Circuitry was fabricated and performed as predicted. The design incorporates SAW resonators, non-resonant components and switches to create a tunable SAW filter that can be adapted to each of the frequency bands. This demonstrated the feasibility of reusing the same set of resonators to create multiple passbands. We believe that a 3-band tunable filter offers sufficient advantages in terms of cost and size to be a commercially viable product. We plan to use the same ISN process to create tunable filters for more than two bands. We cannot assure investors that we will be successful in designing commercially viable filters with 2 or more passbands.

## Plan of Commercialization

### Single-Band Designs

SAW filters are preferred in modern RF front-ends because of their high performance, small size and low cost. However, traditional SAW ladder designs do not perform well in high frequency bands or bands with closely spaced receive and transmit channels, typical of many new bands. Therefore, larger and more expensive BAW filters are typically used for these bands.

We have demonstrated in a test environment our ability to design SAW filters that perform well in frequency bands presently limited to the larger and more expensive BAW filters. Our designs avoid some of the limitations of the traditional ladder design. For example, the traditional ladder design is inherently symmetric, and most specifications are inherently asymmetric. Our flexible ISN approach allows us to create asymmetric designs that more closely match the typical performance specifications. We plan to develop a series of SAW duplexer designs for these frequency bands. We believe we can design SAW duplexers for many of these bands that can be manufactured at less than half the cost of BAW duplexers.

There is a rapidly growing need for duplexers. According to Navian, the market for RF front-end duplexers in mobile devices was \$1.8 billion in 2013 and is forecasted to reach \$3.3 billion by 2017. This represents a compound annual growth rate of approximately 16%.

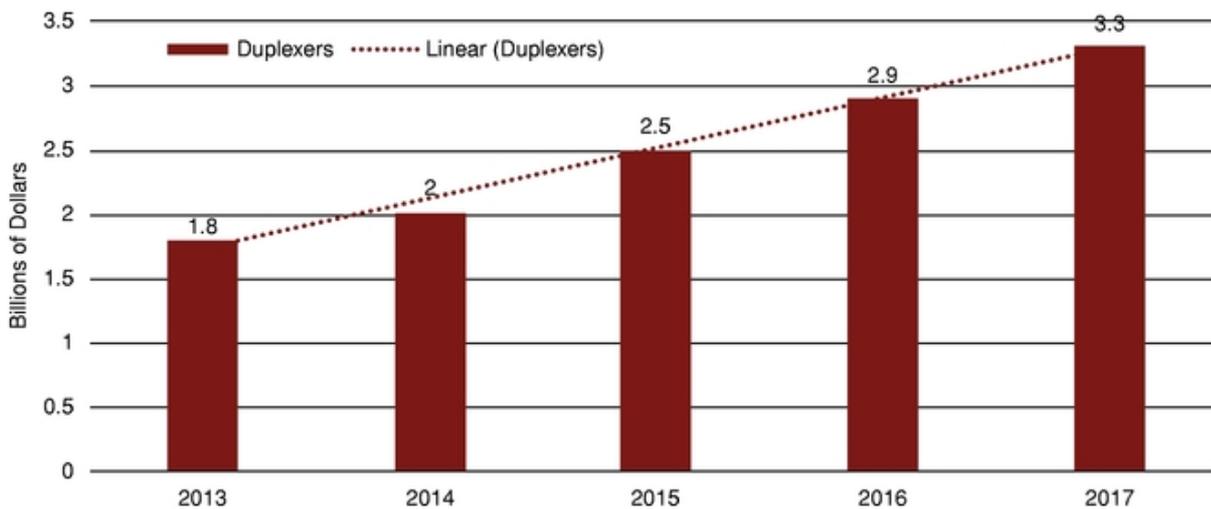


Figure 2—Projected growth of the market for RF front-end duplexers in mobile devices from 2013 through 2017 (in billions of dollars). *Source: Navian.*

### **Tunable Designs**

We plan to develop a series of tunable filter designs that replace multiple filters. Our initial designs are likely to use SAW filters and build on our expertise in SAW filter technology. We have fabricated circuitry in a laboratory test that demonstrates the feasibility of our tunable filter designs. We believe we can design tunable filters that can be electronically reprogrammed in real time for different RF frequency bands, significantly lowering the cost and size of RF front-ends.

We have started discussions with several prospective customers for the design of tunable filters with the goal of securing a lead customer. These discussions may not result in any agreements. Regardless of the timing or outcome of these discussions, we plan to proceed with development of tunable filter designs later this year.

According to Navian, the market for RF front-end filters in mobile devices (including duplexers) was \$2.7 billion in 2013 and is forecasted to reach \$5.2 billion by 2017. This represents a compound annual growth rate of approximately 18%.

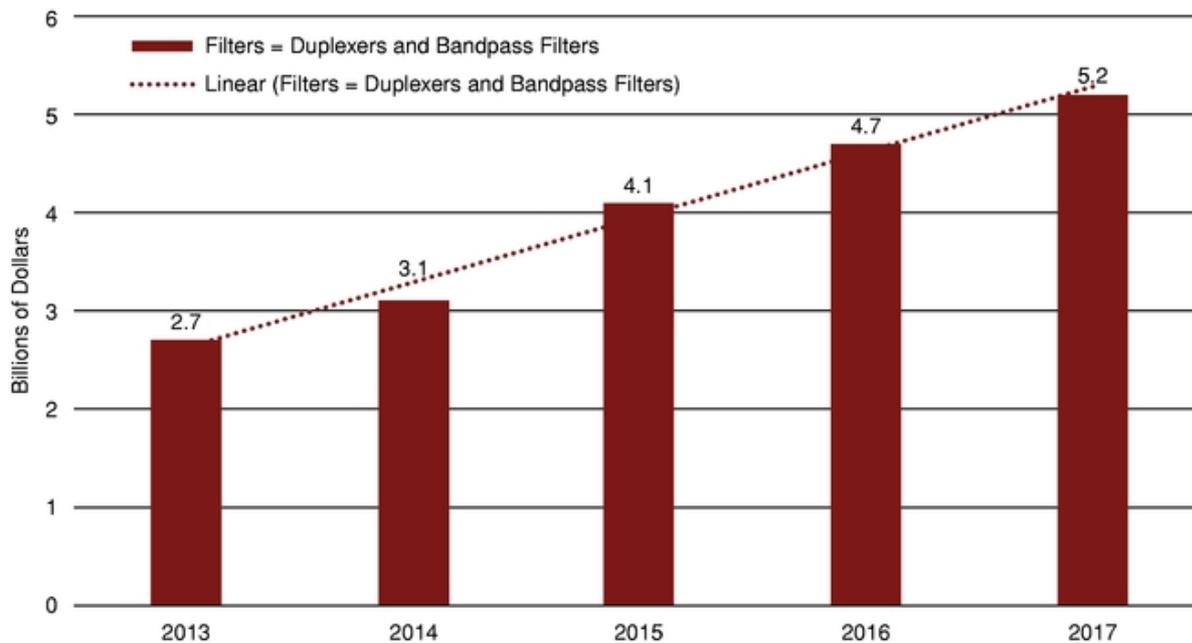


Figure 3—Projected growth of the market for RF front-end filters in mobile devices (including duplexers) from 2013 through 2017 (in billions of dollars). *Source: Navian.*

### **Future Designs**

Our immediate focus is to address the problems in the RF front-end with innovative single-band and tunable designs made possible with our ISN technology. These designs present the greatest near-term potential for commercialization of our ISN technology. However, we believe longer term that our ISN technology will enable more cost effective utilization of spectrum through new paradigms such as cognitive radio. A cognitive radio is an intelligent radio that dynamically programs and reconfigures itself.

### **Our First Commercial Duplexer Design**

We are currently developing our first single-band commercial SAW duplexer design in collaboration with Skyworks under the terms of a development agreement. Skyworks is an innovator in

high performance analog semiconductors and a leading supplier of RF front-ends for mobile devices. Skyworks has developed a set of proprietary specifications for our duplexer based on the demands of its customers. We believe our design will meet the performance requirements for the selected band but at less than half the cost of the existing BAW duplexer. We have started with fixed band designs because we believe it gives us the opportunity to quickly demonstrate our ISN process.

The development agreement contains the following progress milestones:

- *Milestone 1 (Resonator Designs)*—Design a set of resonators, fabricate using an approved high volume manufacturer and provide test results.
- *Milestone 2 (First Duplexer Design)*—Design the first iteration of a fully-packaged duplexer, fabricate using the approved manufacturer, provide test results and deliver samples.
- *Milestone 3 (Second Duplexer Design)*—Design the second iteration of a fully-packaged duplexer, fabricate using the approved manufacturer, provide test results and deliver samples.
- *Milestone 4 (Production-Ready Duplexer Design)*—Design production-ready, fully-packaged duplexer, fabricate using the approved manufacturer, provide test results and deliver samples.

We completed Milestones 1 and 2 and are actively working on Milestone 3. We expect to complete work on a production-ready duplexer design before the end of 2014. We are funding our portion of the development work and will own our duplexer design and all related intellectual property. Skyworks is funding certain costs and devoting engineering resources to testing and qualification

Skyworks has an option to license our duplexer design at already agreed-upon royalty rates upon completion. We will own our duplexer design and all related intellectual property. The terms of the license would give Skyworks exclusivity on our filter designs for a limited time on the relevant duplexer band. The exclusivity will not affect our ability to design filters in other bands.

There is no assurance that we can complete our duplexer design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

#### **Business Model**

We believe licensing our designs is the most direct and effective means of delivering our solutions to the market. Our target customers make part or all of the RF front-end. We intend to retain ownership of our designs and charge royalties based on sales of RF front-end modules that incorporate our designs. We generally do not intend to manufacture or sell any physical products or operate as a contract design company developing designs for a fee. Our strategy is to develop and license filter designs that offer reductions to the cost and size of RF front-ends. The goal of our designs is to improve profit margins and increase market share for our customers.

We will license specific, custom designs to our customers. Our plan is to charge royalties at a fixed amount per filter and not as a percentage of sales. We expect to generate substantially all of our revenues with these types of licensing arrangements. Each filter design and related royalty stream is expected to have a finite commercial life as mobile devices continue to evolve. Our plan is to offer our customers replacement designs as existing designs become obsolete.

We anticipate a significant delay between the start of a design and the start of royalty payments under a particular license. In some cases, we may grant the customer a limited period of exclusivity on a specific design or frequency band to enable the customer to be the first to market with the design. We do not expect any of these exclusivity provisions to have any long-term duration nor prevent us from concurrently working filter designs in other bands for other customers.

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We have advantages that we believe present significant barriers to entry for potential competitors:

- a large and growing portfolio of patents;
- a suite of proprietary software design tools;
- a highly experienced design team; and
- a multi-year technology lead.

We plan to pursue filter design agreements and joint ventures with potential customers and other strategic partners whenever advantageous. These types of arrangements may subsidize filter design costs, as well as offer complementary technology and market intelligence. However, we intend to retain ownership of our technology, designs and related improvements. Our goal is to establish and leverage alliances with new customers, who will help grow the market for our designs by integrating them with their own proprietary technology and products, thus combining their own particular strengths with ours to provide an extensive array of Resonant-based solutions.

Our products will be designed for manufacture with existing high-volume fabrication processes allowing rapid time to market, but we do not plan to manufacture or sell any physical components. Unlike a traditional hardware company, we intend to create designs for manufacturers eliminating for us the costs and problems associated with manufacturing and inventory. This allows us to concentrate on our unique expertise, leaving the hardware manufacturers to drive their own economies of scale.

### **Intellectual Property**

We have an active program of protecting our proprietary technology through the filing of patents. Our patent portfolio comprises 18 issued and allowed patents and 17 pending patents in the U.S. and selected foreign countries. We believe 29 of these are directly relevant to our ISN technology. The portfolio reflects both the initial technology contribution of STI, as well as our own patent filings since our founding. We have plans to file additional patents this year.

Our patent portfolio relates primarily to the following subject matter:

- filter circuit structures and topologies,
- filter synthesis and design methods, and
- resonator structures.

We also have an active and ongoing program to identify, protect and commercialize our intellectual property. This program includes the development of a comprehensive patent strategy. We have engaged several highly specialized outside firms to assist in these endeavors. These firms are assisting with invention identification, intellectual property strategy and competitive landscape analysis. We spent \$496,000 on this program from inception through March 31, 2014. We plan to increase spending on this program after the initial public offering and continue at the increased levels for the foreseeable future.

Our research has not identified any public information, such as patents or published articles, relating to our technology that would affect our freedom to operate. However, there can be no assurance that our pending patent applications or any future patent applications will be approved or will not be challenged successfully by third parties, that any issued patents will protect our technology or will not be challenged by third parties, or that the patents of others will not have an adverse effect on our ability to do business. Furthermore, there can be no assurance that others will not independently develop similar or competing technology or design around any patents that have been or may be issued to us.

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We also rely on trademark, copyright and trade secret laws to protect our intellectual property. We have filed U.S. trademark applications for "Resonant," "RcR" and "Reconfigurable Resonance." We protect our trade secrets and other proprietary information by requiring confidentiality agreements from all our employees, consultants and third parties having access to such information. Despite these efforts, there can be no assurance that others will not gain access to our trade secrets, or that we can meaningfully protect our technology. In addition, effective trademark, copyright and trade secret protection may be unavailable or limited in certain foreign countries. Although we intend to protect our rights vigorously, there can be no assurance that such measures will be successful.

### **Competition**

Our potential customers source their filter designs internally from their own engineers or externally from a filter manufacturer. We intend to offer both kinds of customers filter designs that we believe do not currently exist. Our competitive challenge is to convince customers that our unconventional, proprietary designs offer significant size, cost and performance advantages over any design they can produce themselves or procure from a filter manufacturer.

Thus, we will "compete" indirectly with the existing filter designs and design capabilities of our target customers or their filter manufacturers. These companies include, among others, Skyworks Solutions Inc., Qualcomm Technologies, Inc., Murata Manufacturing Co., Ltd., Avago Technologies Limited, TriQuint Semiconductor, Inc., TDK Epcos, Panasonic, Taiyo Yuden and RF Micro Devices, Inc. We must demonstrate that switching from their designs to our designs will give them a significant competitive advantage by improving the cost, size and performance of their products. And the improvement must be large enough to justify our royalty rates.

We believe that all previous attempts to produce tunable filters have focused on varying the frequencies of the resonators by changing their capacitance. This is traditionally performed by incorporating variable capacitors or switched capacitors into the resonator. This approach has proven unsuccessful at meeting the performance requirements of the RF front-end market. ISN technology avoids this problem because it does not require varying any aspect of the resonators. However, several RF devices are in development that may improve the ability to vary the frequencies of the resonators. These include digitally-switched capacitors, MEMS (micro-electro-mechanical) tuned capacitors, BST (barium strontium titanate) tuned capacitors, and MEMS RF switches. Thus, these previous attempts to produce tunable filters may become more competitive than they are today.

Some companies are exploring pure digital solutions as alternatives to tunable filters. Pure digital solutions advance steadily, as predicted by Moore's Law. As a result of the many decades of this progress to date, a great many traditionally analog tasks are now handled digitally. However, RF front-end analog tasks represent a much more demanding challenge. One of the most significant challenges is the large dynamic range, which means simultaneously processing a transmit signal power up to 100 trillion times larger than the receive signal power inside a small, mobile device. Digital solutions have advanced significantly, but they still have dynamic ranges thousands of times smaller than required.

### **Employees**

We have 13 full-time employees and 6 outside consultants. Our three founders divide their time between filter designs and administrative matters. We have two employees and one consultant devoted solely to administrative matters. All of our other employees and consultants are devoted entirely to filter design and comprise five senior engineers and six PhD scientists. They have more than 200 years of combined experience in RF science and engineering. Many of these people worked together as a team at STI on the original development program for our technology, and five of our employees and one consultant are the inventors of some of our patented technology. We have hired a chief financial

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officer, and his scheduled start date is June 1, 2014. We plan to hire this year a director of finance and additional technical personnel for the filter design team.

**Real Property**

We have leased approximately 3,600 square feet of office and laboratory space in Goleta, California. The 3-year lease expires in February 2017, and provides us with an option for an additional 3 years. We have recently exercised a right of first refusal on an additional 1,700 square feet of contiguous space.

We have leased an additional 1,800 square feet of office space in Burlingame, California. The lease expires in November 2015. We have an option for an additional two years. This facility is a satellite office and is used by several members of our technical team resident in the San Francisco Bay area. We believe our design teams can work together effectively from multiple offices with modern communications technology. This flexibility has the advantage of enhancing our ability to recruit experienced personnel in key technology centers around the country. We may open additional satellite offices for this reason.

We believe our current facilities will be adequate through 2014. We will need additional office space in 2015 for planned growth.

**Legal Proceedings**

We are not a party to any legal proceedings.

**SELECTED CONSOLIDATED FINANCIAL DATA**

The following selected consolidated financial and other data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and related notes, which are included elsewhere in this prospectus. The consolidated statements of operations data for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013, the period from June 17, 2013 to December 31, 2013, and the consolidated balance sheet data as of December 31, 2012 and 2013, are derived from the audited consolidated financial statements that are included elsewhere in this prospectus. The consolidated statement of operations data for the three months ended March 31, 2013 and 2014 and for the period from May 29, 2012 (inception) to March 31, 2014, and the consolidated balance sheet data as of March 31, 2014, are derived from our unaudited consolidated financial statements appearing elsewhere in this prospectus. We have included, in our opinion, all adjustments, consisting only of normal recurring adjustments, which we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results to be expected in the future, and our interim results are not necessarily indicative of the results to be expected for the full year or any other period.

	Resonant LLC Period from May 29, 2012 (inception) to December 31, 2012(1)	Resonant LLC Period From January 1, 2013 to June 16, 2013(1)	Resonant Inc. Period From June 17, 2013 to December 31, 2013(1)	Resonant LLC Three Months Ended March 31, 2013(1) (unaudited)	Resonant Inc. Three Months Ended March 31, 2014(1) (unaudited)	Resonant Inc. Period from May 29, 2012 (inception) to March 31, 2014(1) (unaudited)
<b>Consolidated Statement of Operations Data:</b>						
Revenue	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
<b>Operating Expenses:</b>						
Research and development expenses	141,799	195,403	926,095	141,691	394,781	1,658,078
General and administrative expenses	245,351	135,993	1,485,313	98,174	561,994	2,428,651
Depreciation and amortization	4,508	4,905	14,424	2,330	13,340	37,177
Total operating expenses	391,658	336,301	2,425,832	242,195	970,115	4,123,906
Operating loss	(391,658)	(336,301)	(2,425,832)	(242,195)	(970,115)	(4,123,906)
<b>Other income (expense):</b>						
Interest income (expense), net	73	(199,961)	(1,355,425)	(54,771)	(708,477)	(2,263,790)
Fair value adjustments to warrant and derivative liabilities	—	—	(4,520,736)	—	(2,267,366)	(6,788,102)
Bridge warrant expense	—	(247,669)	(312,486)	(247,669)	—	(560,155)
Other income (expense)	—	—	(333)	—	—	(333)
Total other income (expense)	73	(447,630)	(6,188,980)	(302,440)	(2,975,843)	(9,612,380)
Loss before income taxes	(391,585)	(783,931)	(8,614,812)	(544,635)	(3,945,958)	(13,736,286)
Provision for income taxes	(800)	(800)	(1,256)	—	(800)	(3,656)
Net loss	\$ (392,385)	\$ (784,731)	\$ (8,616,068)	\$ (544,635)	\$ (3,946,758)	\$ (13,739,942)
Net loss per share	\$ —(2)	\$ —(2)	\$ (8.62)(3)	\$ —(2)	\$ (3.95)	\$ —(2)
<b>Weighted average shares outstanding—basic and diluted</b>						
	—(2)	—(2)	999,999(3)	—(2)	999,999	—(2)

(1) The period from May 29, 2012 (inception) to December 31, 2012, the three months ended March 31, 2013, and the period from January 1, 2013 to June 16, 2013 are the results of Resonant LLC. The period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014 are the results of Resonant Inc. Effective June 17, 2013, Resonant LLC became a wholly owned subsidiary of Resonant Inc. in an exchange transaction. The results for the period from May 29, 2012 (inception) to March 31, 2014 include the operations of Resonant LLC from May 29, 2012 (inception) to June 16, 2013 and for Resonant Inc. from June 17, 2013 to March 31, 2014.

(2) Net loss per share and weighted average shares outstanding are not shown for the period from May 29, 2012 (inception) to December 31, 2012, the

three months ended March 31, 2013, the period from January 1, 2013 to June 16, 2013 and the period from May 29, 2012 (inception) to March 31, 2014 as we were a limited liability company through June 16, 2013.

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- (3) Net loss and weighted average shares outstanding for the period from June 17, 2013 to December 31, 2013, used to calculate net loss per share for the period, are based on the net loss from June 17, 2013 to December 31, 2013 and the shares issued on June 17, 2013 and considered outstanding for the entire period.

	<b>Resonant LLC</b>	<b>Resonant Inc.</b>	<b>Resonant Inc.</b>
	<b>As of December 31, 2012</b>	<b>As of December 31, 2013</b>	<b>As of March 31, 2014</b>
			<b>(unaudited)</b>
<b>Consolidated Balance Sheet Data:</b>			
Cash and cash equivalents	\$ 89,044	\$ 3,338,979	\$ 2,116,124
Working capital deficit	\$ (179,667)	\$ (8,799,250)	\$ (12,295,533)
Total assets	\$ 336,109	\$ 4,882,193	\$ 3,798,935
Note payable	\$ 100,000	\$ —	\$ —
Convertible notes	\$ —	\$ 7,740,843	\$ 8,232,929
Total stockholders' equity (deficit)	\$ 46,351	\$ (11,463,965)	\$ (15,410,723)

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the consolidated financial statements and the related notes to the consolidated financial statements included later in this prospectus. In addition to historical financial information, the following discussion contains forward-looking statements that reflect our plans, estimates, beliefs and expectations that involve risks and uncertainties. Our actual results and the timing of events could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in "Risk Factors" and "Special Note Regarding Forward-Looking Statements."*

### Overview

Resonant is a development-stage company creating innovative filter designs for radio frequency, or RF, front-ends for the mobile device industry. The RF front-end is the circuitry in a mobile device responsible for analog signal processing and is located between the device's antenna and its digital baseband. We use a fundamentally new technology that we call Infinite Synthesized Networks™, or ISN, to configure resonators, the building blocks of RF filters. Filters are a critical component of the RF front-end. They are used to select desired radio frequency signals and reject unwanted signals.

We believe licensing our designs is the most direct and effective means of delivering our solutions to the market. Our target customers make part or all of the RF front-end. We intend to retain ownership of our designs and charge royalties based on sales of RF front-end modules that incorporate our designs. We do not intend to manufacture or sell any physical products or operate as a contract design company developing designs for a fee.

We are currently developing our first design, a duplexer, in collaboration with Skyworks Solutions, Inc., under the terms of a development agreement. Duplexers are two filters combined into a single component which simultaneously selects both the transmit and receive signals. Skyworks has an option to license our duplexer design at already agreed-upon royalty rates upon completion. There is no assurance that we can complete our design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

We were founded as Resonant LLC on May 29, 2012 (our inception date). We commenced business on July 6, 2012 with initial contributions from our founders and Superconductor Technologies Inc., or STI. The founders contributed \$200,000 and agreed to work full-time without pay until we secured adequate funding. STI contributed a patent portfolio, software, equipment, temporary office space and an early version of our first development agreement with Skyworks.

The founders loaned us an aggregate of \$200,000 during the first quarter of 2013, and we issued a series of warrants to the founders in connection with these loans. We refer to the founder loans as Bridge Loans and the founder warrants as Bridge Loan Warrants. We repaid the Bridge Loans in the second quarter of 2013.

We changed our form of ownership from a limited liability company to a corporation in an exchange transaction on June 17, 2013. The founders exchanged all of their units and warrants of Resonant LLC for common stock and warrants of Resonant Inc. STI exchanged all of its units of Resonant LLC for a \$2.4 million subordinated convertible note of Resonant Inc., or Subordinated Convertible Note. The Subordinated Convertible Note matures on September 17, 2014, is interest free and is secured by all of our assets. It will convert into 700,000 shares of common stock effective upon the completion of this offering.

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We closed our first financing on June 17, 2013. We issued \$7.0 million of senior convertible notes, or Senior Convertible Notes, in a private placement. The Senior Convertible Notes mature on September 17, 2014, bear interest at 6.0% per annum and are secured by all of our assets. They will convert into 2,087,667 shares of common stock effective upon the completion of this offering. The interest is payable in cash or shares of common stock.

We paid MDB Capital Group, LLC, which served as placement agent, a commission of \$700,000 and issued it warrants to purchase 208,763 shares of common stock, which we refer to as the Financing Warrant. We also issued MDB Capital Group, LLC on June 17, 2013 warrants to purchase 222,222 shares of common stock for business consulting services, which we refer to as the Consulting Warrant.

We have earned no revenue since inception, and our operations have been funded with the initial capital contributions and debt. We have incurred losses totaling \$13.8 million from inception through March 31, 2014. These losses are primarily the result of research and development costs associated with commercializing our technology, combined with start-up and financing costs. We expect to continue to incur substantial costs for commercialization of our technology on a continuous basis because our business model involves developing and licensing custom filter designs.

Our financial statements contemplate the continuation of our business as a going concern. We are subject to the risks and uncertainties associated with a new business. We have no established source of capital, do not yet have the ability to earn revenue and have incurred significant losses from operations since inception. These matters raise substantial doubt about our ability to continue as a going concern. Our auditors also have expressed an opinion that substantial doubt exists as to whether we can continue as a going concern in their report on our audited financial statements for the year ended December 31, 2013. Our consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or the amounts and classification of liabilities that might be necessary should we be unable to continue in existence.

### **Plan of Operation**

We plan to commercialize our technology by creating two families of filter designs that address the problems created by the growing number of frequency bands in the RF front-end of mobile devices. First, we plan to develop a series of single-band SAW filter designs for frequency bands presently dominated by larger and more expensive BAW filters. Second, we plan to develop a series of tunable filter designs that replace multiple filters. In order to succeed, we must convince RF front-end suppliers that our filter designs can significantly reduce the size and cost of their products.

Our primary activity in the near term will be continued work on a duplexer design under our existing development agreement with Skyworks. We expect to complete work on the duplexer design before the end of 2014. There is no assurance that we can complete our design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

We expect to begin development of our first tunable filter design shortly after completing this offering. This will require recruiting and hiring additional personnel. We have started discussions with several prospective customers for the design. These discussions are ongoing and may not result in any agreements. We expect to proceed with our plan to develop a tunable filter design regardless of the outcome of these discussions. We may not succeed in the development of a commercially viable tunable filter design or secure any customers for such designs.

We plan to pursue filter design agreements and joint ventures with potential customers and other strategic partners. These types of arrangements may subsidize filter design costs, as well as offer complementary technology and market intelligence and other avenues to revenue. However, we intend to retain ownership of our technology, designs and related improvements. We expect to pursue

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development of multiple designs for multiple customers, and grant each customer a royalty-bearing license to a specific design with some limited period of exclusivity.

We expect to use the net proceeds received from this offering for product development to commercialize our technology, research and development, the development of our patent strategy and expansion of our patent portfolio, to pay accrued interest on outstanding indebtedness, as well as for working capital and other general corporate purposes. The net proceeds from this offering are anticipated to be approximately \$11.3 million which is expected to be sufficient to fund our activities for at least the next two years following the offering. Our anticipated costs include employee salaries and benefits, compensation paid to consultants, capital costs for research and other equipment, costs associated with development activities including travel and administration, legal expenses, sales and marketing costs, general and administrative expenses, and other costs associated with an early stage, publicly-traded technology company. We anticipate increasing the number of employees by up to approximately 25 to 35 employees; however, this is highly dependent on the nature of our development efforts and our success in commercialization. We anticipate adding employees for research and development, as well as general and administrative functions, to support our efforts. We expect to incur consulting expenses related to technology development and other efforts as well as legal and related expenses to protect our intellectual property. We expect capital expenditures to be approximately \$500,000 for the purchase of equipment and software during the two years following this offering.

The amounts that we actually spend for any specific purpose may vary significantly and will depend on a number of factors including, but not limited to, the pace of progress of our commercialization and development efforts, actual needs with respect to product testing, development and research, market conditions, and changes in or revisions to our marketing strategies. In addition, we may use a portion of any net proceeds to acquire complementary products, technologies or businesses; however, we do not have plans for any acquisitions at this time. We will have significant discretion in the use of any net proceeds. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of our common stock.

Commercial development of new technology is, by its nature, unpredictable. Although we will undertake development efforts with commercially reasonable diligence, there can be no assurance that the net proceeds from this offering will be sufficient to enable us to commercialize our technology to the extent needed to create future sales to sustain operations as contemplated herein. If the net proceeds from this offering are insufficient for this purpose, we will consider other options to continue our path to commercialization, including, but not limited to, additional financing through follow-on stock offerings, debt financing, co-development agreements, curtailment of operations, suspension of operations, sale or licensing of developed intellectual or other property, or other alternatives.

If we are unable to raise the net proceeds that we believe are needed to develop our technology and enable future sales, we may be required to scale back our development plans by reducing expenditures for employees, consultants, business development and marketing efforts, and other envisioned expenditures. This could reduce our ability to commercialize our technology or require us to seek further funding earlier, or on less favorable terms, than if we had raised the full amount of the proposed offering.

If management is unable to implement its proposed business plan or employ alternative financing strategies, it does not presently have any alternative proposals. In that event, investors should anticipate that their investment may be lost and there may be no ability to profit from this investment.

We cannot assure you that our technology will be accepted, that we will ever earn revenues sufficient to support our operations or that we will ever be profitable. Furthermore, since we have no committed source of financing, we cannot assure you that we will be able to raise money as and when we need it to continue our operations. If we cannot raise funds as and when we need them, we may be required to severely curtail, or even to cease, our operations.

## Critical Accounting Policies

The following discussion and analysis of financial condition and results of operations is based upon our financial statements, which have been prepared in conformity with accounting principles generally accepted in the United States of America. Certain accounting policies and estimates are particularly important to the understanding of our financial position and results of operations and require the application of significant judgment by our management or can be materially affected by changes from period to period in economic factors or conditions that are outside of our control. As a result, they are subject to an inherent degree of uncertainty. In applying these policies, our management uses their judgment to determine the appropriate assumptions to be used in the determination of certain estimates. Those estimates are based on our historical operations, our future business plans and projected financial results, the terms of existing contracts, our observance of trends in the industry, information provided by our customers and information available from other outside sources, as appropriate. See Note 2 to our financial statements for a more complete description of our significant accounting policies.

*Development Stage Enterprise.* We are a development stage company as defined in Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 915, *Development Stage Entities*. We are devoting substantially all of our present efforts to commercialize our technology by developing RF filter designs, and our planned principal operations have not yet commenced. We have not generated any revenues from operations and have no assurance of any future revenues. All losses accumulated since our inception on May 29, 2012 have been considered as part of our development stage activities.

*Basis of Presentation.* Our financial statements have been prepared in conformity with accounting principles generally accepted in the United States which contemplate our continuation as a going concern. However, we are subject to the risks and uncertainties associated with a new business, have no established source of revenue, and have incurred significant losses from operations since inception. Our operations are dependent upon us raising additional capital. These matters raise substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that could result from the outcome of this uncertainty.

*Income Taxes.* We follow ASC Topic 740, *Income Taxes*, which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Under this method, deferred tax assets and liabilities are based on the differences between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent management concludes it is more likely than not that the asset will not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled.

*Derivative Instruments.* We account for free-standing derivative instruments and hybrid instruments that contain embedded derivative features in accordance with ASC Topic 815, *Accounting for Derivative Instruments and Hedging Activities*, as well as related interpretations of this topic. In accordance with this topic, derivative instruments and hybrid instruments are recognized as either assets or liabilities in the balance sheet and are measured at fair values with gains or losses recognized in earnings. Embedded derivatives that are not clearly and closely related to the host contract are bifurcated and are recognized at fair value with changes in fair value recognized as either a gain or loss in earnings. We determine the fair value of derivative instruments and hybrid instruments based on available market data using appropriate valuation models, giving consideration to all of the rights and obligations of each instrument. We record all of these liabilities at their fair value at issuance and

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adjust the liabilities quarterly to reflect changes in their fair value. Quarterly adjustments to the fair value of these liabilities generate non-cash expense if they increase and non-cash income if they decrease.

*Convertible Debt Instruments.* We account for convertible debt instruments in accordance with ASC Topic 470-20, *Debt with Conversion and Other Options*. We record, when necessary, discounts to convertible notes for the fair value of conversion options embedded in debt instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the note transaction and the effective conversion price embedded in the note. We amortize the respective debt discount over the term of the notes, using the effective interest method.

*Patents.* We capitalize external costs, such as attorney and filing fees, incurred to obtain issued patents and pending patent applications. We expense costs associated with maintaining and defending patents subsequent to their issuance in the period incurred. We amortize patent costs once issued on a straight-line basis over the estimate useful lives of the patents. We assess the potential impairment to all capitalized patent cost when events or changes in circumstances indicate that the carrying amount of our patent may not be recoverable. We account for patent costs in accordance with ASC Topic 350, *Goodwill and Other Intangible Assets*.

*Financial Instruments and Fair Value.* ASC Topic 820, *Fair Value Measurements and Disclosures*, or ASC Topic 820, establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under ASC Topic 820 are described below:

- *Level 1*—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;
- *Level 2*—Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly; and
- *Level 3*—Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

In estimating the fair value of our warrant and derivative liabilities, we used a probability-weighted Black-Scholes option-pricing model and a Monte Carlo option-pricing model. Financial assets with carrying values approximating fair value include cash as well as prepaid expenses and other current assets. Financial liabilities with carrying values approximating fair value include accounts payable and accrued salaries and expenses.

*Common Stock Valuation.* We determined the fair value of our derivative and warrant liabilities using the Black-Scholes formula and Monte-Carlo pricing model. In determining the fair value of our common stock used in those models, we exercised judgment and considered numerous objective and subjective factors to determine the fair value of our common stock as of the date of each issuance, including the following factors: a valuation performed by an unrelated third party specialist; our operating and financial performance; the success of our research and development initiatives; our current business conditions and projections; the present value of forecasted future cash flows; our history; our stage of development; the likelihood of achieving a liquidity event for the shares of common stock, such as an initial public offering or sale of our company, given prevailing market conditions; any adjustment necessary to recognize a lack of marketability for our common stock; the market performance of comparable publicly-traded companies; and the U.S. and global capital market conditions.

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During the periods presented, we had third-party valuations of our common stock performed in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation, by a third-party valuation firm, utilizing estimates and judgments provided by management.

The independent valuations performed by unrelated third-party specialist were just one factor used by us to assist with the valuation of the derivative and warrant liabilities and our management, and we have assumed full responsibility for the estimates. We generally utilized the equity value derived in the third-party valuation in determining the price of the common stock used in the valuation models to estimate the fair value of the derivative and warrant liabilities.

In order to determine the fair value of our common stock, we first determined our equity value. In determining the equity value of the common stock, we considered the three general approaches available to determine the equity value of our business at June 2013: the market approach, the income approach, and the asset approach. However, due to the early stage nature of the Company, and lack of substantial assets, the asset approach was not employed. Each of these valuation approaches is described more fully below.

In employing the market approach, we utilized indications of value based on (i) comparable publicly traded companies, (ii) publicly announced transactions, and (iii) venture capital financing transactions. For venture capital financing transactions, we utilized the Dow Jones VentureSource database to consider early stage financings for companies in the semiconductor and RF technology industry, and the valuations that venture and early-stage investors placed on similar stage companies on a pre- and post-money valuation basis.

For the income approach, the two primary components of the discounted cash flow model are (i) the present value of the interim cash flows and (ii) the present value of the terminal value, which is the value of the Company as a going concern beyond the last year incorporated in the projections. We utilized projections for the fiscal years ending December 31, 2013 through 2016. The terminal value was developed using the Gordon Growth model, a perpetuity growth model, and the key assumptions were (i) the selection of an appropriate discount rate, which was based upon the analysis of alternative investments, including public company discount rates; and (ii) the determination of a terminal growth rate, which was based upon historical inflation rates.

In determining the value of our common stock, the Senior Convertible Notes were subtracted from the enterprise value to determine the total equity value, on a controlling interest basis. Discounts for lack of control and lack of marketability were then applied, as appropriate. Lastly, total equity value, on a non-marketable, minority interest basis, was divided by total shares outstanding, on a fully diluted basis, to arrive at a per share value. Only one class of security is outstanding.

In determining the value of our common stock, and for purposes of establishing the value of the warrants and derivatives related to the bridge financing, the senior convertible notes, the subordinated convertible notes and the consulting warrants, management considered several factors and the probability of achieving each one of them. The significant factors were (1) securing adequate funding to complete the single-band commercial SAW duplexer design under the terms of the development agreement with Skyworks; (2) developing a working duplexer product that meets the specifications of Skyworks; and (3) Skyworks exercising its licensing option if the duplexer product met its specifications. The probabilities for achieving each of these factors changed during the periods from January 31, 2013 to June 13, 2013, December 31, 2013 and March 31, 2014. These probabilities were affected by our ability to hire technical personnel to develop the technology and design the product, establish a management team to develop a business plan, secure financing, execute the business plan, and interact with Skyworks to achieve the milestones contained in the development agreement with Skyworks. As we made progress in each of these areas over the period from January 31, 2013 through March 31, 2014 the probability elements in each of these factors changed and increased. These

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increases resulted in higher valuations of our common stock and accordingly the values of the warrants and derivatives at each of these periods.

The estimated equity value was allocated to the Bridge Loan Warrants and Consulting Warrants using the Black-Scholes option pricing model. Estimates of the volatility for the Black-Scholes option pricing model were based on the volatility of common stock of a group of comparable, publicly-traded companies corresponding to the warrant's time to expiration. Estimates of expected term were based on the estimated time to expiration. The risk-free interest rate was based on the U.S. Treasury yield for a term consistent with the estimated expected term.

The estimated equity value was allocated to the Financing Warrants and Senior Convertible Note derivative liability using the Monte-Carlo option pricing model. The Monte-Carlo option pricing model takes into consideration the historical volatilities of comparable public companies using data from Capital IQ and implied volatiles from Bloomberg considering the differences in size among the public comparables and the Company, and the warrant's time to expiration. Estimates of expected term were based on the estimated time to expiration. The risk-free interest rate was based on the U.S. Treasury yield for a term consistent with the estimated expected term. The Monte-Carlo model uses daily steps, assuming 252 trading days per year, which is based on 52 weeks of 5 trading days less 8 holidays, a standard assumption in the industry.

## **Results of Operations**

### *Comparison of the Periods Ended December 31, 2012 and 2013*

We have a limited financial history. Our statements of operations cover two annual periods. The first is the period from May 29, 2012 (inception) to December 31, 2012, which we refer to as the last seven months of 2012. The second is the period from January 1, 2013 to December 31, 2013, which we refer to as fiscal year 2013. These periods are not directly comparable because they have different lengths.

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The fiscal year 2013 period combines the statements of operations of Resonant LLC for the period from January 1, 2013 to June 16, 2013 and of Resonant Inc. for the period from June 17, 2013 to December 31, 2013, as shown in the following table:

	Resonant LLC Period From January 1, 2013 to June 16, 2013	Resonant Inc. Period From June 17, 2013 to December 31, 2013	Total Fiscal Year 2013 Period
Revenue	\$ —	\$ —	\$ —
Operating Expenses:			
Research and development expenses	195,403	926,095	1,121,498
General and administrative expenses	135,993	1,485,313	1,621,306
Depreciation and amortization	4,905	14,424	19,329
Total operating expenses	336,301	2,425,832	2,762,133
Operating loss	(336,301)	(2,425,832)	(2,762,133)
Other income (expense):			
Interest income (expense), net	(199,961)	(1,355,425)	(1,555,386)
Fair value adjustments to warrant and derivative liabilities	—	(4,520,736)	(4,520,736)
Bridge warrant expense	(247,669)	(312,486)	(560,155)
Other income (expense)	—	(333)	(333)
Total other income (expense)	(447,630)	(6,188,980)	(6,636,610)
Loss before income taxes	(783,931)	(8,614,812)	(9,398,743)
Provision for income taxes	(800)	(1,256)	(2,056)
Net loss	\$ (784,731)	\$ (8,616,068)	\$ (9,400,799)

*Research and Development.* Research and development expenses consist of the direct engineering and other costs associated with the development and commercialization of our technology, including the development of filter designs under development agreements. These consist primarily of the cost of employees and consultants, and to a lesser extent costs for equipment, software and supplies. We also include the costs for our intellectual property development program under research and development. This program focuses on patent strategy and invention extraction. Research and development expenses totaled \$142,000 for the last seven months of 2012 and \$1.1 million for fiscal year 2013.

Our research and development efforts are focused currently on the development of a duplexer design for Skyworks under the development agreement. We began preliminary work on the duplexer design in July 2012 and substantially increased the level of work in September 2013 after the senior convertible note financing. We expect expenditures on this duplexer design to continue increasing in 2014 as we hire additional technical staff for this project.

We also expect to begin development of our first tunable filter design in the first half of 2014 and will begin hiring additional personnel to work on it. We have started discussions with several prospective customers for the design. These discussions are ongoing and may not result in any agreements. We expect to proceed with our plan to develop a tunable filter design regardless of the outcome of these discussions. We may not succeed in the development of a commercially viable tunable filter design or secure any customers for such designs.

We plan to actively pursue other development agreements with potential customers and strategic partners. Research and development costs would further increase if and when we secure additional development agreements.

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*General and Administrative Expenses.* General and administrative expenses include salaries, taxes and employee benefits for executives and administrative staff. It also includes expenses for corporate overhead such as rent for our facilities, travel expenses, telecommunications, investor relations, insurance, professional fees and business consulting fees. We did not have any paid executives or administrative staff until after our financing in June 2013. The founders served as our executives, and they worked without salary or benefits until the financing. After the financing, we began paying them salaries and hiring administrative personnel. We expect increases in this category of costs in 2014. We hired a general counsel in January 2014, and we hired a chief financial officer who will start in June 2014. We also plan to hire a director of finance in 2014.

General and administrative expenses totaled \$245,000 for the last seven months of 2012 and \$1.6 million for fiscal year 2013. The latter period includes a non-cash charge of \$716,000 for the fair value of the Consulting Warrants issued to MDB Capital Group LLC for business consulting services.

We anticipate that our general and administrative expenses will increase in the future as we continue to build our infrastructure to support our growth. Additionally, we anticipate increased expenses related to the legal, audit, regulatory and investor relations services associated with maintaining compliance with Securities and Exchange Commission and NASDAQ requirements, director and officer insurance premiums and other costs associated with operating as a public company.

*Interest Income (Expense).* Interest income (expense) consists of accrued interest on debt instruments and the amortization of debt discounts. We value our debt instruments and their various features and derivatives at fair value, and the resulting adjustments require debt discounts to these values that are booked at lower than face value. The debt discounts are amortized over the expected life of the debt instrument. We recorded interest expense of \$0 for the last seven months of 2012 and \$1.6 million for fiscal year 2013. The latter figure consists primarily of non-cash interest charges related to debt discounts and issuance costs for the following securities: \$1.1 million for the Senior Convertible Notes, \$200,000 for Bridge Loans, \$115,000 for the Subordinated Convertible Note and \$117,000 for the Financing Warrant. We repaid the Bridge Loans in June 2013. We expect to continue to have additional interest expenses in the form of debt discount amortization. Interest expenses related to debt discounts will cease upon conversion of the Senior Convertible Notes and the Subordinated Convertible Note, which will occur effective upon the completion of this offering.

*Fair Value Adjustments to Warrant and Derivative Liabilities.* We recorded all of our warrant and derivative liabilities at their fair value at issuance and adjust the liabilities quarterly to reflect changes in their fair value. Quarterly adjustments to the fair value of these liabilities generate non-cash expense if they increase and non-cash income if they decrease. The fair value of these liabilities may fluctuate significantly from quarter to quarter. The net fair value of all these liabilities increased resulting in non-cash expense of \$4.5 million for fiscal year 2013. There were no fair value adjustments associated with the last seven months of 2012 because all of the underlying securities were issued in 2013.

*Bridge Warrant Expense.* Bridge warrant expense represents the non-cash expense associated with (a) the original issuance of the Bridge Loan Warrants in the first quarter of 2013 by Resonant LLC and (b) the issuance of replacement warrants by Resonant Inc. in the exchange transaction on June 17, 2013. We incurred \$248,000 of expense for the original issuance. This represents the difference between the fair value of the Bridge Loan Warrants on the date of original issuance and the principal amount of the associated Founder Bridge Loans. We incurred an additional \$313,000 of expense upon issuance of the replacement warrants in the exchange transaction. This reflects the increase in the fair value of the Bridge Loan Warrants between the original date of issuance and the date of the exchange transaction. Bridge warrant expense totaled \$560,000 for fiscal year 2013.

*Income Taxes.* We have no revenues and are currently operating at a loss. Consequently, our only tax liabilities were for the minimum taxes for the States in which we conduct business.

*Comparison of the Three Months Ended March 31, 2013 and 2014*

*Research and Development.* Research and development expenses increased from \$142,000 in the first quarter of 2013 to \$395,000 in the first quarter of 2014. The increase of \$253,000 is the result of the increased the level of work on the duplexer design under our development agreement with Skyworks. We expect expenditures on this duplexer design to continue increasing in 2014 as we hire additional technical staff for this project.

*General and Administrative Expenses.* General and administrative expenses increased from \$98,000 in the first quarter of 2013 to \$562,000 in first quarter of 2014. The increase of \$464,000 consists primarily of payroll and related expenses associated with our increased staffing following our June 2013 financing. We anticipate that our general and administrative expenses will continue to increase as a result of planned growth and the costs associated with operating as a public company.

*Interest Income (Expense).* Interest expense increased from \$55,000 in the first quarter of 2013 to \$708,000 in the first quarter of 2014, an increase of \$653,000. Interest expense for the first quarter of 2014 consists primarily of non-cash interest charges related to debt discounts and issuance costs for the following securities: \$593,000 for the Senior Convertible Notes, \$53,000 for the Subordinated Convertible Note and \$62,000 for the Financing Warrant. We repaid the Bridge Loans in June 2013. We expect to continue to have additional interest expenses in the form of debt discount amortization. Interest expenses related to debt discounts will cease upon conversion of the Senior Convertible Notes and the Subordinated Convertible Note, which will occur effective upon the completion of this offering.

*Fair Value Adjustments to Warrant and Derivative Liabilities.* We incurred non-cash expenses of \$2,267,000 for fair value adjustments in the first quarter of 2014 as compared to \$0 for the first quarter of 2013. The increase was due primarily to the fact that most of the underlying securities were issued after the first quarter of 2013.

*Bridge Warrant Expense.* We incurred \$248,000 of bridge warrant expense in the first quarter of 2013. This represents the non-cash expense associated with the original issuance of the Bridge Loan Warrants in the first quarter of 2013 by Resonant LLC. We repaid the Bridge Loans in June 2013. Consequently, we did not incur any bridge warrant expense in the first quarter of 2014.

*Income Taxes.* We have no revenues and are currently operating at a loss. Consequently, our only tax liabilities for both periods were for minimum taxes in the States where we conduct business.

**Liquidity and Capital Resources**

We have earned no revenue since inception, and our operations have been funded with initial capital contributions and debt.

We began operations in July 2012 with initial capital contributions from our founders and STI. The founders contributed \$200,000 and agreed to work full-time without pay until we secured adequate funding. STI contributed a patent portfolio, software, equipment, temporary office space and an early version of our first development agreement. The founders received Class B units in Resonant LLC, but later exchanged their Class B units for common stock of Resonant Inc. STI received Class C units in Resonant LLC, but later exchanged its Class C units for the \$2.4 million Subordinated Convertible Note of Resonant Inc.

The Bridge Loans provided \$200,000 of additional funding during the first and second quarter of 2013.

We raised \$6.3 million of net proceeds from the sale of Senior Convertible Notes in June 2013, and we used part of the proceeds to repay the Bridge Loans.

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We had current assets of \$3.0 million and current liabilities of \$15.3 million at March 31, 2014, resulting in negative working capital of \$12.3 million. However, this included \$8.2 million of convertible notes that will convert into common stock effective upon the completion of this offering. This compares to a working capital deficit at December 31, 2012 and December 31, 2013 of \$180,000 and \$8.8 million, respectively. The change in working capital from December 31, 2012 is primarily the result of the issuance of the convertible notes in June 2013 as well as cash used for operations.

Operating activities used cash of \$197,000 for the last seven months of 2012, \$162,000 for the period from January 1, 2013 to June 16, 2013 and \$1.9 million for the period from June 17, 2013 to December 31, 2013. The increase is primarily the result of increased expenses following our first financing in June 2013, combined with the absence of revenues during our development stage. Operating activities used cash of \$800,000 in the first quarter of 2014 as compared to \$56,000 in the first quarter of 2013. The increase of \$744,000 is primarily the result of increased expenses following our first financing in June 2013, combined with the absence of revenues during our development stage.

Investing activities used cash of \$14,000 for the last seven months of 2012, \$76,000 for the period from January 1, 2013 to June 16, 2013 and \$321,000 for the period from June 17, 2013 to December 31, 2013. Investing activities consisted of capital expenditures and legal and other expenses associated with patent filings. Investing activities used cash of \$197,000 in first quarter of 2014 as compared to \$68,000 for the first quarter of 2013. Investing activities for both periods are the result of capital expenditures and legal and other expenses associated with patent filings.

Financing activities provide cash of \$300,000 in the last seven months of 2012, \$201,000 for the period from January 1, 2013 to June 16, 2013 and \$5.5 million for the period from June 17, 2013 to December 31, 2013. The 2012 figure represents equity investments from our founders and a loan from STI. The 2013 figures are primarily the result of the net proceeds from the issuance of the Senior Convertible Notes in June 2013. Financing activities used cash of \$217,000 in the first quarter of 2014 as compared to \$201,000 cash provided for in the first quarter of 2013. The difference represents the proceeds of the Bridge Loans in the first quarter of 2013 offset by cash expended for deferred IPO costs in 2014.

We are offering shares of common stock in an initial public offering to raise additional capital. We believe the net proceeds will be sufficient to fund planned operations for at least two years following the offering. We may need additional financing to continue with our plan of commercialization and for general working capital. Further, if we are unable to complete the duplexer design under the development agreement or Skyworks declines to license the design, we will require additional financing. No assurance can be given that any form of additional financing can be obtained, that the terms of such financing will be acceptable or that such financing would not be dilutive to existing shareholders. Thus, our ability to achieve revenue-generating operations and, ultimately, achieve profitability may depend on whether we can obtain additional capital when we need it and will depend on whether we complete the development of our technology and find customers who will license our designs.

### **Off-Balance Sheet Transactions**

We do not have any off-balance sheet arrangements.

### **Trends, Events and Uncertainties**

Research and development of new technologies is, by its nature, unpredictable. Although we will undertake development efforts with commercially reasonable diligence, there can be no assurance that the net proceeds from this offering will be sufficient to enable us to develop our technology to the extent needed to create future sales to sustain operations as contemplated herein. If the net proceeds from this offering are insufficient for this purpose, we will consider other options to continue our path to commercialization, including, but not limited to, additional financing through follow-on stock

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offerings, debt financing, co-development agreements, curtailment of operations, suspension of operations, sale or licensing of developed intellectual or other property, or other alternatives.

We cannot assure you that our technology will be adopted, that we will ever earn revenues sufficient to support our operations, or that we will ever be profitable. Furthermore, since we have no committed source of financing, we cannot assure you that we will be able to raise money as and when we need it to continue our operations. If we cannot raise funds as and when we need them, we may be required to severely curtail, or even to cease, our operations.

Other than as discussed above and elsewhere in this prospectus, we are not aware of any trends, events or uncertainties that are likely to have a material effect on our financial condition.

## MANAGEMENT

### Executive Officers and Directors

The following table provides information regarding our executive officers and directors as of May 1, 2014:

<u>Name</u>	<u>Age</u>	<u>Position(s)</u>
Terry Lingren	57	Chief Executive Officer, Interim Chief Financial Officer and Chairman of the Board of Directors
John M. Philpott	53	Chief Financial Officer(1)
Robert B. Hammond	66	Chief Technology Officer and Director
Neal Fenzi	53	Vice President of Engineering
Daniel Christopher	49	Vice President, General Counsel and Secretary
Janet K. Cooper	60	Director
Rick Kornfeld	53	Director
John E. Major	68	Director

- (1) Mr. Philpott is currently serving as a financial consultant to the company and has agreed to join as our Chief Financial Officer effective June 1, 2014.

### *Executive Officers*

*Terry Lingren.* Mr. Lingren has served as our Chief Executive Officer and Chairman of our board of directors since June 2013, and as our Interim Chief Financial Officer since January 2014. Mr. Lingren also served as Chief Executive Officer of our subsidiary, Resonant LLC from June 2012 until June 2013. Prior to founding Resonant, Mr. Lingren served for more than 18 years in executive positions at Qualcomm, Inc. and Kyocera Corporation. Mr. Lingren served as Vice President of Engineering at Kyocera from February 2003 to July 2012, and as a Vice President of Engineering at Qualcomm from May 1994 to February 2003. Mr. Lingren holds a BA degree in physics from Austin College, a BSEE degree from Washington University and a MSEE degree from California State University Northridge.

Mr. Lingren was selected to serve on our board of directors because of the perspective and experience he brings as one of our co-founders and as one of our largest stockholders, his extensive experience with the technologies we are developing and technology companies in general, and his experience serving as a senior executive officer of a public company.

*John M. Philpott.* Mr. Philpott has served as a financial consultant to Resonant since March 2014, and will commence service as our Chief Financial Officer on June 1, 2014. Mr. Philpott is a Certified Public Accountant and has twenty-three years of financial and accounting management experience. From 1986 to 1995, Mr. Philpott served as a Senior Manager at Ernst & Young, LLP. From 1995 until 2006, he served first as Corporate Controller and Chief Accounting Officer and then as Chief Financial Officer, Treasurer and Assistant Secretary at Miravant Medical Technologies, Inc. From 2007 to July 2010, Mr. Philpott served as Chief Financial and Accounting Officer and Treasurer at Kreido Biofuels, Inc. He later served as Interim Chief Financial Officer, Treasurer and Assistant Secretary at Minatura Gold. Most recently, he serves as the Chief Accounting Officer at the Select Staffing Family of Companies, or Select Staffing, a privately held temporary staffing company. Mr. Philpott has a Bachelor of Science from California State University, Northridge and received a Masters of Business Administration from the University of Los Angeles, Anderson School of Business.

On April 1, 2014, Select Staffing voluntarily filed for protection under Chapter 11 of the U.S. Bankruptcy Code. Mr. Philpott was the Chief Accounting Officer of Select Staffing at the time of that

filing and will continue to be affiliated with Select Staffing until he joins Resonant as our Chief Financial Officer on June 1, 2014.

*Robert B. Hammond.* Dr. Hammond has served as our Chief Technology Officer and as a member of our board of directors since June 2013, and served as Chief Technology Officer of our subsidiary, Resonant LLC from June 2012 until June 2013. Prior to founding Resonant, Dr. Hammond served as Senior Vice President and Chief Technology Officer of Superconductor Technologies, Inc. for more than 20 years. While at STI, Dr. Hammond was involved in the development of high temperature superconducting materials, cryogenic refrigeration and packaging, and RF and microwave circuits. Prior to that, he was Leader Electronics Advanced Development at Los Alamos National Labs. Dr. Hammond holds a BS degree in Physics, a MS degree in Applied Physics and a PhD in Applied Physics, each from the California Institute of Technology.

Dr. Hammond was selected to serve on our board of directors because of the perspective and experience he brings as one of our co-founders and as one of our largest stockholders, his extensive experience with the technologies we are developing and technology companies in general, and his experience serving as a senior executive officer of a public company.

*Neal Fenzi.* Mr. Fenzi has served as our Vice President of Engineering and Secretary since June 2013, and served as our Secretary and Treasurer from June 2013 until January 2014. Mr. Fenzi also served as Vice President of Engineering of our subsidiary, Resonant LLC, from June 2012 until June 2013. Prior to founding Resonant, from 1991 until June 2012, Mr. Fenzi served in engineering, operations and marketing positions at Superconductor Technologies Inc., including as Vice President of Engineering, Chief Engineer and Vice President of Product Management. Mr. Fenzi holds a BSEE degree from New Mexico State University.

*Daniel Christopher.* Mr. Christopher has served as our Vice President, General Counsel and Secretary since January 2014. Mr. Christopher is a corporate and securities lawyer with more than twenty-five years of experience representing start-up, emerging growth and middle-market companies in corporate, securities and general business matters. Mr. Christopher has represented us since our formation in May 2012. Mr. Christopher trained at the Los Angeles law firm of Irell & Manella LLP and became a corporate partner in 1995. Along with several of his Irell & Manella partners, he co-founded the corporate law boutique of Guth--Christopher LLP in 1997. From 2007 to 2013, Mr. Christopher had a private practice focused on business development and legal counseling for high tech start-up ventures. Mr. Christopher received his J.D. from Columbia Law School in 1989. Prior to that, he graduated summa cum laude and first in his class from Villanova University, where he majored in electrical engineering with an emphasis on digital signal processing and a minor in mathematics.

#### ***Non-Employee Directors***

*Janet K. Cooper.* Ms. Cooper has served as a member of our board of directors since January 2014. Ms. Cooper served as Senior Vice President and Treasurer of Qwest Communications International Inc. (now doing business as CenturyLink) from September 2002 to June 2008, and served as Qwest's Senior Vice President, Finance from 2000 to 2001. From 2001 to 2002, Ms. Cooper was Chief Financial Officer and Senior Vice President of McDATA Corporation. From 1998 to 2000, she served in various senior level finance positions at US West Inc., including as Vice President, Finance and Controller and Vice President and Treasurer. From 1978 to 1998, Ms. Cooper served in various capacities with The Quaker Oats Company, including as Vice President, Treasurer and Tax from 1997 to 1998 and Vice President, Treasurer from 1992 to 1997. Ms. Cooper serves on the board of directors of The Toro Company, Lennox International Inc. and MWH Global, Inc., a privately held company. Ms. Cooper received a B.S. in Math and Computer Science from the University of Illinois, an M.S. in Applied Math from the University of Illinois, an M.B.A. from University of Chicago Booth School of Business.

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Through her experience in various senior level financial positions with Qwest, McDATA Corporation, US West and Quaker Oats, Ms. Cooper has developed a substantial financial and accounting background and expertise, which she contributes to our board of directors. Ms. Cooper's financial expertise and acumen in capital markets, audit, tax, accounting, treasury and risk-management matters assists our board in providing oversight to management on these matters. Ms. Cooper's senior leadership experience also enables her to provide strategic input to our board, in addition to her financial expertise, discipline and oversight.

*Rick Kornfeld.* Mr. Kornfeld has served as a member of our board of directors since December 2013. Mr. Kornfeld currently serves as President and Chief Executive Officer for Grid2Home Inc., a leader in communication protocol software for the Internet of Things market. From 2006 to 2008, he served as Executive Vice President and Chief Strategy Officer of NextWave Wireless. From 2004 to 2006, he served as President and Chief Executive Officer of Staccato Communications. Prior to joining Staccato, Mr. Kornfeld was Vice President and General Manager of Texas Instruments' Wireless Chipset Business Unit. He joined Texas Instruments as part of the acquisition of Dot Wireless, where he served as Co-Founder, Chairman and Chief Executive Officer. Prior to founding Dot Wireless, Mr. Kornfeld was a founder of NextWave Telecom, Inc., where he was the Senior Vice President and General Manager of the Consumer Products division. Previously, Mr. Kornfeld was Vice President of Engineering at Qualcomm Inc., leading the development of the first commercial CDMA subscriber equipment. Prior to Qualcomm, Mr. Kornfeld held various technical positions at M/A-Com Linkabit. Mr. Kornfeld serves on the board of the La Jolla Institute of Allergy and Immunology and Grid2Home Inc. He serves on the Council of Advisors of University of California, San Diego's Jacobs School of Engineering where he also participates in the university's Von Liebig Clean Tech grant activities. He also serves on AIPAC's San Diego council and AIPAC's national council. Mr. Kornfeld also was Vice-Chairman of Commnexus and the founding Chairman of EvoNexus. Mr. Kornfeld received his BS degree in 1982 from the University of California, San Diego where he was also named the Alumni of the Year in 2001.

Mr. Kornfeld was selected to serve on our board of directors because of his extensive experience with the technologies we are developing and technology companies in general, including some of San Diego's most notable tech companies.

*John E. Major.* Mr. Major has served as a member of our board of directors since December 2013. In January 2003, Mr. Major founded MTSG, a strategic consulting and investment company of which he continues to serve as President. From April 2004 to October 2006, he served as Chief Executive Officer of Apacheta Corp., a privately held mobile, wireless software company whose products are used to manage retail inventory, service and deliveries. From August 2000 until January 2003, Mr. Major was Chairman and Chief Executive Officer of Novatel Wireless Inc., a wireless data access solutions company. Previously, he was Chairman and Chief Executive Officer of Wireless Knowledge, a joint venture of Qualcomm Inc. and Microsoft Corp. Prior to joining Wireless Knowledge, he served as Corporate Executive Vice President of Qualcomm and President of its wireless infrastructure division. For approximately 18 years, Mr. Major held various executive and leadership positions at Motorola Inc., the most recent of which was Senior Vice President and Chief Technology Officer. He serves on the Dean's Advisory Committee of the University of Rochester Hajim School of Engineering and Applied Science and as Chairman of the University of Illinois at Chicago-Engineering School Advisory Board. He also serves as Chairman of the La Jolla Institute for Allergy and Immunology. He currently serves on the boards of directors of Broadcom Corporation, where he was formerly Chairman and is now Lead Director, Lennox International Inc., Littelfuse, Inc., Pulse Electronics Corp. and ORBCOMM Inc. Mr. Major received a B.S. in Mechanical and Aerospace Engineering from the University of Rochester, an M.S. in Mechanical Engineering from the University of Illinois, an M.B.A. from Northwestern University and a J.D. from Loyola University. He holds 12 United States patents.

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Mr. Major was selected to serve on our board of directors because of his extensive experience with the technologies we are developing and technology companies in general, and his experience serving on the boards of directors of very substantial public companies.

Our executive officers are appointed by our board of directors and serve until their successors have been duly elected and qualified. There are no family relationships among any of our directors or executive officers.

### **Code of Business Conduct and Ethics**

Our board of directors has adopted a code of business conduct and ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our code of business conduct and ethics will be available on the investor relations page on our website. We intend to post any amendment to our code of business conduct and ethics, and any waivers of such code for directors and executive officers, on our website or in filings under the Exchange Act.

### **Board of Directors**

Our business affairs are managed under the direction of our board of directors, which is currently composed of five members. Three of our directors are "independent" within the meaning of the independent director guidelines of The NASDAQ Stock Market.

Our directors currently serve on the board pursuant to the voting provisions of a stockholders agreement between us and several of our stockholders. This agreement will terminate upon the completion of this offering, after which there will be no further contractual obligations regarding the election of our directors. Our current directors will continue to serve as directors until their resignations, removal or until their successors are duly elected by the holders of our common stock.

### **Director Independence**

Our common stock has been approved for listing on the NASDAQ Capital Market. Under the rules of The NASDAQ Stock Market, independent directors must comprise a majority of a listed company's board of directors within a specified period of time after the completion of an initial public offering. In addition, the rules of The NASDAQ Stock Market require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Under the rules of The NASDAQ Stock Market, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

Our board of directors has undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise such director's ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, our board of directors has determined that Messrs. Kornfeld and Major and Ms. Cooper

are "independent directors" as defined under the applicable rules and regulations of the Securities and Exchange Commission, or SEC, and the listing requirements and rules of The NASDAQ Stock Market.

### **Lead Independent Director**

Our board of directors has adopted corporate governance guidelines. Our corporate governance guidelines provide that one of our independent directors should serve as a lead independent director at any time when our Chief Executive Officer serves as the Chairman of our board of directors or if the Chairman is not otherwise independent. Because Mr. Lingren is our Chairman, our board of directors has appointed Mr. Major to serve as our lead independent director. As lead independent director, Mr. Major will preside over periodic meetings of our independent directors, serve as a liaison between our Chairman and the independent directors and perform such additional duties as our board of directors may otherwise determine and delegate.

### **Committees of the Board of Directors**

Our board of directors has established an audit committee, a compensation committee and a nominating and governance committee, each of which has the composition and responsibilities described below. Members will serve on these committees until their resignation or as otherwise determined by our board of directors.

#### *Audit Committee*

Messrs. Kornfeld and Major and Ms. Cooper, each of whom is a non-employee member of our board of directors, serve on our audit committee, and Ms. Cooper chairs the committee. Our board of directors has determined that each of Messrs. Kornfeld and Major and Ms. Cooper satisfies the requirements for independence and financial literacy under the rules and regulations of The NASDAQ Stock Market and the SEC. Our board of directors has also determined that Ms. Cooper qualifies as an "audit committee financial expert," as defined in the SEC rules, and satisfies the financial sophistication requirements of The NASDAQ Stock Market. The audit committee is responsible for, among other things:

- appointing, overseeing, and if need be, terminating any independent auditor;
- assessing the qualification, performance and independence of our independent auditor;
- reviewing the audit plan and pre-approving all audit and non-audit services to be performed by our independent auditor;
- reviewing our financial statements and related disclosures;
- reviewing the adequacy and effectiveness of our accounting and financial reporting processes, systems of internal control and disclosure controls and procedures;
- reviewing our overall risk management framework;
- overseeing procedures for the treatment of complaints on accounting, internal accounting controls, or audit matters;
- reviewing and discussing with management and the independent auditor the results of our annual audit, reviews of our quarterly financial statements and our publicly filed reports;
- reviewing and approving related person transactions; and
- preparing the audit committee report that the SEC requires in our annual proxy statement.

Our audit committee operates under a written charter, which satisfies the applicable rules and regulations of the SEC and the applicable listing standards of The NASDAQ Stock Market.

### ***Compensation Committee***

Messrs. Kornfeld and Major and Ms. Cooper, each of whom is a non-employee member of our board of directors, comprise our compensation committee, and Mr. Kornfeld chairs the committee. Our board of directors has determined that each of Messrs. Kornfeld and Major and Ms. Cooper meets the requirements for independence under the rules of The NASDAQ Stock Market and the SEC and is an "outside director" within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code. The compensation committee is responsible for, among other things:

- reviewing the elements and amount of total compensation for all officers;
- formulating and recommending any proposed changes in the compensation of our Chief Executive Officer for approval by the board;
- reviewing and approving any changes in the compensation for officers, other than our Chief Executive Officer;
- administering our equity compensation plans;
- reviewing annually our overall compensation philosophy and objectives, including compensation program objectives, target pay positioning and equity compensation; and
- preparing the compensation committee report that the SEC will require in our annual proxy statement.

Our compensation committee operates under a written charter, which satisfies the applicable rules and regulations of the SEC and the applicable listing standards of The NASDAQ Stock Market.

### ***Nominating and Governance Committee***

Messrs. Kornfeld and Major and Ms. Cooper, each of whom is a non-employee member of our board of directors, comprise our nominating and governance committee, and Mr. Major chairs the committee. Our board of directors has determined that each of Messrs. Kornfeld and Major and Ms. Cooper meets the requirements for independence under the rules of The NASDAQ Stock Market for service on this committee. The nominating and governance committee is responsible for, among other things:

- evaluating and making recommendations regarding the composition, organization and governance of our board of directors and its committees;
- identifying, recruiting and nominating director candidates to the board if and when necessary;
- evaluating and making recommendations regarding the creation of additional committees or the change in mandate or dissolution of committees;
- reviewing and making recommendations with regard to our corporate governance guidelines and compliance with laws and regulations; and
- reviewing and approving conflicts of interest of our directors and corporate officers, other than related person transactions reviewed by the audit committee.

Our nominating and governance committee operates under a written charter, which satisfies the applicable listing standards of The NASDAQ Stock Market.

### **Compensation Committee Interlocks and Insider Participation**

None of the members of our compensation committee is or has been an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the compensation committee or director (or other board committee performing equivalent

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functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving on our compensation committee or our board of directors.

### **Non-Employee Director Compensation**

During 2013, our directors did not receive any cash or equity compensation for their services as directors. In January 2014, we adopted a policy with respect to compensation payable to our non-employee directors for service as directors, which is described below and which became effective on the date of this prospectus.

### **Outside Director Compensation Policy**

In January 2014, the board of directors adopted a policy for the compensation for our non-employee directors, or the Outside Directors, effective as of the date of this prospectus. Outside Directors will receive compensation in the form of equity granted under the terms of our 2014 Plan and cash, as described below:

*IPO grant.* On the date of this prospectus, each Outside Director was granted 24,000 restricted stock units, or the IPO RSU Award. All of the shares underlying the IPO RSU Award will vest as to one-half of the shares subject to such award on each of the first and second anniversary of the commencement of the individual's service as an Outside Director, subject to continued service as a director through the applicable vesting date.

*Initial award.* Each person who first becomes an Outside Director after the date of this prospectus, will be granted 24,000 restricted stock units, or the Initial RSU Award. These awards will be granted on the date of the first meeting of our board of directors or compensation committee occurring on or after the date on which the individual first became an Outside Director. The shares underlying the Initial RSU Award will vest as to one-half of the shares subject to such award on each of the first and second anniversary of the commencement of the individual's service as an Outside Director, subject to continued service as a director through the applicable vesting date. If a director's status changes from an employee director to an Outside Director, he or she will not receive an Initial RSU Award.

*Annual award.* On the date of each annual meeting of our stockholders, each Outside Director who has served on our board of directors for at least the preceding six months will be granted restricted stock units with a grant date fair value equal to \$50,000, or the Annual RSU Award. The grant date fair value is computed based on the fair market value, as determined in accordance with our 2014 Plan, of the shares subject to the applicable award on the date of grant. One-half of the shares underlying the Annual RSU Award will vest on the earlier of (i) the day prior to the first annual meeting of stockholders following the grant or (ii) one year from grant, and one-half of the shares underlying the Annual RSU Award will vest on the earlier of (i) the day prior to the second annual meeting of stockholders following the grant or (ii) two years from grant, subject to continued service as a director through the applicable vesting date.

*Cash compensation.* Each Outside Director will receive an annual retainer of \$50,000 in cash for serving on our board of directors, or the Annual Fee. The Annual Fee will be paid in quarterly installments to each Outside Director who has served in the relevant capacity for the immediately preceding fiscal quarter no later than 30 days following the end of such preceding fiscal quarter. An Outside Director who has served in the relevant capacity for only a portion of the immediately preceding fiscal quarter will receive a prorated payment of the quarterly payment of the Annual Fee. The first payment of the Annual Fee under the policy will be made at the end of the quarter in which the date of this prospectus occurred and will be for the service period between the date the Outside Director first became an Outside Directors and the end of the quarter in which the date of this prospectus occurred.

## EXECUTIVE COMPENSATION

### Summary Compensation Table

The following table provides information regarding the compensation of our named executive officers during 2013. As an emerging growth company, we have elected to comply with the executive compensation disclosure rules applicable to "smaller reporting companies," as such term is defined in the rules promulgated under the Securities Act of 1933, as amended, or the Securities Act, which require compensation disclosure for our principal executive officer and the two most highly compensated executive officers other than our principal executive officer. Throughout this prospectus, these three officers are referred to as our "named executive officers."

<u>Name and Principal Positions</u>	<u>Salary (\$)(1)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Terry Lingren, <i>Chief Executive Officer, Interim Chief Financial Officer</i>	103,845	13,800(2)	117,645
Robert Hammond, <i>Chief Technology Officer</i>	103,845	—	103,845
Neal Fenzi, <i>Vice President of Engineering</i>	90,864	—	90,864

- (1) Our named executive officers did not receive any salary prior to our senior convertible note financing in June 2013.
- (2) Consists of reimbursement of temporary housing expenses.

### Executive Officer Employment Letters

#### *Terry Lingren*

We entered into an executive employment letter dated June 17, 2013 with Terry Lingren, our Chief Executive Officer. The letter has no specific term and provides for at-will employment. The letter provides that Mr. Lingren's current annual base salary is \$200,000. The letter supersedes all existing agreements and understandings Mr. Lingren may have concerning his employment relationship with us.

#### *Robert Hammond*

We entered into an executive employment letter dated June 17, 2013 with Robert Hammond, our Chief Technology Officer. The letter has no specific term and provides for at-will employment. The letter provides that Mr. Hammond's current annual base salary is \$200,000. The letter supersedes all existing agreements and understandings Mr. Hammond may have concerning his employment relationship with us.

#### *Neal Fenzi*

We entered into an executive employment letter dated June 17, 2013 with Neal Fenzi, our Vice President of Engineering. The letter has no specific term and provides for at-will employment. The letter provides that Mr. Fenzi's current annual base salary is \$175,000. The letter supersedes all existing agreements and understandings Mr. Fenzi may have concerning his employment relationship with us.

#### *John Philpott*

We entered into an executive employment letter dated March 10, 2014 with John Philpott pursuant to which he will serve as our Chief Financial Officer commencing June 1, 2014. From March 10, 2014 to May 31, 2014, Mr. Philpott will serve as a part-time financial consultant at a rate of \$200 per hour (not to exceed \$2,000 per day). The letter has no specific term and provides for at-will employment.

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The letter provides that Mr. Philpott's annual base salary commencing June 1, 2014 will be \$225,000. We also have agreed to grant Mr. Philpott a stock option to purchase 80,000 shares of our common stock on the registration date. The letter supersedes all existing agreements and understandings Mr. Philpott may have concerning his employment relationship with us.

**Pension Benefits and Nonqualified Deferred Compensation**

We do not provide a pension plan for our employees, and none of our named executive officers participated in a nonqualified deferred compensation plan in 2013.

**Outstanding Equity Awards at Fiscal Year-End**

None of our named executive officers held any equity awards as of December 31, 2013.

**Employee Benefit and Stock Plan**

***2014 Omnibus Incentive Plan***

In January 2014, our board of directors adopted a 2014 Omnibus Incentive Plan, and amended and restated the plan in March 2014 to increase the number of shares available for issuance thereunder. Our stockholders approved the amended and restated 2014 Omnibus Incentive Plan, or the 2014 Plan, in March 2014. Our 2014 Plan permits the grant of incentive stock options, within the meaning of Section 422 of the Code to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

*Shares Available.* A total of 1,400,000 shares of our common stock have been reserved for issuance pursuant to the 2014 Plan. Any shares of common stock that are subject to awards shall be counted against this limit on a one-for-one basis. If any shares of common stock subject to an award under the 2014 Plan are forfeited, expire or are settled for cash, the shares subject to the award may be used again for awards under the 2014 Plan to the extent of the forfeiture, expiration or cancellation on a one-for-one basis. In the event that any option or other award granted under the 2014 Plan is exercised through the tendering of shares of common stock (either actually or by attestation) or by the withholding of shares of common stock by us, then in each such case the shares so tendered or withheld shall again be available for awards under the 2014 Plan on a one-for-one basis. In addition, in the event that withholding tax liabilities arising from any option or other award under the 2014 Plan are satisfied by the tendering of shares of common stock (either actually or by attestation) or by the withholding of shares of common stock by us, then in each such case the shares of common stock so tendered or withheld shall again be available for awards under the 2014 Plan on a one-for-one basis.

*Plan administration.* The 2014 Plan will be administered by the compensation committee of our board of directors which shall consist of at least two members of our board, each of whom must qualify as a "non-employee director" under Rule 16b-3 under the Securities Exchange Act of 1934, as amended, or Rule 16b-3, an "outside director" under Section 162(m) of the Code and an "independent director" under the rules of the principal U.S. national securities exchange on which the common stock is traded, to the extent required by such rules. The compensation committee has the authority to determine the terms and conditions of awards, and to interpret and administer the 2014 Plan. The compensation committee may (i) delegate to a committee of one or more directors the right to make awards and to cancel or suspend awards and otherwise take action on its behalf under the 2014 Plan (to the extent not inconsistent with applicable law, including Section 162(m) of the Code, and the rules of the principal U.S. national securities exchange on which the common stock is traded), and (ii) to the extent permitted by law, delegate to an executive officer or a committee of executive officers the right to make awards to employees who are not directors or executive officers and the authority to take

action on behalf of the compensation committee pursuant to the 2014 Plan to cancel or suspend awards under the 2014 Plan to key employees who are not directors or executive officers.

*Stock options.* Stock options may be granted under our 2014 Plan. The exercise price of options granted under our 2014 Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any participant who owns more than 10% of the voting power of all classes of our outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The compensation committee will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the compensation committee, as well as other types of consideration permitted by applicable law. After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. However, in no event may an option be exercised later than the expiration of its term. Subject to the provisions of our 2014 Plan, the compensation committee determines the other terms of options.

*Stock appreciation rights.* Stock appreciation rights may be granted under our 2014 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Stock appreciation rights may not have a term exceeding 10 years. After the termination of service of an employee, director or consultant, he or she may exercise his or her stock appreciation right for the period of time stated in his or her option agreement. However, in no event may a stock appreciation right be exercised later than the expiration of its term. Subject to the provisions of our 2014 Plan, the compensation committee determines the other terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

*Restricted stock.* Restricted stock may be granted under our 2014 Plan. Restricted stock awards are grants of shares of our common stock that vest in accordance with terms and conditions established by the compensation committee. The compensation committee will determine the number of shares of restricted stock granted to any employee, director or consultant and, subject to the provisions of our 2014 Plan, will determine the terms and conditions of such awards. The compensation committee may impose whatever conditions to vesting it determines to be appropriate (for example, the compensation committee may set restrictions based on the achievement of specific performance goals or continued service to us); provided, however, that the compensation committee, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have voting and dividend rights with respect to such shares upon grant without regard to vesting, unless the compensation committee provides otherwise. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

*Restricted stock units.* Restricted stock units may be granted under our 2014 Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of our common stock. Subject to the provisions of our 2014 Plan, the compensation committee will determine the terms and conditions of restricted stock units, including the vesting criteria (which may include accomplishing specified performance criteria or continued service to us) and the form and timing of payment. Notwithstanding the foregoing, the compensation committee, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed.

*Performance units and performance shares.* Performance units and performance shares may be granted under our 2014 Plan. Performance units and performance shares are awards that will result in

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a payment to a participant only if performance goals established by the compensation committee are achieved or the awards otherwise vest. The compensation committee will establish organizational or individual performance goals or other vesting criteria in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the compensation committee, in its sole discretion, may reduce or waive any performance criteria or other vesting provisions for such performance units or performance shares. Performance units shall have an initial dollar value established by the compensation committee prior to the grant date. Performance shares shall have an initial value equal to the fair market value of our common stock on the grant date. The compensation committee, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination thereof.

*Outside directors.* Our 2014 Plan provides that all non-employee directors are eligible to receive all types of awards (except for incentive stock options) under the 2014 Plan.

*No Repricing.* Our 2014 Plan prohibits repricing of options and stock appreciation rights (other than to reflect stock splits, spin-offs or similar corporate events) unless stockholder approval is obtained. A "repricing" means a reduction in the exercise price of an option or the grant price of a stock appreciation right, the cancellation of an option or stock appreciation right in exchange for cash or another award under the 2014 Plan, or any other action with respect to an option or stock appreciation right that may be treated as a repricing under the rules of the principal U.S. national securities exchange on which the common stock is traded.

*Non-transferability of awards.* Unless the compensation committee provides otherwise, our 2014 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

*Certain adjustments.* In the event of certain changes in our capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under our 2014 Plan, the compensation committee will adjust the number and class of shares that may be delivered under our 2014 Plan and/or the number, class and price of shares covered by each outstanding award and the numerical share limits set forth in our 2014 Plan. In the event of our proposed liquidation or dissolution, the compensation committee will notify participants as soon as practicable and all awards will terminate immediately prior to the consummation of such proposed transaction.

*Merger or change in control.* Our 2014 Plan provides that in the event of a merger or change in control, as defined under the 2014 Plan, each outstanding award will be treated as provided for in the individual award agreement, except that the compensation committee in its discretion, may determine that, upon the occurrence of a merger or change in control, each option and stock appreciation right shall terminate within a specified number of days after notice to the participant, or that the participant shall receive, with respect to each share of common stock subject to such option or stock appreciation right, an amount equal to the excess of the fair market value of such share immediately prior to the occurrence of the merger or change in control over the exercise price per share of such option or stock appreciation right.

Unless otherwise provided in an individual award agreement, in the event of a merger or change in control in which the successor company assumes or substitutes for an award granted under the 2014 Plan, if a participant's employment with the successor company or a subsidiary thereof terminates within 12 months following such merger or change in control, (i) the options and stock appreciation rights outstanding as of the date of such termination of employment will immediately vest, become fully exercisable, and may thereafter be exercised for 12 months, and (ii) the restrictions, limitations and other conditions applicable to restricted stock and restricted stock units outstanding as of the date of

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such termination of employment shall lapse and the restricted stock and restricted stock units shall become free of all restrictions, limitations and conditions and become fully vested.

Unless otherwise provided in an individual award agreement, in the event of a merger or change in control in which the successor company does not assume or substitute for an award granted under the 2014 Plan, then immediately prior to the merger or change in control, (i) those options and stock appreciation rights outstanding as of the date of the merger or change in control that are not assumed or substituted for shall immediately vest and become fully exercisable, and (ii) restrictions, limitations and other conditions applicable to restricted stock and restricted stock units that are not assumed or substituted for shall lapse and the restricted stock and restricted stock units shall become free of all restrictions, limitations and conditions and become fully vested.

*Amendment, termination.* Our board of directors will have the authority to amend, suspend or terminate the 2014 Plan provided such action does not require stockholder approval and will not impair the existing rights of any participant. Our 2014 Plan will automatically terminate in 2024, unless we terminate it sooner.

### ***401(k) Plan***

We maintain a tax-qualified retirement plan, or the 401(k) plan, that provides eligible employees with an opportunity to save for retirement on a tax-advantaged basis. Eligible employees are able to participate in the 401(k) plan as of the first day of the month following the date they meet the 401(k) plan's eligibility requirements, and participants are able to defer up to 100% of their eligible compensation subject to applicable annual Code limits. All participants' interests in their deferrals are 100% vested when contributed. The 401(k) plan permits us to make matching contributions and profit sharing contributions to eligible participants, although we have not made any such voluntary contributions to date. We made a mandatory contribution of \$12,000 in the first quarter of 2014 because our plan was deemed "top heavy" under applicable IRS regulations. We have implemented a matching program effective for 2014. The match is limited to 5% of base salary.

### ***Limitation on Liability and Indemnification Matters***

Our amended and restated certificate of incorporation and our amended and restated bylaws, each to be effective upon the completion of this offering, will provide that we will indemnify our directors and officers, and may indemnify our employees and other agents, to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions;
- and any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will

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also be empowered to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we have entered into indemnification agreements with each of our current directors, executive officers and certain key employees. These agreements will provide indemnification for certain expenses and liabilities incurred in connection with any action, suit, proceeding, or alternative dispute resolution mechanism, or hearing, inquiry, or investigation that may lead to the foregoing, to which they are a party, or are threatened to be made a party, by reason of the fact that they are or were a director, officer, employee, agent, or fiduciary of our company, or any of our subsidiaries, by reason of any action or inaction by them while serving as an officer, director, agent, or fiduciary, or by reason of the fact that they were serving at our request as a director, officer, employee, agent, or fiduciary of another entity. In the case of an action or proceeding by, or in the right of, our company or any of our subsidiaries, no indemnification will be provided for any claim where a court determines that the indemnified party is prohibited from receiving indemnification. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as we may provide indemnification for liabilities arising under the Securities Act to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

## USE OF PROCEEDS

We estimate that the net proceeds from our sale of 2,700,000 shares of common stock in this offering at the initial public offering price of \$6.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$14.0 million, or \$16.2 million if the underwriter exercises its over-allotment option in full.

We intend to use the net proceeds received from this offering primarily as follows: approximately \$6.7 million for product development to commercialize our technology, \$1.2 million for additional research and development, \$1.7 million for development of our patent strategy and expansion of our patent portfolio, \$400,000 to pay interest that has accrued on our \$7.0 million principal amount of senior convertible notes, and the balance for working capital and general corporate purposes. We may also use a portion of the net proceeds for the acquisition of, or investment in, technologies, solutions or businesses that complement our business, although we have no present commitments to complete any such transactions at this time. We will have broad discretion over the uses of the net proceeds of this offering. Pending these uses, we intend to invest the net proceeds from this offering in short-term, investment-grade interest-bearing securities such as money market accounts, certificates of deposit, commercial paper and guaranteed obligations of the U.S. government.

We issued our \$7.0 million of senior convertible notes on June 17, 2013. The notes mature on September 17, 2014, bear interest at 6.0% per annum and are secured by all of our assets. The principal amount of the notes will convert into 2,087,667 shares of common stock effective upon the completion of this offering. We received net proceeds of \$6.3 million from the sale of our senior convertible notes, which we have been using since June 17, 2013 for research and development to commercialize our technology, for development of our patent strategy and expansion of our patent portfolio, and for working capital and general corporate purposes.

## DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings for use in the operation of our business and do not anticipate paying any dividends on our common stock in the foreseeable future, if at all. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

## CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2014, on:

- an actual basis;
- a pro forma basis, giving effect to the automatic conversion of \$9.4 million principal amount of indebtedness into 2,787,667 shares of common stock and the resulting elimination of the derivative liability related to the debt and write-off of debt issuance costs, each to be effective immediately upon the consummation of this offering as if such conversions had occurred on March 31, 2014; and
- a pro forma as adjusted basis to reflect, in addition, our sale of 2,700,000 shares of common stock in this offering at the initial public offering price of \$6.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read the information in this table together with our consolidated financial statements and related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus.

	As of March 31, 2014		
	Actual	Pro Forma(1)	Pro Forma As Adjusted
Convertible notes(2)	\$ 8,232,929	\$ —	\$ —
Derivative liabilities	6,689,774	—	—
Stockholders' (deficit) equity:			
Preferred stock, \$0.001 par value, no shares authorized, issued and outstanding, actual; 3,000,000 shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, \$0.001 par value, 10,000,000 shares authorized, 999,999 shares issued and outstanding, actual; 10,000,000 shares authorized, 3,787,666 shares issued and outstanding, pro forma; 47,000,000 shares authorized, 6,487,666 shares issued and outstanding, pro forma as adjusted	1,000	3,788	6,488
Additional paid-in capital	1,000	8,231,141	22,214,401
Accumulated (deficit)	(15,412,723)	(9,251,043)	(9,251,043)
Total stockholders' (deficit) equity	(15,410,723)	(1,016,114)	12,969,846
<b>Total capitalization</b>	<b>\$ (488,020)</b>	<b>\$ (1,016,114)</b>	<b>\$ 12,969,846</b>

- (1) The pro forma column reflects (i) the automatic conversion of \$7.0 million principal amount of our 6% senior secured convertible notes due September 2014 into an aggregate of 2,087,667 shares of common stock and reclassified to additional paid in capital, (ii) the automatic conversion of \$2.4 million principal amount of our non-interest bearing subordinated convertible note due September 2014 into an aggregate of 700,000 shares of common stock and reclassified to additional paid in capital, (iii) the reclassification of \$6.7 million of derivative liability related to the senior secured convertible debt to accumulated earnings (deficit), and (iv) the reclassification of \$0.5 million of deferred finance costs to accumulated earnings (deficit), each to be effective upon the completion of this offering.
- (2) Convertible notes is shown net of a debt discount of \$0.3 million attributed to a below market interest rate on the subordinated convertible note. In addition, a debt discount of \$1.9 million was

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recorded as a result of a derivative liability associated with our senior convertible notes. These notes will be converted into shares of common stock immediately upon the consummation of this offering and therefore have been excluded from the pro forma and pro forma as adjusted Convertible notes balances.

The number of shares of our common stock to be outstanding after this offering is based on 3,787,666 shares of our common stock (including common stock issuable upon conversion of convertible notes) outstanding as of March 31, 2014, and excludes:

- 384,000 shares of our common stock issuable upon exercise of options granted pursuant to our amended and restated 2014 Omnibus Incentive Plan, or 2014 Plan, on the date of this prospectus, with an exercise price equal to the initial public offering price;
- 184,500 shares of our common stock issuable upon the vesting of restricted stock units we have committed to grant pursuant to our 2014 Plan on the date of this prospectus;
- 680,984 shares of our common stock issuable upon exercise of warrants with a weighted-average exercise price of \$1.10 per share;
- 831,500 shares of our common stock reserved for future grants pursuant to our 2014 Plan; and
- the shares of our common stock issuable upon exercise of the underwriter's warrant.

## DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after the completion of this offering.

As of March 31, 2014, our pro forma net tangible book value was approximately \$(1.4) million, or \$(0.38) per share of common stock. Our pro forma net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities and divided by the total number of shares of our common stock outstanding as of March 31, 2014, assuming the conversion of \$9.4 million amount of indebtedness into 2,787,667 shares of common stock and the resulting elimination of the derivative liability related to the debt and write-off of debt issuance cost, each effective upon the completion of this offering.

After giving effect to our sale in this offering of 2,700,000 shares of our common stock, at the initial public offering price of \$6.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2014 would have been approximately \$12.5 million, or \$1.93 per share of our common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of \$2.31 per share to our existing stockholders and an immediate dilution of \$4.07 per share to investors purchasing shares in this offering.

The following table illustrates this dilution:

Initial public offering price per share	\$ 6.00
Pro forma net tangible book value per share as of March 31, 2014, before giving effect to this offering	\$ (0.38)
Increase in pro forma net tangible book value per share attributable to new investors purchasing shares in this offering	<u>2.31</u>
Pro forma as adjusted net tangible book value per share, after giving effect to this offering	<u>\$ 1.93</u>
Dilution per share to new investors purchasing shares in this offering	<u>\$ 4.07</u>

If the underwriter exercises its over-allotment option in full, the pro forma as adjusted net tangible book value per share of our common stock would be \$2.14 per share, and the dilution per share to new investors purchasing shares in this offering would be \$3.86 per share.

The following table summarizes, on a pro forma as adjusted basis as of March 31, 2014 after giving effect to (i) the automatic conversion of \$9.4 million principal amount of indebtedness into shares of common stock and (ii) completion of this offering at the initial public offering price of \$6.00 per share, the difference between existing stockholders and new investors with respect to the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid, before deducting underwriting discounts and commissions and estimated offering expenses:

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	3,787,666	58.4%	\$ 7,461,074	31.5%	\$ 1.97
New public investors	<u>2,700,000</u>	<u>41.6</u>	<u>16,200,000</u>	<u>68.5</u>	<u>\$ 6.00</u>
Total	<u>6,487,666</u>	<u>100.0%</u>	<u>\$ 23,661,074</u>	<u>100.0%</u>	

To the extent that our outstanding warrants are exercised, investors will experience further dilution.

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Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriter's over-allotment option. If the underwriter exercises its over-allotment option in full, our existing stockholders would own 55.0% and our new investors would own 45.0% of the total number of shares of our common stock outstanding upon the completion of this offering.

The number of shares of our common stock to be outstanding after this offering is based on 3,787,666 shares of our common stock (including common stock issuable upon conversion of convertible notes) outstanding as of March 31, 2014, and excludes:

- 384,000 shares of our common stock issuable upon exercise of options granted pursuant to our 2014 Plan on the date of this prospectus, with an exercise price equal to the initial public offering price;
- 184,500 shares of our common stock issuable upon the vesting of restricted stock units granted pursuant to our 2014 Plan on the date of this prospectus;
- 680,984 shares of our common stock issuable upon exercise of warrants with a weighted-average exercise price of \$1.10 per share;
- 831,500 shares of our common stock reserved for future grants pursuant to our 2014 Plan; and
- the shares of our common stock issuable upon exercise of the underwriter's warrant.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We describe below transactions, and series of related transactions, since our inception on May 29, 2012, to which we were or will be a party, in which:

- the amounts involved exceeded or will exceed \$120,000; and
- any of our directors, executive officers, or beneficial holders of more than 5% of any class of our capital stock, or their immediate family members, had or will have a direct or indirect material interest.

Other than as described below, there has not been, nor is there any currently proposed, transaction or series of related transactions to which we have been or will be a party other than compensation arrangements, which are described where required under the heading "Executive Compensation."

### **Formation**

#### ***Resonant Inc.***

We were incorporated on January 19, 2012 as a wholly owned subsidiary of Superconductor Technologies, Inc., or STI, issuing 100 shares of our common stock to STI on January 19, 2012 at a purchase price of \$1.00 per share, for an aggregate purchase price of \$100.00.

#### ***Resonant LLC, Our Wholly Owned Subsidiary***

On May 29, 2012, Resonant LLC was formed in California. In connection with its formation, on May 29, 2012, Resonant LLC sold an aggregate of 500,000 of its Class B Units of membership interest to Terry Lingren, Robert Hammond and Neal Fenzi at a purchase price of \$0.40 per unit, for an aggregate purchase price of \$200,000. In addition, on May 29, 2012, Resonant LLC issued an aggregate of 300,000 of its Class C Units of membership interest to STI as consideration for the contribution by STI of intellectual property, software, equipment and other tangible and intangible assets. The assets were recorded on our financial statements at STI's net book value in the assets of approximately 216,000.

On January 31, 2013, Resonant LLC issued warrants to purchase an aggregate of 62,499 of its Class B Units of membership interest at an exercise price of \$0.40 per unit to Terry Lingren, Robert Hammond and Neal Fenzi, which warrants were issued for an aggregate purchase price of \$500 and as partial consideration for loans made by these investors to Resonant LLC in the aggregate principal amount of \$100,000. Additionally, on March 19, 2013, Resonant LLC issued warrants to purchase an aggregate of 62,499 of the Class B Units of membership interest at an exercise price of \$0.40 per unit to Terry Lingren, Robert Hammond and Neal Fenzi, which warrants were issued for an aggregate purchase price of \$500.00 and as partial consideration for loans made by these investors to Resonant LLC in the aggregate principal amount of \$100,000.

### **Exchange Transaction**

On June 17, 2013, we entered into an Exchange Agreement with Resonant LLC and its members for the purpose of restructuring our company. Pursuant to the Exchange Agreement, on June 17, 2013, we (i) issued an aggregate of 999,999 shares of our common stock to Terry Lingren, Robert Hammond and Neal Fenzi, which shares were issued in exchange for 500,000 Class B Units of Resonant LLC previously held by Terry Lingren, Robert Hammond and Neal Fenzi; (ii) issued a \$2.4 million principal amount non-interest bearing subordinated senior secured convertible note due September 2014 to STI, which note automatically converts into an aggregate of 700,000 shares of our common stock effective upon the completion of this offering and was issued in exchange for 300,000 Class C Units of Resonant LLC previously held by STI; (iii) issued warrants to purchase an aggregate of 249,999 shares

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of our common stock at an exercise price of \$0.20 per share to Terry Lingren, Robert Hammond and Neal Fenzi, which warrants were issued in exchange for warrants to purchase an aggregate of 124,998 Class B Units of Resonant LLC previously held by Terry Lingren, Robert Hammond and Neal Fenzi; (iv) cancelled the 100 shares of our common stock originally issued to STI on January 19, 2012, and (v) issued warrants to purchase an aggregate of 222,222 shares of our common stock at an exercise price of \$0.01 per share to MDB Capital Group LLC, which warrants were issued as consideration for consulting services pursuant to a consulting services agreement entered into between MDB Capital Group LLC and Resonant LLC in October 2012. Pursuant to the Exchange Agreement and immediately thereafter, Terry Lingren, Robert Hammond and Neal Fenzi became our only stockholders and Resonant LLC became our wholly-owned subsidiary.

### **Office Lease**

From our inception in May 2012 through July 2013, STI allowed us to use a portion of its facilities in Santa Barbara, California without charge as part of STI's consideration for their ownership interest in us. Pursuant to our agreement with STI, commencing in July 2013, we began paying STI \$3,723 per month for these facilities under the terms of a month-to-month sublease. We moved to new facilities and terminated our sublease arrangement with STI on February 28, 2014.

### **Legal Services**

From August 20, 2012 to December 31, 2013, Daniel Christopher served as outside legal counsel to Resonant, for which we paid Mr. Christopher an aggregate of \$173,286. Effective January 1, 2014, Mr. Christopher became our Vice President and General Counsel.

### **Stockholders Agreement**

In June 2013, we entered into a stockholders agreement with Terry Lingren, Robert Hammond, Neal Fenzi, STI and MDB Capital Group LLC, which includes:

- a voting agreement, pursuant to which the parties have agreed to vote their shares of our capital stock on certain matters, including with respect to size of our board and the election of directors;
- protective provisions, pursuant to which STI and our founders have approval rights over certain actions;
- restrictions on transfer, rights of first refusal, repurchase rights, co-sale rights, drag-along rights, and put rights, in each case affecting our capital stock and creating rights and obligations of the parties with respect to their ownership and transfer of our capital stock;
- preemptive rights, providing certain parties the right to purchase capital stock from us in certain subsequent financing transactions, which does not include this offering;
- information rights, providing certain parties the right to receive financial and other information from us; and
- registration rights, providing certain parties with the right to request that their shares be covered by a registration statement that we are otherwise filing.

Except for the registration rights, which will continue following completion of this offering, the stockholders agreement and all of its provisions will terminate upon completion of this offering. For a more detailed description of the surviving registration rights, see "Description of Capital Stock—Registration Rights."

## **Registration Rights**

In addition to the stockholders agreement, which provides STI and our founders with registration rights, we are party to registration rights agreements which provide the holders of our convertible promissory notes and warrants with registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing, other than the registration statement of which this prospectus forms a part. For a more detailed description of these registration rights, see "Description of Capital Stock—Registration Rights."

## **Indemnification Agreements**

We have entered into indemnification agreements with each of our current directors, executive officers and certain key employees. The indemnification agreements and our amended and restated certificate of incorporation and amended and restated bylaws require us to indemnify our directors and officers to the fullest extent permitted by Delaware law. See "Executive Compensation—Limitation on Liability and Indemnification Matters."

## **Policies and Procedures for Related Party Transactions**

Our audit committee has the primary responsibility for reviewing and approving or disapproving "related party transactions," which are transactions between us and related persons in which the aggregate amount involved exceeds or may be expected to exceed \$120,000 and in which a related person has or will have a direct or indirect material interest. Our policy regarding transactions between us and related persons provides that a related person is defined as a director, executive officer, nominee for director or greater than 5% beneficial owner of our common stock, in each case since the beginning of the most recently completed year, and any of their immediate family members. Our audit committee charter provides that our audit committee shall review and approve or disapprove any related party transactions.

## PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of May 1, 2014, as adjusted to reflect the sale of common stock in this offering, for:

- each of our directors;
- each of our named executive officers;
- all of our current directors and executive officers as a group; and
- each person, or group of affiliated persons, who beneficially owned more than 5% of our common stock.

We have determined beneficial ownership in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnotes below, we believe, based on information furnished to us, that the persons and entities named in the table below have sole voting and sole investment power with respect to all shares of common stock that they beneficially owned, subject to applicable community property laws.

We have based our calculation of the percentage of beneficial ownership prior to this offering on 3,787,666 shares of our common stock outstanding as of May 1, 2014, which includes 2,787,667 shares of our common stock resulting from the automatic conversion of our convertible promissory notes into common stock in connection with the completion of the offering, as if this conversion had occurred as of May 1, 2014. We have based our calculation of the percentage of beneficial ownership after this offering on 6,487,666 shares of our common stock outstanding immediately after the completion of this offering, assuming that the underwriter will not exercise its option to purchase up to an additional 405,000 shares of our common stock. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all shares of common stock subject to warrants held by the person that are currently exercisable or exercisable within 60 days of May 1, 2014. However, we did not deem such shares outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Resonant Inc., 110 Castilian Drive, Suite 100, Goleta, California 93117.

<u>Name of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned</u>	<u>Percentage of Shares Beneficially Owned</u>	
		<u>Before the Offering</u>	<u>After the Offering</u>
<b>Directors and Executive Officers:</b>			
Terry Lingren(1)	416,666	10.8%	6.3%
Robert Hammond(2)	416,666	10.8%	6.3%
Neal Fenzi(3)	416,666	10.8%	6.3%
Janet K. Cooper	—	*	*
Rick Kornfeld	—	*	*
John E. Major	—	*	*
All current directors and executive officers as a group (8 persons)(4)	1,249,998	31.0%	18.6%
<b>Other 5% Stockholders:</b>			
Lone Wolf Holdings, LLC(5)	912,594	24.1%	14.1%
Superconductor Technologies, Inc.(6)	700,000	18.5%	10.8%

\* Represents beneficial ownership of less than one percent.

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- (1) Consists of (i) 333,333 shares of common stock and (ii) 83,333 shares of common stock issuable pursuant to outstanding warrants exercisable within 60 days of May 1, 2014.
- (2) Consists of (i) 333,333 shares of common stock and (ii) 83,333 shares of common stock issuable pursuant to outstanding warrants exercisable within 60 days of May 1, 2014.
- (3) Consists of (i) 333,333 shares of common stock and (ii) 83,333 shares of common stock issuable pursuant to outstanding warrants exercisable within 60 days of May 1, 2014.
- (4) Consists of (i) 999,999 shares of common stock and (ii) 249,999 shares of common stock issuable pursuant to outstanding warrants exercisable within 60 days of May 1, 2014.
- (5) Consists of shares of common stock. The address for Lone Wolf Holdings, LLC is 77 Oregon Road, Bedford Corners, NY 10549. Peter Appel, sole member of Lone Wolf Holdings, LLC, has voting and dispositive power with respect to these securities.
- (6) Consists of shares of common stock. The address for Superconductor Technologies, Inc. is 9101 Wall Street, Suite 1300, Austin, Texas 78754. Jeffrey A. Quiram, President and Chief Executive Officer of Superconductor Technologies, Inc., has voting and dispositive power with respect to these securities.

## DESCRIPTION OF CAPITAL STOCK

### General

The following is a summary of the rights of our common stock and preferred stock and certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws as they will be in effect upon the completion of this offering. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been filed as exhibits to the registration statement of which this prospectus is a part.

Immediately following the completion of this offering, our authorized capital stock will consist of 50,000,000 shares, with a par value of \$0.001 per share, of which:

- 47,000,000 shares are designated as common stock; and
- 3,000,000 shares are designated as preferred stock.

Immediately prior to this offering, we had outstanding 3,787,666 shares of common stock, held by 88 stockholders of record, assuming the automatic conversion of all of our convertible promissory notes into common stock effective upon the completion of this offering. In addition, immediately prior to this offering, we had outstanding warrants to purchase 680,984 shares of our common stock, options to purchase 384,000 shares of our common stock and restricted stock units for 184,500 shares of our common stock.

### Common Stock

The holders of common stock are entitled to one vote per share on all matters submitted to a vote of our stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Subject to preferences that may be applicable to any preferred stock outstanding at the time, the holders of outstanding shares of common stock are entitled to receive ratably any dividends declared by our board of directors out of assets legally available. See the section entitled "Dividend Policy." Upon our liquidation, dissolution, or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any then-outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

### Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors will have the authority, without further action by the stockholders, to issue from time to time up to 3,000,000 shares of preferred stock in one or more series. Our board of directors may designate the powers, designations, preferences, and relative participation, optional or other rights, if any, and the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, voting rights, redemption rights, liquidation preference, sinking fund terms and the number of shares constituting any series or the designation of any series. The issuance of preferred stock could have the effect of restricting dividends on the common stock, diluting the voting power of the common stock, impairing the liquidation rights of the common stock, or delaying, deterring, or preventing a change in control. Such issuance could have the effect of decreasing the market price of the common stock. No shares of preferred stock are outstanding, and we currently have no plans to issue any shares of preferred stock.

## **Warrants**

Upon the completion of this offering, we will have outstanding the following warrants to purchase shares of our common stock:

- warrants to purchase 249,999 shares of our common stock at an exercise price of \$0.20 per share, which warrants were issued in June 2013 to Terry Lingren, Robert Hammond and Neal Fenzi in exchange for warrants issued to these same holders by Resonant LLC on January 31, 2013 and March 19, 2013 in connection with a bridge note financing transaction;
- warrants to purchase 222,222 shares of our common stock at an exercise price of \$0.01 per share, which warrants were issued on June 17, 2013 to MDB Capital Group LLC as consideration for consulting services, which are not exercisable until six months after completion of this offering (some of which warrants were subsequently transferred by MDB Capital Group LLC to other persons);
- warrants to purchase 208,763 shares of our common stock at an exercise price of \$3.35 per share, which warrants were issued on June 17, 2013 to MDB Capital Group LLC as consideration for financial advisory services in connection with our June 2013 convertible note financing, which are not exercisable until six months after completion of this offering (some of which warrants were subsequently transferred by MDB Capital Group LLC to other persons); and
- the underwriter's warrant to purchase a number of shares of our common stock equal to 10% of the number of shares of common stock sold in this offering, including the over-allotment, at an exercise price equal to 125% of the price of the common stock sold in this offering.

The warrants contain provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrants in the event of certain stock dividends, stock splits, reorganizations, reclassifications and consolidations. The holders of the shares issuable upon exercise of the warrants are entitled to registration rights with respect to such shares as described in greater detail under the heading "—Registration Rights."

## **Registration Rights**

Following the completion of this offering, certain holders of our capital stock are entitled to certain rights with respect to the registration under the Securities Act of their shares of common stock, including demand registration rights and piggyback registration rights. These rights are provided under the terms of a stockholders agreement and two registration rights agreements between us and the holders of our capital stock. In any registration made pursuant to these agreements, all fees, costs and expenses of underwritten registrations will be borne by us, and all selling expenses, including estimated underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

### ***Demand Registration Rights***

Following the completion of this offering, the holders of an aggregate of 2,518,652 shares of our common stock, or their permitted transferees, are entitled to certain demand registration rights.

In connection with our June 2013 convertible note financing, in which we sold \$7.0 million principal amount of our 6% senior secured convertible notes due September 2014, which notes will automatically convert into an aggregate of 2,087,667 shares of our common stock effective upon the completion of this offering, we entered into a registration rights agreement with these investors pursuant to which we will be required, upon the written request at any time more than three months after the completion of this offering of holders of at least 50% of the shares that are entitled to

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registration rights under the agreement, to register, as soon as practicable, all or a portion of these shares for public resale. We are required to effect only one registration pursuant to this provision of the registration rights agreement. These registration rights do not expire.

In connection with our issuance to MDB Capital Group LLC of warrants to purchase an aggregate 430,985 shares of our common stock, we entered into a registration rights agreement with MDB Capital Group LLC pursuant to which we will be required, upon the written request at any time more than three months after the completion of this offering of holders of at least 50% of the shares that are entitled to registration rights under the agreement, to register, as soon as practicable, all or a portion of these shares for public resale. We are required to effect only one registration pursuant to this provision of the registration rights agreement. These demand registration rights terminate seven years following the completion of this offering.

### ***Piggyback Registration Rights***

Following the completion of this offering, the holders of an aggregate of 4,468,650 shares of our common stock (including 680,984 shares of common stock underlying warrants) or their permitted transferees are entitled to certain piggyback registration rights.

In connection with our June 2013 convertible note financing, we entered into a stockholders agreement with Terry Lingren, Robert Hammond, Neal Fenzi, Superconductor Technologies Inc. and MDB Capital Group LLC, pursuant to which we granted Superconductor Technologies Inc. and Messrs. Lingren, Hammond and Fenzi piggyback registration rights with respect to our capital stock held by these investors. These piggyback registration rights terminate seven years following expiration of the lock-up agreements entered into by these investors in connection with this offering.

In addition, the registration rights agreement we entered into with investors in our June 2013 convertible note financing and the registration rights agreement we entered into with MDB Capital Group LLC with respect to their warrants to purchase shares of our common stock, each contain piggyback registration rights with respect to our capital stock held by these investors. These piggyback registration rights terminate with respect to each registration rights agreement, when all of the shares subject to such agreement have been sold by the holders pursuant to a registration statement, have been registered pursuant to an effective registration statement for 24 months, or may be sold by the holders without regard to the volume limitations of Rule 144, or Rule 144(i) if applicable, of the Securities Act.

If we register any of our securities for our own account, after the completion of this offering, the holders of these shares are entitled to include their shares in the registration. Both we and the underwriters of any underwritten offering have the right to limit the number of shares registered by these holders for marketing reasons, subject to limitations set forth in the respective agreements with these investors.

### **Anti-Takeover Effects of Delaware Law and Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws**

Our amended and restated certificate of incorporation and amended and restated bylaws to be effective in connection with the completion of this offering will contain provisions that could have the effect of delaying, deferring, or discouraging another party from acquiring control of us. These provisions and certain provisions of Delaware law, which are summarized below, could discourage takeovers, coercive or otherwise. These provisions are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us.

### ***Undesignated Preferred Stock***

As discussed above under "—Preferred Stock," our board of directors will have the ability to designate and issue preferred stock with voting or other rights or preferences that could deter hostile takeovers or delay changes in our control or management.

### ***Limits on Ability of Stockholders to Act by Written Consent or Call a Special Meeting***

Our amended and restated certificate of incorporation will provide that our stockholders may not act by written consent. This limit on the ability of stockholders to act by written consent may lengthen the amount of time required to take stockholder actions. As a result, the holders of a majority of our capital stock would not be able to amend the amended and restated bylaws or remove directors without holding a meeting of stockholders called in accordance with the amended and restated bylaws.

In addition, our amended and restated bylaws will provide that special meetings of the stockholders may be called only by the chairman of the board, the chief executive officer, the president (in the absence of a chief executive officer), or our board of directors. A stockholder may not call a special meeting, which may delay the ability of our stockholders to force consideration of a proposal or for holders controlling a majority of our capital stock to take any action, including the removal of directors.

### ***Requirements for Advance Notification of Stockholder Nominations and Proposals***

Our amended and restated bylaws will establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of our board of directors or a committee of the board of directors. These advance notice procedures may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed and may also discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempt to obtain control of our company.

### ***Amendment of Charter Provisions***

Our amended and restated certificate of incorporation will provide that approval by holders of at least two-thirds of our then-outstanding capital stock would be required to amend provisions in our certificate of incorporation governing the right of our board of directors to adopt, amend or repeal our bylaws, limiting the ability of our stockholders to act by written consent or call a special meeting, and establishing in our bylaws advance notice procedures with respect to stockholder proposals and nominations of candidates for election as directors, which super-majority voting provision could make it more difficult to make changes to our certificate of incorporation to accomplish transactions that stockholders might otherwise deem to be in their best interests.

### ***Delaware Anti-takeover Statute***

We will be subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, our board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the

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corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or subsequent to the date of the transaction, the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66<sup>2</sup>/<sub>3</sub>% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law and the provisions of our amended and restated certificate of incorporation and amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions might also have the effect of preventing changes in our management. It is also possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests.

### **Venue**

Our bylaws will provide that, with certain limited exceptions, unless we consent in writing to the selection of an alternative forum, the state and federal courts located in the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of our company owed to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (iv) any action asserting a claim governed by the internal affairs doctrine. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have received notice of and consented to the foregoing provisions. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it believes to be favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. The enforceability of similar choice of forum provisions in other companies' organizational documents has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find this choice of forum provision inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business, financial condition or results of operations.

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### **Transfer Agent and Registrar**

Upon the completion of this offering, the transfer agent and registrar for our common stock will be Registrar and Transfer Company. The transfer agent's address is 10 Commerce Drive, Cranford, NJ 07016, and its telephone number is (800) 456-0596.

### **Exchange Listing**

Our common stock has been approved for listing on the NASDAQ Capital Market under the symbol "RESN."

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for shares of our common stock. Future sales of substantial amounts of shares of common stock, including shares issued upon the exercise of outstanding warrants, in the public market after this offering, or the possibility of these sales occurring, could adversely affect the prevailing market price for our common stock or impair our ability to raise equity capital.

Upon the completion of this offering, a total of 6,487,666 shares of common stock will be outstanding, assuming the automatic conversion of all outstanding convertible promissory notes into shares of common stock in connection with the completion of this offering. All 2,700,000 shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriter's over-allotment option, will be freely tradable in the public market without restriction or further registration under the Securities Act, unless these shares are held by "affiliates," as that term is defined in Rule 144 under the Securities Act.

The remaining 3,787,666 shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

Subject to the lock-up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these restricted securities will be available for sale in the public market beginning more than 180 days after the date of this prospectus.

### Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell such shares without complying with the manner of sale, volume limitation, or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then such person is entitled to sell such shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described below, within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding; or
- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

### Rule 701

Rule 701 generally allows a stockholder who purchased shares of our common stock pursuant to a written compensatory plan or contract and who is not deemed to have been one of our affiliates during

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the immediately preceding 90 days to sell these shares in reliance upon Rule 144, but without being required to comply with the public information, holding period, volume limitation, or notice provisions of Rule 144. Rule 701 also permits our affiliates to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. However, all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling such shares pursuant to Rule 701.

### **Lock-Up Agreements**

We, all of our directors, officers, employees and the holders of substantially all of our common stock or securities exercisable for or convertible into our common stock outstanding immediately prior to this offering have agreed that, without the prior written consent of MDB Capital Group LLC, on behalf of the underwriter, we and they will not, during the period ending 12 months after the date of this prospectus, for officers, directors, employees and certain stockholders beneficially owning 5% or more of our common stock, and 180 days after the date of this prospectus, for all other stockholders:

- offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of common stock, capital stock, or any securities convertible into or exchangeable or exercisable for shares of common stock or other capital stock;
- make any demand for or exercise any right with respect to the registration of any shares of common stock or other such securities; or
- enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock;

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition. This agreement is subject to certain exceptions. See "Underwriting" for additional information.

### **Registration Rights**

Upon the completion of this offering, the holders of 4,468,650 shares of common stock (including 680,984 shares of common stock underlying warrants) or their permitted transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares held by affiliates. See "Description of Capital Stock—Registration Rights" for additional information.

### **Registration Statements on Form S-8**

We have filed a registration statement on Form S-8 under the Securities Act to register all of the shares of common stock to be issued or reserved for issuance under our equity incentive plan. Shares covered by this registration statement will be eligible for sale in the public market, upon the expiration or release from the terms of the lock-up agreements and subject to vesting of such shares.

## UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement dated the date of this prospectus between MDB Capital Group, LLC ("MDB Capital Group"), as the managing underwriter, and us, we have agreed to sell to the underwriter and the underwriter has agreed to purchase from us 2,700,000 shares of common stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, as it may be supplemented from time to time.

The underwriter is committed to purchase all of the common shares offered by us, other than those covered by the option to purchase additional shares described below, if they purchase any shares. The underwriting agreement provides that the underwriter's obligations to purchase shares of our common stock are subject to conditions contained in the underwriting agreement. A copy of the underwriting agreement has been filed as an exhibit to the registration statement of which this prospectus forms a part.

We have been advised by the underwriter that they propose to offer shares of our common stock directly to the public at the public offering price set forth on the cover page of this prospectus and to certain dealers that are members of the Financial Industry Regulatory Authority ("FINRA"). Any securities sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$0.303 per share. After the public offering of the shares, the offering price and other selling terms may be changed by the underwriter.

None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus and any other offering material or advertisements in connection with the offer and sales of any of our common stock, be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of our common stock and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy any of our common stock included in this offering in any jurisdiction where that would not be permitted or legal.

MDB Capital Group has advised us that the underwriter does not intend to confirm sales to any accounts over which it exercises discretionary authority. MDB Capital Group has rendered advisory services to us in the past and has acted as our placement agent in connection with the placement of our senior secured convertible promissory notes in June 2013. Principals of MDB Capital Group made an investment in our senior secured convertible promissory notes on the same terms and conditions as the other investors.

### Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriter by us.

	<u>Without</u> <u>Over-Allotment</u>	<u>With</u> <u>Over-Allotment</u>
Public offering price	\$ 16,200,000	\$ 18,630,000
Underwriting discount to be paid to the underwriter	1,364,040	1,568,646
Non-accountable expense allowance	175,000	175,000
Net proceeds, before other expenses	\$ 14,660,960	\$ 16,886,354

We estimate the total expenses payable by us for this offering to be approximately \$2.2 million (\$2.4 million if the underwriter's over-allotment option is exercised in full), which amount includes (i) the underwriting discount of \$1,364,040 (\$1,568,646 if the underwriter's over-allotment option is exercised in full), (ii) the non-accountable expenses of the underwriter equal to \$175,000 (none of

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which have been paid in advance), including the legal fees of the underwriter, and (iii) other estimated expenses of approximately \$675,000, which includes legal, accounting, printing costs and various fees associated with the registration and listing of our shares.

### **Over-allotment Option**

We have granted to the underwriter an option, exercisable not later than 45 days after the date of this prospectus, to purchase up to an additional 405,000 shares of our common stock (up to 15% of the shares firmly committed in this offering) at the public offering price, less the underwriting discount, set forth on the cover page of this prospectus. The underwriter may exercise the option solely to cover over-allotments, if any, made in connection with this offering. If any shares of common stock are purchased pursuant to the over-allotment option, the underwriter will offer these shares of common stock on the same terms as those on which the other shares of common stock are being offered hereby.

### **Determination of Offering Price**

There is no current market for our common stock. The underwriter is not obligated to make a market in our securities, and even if they choose to make a market, they can discontinue their market making at any time without notice. Neither we nor the underwriter can provide any assurance that an active and liquid trading market in our securities will develop or, if developed, that the market will continue.

The public offering price of the shares offered by this prospectus has been determined by negotiation between us and the underwriter. Among the factors considered in determining the public offering price of the shares were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the shares. That price is subject to change as a result of market conditions and other factors, and we cannot assure you that the shares can be resold at or above the public offering price.

### **Underwriter Warrant**

We have agreed to issue to the underwriter a warrant to purchase shares of our common stock (up to 10% of the shares of common stock sold in this offering, including the over-allotment to the extent exercised). The warrant is exercisable at \$7.50 per share (125% of the price of the common stock sold in this offering), commencing on the effective date of the registration statement for this offering and expiring five years thereafter. The warrant and the shares of common stock underlying the warrant have been deemed compensation by FINRA and are therefore subject to a 180 days lock up pursuant to Rule 5110(g)(1) of FINRA. The underwriter (or permitted assignees under the Rule) will not sell, transfer, assign, pledge, or hypothecate the warrant or the securities underlying the warrant, nor will it engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the warrant or the underlying securities for a period of 180 days from the effective date of the registration statement for this offering.

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Pursuant to engagement agreements entered into on October 31, 2012 with MDB Capital Group, we issued two warrants to purchase an aggregate of 430,985 shares of our common stock on June 17, 2013. The first warrant to purchase 208,763 shares of our common stock with an exercise price of \$3.35 per share was issued to MDB Capital Group for serving as the exclusive placement agent for the private placement of our senior secured convertible promissory notes. The second warrant to purchase 222,222 shares of our common stock with an exercise price of \$0.01 per share was issued to MDB Capital Group for business consulting services rendered prior to June 17, 2013. MDB Capital Group subsequently transferred a portion of each of these warrants to other persons. Both of these warrants have a term of seven years and do not become exercisable until six months after the completion of this offering.

### **Lock-Up Agreements**

All of our officers, directors and employees and certain stockholders beneficially owning 5% or more of our common stock have agreed that, until 12 months after the effective date of the registration statement of which this prospectus is a part, that they will not sell, contract to sell, grant any option for the sale or otherwise dispose of any of our equity securities, or any securities convertible into or exercisable or exchangeable for our equity securities, without the consent of MDB Capital Group, LLC. Additionally, the holders of the shares of our common stock issued on conversion of the senior secured promissory notes have agreed that until 180 days after the effective date of the registration statement of which this prospectus is a part, that they will not sell, contract to sell, grant any option for the sale or otherwise dispose of any of our equity securities, or any securities convertible into or exercisable or exchangeable for our equity securities, without the consent of MDB Capital Group, LLC. MDB Capital Group, LLC may consent to an early release from the lock-up period if, in their opinion, the market for the common stock would not be adversely impacted by sales and in cases of a financial emergency of an officer, director or other stockholder. We are unaware of any officer, director or stockholder who intends to ask for consent to dispose of any of our equity securities during the relevant lock-up periods.

### **Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act, and to contribute to payments that the underwriter may be required to make for these liabilities.

### **Short Positions and Penalty Bids**

The underwriter may engage in over-allotment, syndicate covering transactions, and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, in accordance with Regulation M under the Exchange Act.

- Over-allotment involves sales by the underwriter of shares in excess of the number of shares the underwriter is obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by an underwriter is not greater than the number of shares that it may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriter may close out any short position by either exercising its over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at

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which it may purchase shares through the over-allotment option. If an underwriter sells more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if an underwriter is concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

- Penalty bids permit an underwriter to reclaim a selling concession from a syndicate member when the shares originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ Capital Market, and if commenced, they may be discontinued at any time.

Neither we nor the underwriter make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor the underwriter make any representation that the underwriter will engage in these transactions or that any transaction, once commenced, will not be discontinued without notice.

**Electronic Distribution**

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by the underwriter, or by their affiliates. In those cases, prospective investors may view offering terms online and, depending upon the underwriter, prospective investors may be allowed to place orders online. The underwriter may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriter on the same basis as other allocations.

Other than the prospectus in electronic format, the information on the underwriter's website and any information contained in any other website maintained by the underwriter is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or the underwriter in its capacity as underwriter and should not be relied upon by investors.

The underwriter's compensation in connection with this offering is limited to the fees and expenses described above under "Underwriting Discount and Expenses."

## LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Stubbs Alderton & Markiles, LLP, Sherman Oaks, California. Golenbock Eiseman Assor Bell & Peskoe LLP, New York, New York, is acting as counsel to the underwriter.

## EXPERTS

The financial statements of Resonant LLC as of December 31, 2012 and for the period from May 29, 2012 (inception) to December 31, 2012 and the period from January 1, 2013 to June 16, 2013, and the financial statements of Resonant Inc. as of December 31, 2013 and for the period from June 17, 2013 to December 31, 2013, appearing in this prospectus and registration statement have been audited by Squar, Milner, Peterson, Miranda & Williamson, LLP, an independent registered public accounting firm, as stated in their report appearing herein. Such financial statements have been so included in reliance upon the report of such firm given upon its authority as an expert in accounting and auditing.

## ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act of 1933 with respect to the shares of common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. You may obtain copies of this information by mail from the public reference room of the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the public reference rooms by calling the SEC at 1(800) SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that website is [www.sec.gov](http://www.sec.gov).

As a result of this offering, we will become subject to the information and reporting requirements of the Securities Exchange Act of 1934 and, in accordance with this law, will file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available for inspection and copying at the SEC's public reference facilities and the website of the SEC referred to above. We also maintain a website at [www.resonant.com](http://www.resonant.com). Upon completion of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. Information contained on our website is not a part of this prospectus and the inclusion of our website address in this prospectus is an inactive textual reference only.

**RESONANT INC.**

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Shareholders  
Resonant Inc.

We have audited the accompanying consolidated balance sheets of Resonant LLC as of December 31, 2012 and Resonant Inc., successor company and a development stage company (the "Company"), as of December 31, 2013, and the related consolidated statements of operations, shareholders' equity (deficit) and cash flows of Resonant LLC for the period May 29, 2012 (inception) to December 31, 2012 and the period January 1, 2013 to June 16, 2013, and of Resonant Inc. for the period June 17, 2013 to December 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company was not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Resonant LLC as of December 31, 2012 and Resonant Inc., successor company and a development stage company, as of December 31, 2013, and the results of operations and cash flows of Resonant LLC for the period May 29, 2012 (inception) to December 31, 2012 and the period January 1, 2013 to June 16, 2013, and Resonant Inc. for the period June 17, 2013 to December 31, 2013, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has negative working capital and shareholders' deficit that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

**/s/ Squar, Milner, Peterson, Miranda & Williamson, LLP**  
Los Angeles, California

April 11, 2014

**RESONANT INC.**

(a Development Stage Company)

**CONSOLIDATED BALANCE SHEETS**

	<u>Resonant LLC</u> <u>December 31, 2012</u>	<u>Resonant Inc.</u> <u>December 31, 2013</u>	<u>Resonant Inc.</u> <u>March 31, 2014</u> <small>(unaudited)</small>
<b>ASSETS</b>			
<b>CURRENT ASSETS</b>			
Cash and cash equivalents	\$ 89,044	\$ 3,338,979	\$ 2,116,124
Prepaid expenses and other current assets	21,047	182,930	355,718
Deferred finance costs	—	745,039	528,094
<b>TOTAL CURRENT ASSETS</b>	<u>110,091</u>	<u>4,266,948</u>	<u>2,999,936</u>
<b>PROPERTY AND EQUIPMENT</b>			
Fixed assets	—	231,120	380,838
Less: Accumulated depreciation and amortization	—	(7,360)	(16,345)
<b>PROPERTY AND EQUIPMENT, NET</b>	<u>—</u>	<u>223,760</u>	<u>364,493</u>
<b>NONCURRENT ASSETS</b>			
Patents and domain name, net	226,018	379,703	422,724
Other assets	—	11,782	11,782
<b>TOTAL NONCURRENT ASSETS</b>	<u>226,018</u>	<u>391,485</u>	<u>434,506</u>
<b>TOTAL ASSETS</b>	<u>\$ 336,109</u>	<u>\$ 4,882,193</u>	<u>\$ 3,798,935</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>			
<b>CURRENT LIABILITIES</b>			
Accounts payable	\$ 53,852	\$ 91,974	\$ 190,782
Accrued expenses	133,603	163,375	106,516
Accrued salaries and payroll-related expenses	2,303	13,504	75,468
Derivative liabilities	—	5,056,502	6,689,774
Note payable	100,000	—	—
Convertible notes	—	7,740,843	8,232,929
<b>TOTAL CURRENT LIABILITIES</b>	<u>289,758</u>	<u>13,066,198</u>	<u>15,295,469</u>
<b>LONG-TERM LIABILITIES</b>			
Warrants	—	3,276,084	3,910,178
Other liabilities	—	3,876	4,011
<b>TOTAL LIABILITIES</b>	<u>289,758</u>	<u>16,346,158</u>	<u>19,209,658</u>
<b>STOCKHOLDERS' EQUITY (DEFICIT)</b>			
Resonant LLC—1,000,000, 0 and 0 units authorized as of December 31, 2012, December 31, 2013 and March 31, 2014 (unaudited), respectively; 800,000, 0 and 0 issued and outstanding at December 31, 2012, December 31, 2013 and March 31, 2014 (unaudited), respectively	46,351	—	—
Resonant Inc.—Common Stock, \$.001 par value; 1,000, 10,000,000 and 10,000,000 authorized as of December 31, 2012, December 31, 2013 and March 31, 2014 (unaudited), respectively; 0, 999,999 and 999,999 issued and outstanding at December 31, 2012, December 31, 2013 and March 31, 2014 (unaudited), respectively	—	1,000	1,000
Additional paid-in capital	—	1,000	1,000
Accumulated deficit during the development stage	—	(11,465,965)	(15,412,723)
<b>TOTAL STOCKHOLDERS' EQUITY (DEFICIT)</b>	<u>46,351</u>	<u>(11,463,965)</u>	<u>(15,410,723)</u>
<b>TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)</b>	<u>\$ 336,109</u>	<u>\$ 4,882,193</u>	<u>\$ 3,798,935</u>

See notes to consolidated financial statements.



**RESONANT INC.**

(a Development Stage Company)

**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Resonant LLC Period from May 29, 2012 (inception) to December 31, 2012	Resonant LLC Period from January 1, 2013 to June 16, 2013	Resonant Inc. Period from June 17, 2013 to December 31, 2013	Resonant LLC Three Months Ended March 31, 2013 (unaudited)	Resonant Inc. Three Months Ended March 31, 2014 (unaudited)	Resonant Inc. Period from May 29, 2012 (inception) to March 31, 2014 (unaudited)
<b>REVENUE</b>	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
<b>OPERATING EXPENSES</b>						
Research and development expenses	141,799	195,403	926,095	141,691	394,781	1,658,078
General and administrative expenses	245,351	135,993	1,485,313	98,174	561,994	2,428,651
Depreciation and amortization	4,508	4,905	14,424	2,330	13,340	37,177
<b>TOTAL OPERATING EXPENSES</b>	<b>391,658</b>	<b>336,301</b>	<b>2,425,832</b>	<b>242,195</b>	<b>970,115</b>	<b>4,123,906</b>
<b>OPERATING LOSS</b>	<b>(391,658)</b>	<b>(336,301)</b>	<b>(2,425,832)</b>	<b>(242,195)</b>	<b>(970,115)</b>	<b>(4,123,906)</b>
<b>OTHER INCOME (EXPENSE)</b>						
Interest income (expense), net	73	(199,961)	(1,355,425)	(54,771)	(708,477)	(2,263,790)
Fair value adjustments to warrant and derivative liabilities	—	—	(4,520,736)	—	(2,267,366)	(6,788,102)
Bridge warrant expense	—	(247,669)	(312,486)	(247,669)	—	(560,155)
Other income (expense)	—	—	(333)	—	—	(333)
<b>TOTAL OTHER INCOME (EXPENSE)</b>	<b>73</b>	<b>(447,630)</b>	<b>(6,188,980)</b>	<b>(302,440)</b>	<b>(2,975,843)</b>	<b>(9,612,380)</b>
<b>LOSS BEFORE INCOME TAXES</b>	<b>(391,585)</b>	<b>(783,931)</b>	<b>(8,614,812)</b>	<b>(544,635)</b>	<b>(3,945,958)</b>	<b>(13,736,286)</b>
Provision for income taxes	(800)	(800)	(1,256)	—	(800)	(3,656)
<b>NET LOSS</b>	<b>\$ (392,385)</b>	<b>\$ (784,731)</b>	<b>\$ (8,616,068)</b>	<b>\$ (544,635)</b>	<b>\$ (3,946,758)</b>	<b>\$ (13,739,942)</b>
<b>NET LOSS PER SHARE (Note 10)</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ (8.62)</b>	<b>\$ —</b>	<b>\$ (3.95)</b>	<b>\$ —</b>
Weighted average shares outstanding—basic and diluted	—	—	999,999	—	999,999	—

See notes to consolidated financial statements.

**RESONANT INC.**

(a Development Stage Company)

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)  
OF RESONANT LLC FOR THE PERIOD FROM MAY 29, 2012 (INCEPTION) TO DECEMBER 31, 2012 AND  
THE PERIOD FROM JANUARY 1, 2013 TO JUNE 16, 2013, AND RESONANT INC. FOR  
THE PERIOD FROM JUNE 17, 2013 TO DECEMBER 31, 2013 AND THE THREE MONTHS ENDED MARCH 31, 2014**

	Class B Members'		Class C Member's		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Units	Capital	Units	Capital	Shares	Amount			
<b>Balance at May 29, 2012 (Inception)</b>	—	\$ —	—	\$ —	—	—	\$ —	\$ —	—
Class B members' units(1)	500,000	200,000	—	—	—	—	—	—	200,000
Class C member's units(2)	—	—	300,000	216,398	—	—	—	—	216,398
Capital contribution	—	—	—	22,338	—	—	—	—	22,338
Net loss	—	(200,000)	—	(192,385)	—	—	—	—	(392,385)
<b>Balance, December 31, 2012</b>	500,000	—	300,000	46,351	—	—	—	—	46,351
Capital contribution	—	—	—	22,338	—	—	—	—	22,338
Sale of warrants	—	—	—	—	—	—	1,000	—	1,000
Net loss	—	—	—	(68,689)	—	—	—	(716,042)	(784,731)
<b>Balance, June 16, 2013</b>	500,000	—	300,000	—	—	—	1,000	(716,042)	(715,042)
Exchange of Class C member's units for subordinated note	—	—	(300,000)	—	—	—	—	(2,133,855)	(2,133,855)
Exchange of Class B members' units for common stock	(500,000)	—	—	—	999,999	1,000	(1,000)	—	—
Sale of warrants	—	—	—	—	—	—	1,000	—	1,000
Net loss	—	—	—	—	—	—	—	(8,616,068)	(8,616,068)
<b>Balance, December 31, 2013</b>	—	—	—	—	999,999	1,000	1,000	(11,465,965)	(11,463,965)
Net loss (unaudited)	—	—	—	—	—	—	—	(3,946,758)	(3,946,758)
<b>Balance, March 31, 2014 (unaudited)</b>	—	\$ —	—	\$ —	999,999	\$1,000	\$ 1,000	\$(15,412,723)	\$(15,410,723)

(1) Class B members' units were originally valued at \$200,000. As a result of losses incurred for the period ended December 31, 2012 and allocated per the members' agreement, the value of the Class B units was \$0 at December 31, 2012.

(2) Class C member's units were originally valued at \$216,398. As a result of losses incurred for the periods ended

December 31, 2012 and June 16, 2013 and allocated per the members' agreement, the values of the Class C units were \$46,351 and \$0 at December 31, 2012 and June 16, 2013, respectively.

See notes to consolidated financial statements.

**RESONANT INC.**

(a Development Stage Company)

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Resonant LLC Period from May 29, 2012 (inception) to December 31, 2012	Resonant LLC Period from January 1, 2013 to June 16, 2013	Resonant Inc. Period from June 17, 2013 to December 31, 2013	Resonant LLC Three Months Ended March 31, 2013 (unaudited)	Resonant Inc. Three Months Ended March 31, 2014 (unaudited)	Resonant Inc. Period from May 29, 2012 (inception) to March 31, 2014 (unaudited)
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>						
Net loss	\$ (392,385)	\$ (784,731)	\$ (8,616,068)	\$ (544,635)	\$ (3,946,758)	\$ (13,739,942)
Adjustments to reconcile net loss to net cash used in operating activities:						
Depreciation and amortization	4,508	4,905	14,424	2,330	13,340	37,177
Amortization of deferred finance costs	—	200,000	1,351,085	50,872	709,030	2,260,115
Warrants issued for payment of services	—	—	715,794	—	—	715,794
Non-cash rent expense	22,338	22,338	—	11,169	—	44,676
Bridge warrant expense	—	247,669	313,352	247,669	—	561,021
Fair value adjustments to warrant and derivative liabilities	—	—	4,520,736	—	2,267,366	6,788,102
Changes in assets and liabilities:						
Prepays and other current assets	(21,048)	(108,722)	21,841	(8,010)	44,760	(63,169)
Other assets	—	—	(11,782)	—	—	(11,782)
Accounts payable	53,852	332,044	(293,922)	109,863	98,808	190,782
Accrued expenses	135,906	(75,489)	105,394	74,815	(56,858)	108,953
Accrued compensation	—	—	11,201	—	61,964	73,165
Deferred rent	—	—	3,876	—	135	4,011
Net cash used in operating activities	(196,829)	(161,986)	(1,864,069)	(55,927)	(808,213)	(3,031,097)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>						
Capital expenditures	—	—	(231,120)	—	(149,718)	(380,837)
Expenditures for patents and domain name	(14,127)	(75,696)	(89,959)	(67,951)	(47,375)	(227,157)
Net cash used in investing activities	(14,127)	(75,696)	(321,079)	(67,951)	(197,093)	(607,994)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>						
Payment of note payable	—	—	(100,000)	—	—	(100,000)
Proceeds from note payable	100,000	—	—	—	—	100,000
Proceeds from bridge loan	—	200,000	—	200,000	—	200,000
Proceeds from issuance of convertible note	—	—	7,000,000	—	—	7,100,000
Deferred IPO cost	—	—	(75,000)	—	(217,549)	(292,549)
Deferred financing cost	—	—	(1,154,235)	—	—	1,154,235
Payment of bridge loan	—	—	(200,000)	—	—	(200,000)
Proceeds from issuance of warrants	—	1,000	1,000	1,000	—	2,000
Proceeds from issuance of Class B units	200,000	—	—	—	—	200,000
Net cash provided by financing activities	300,000	201,000	5,471,765	201,000	(217,549)	5,755,216
<b>NET INCREASE IN CASH</b>	<b>89,044</b>	<b>(36,682)</b>	<b>3,286,617</b>	<b>77,122</b>	<b>(1,222,855)</b>	<b>2,116,124</b>
CASH—Beginning of Period	—	89,044	52,362	89,044	3,338,979	—
CASH—End of Period	\$ 89,044	\$ 52,362	\$ 3,338,979	\$ 166,166	\$ 2,116,124	\$ 2,116,124
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:</b>						
Interest	\$ —	\$ —	\$ 6,442	\$ —	\$ —	\$ —
Taxes	\$ —	\$ —	\$ 800	\$ 800	\$ 800	\$ 1,600
<b>SUPPLEMENTAL SCHEDULE OF NON-CASH INVESTING AND FINANCING ACTIVITIES</b>						
Issuance of Class C units in exchange for patents	\$ 216,398	\$ —	\$ —	\$ —	\$ —	\$ 216,398
Issuance of subordinated note in exchange for Class C units	\$ —	\$ —	\$ 2,400,000	\$ —	\$ —	\$ 2,400,000

Charge to equity for difference in fair value of subordinated note	\$	—	\$	—	\$	2,133,855	\$	—	\$	—	\$	2,133,855
Debt discount in conjunction with subordinated note	\$	—	\$	—	\$	266,144	\$	—	\$	—	\$	266,145
Issuance of common stock in exchange for Class B units	\$	—	\$	—	\$	1,000	\$	—	\$	—	\$	1,000
Debt discount in conjunction with senior note	\$	—	\$	—	\$	329,886	\$	—	\$	—	\$	329,886
Debt discount in conjunction with senior note— derivative	\$	—	\$	—	\$	2,005,015	\$	—	\$	—	\$	2,005,015

See notes to consolidated financial statements.

**RESONANT INC.**

**(a Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**NOTE 1—ORGANIZATION AND DESCRIPTION OF BUSINESS**

**Overview**

Resonant Inc. is a development-stage company located in Goleta, California. We are the successor of Resonant LLC, a limited liability company formed on May 29, 2012 (our inception date). We were incorporated on January 19, 2012 as a wholly-owned subsidiary of Superconductor Technologies Inc., or STI, and became an independent company on July 6, 2012. As a result of an exchange transaction that occurred on June 17, 2013, the units of membership interest issued by Resonant LLC were exchanged for shares of our common stock, resulting in a change in the form of ownership of our company. The consolidated statements of operations presented in our consolidated financial statements represent the activities of Resonant LLC, as the predecessor company, for the period from May 29, 2012 (inception) to December 31, 2012, the three months ended March 31, 2013 and the period from January 1, 2013 to June 16, 2013, the activities of Resonant Inc., as the successor company, for the period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014, and combines the activities of Resonant LLC and Resonant Inc. for the period from May 29, 2012 (inception) to March 31, 2014. The consolidated balance sheets presented in our consolidated financial statements represent the activities of Resonant LLC, as the predecessor company, as of December 31, 2012 and the activities of Resonant Inc., as the successor company, as of December 31, 2013 and March 31, 2014.

We are creating innovative filter designs for radio frequency, or RF, front-ends for the mobile device industry. The RF front-end is the circuitry in a mobile device responsible for analog signal processing and is located between the device's antenna and its digital baseband. We use a fundamentally new technology that we call Infinite Synthesized Networks™, or ISN, to configure resonators, the building blocks of RF filters. Filters are a critical component of the RF front-end. They are used to select desired radio frequency signals and reject unwanted signals. We plan to use ISN to develop new classes of filter designs that have eluded other RF engineers.

We plan to license our designs to companies that make part or all of the RF front-end. We intend retain ownership of our designs and charge royalties based on sales of RF front-end modules that incorporate our designs. We do not intend to manufacture or sell any physical products or operate as a contract design company developing designs for a fee.

We are currently developing our first design, a duplexer, in collaboration with Skyworks Solutions, Inc., or Skyworks, under the terms of a development agreement. Skyworks has an option to license our duplexer design at already agreed-upon royalty rates upon completion. The terms of the license would give Skyworks exclusivity on our filter design for a limited time on the relevant duplexer band. There is no assurance that we can complete our design or that our design will have acceptable performance. In addition, our design will compete with other products and solutions available to Skyworks and may not be selected even if fully compliant with all specifications.

We were founded as Resonant LLC on May 29, 2012 (our inception date), and commenced business on July 6, 2012 with initial contributions from our founders and STI. The founders contributed \$200,000 and agreed to work full-time without pay until we secured adequate funding. STI contributed a patent portfolio, software, equipment, temporary office space and an early version of our first development agreement.

**RESONANT INC.**

**(a Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 1—ORGANIZATION AND DESCRIPTION OF BUSINESS (Continued)**

The founders loaned us an aggregate of \$200,000 during the first quarter of 2013, and we issued a series of warrants to the founders in connection with these loans. We repaid the loans in the second quarter of 2013.

We changed our form of ownership from a limited liability company to a corporation in an exchange transaction on June 17, 2013. The founders exchanged all of their units and warrants of Resonant LLC for common stock and warrants of Resonant Inc. STI exchanged all of its units of Resonant LLC for a \$2.4 million subordinated convertible note of Resonant Inc. The note issued to STI matures on September 17, 2014, is interest free, is secured by all of our assets, is subordinated to our senior convertible notes and will automatically convert into 700,000 shares of our common stock upon consummation of a qualified offering.

We closed our first financing on June 17, 2013. We issued \$7.0 million of senior convertible notes in a private placement. The notes mature on September 17, 2014, bear interest at 6.0% per annum, are secured by all of our assets and will automatically convert into 2,087,667 shares of our common stock upon consummation of a qualified offering. Interest is payable in cash or shares of common stock. We paid a placement agent a commission of \$700,000 and issued the agent warrants to purchase 208,763 shares of our common stock. We also issued the placement agent a warrant to purchase 222,222 shares of our common stock for business consulting services.

**Capital Resources and Liquidity**

We have earned no revenue since inception, and our operations have been funded with the initial capital contributions and debt. We have incurred losses totaling \$13.8 million (unaudited) from inception through March 31, 2014. These losses are primarily the result of research and development costs associated with commercializing our technology, combined with start-up and financing costs. We expect to continue to incur substantial costs for commercialization of our technology on a continuous basis because our business model involves developing and licensing custom filter designs.

Our financial statements contemplate the continuation of our business as a going concern. However, we are subject to the risks and uncertainties associated with a new business. We have no established source of capital, do not yet have the ability to earn revenue and have incurred significant losses from operations since inception. At December 31, 2013 and March 31, 2014, we had an accumulated deficit of \$11.5 million and \$15.4 million (unaudited), respectively, and cash and cash equivalents of \$3.3 million and \$2.1 million (unaudited), respectively.

We are offering shares of common stock in an initial public offering to raise additional capital. There is no assurance that the proceeds will be sufficient to provide us with adequate resources to fund future operations, and we may need additional financing to continue with our plan of commercialization and for general working capital. Further, if we are unable to complete the duplexer design under the development agreement or Skyworks declines to license the design, we will require additional financing. No assurance can be given that any form of additional financing can be obtained, that the terms of such financing will be acceptable or that such financing would not be dilutive to existing shareholders.

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America, which contemplate our continuation as a

**RESONANT INC.**

**(a Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 1—ORGANIZATION AND DESCRIPTION OF BUSINESS (Continued)**

going concern, and assumes continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The matters described in the preceding paragraphs raise substantial doubt about our ability to continue as a going concern. Recoverability of a major portion of the recorded asset amounts shown in the accompanying balance sheets is dependent upon our ability to meet our financing requirements on a continuing basis, and become profitable in our future operations. The accompanying consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded assets or the amounts and classification of liabilities that might be necessary should we be unable to continue in existence.

**NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

*Development Stage Enterprise*—We are a development stage company as defined in Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 915, *Development Stage Entities*. We are devoting substantially all of our present efforts to commercialize our technology by developing RF filter designs, and our planned operations have not yet commenced. We have not generated any revenues from operations and have no assurance of any future revenues. All losses accumulated since our inception on May 29, 2012 have been considered as part of our development stage activities.

*Basis of Presentation and Use of Estimates*—The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the accompanying financial statements. Significant estimates made in preparing these financial statements include (a) assumptions to calculate the fair values of financial instruments, derivative and warrant and other liabilities and the deferred tax asset valuation allowance and (b) the useful lives for depreciable and amortizable assets. Actual results could differ from those estimates. In the opinion of management, all adjustments, including normal recurring accruals considered necessary for a fair presentation, have been included.

*Fiscal Year*—Resonant LLC was formed on May 29, 2012, which is the day of inception. Transactions occurring from May 29, 2012 to December 31, 2012 are for the seven months ended December 31, 2012.

*Unaudited Interim and Cumulative Financial Statements*—The accompanying interim consolidated balance sheet at March 31, 2014, the consolidated statements of operations and cash flows for the three months ended March 31, 2013 and 2014, the consolidated statement of stockholders' equity (deficit) for the three months ended March 31, 2014 and the financial information disclosed in these notes to the consolidated financial statements related to the three months ended March 31, 2013 and 2014 are unaudited. In addition, the accompanying statements of operations and cash flows for the period from May 29, 2012 (inception) to March 31, 2014 and financial information disclosed in these notes to the consolidated financial statements related to the period from May 29, 2012 (inception) to March 31, 2014 are unaudited. These unaudited interim and cumulative financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. In the opinion of our management, the unaudited interim and cumulative consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and include all adjustments, which include only normal recurring adjustments, necessary for a fair statement of our financial position at March 31, 2014 and our results of operations and cash flows for the three months

**RESONANT INC.**

**(a Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

ended March 31, 2013 and 2014 and the period from May 29, 2012 (inception) to March 31, 2014. The results for the three months ended March 31, 2014 are not necessarily indicative of the results expected for the full year.

*Fair Value of Financial Instruments*—We measure certain financial assets and liabilities at fair value based on the exchange price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The carrying amounts of our financial instruments, including cash equivalents, accounts payable, and accrued liabilities, approximate fair value due to their short maturities.

The carrying amount of our warrant liabilities and our derivative liability related to the Senior Convertible Notes is marked to market each reporting date until the warrants and derivative liability are settled. The fair value of the financing warrant liability and derivative liability (*see Note 5 and Note 6*) is estimated using a Monte Carlo option-pricing model, which takes into consideration the market values of comparable public companies, considering among other factors, the use of multiples of earnings, and adjusted to reflect the restrictions on the ability of our securities to trade in an active market. The fair value of the remaining warrants is estimated using a Black-Scholes option valuation technique as it embodies all of the requisite assumptions (including trading volatility, remaining term to maturity, market price, strike price, and risk free rates) necessary to fair value these instruments. Estimates of expected term were based on the estimated time to expiration. The risk-free interest rate was based on the U.S. Treasury yield for a term consistent with the estimated expected term. We have never declared or paid any cash dividends and do not presently plan to pay cash dividends in the foreseeable future. Consequently, we use an expected dividend yield of zero. Our expected volatility is derived from the historical volatilities of several unrelated public companies in similar industries because we have little information on the volatility of the price of our common stock because we have no trading history. When making the selections of our industry peer companies to be used in the volatility calculation, we consider operational area, size, business model, industry and the business of potential comparable companies. These historical volatilities are weighted based on certain qualitative factors and combined to produce a single volatility factor. All of the warrant liabilities and derivative liability are valued using level 3 inputs (*see Note 9 for the range of assumptions used*).

In determining the value of our common stock, and for purposes of establishing the value of the warrants and derivatives related to the bridge financing, the senior convertible notes, the subordinated convertible notes and the consulting warrants, management considered several factors and the probability of achieving each one of them. The significant factors were (1) securing adequate funding to complete the single-band commercial SAW duplexer design under the terms of the development agreement with Skyworks; (2) developing a working duplexer product that meets the specifications of Skyworks; and (3) Skyworks exercising its licensing option if the duplexer product met its specifications. The probabilities for achieving each of these factors changed during the periods from January 31, 2013 to June 16, 2013 and December 31, 2013. These probabilities were affected by our ability to hire technical personal to develop the technology and design the product, establish a management team to develop a business plan, secure financing, execute the business plan, and interact with Skyworks to achieve the milestones contained in the development agreement with Skyworks. As we made progress in each of these areas over the period from January 31, 2013 through December 31, 2013 the probability elements in each of these factors changed and increased. These increases resulted in higher

**RESONANT INC.**

**(a Development Stage Company)**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

valuations of our common stock and accordingly the values of the warrants and derivatives at each of these periods.

*Operating Leases*—We lease office space and research facilities under operating leases. Certain lease agreements contain free or escalating rent payment provisions. We recognize rent expense under such leases on a straight-line basis over the term of the lease. Lease renewal periods are considered on a lease-by-lease basis in determining the lease term.

*Cash and Cash Equivalents*—We consider all liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

*Concentration of Credit Risk*—We maintain checking accounts at one financial institution. These accounts are insured by the Federal Deposit Insurance Corporation (FDIC) for up to \$250,000 per account. Management believes we are not exposed to significant credit risk due to the financial position of the depository institution in which these deposits are held.

*Property and Equipment*—Property and equipment consist of software purchased during the normal course of business and are recorded at cost. Amortization of software is recorded using the straight-line method over the respective useful lives of the asset ranging from three to five years. Long-lived assets, including software are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable.

*Intangible Assets Subject to Amortization*—At December 31, 2013, intangible assets subject to amortization include patents and a domain name purchased for use in operations. Intangible assets are reviewed for impairment whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable.

*Deferred Finance Costs*—Costs relating to our senior convertible note financing have been capitalized and amortized over the term of the related debt using the effective interest method. Amortization of deferred financing costs charged to interest expense was \$410,000 for the period from June 17, 2013 to December 31, 2013. The unamortized balance was \$745,000 at December 31, 2013.

*Research and Development*—Costs and expenses that can be clearly identified as research and development are charged to expense as incurred in accordance with ASC Topic 730-10, *Research and Development*.

*Earnings Per Share, or EPS*—EPS is computed in accordance with ASC Topic 260, *Earnings per Share*, and is calculated using the weighted average number of common shares outstanding during each period. Diluted EPS assumes the conversion, exercise or issuance of all potential common stock equivalents unless the effect is to reduce a loss or increase the income per share. Diluted EPS is not presented due to the loss in all periods presented.

The shares used to compute net loss per share represent the weighted-average common shares outstanding for the period from June 17, 2013 to December 31, 2013. Further, as our stockholders have the right to participate in any dividend declared on our common stock, basic and diluted EPS are potentially subject to computation using the two-class method, under which our undistributed earnings are allocated amongst the common stockholders. However, as we recorded a net loss for the period

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

from June 17, 2013 to December 31, 2013, presentation of EPS using the two class method was not necessary. EPS is not presented for the period from May 29, 2012 (inception) to December 31, 2012 and the period from January 1, 2013 to June 16, 2013 as we were a limited liability company.

The following table presents the number of anti-dilutive shares excluded from the calculation of diluted net loss per share attributable to common stockholders for the period from June 17, 2013 to December 31, 2013.

	Period from June 17, 2013 to December 31, 2013
Common stock warrants	680,984
Convertible debt	<u>2,787,667</u>
Total shares excluded from net loss per share attributable to common stockholders	<u>3,468,651</u>

At March 31, 2014, there were no changes to the number of shares excluded from net loss per share attributable to common stockholders noted above.

*Derivative Instruments*—We account for free-standing derivative instruments and hybrid instruments that contain embedded derivative features in accordance with ASC Topic 815, *Accounting for Derivative Instruments and Hedging Activities*, or ASC 815, as well as related interpretations of this topic. In accordance with this topic, derivative instruments and hybrid instruments are recognized as either assets or liabilities in the balance sheet and are measured at fair values with gains or losses recognized in earnings. Embedded derivatives that are not clearly and closely related to the host contract are bifurcated and are recognized at fair value with changes in fair value recognized as either a gain or loss in earnings. We determine the fair value of derivative instruments and hybrid instruments based on available market data using appropriate valuation models, giving consideration to all of the rights and obligations of each instrument.

We estimate fair values of derivative instruments and hybrid instruments using various techniques (and combinations thereof) that are considered to be consistent with the objective of measuring fair values. In selecting the appropriate technique, we consider, among other factors, the nature of the instrument, the market risks that it embodies and the expected means of settlement. For less complex instruments, such as free-standing warrants, we generally use the Black-Scholes-Merton valuation model, adjusted for the effect of dilution, because it embodies all of the requisite assumptions (including trading volatility, estimated terms, dilution and risk free rates) necessary to fair value these instruments. Estimating fair values of derivative financial instruments requires the development of significant and subjective estimates that may, and are likely to, change over the duration of the instrument with related changes in internal and external market factors. Under ASC 815, increases in the trading price of our common stock and increases in fair value during a given financial quarter result in the application of non-cash derivative expense. Conversely, decreases in the trading price of our common stock and decreases in fair value during a given financial quarter would result in the application of non-cash derivative income. In situations where the Black-Scholes-Merton model is not deemed appropriate, we will use a Monte Carlo option-pricing model to determine the fair value of derivative instruments.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

*Patent Costs*—We capitalize external costs, such as attorney and filing fees, incurred to obtain issued patents and pending patent applications. We expense costs associated with maintaining and defending patents subsequent to their issuance in the period incurred. We amortize patent costs once issued on a straight-line basis over the estimate useful lives of the patents. We assess the potential impairment to all capitalized patent costs when events or changes in circumstances indicate that the carrying amount of our patent may not be recoverable. We account for patent costs in accordance with ASC Topic 350, *Goodwill and Other Intangible Assets*.

*Income Taxes*—We account for income taxes in accordance with ASC Topic 740, *Income Taxes*, or ASC 740, which requires the recognition of deferred tax assets and liabilities for the future consequences of events that have been recognized in our consolidated financial statements or tax returns. The measurement of the deferred items is based on enacted tax laws. In the event the future consequences of differences between financial reporting bases and the tax bases of our assets and liabilities result in a deferred tax asset, ASC 740 requires an evaluation of the probability of being able to realize the future benefits indicated by such asset. A valuation allowance related to a deferred tax asset is recorded when it is more likely than not that some portion or the entire deferred tax asset will not be realized. As part of the process of preparing our consolidated financial statements, we are required to estimate our income tax expense in each of the jurisdictions in which we operate. We also assess temporary differences resulting from differing treatment of items for tax and accounting differences. We record a valuation allowance to reduce the deferred tax assets to the amount of future tax benefit that is more likely than not to be realized. For the period when we were organized as a limited liability company, we were treated as a partnership for federal and state income tax purposes under the entity classification domestic default rules.

ASC 740 prescribes a recognition threshold and measurement methodology to recognize and measure an income tax position taken, or expected to be taken, in a tax return. The evaluation of a tax position is based on a two-step approach. The first step requires an entity to evaluate whether the tax position would "more likely than not" be sustained upon examination by the appropriate taxing authority. The second step requires the tax position be measured at the largest amount of tax benefit that is greater than 50% likely of being realized upon ultimate settlement. In addition, previously recognized benefits from tax positions that no longer meet the new criteria would no longer be recognized.

We have filed, or are in the process of filing, tax returns that are subject to audit by the respective tax authorities. Although the ultimate outcome would be unknown, we believe that any adjustments that may result from tax return audits are not likely to have a material, adverse effect on our consolidated results of operations, financial position or cash flows.

All tax years are open for Federal and state income tax purposes.

**Recent Accounting Pronouncements**

The FASB, the Emerging Issues Task Force and the SEC have issued certain accounting standards, updates and regulations as of December 31, 2012 and 2013 that will become effective in subsequent periods; however, our management does not believe that any of those standards, updates or regulations would have significantly affected our financial accounting measures or disclosures had they been in

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 2—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

effect during the period ended December 31, 2012 and the year ended December 31, 2013, and it does not believe that any of them will have a significant impact on our financial statements at the time they become effective.

**NOTE 3.—PATENTS AND DOMAIN NAME**

We acquired patents from STI as a result of an asset contribution, and recorded them at their carryover basis, as discussed in Note 4. In June 2013, when STI exchanged its membership interest in Resonant LLC for a subordinated convertible note, the only assets of Resonant LLC other than cash were patents. The fair value of the patents remained substantially the same as their carrying value at the exchange date. In addition, we acquired other patents and the domain name [www.resonant.com](http://www.resonant.com) through the normal course of business. Patents are amortized over their approximate useful life of 17 years, or 20 years in the case of new patents, once they are approved by their respective regulatory agency. The domain name is amortized over the approximate useful life of 10 years. See the table below for a summary of patent and domain name costs capitalized and amortized at December 31, 2012 and 2013 and March 31, 2014:

	<u>Total</u>
Balance at May 29, 2012 (Inception)	\$ —
STI contribution	216,398
Amortization	(4,508)
Legal fees for pending patents	<u>14,128</u>
Balance at December 31, 2012	226,018
Amortization	(11,969)
Legal fees for pending patents	143,949
Purchase of domain name	<u>21,705</u>
Balance at December 31, 2013	379,703
Amortization (unaudited)	(4,354)
Legal fees for pending patents (unaudited)	<u>47,375</u>
Balance at March 31, 2014 (unaudited)	<u>\$ 422,724</u>

We review amounts capitalized as patents and intangible assets for impairment at least annually in the fourth quarter, and whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. In the event the carrying value of the assets is not expected to be recovered, the assets are written down to their estimated fair values. We continue to test our indefinite-lived intangible assets for potential impairment until the projects are completed or abandoned. We did not record any impairment on patents or intangibles at December 31, 2012 and 2013 and at March 31, 2014 (unaudited).

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 3.—PATENTS AND DOMAIN NAME (Continued)**

Amortization expense for each of the five fiscal years through December 31, 2018 and thereafter is estimated as follows:

<b>Years ending December 31,</b>	
2014	15,247
2015	15,247
2016	15,247
2017	15,247
2018	15,247
2019 and thereafter	303,468
Total amortization expense	<u>\$ 379,703</u>

**NOTE 4.—EXCHANGE TRANSACTION**

In July of 2012, STI contributed patents to Resonant LLC in exchange for 300,000 Class C units of Resonant LLC, which constituted a 37.5% ownership interest. Each of our founders simultaneously contributed \$66,667 (for an aggregate of \$200,000) to Resonant LLC in exchange for 166,667 Class B units (for an aggregate of 500,000 Class B units), or a 62.5% interest in Resonant LLC. The operating agreement provided that members did not have any voting rights except for those significant business matters expressly listed in the operating agreement, including the operating budget and hiring of key executives. The majority vote of each class of units was required for those matters. In addition, the Class B unit holders designated two managers and the Class C unit holder designated one manager. Although the managers ran the day-to-day business, all key business activities and decisions required the approval of a majority of the Class B unit holders and the Class C unit holder as noted above. Because STI was a member of Resonant LLC, with a 50% control factor, the value of the assets STI contributed to Resonant LLC was recorded at their carryover bases.

In June 2013, the founders exchanged all of their Class B units for 999,999 shares of our common stock, which was accounted for at its carryover basis, and we repurchased all of STI's Class C units for a \$2.4 million principal amount subordinated convertible note, which has been recorded as a treasury stock transaction. In June 2013 when the exchange of STI's membership interest for the subordinated convertible note occurred, the only assets of Resonant LLC other than cash were patents. The fair value of the patents remained substantially the same as their carrying value at the exchange date.

**NOTE 5.—BRIDGE LOANS, MEMBER LOAN AND CONVERTIBLE DEBT****Bridge Loans and Member Loan**

In the first quarter of 2013, our three founders loaned Resonant LLC an aggregate of \$200,000 to fund its operations, which were refer to as the Bridge Loan. The Bridge Loan was funded in two tranches, with each founder funding \$33,333 on each of January 31, 2013 (for a total of \$100,000) and March 19, 2013 (for a total of \$100,000). The Bridge Loan was unsecured and bore interest at the rate of 10% per annum, compounded monthly. The Bridge Loan was scheduled to mature on the first to occur of (a) a specified financing event, (b) the expiration date of STI's right to demand return of intellectual property pursuant to the operating agreement of Resonant LLC and (c) December 31, 2013. The Bridge Loan and accumulated interest was repaid in full with the proceeds of our senior

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 5.—BRIDGE LOANS, MEMBER LOAN AND CONVERTIBLE DEBT (Continued)**

convertible note financing on June 17, 2013, and we had no amounts related to the Bridge Loan outstanding at December 31, 2013.

At December 31, 2012, we had outstanding a member loan of \$100,000 payable to STI under the terms of the operating agreement for Resonant LLC. This indebtedness did not bear interest and was due and payable upon consummation of our first financing. This indebtedness was repaid in full with the proceeds of our senior convertible note financing on June 17, 2013, and we had no amounts related to this indebtedness outstanding at December 31, 2013.

**Senior Convertible Note**

We entered into a securities purchase agreement on June 17, 2013 for the sale to multiple investors of \$7.0 million in principal amount of senior secured convertible promissory notes, which we refer to as Senior Convertible Notes. MDB Capital Group, LLC served as placement agent in this financing. We closed the sale on the same day and issued \$7.0 million in principal amount of Senior Convertible Notes. We also paid \$700,000 to MDB Capital Group, LLC as a placement agent fee. The net cash proceeds were \$6.3 million. We also issued to MDB Capital Group, LLC a warrant to purchase shares of our common stock as consideration for its financing services, and another warrant to purchase shares of our common stock as consideration for business consulting services. The Senior Convertible Notes bear interest at a 6% per annum and are scheduled to mature on September 17, 2014 unless earlier converted. The maturity date will automatically be extended to March 17, 2015 if certain conditions are satisfied as set forth in the note.

The Senior Convertible Notes are convertible into validly issued, fully paid and non-assessable shares of our common stock as follows:

*Mandatory Conversion—Qualifying IPO:* Upon consummation of a Qualifying IPO, as defined in the Senior Convertible Notes, the principal amount of the Senior Convertible Notes will automatically convert into shares of our common stock at a conversion rate equal to the lower of (i) sixty percent of the price of a share of our common stock sold in the Qualifying IPO or (B) the quotient of \$7,800,000 divided by the Fully Diluted Shares, as defined in the Senior Convertible Notes (the "Fully Diluted Shares"); provided that the conversion rate will not be less than the quotient of \$6,000,000 divided by the Fully Diluted Shares.

*Mandatory Conversion—Election of the Holders:* At any time until twenty calendar days prior to the consummation of a Qualifying IPO, if holders of more than fifty percent of the aggregate principal of the then outstanding Senior Convertible Notes notify us in writing of their election to convert all of the notes, then the principal amount of all of the notes shall automatically convert into shares of our common stock at a conversion rate equal to the quotient of \$7,800,000 divided by the Fully Diluted Shares.

*Optional Conversion—Generally:* At any time until twenty calendar days prior to the consummation of a Qualifying IPO, holders may at their election convert the principal amount the Senior Convertible Notes into shares of common stock at a conversion rate equal to the quotient of \$7,800,000 divided by the Fully Diluted Shares. Additionally, for a period of ten business days following the consummation of certain qualified financings consummated prior to or in connection with a Qualifying IPO, holders may at their election convert the principal amount the Senior Convertible

**RESONANT INC.**

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 5.—BRIDGE LOANS, MEMBER LOAN AND CONVERTIBLE DEBT (Continued)**

Notes into either the securities issued in the financing or shares of our common stock, at a conversion rate equal to the lower of (i) sixty percent of the actual or imputed price of a share of common stock sold in the financing or (ii) the quotient of \$7,800,000 divided by the Fully Diluted Shares; provided that the conversion rate will not be less than the quotient of \$6,000,000 divided by the Fully Diluted Shares.

*Optional Conversion—Event of Default:* Following an event of default of the notes, holders may at their election convert the principal amount the Senior Convertible Notes into shares of our common stock at a conversion rate equal to the quotient of \$5,000,000 divided by the Fully Diluted Shares.

The conversion feature included in the terms of the Senior Convertible Notes was determined to be a derivative liability that we bifurcated for accounting purposes. We measured the derivative liability at fair value at the issue date of Senior Convertible Notes based on a Monte Carlo option-pricing model and determined the value to be \$1.9 million. The derivative liability was recorded with a corresponding debit to debt discount that will be amortized as interest expense using the effective interest method over the life of the instrument. At the time of issuance, the Senior Convertible Notes and derivative liability were recorded on the balance sheet as a long-term note because the notes mature on September 17, 2014 (greater than one year). At December 31, 2013, these amounts are included in current liabilities. Upon a Qualified IPO, or other event that results in the conversion of the notes into common stock, the carrying value of the derivative liability will be recorded to income and any remaining unamortized debt discount will be expensed at such date. At December 31, 2013, the Monte Carlo option-pricing model used the following assumptions to estimate fair value: equity value of \$20.0 million, different conversion prices for different scenarios, time to maturity of 9-15 months under the scenarios based on the expected date of a Qualified IPO, volatility of 102.1% and risk free rate of 0.19%. As noted above, in connection with the Senior Convertible Notes and as a result of the warrants issued to MDB Capital Group, LLC as consideration for its placement agent services, we determined that an additional discount to the debt should be recorded in the amount of \$300,000, and we are amortizing this amount using the effective interest method over the life of the instrument. The Senior Convertible Notes do not include any financial covenants.

In determining an equity value of \$20.0 million, we first determined the business enterprise value, or BEV, using the market and income approach in valuing the BEV. In employing the market approach, we utilized indications of value based on comparable publicly traded companies, publicly announced transactions, and venture capital financing transactions. For the income approach, the two primary components of the discounted cash flow model were the present value of the interim cash flows and the present value of the terminal value, which is our value as a going concern beyond the last year incorporated in the projections. We utilized internal projections for future fiscal years. The terminal value was developed using the Gordon Growth model, a perpetuity growth model, and the key assumptions were the selection of an appropriate discount rate, which was based upon the analysis of alternative investments, including public company discount rates, and the determination of a terminal growth rate, which was based upon historical inflation rates. This model resulted in a \$27.0 million BEV. We then deducted \$7.0 million from the BEV, which represents the value of the Senior Convertible Notes, resulting in an equity value of \$20.0 million.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 5.—BRIDGE LOANS, MEMBER LOAN AND CONVERTIBLE DEBT (Continued)**

**Subordinated Convertible Note**

On June 17, 2013, we issued to STI a subordinated senior secured convertible note in the principal amount \$2.4 million, which we refer to as the Subordinated Convertible Note, as consideration for our acquisition from STI of its 300,000 Class C units of Resonant LLC and 100 shares of our common stock. The Subordinate Convertible Note does not bear interest and is scheduled to mature on September 17, 2014 unless earlier converted. The maturity date will automatically be extended to March 17, 2015 if certain conditions are satisfied as set forth in the note.

The Subordinated Convertible Note is convertible into validly issued, fully paid and non-assessable shares of our common stock as follows:

*Mandatory Conversion—Qualifying IPO:* Upon consummation of a Qualifying IPO, as defined in the Subordinated Convertible Note, the principal amount of the Subordinated Convertible Note will automatically convert into 700,000 shares of our common stock.

*Mandatory Conversion—Conversion of All Senior Convertible Notes:* If all of the Senior Convertible Notes are converted into shares of our common stock in accordance with their terms, the principal amount of the Subordinated Convertible Note will automatically convert into 700,000 shares of our common stock.

*Optional Conversion:* At any time STI may at its election convert the principal amount of the Subordinated Convertible Note into 700,000 shares of our common stock.

We accounted for the exchange by STI of its Class C units in Resonant LLC for the Subordinated Convertible Note as a treasury stock transaction. The Class C units were retired and we recorded a \$2.1 million charge to Accumulated Deficit for the difference between value of the Subordinated Convertible Note and the book value of the Class C units.

The Subordinated Convertible Note is non-interest bearing. We considered the effective interest rate of the Subordinated Convertible Note to be at least 11.8% as the Subordinated Convertible Note is subordinated to the Senior Convertible Notes and has greater inherent risk; therefore, it should carry a higher interest rate than that of the Senior Convertible Notes. We calculated a discount to the face value of the Subordinated Convertible Note of \$300,000, which we recorded as debt discount and is being amortized as interest expense over the life of the Subordinated Convertible Note using the effective interest rate method. The Subordinated Convertible Note does not include any financial covenants.

**Beneficial Conversion Feature**

A convertible financial instrument includes a beneficial conversion feature if the effective conversion price is less than the market price of our common stock on the commitment date. The effective price paid for a share is the amount allocated to the convertible instrument, divided by the number of shares the holder is entitled to upon conversion. If the convertible financial instrument is issued with warrants and/or other detachable instruments, the amount allocated to the convertible instrument is the face amount less the allocation to the detachable instruments. Neither the Senior Convertible Notes nor the Subordinated Convertible Note were deemed to have a beneficial conversion feature attributed to them.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 6.—WARRANT LIABILITIES**

From time to time, we and Resonant LLC have issued warrants to purchase shares of common stock and units of membership interest, respectively. These warrants have been issued in connection with the debt financing transactions and consulting services. Our warrants are subject to the same anti-dilution provisions applicable to shares of our common stock.

**Bridge Warrants**

In connection with and as an inducement to make the Bridge Loans in January and March 2013, Resonant LLC issued to each of our three founders five-year warrants to purchase Class B units of Resonant LLC at an exercise price of \$0.40 per unit, which we refer to as the Bridge Warrants. The Bridge Warrants were issued in two tranches, at the same time the Bridge Loan was funded, with each founder receiving warrants for 20,833 Class B units on each of January 31, 2013 (for a total of 62,499 Class B units) and March 19, 2013 (for a total of 62,499 Class B units). The founders paid an aggregate of \$1,000 in cash for the Bridge warrants.

We estimated the initial fair value of the Bridge Warrants issued in January 2013 to be \$200,000 using the Black Scholes valuation model and the following assumptions: exercise price of \$0.40 per unit; implied unit price of \$3.75; expected volatility of 60%; expected dividend rate of 0%; risk free interest rate of 0.88%; and expiration date of 5 years. We estimated the initial fair value of the Bridge Warrants issued in March 2013 to be \$200,000 using the Black Scholes valuation model and the following assumptions: exercise price of \$0.40 per unit; implied unit price of \$3.60; expected volatility of 60%; expected dividend rate of 0%; risk free interest rate of 0.80%; and expiration date of 5 years. *See Note 2.*

On June 17, 2013, in connection with our acquisition of all of the outstanding membership interests of Resonant LLC in an exchange transaction, the founders exchanged their Bridge Warrants to purchase an aggregate of 124,998 Class B units of Resonant LLC for Bridge Warrants to purchase an aggregate of 249,999 shares of our common stock at an exercise price of \$0.20 per share. All other terms of the Bridge Warrants remained the same. We revalued the Bridge Warrants on June 17, 2013 to their current fair value. We estimated the initial fair value of the Bridge Warrants issued in January 2013 to be \$400,000 using the Black Scholes valuation model with the following assumptions: exercise price of \$0.20 per share; implied stock price of \$3.23; expected volatility of 60%; expected dividend rate of 0%; risk free interest rate of 1.06%; and expiration date of 5 years. We estimated the initial fair value of the Bridge Warrants issued in March 2013 to be \$400,000 using the Black Scholes valuation model with the following assumptions: exercise price of \$0.20 per share; implied stock price of \$3.23; expected volatility of 60%; expected dividend rate of 0%; risk free interest rate of 1.06%; and expiration date of 5 years. At each reporting period, any changes to the fair value of the Bridge Warrants will be recorded in the statements of operations.

**Consulting Warrant and Financing Warrant**

Upon consummation of our Senior Convertible Note financing, as discussed in Note 5, for business consulting services provided by MDB Capital Group, LLC, we issued to MDB Capital Group, LLC a seven-year warrant to purchase 222,222 shares of our common stock at an exercise price of \$0.01 per share, which we refer to as the Consulting Warrant. The Consulting Warrant is exercisable six months after the completion of our initial public offering and prior to June 15, 2020. We estimated the initial

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 6.—WARRANT LIABILITIES (Continued)**

fair value of the Consulting Warrant to be \$700,000 using the Black Scholes valuation model with the following assumptions: exercise price of \$0.01 per share; implied stock price of \$3.23; expected volatility of 68.8%; expected dividend rate of 0%; risk free interest rate of 1.57%; and expiration date of 7 years. *See Note 2.*

In addition, for placement agent services provided by MDB Capital Group, LLC in connection with our Senior Convertible Note financing, we issued to MDB Capital Group, LLC a seven-year warrant to purchase shares of our common stock, which we refer to as the Financing Warrant. The Financing Warrant is exercisable six months after the completion of our initial public offering and prior to June 15, 2020. The Financing Warrant is exercisable for a number of shares of our common stock equal to \$700,000 divided by the Financing Warrant's exercise price. Prior to consummation of our Qualified IPO, the exercise price is equal to \$6,000,000 divided by the Fully Diluted Shares. Upon consummation of our Qualified IPO, the exercise price is adjusted to be equal to the conversion price of our Senior Convertible Notes. As the value of the Financing Warrant depends on future price movements of our equity, we estimated the fair value of the Financing Warrant at December 31, 2013 to be \$700,000 using a Monte Carlo option-pricing model with the following assumptions: equity value of \$20 million, different conversion prices for different scenarios, time to maturity of 6.5 years, volatility of 65.3% and risk free rate of 2.28%. *See Note 2.*

A roll forward of warrant activity from December 31, 2012 to December 31, 2013 is shown in the following table:

	Issued and Outstanding Warrants as of January 1, 2013	Warrants Issued	Warrants Exercised/Expired	Issued and Outstanding Warrants as of December 31, 2013
Bridge Warrants	—	249,999	—	249,999
Consulting Warrant	—	222,222	—	222,222
Financing Warrant(1)	—	208,763	—	208,763
	—	680,984	—	680,984

- (1) The number of shares of common stock underlying the Financing Warrant was determined using an exercise price of \$3.35 per share, assuming the public offering price of our common stock in a Qualified IPO is at least \$5.59 per share.

As of March 31, 2014, 680,984 (unaudited) warrants remained outstanding as no warrants were issued or exercised during the three month period.

The fair value of the warrant liabilities was \$3.3 million and \$3.9 million (unaudited) at December 31, 2013 and March 31, 2014, respectively. During the period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014, we recorded a loss of \$1.5 million and \$0.6 million (unaudited), respectively, on the change in fair value of the warrants.

We determined the inputs to the Black Scholes valuation model used to value the warrants as follows: the implied stock price was determined by allocating the Company's equity value of \$20 million to the common shares; the expected volatility was based on the volatility of common stock of a group

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 6.—WARRANT LIABILITIES (Continued)**

of comparable public companies corresponding to the warrant's time to expiration; the estimate of expected term was based on the expiration date of the warrant; the risk-free interest rate was based on the U.S. Treasury yield for a term consistent with the estimated expected term of the warrant; and the expected dividend rate was zero as we do not anticipate paying dividends on our common stock.

The Monte-Carlo option pricing model takes into consideration the historical volatilities of comparable public companies using data from Capital IQ and implied volatiles from Bloomberg considering the differences in size among the public comparables and us, and the warrant's time to expiration. Estimates of expected term were based on the estimated time to expiration. The risk-free interest rate was based on the U.S. Treasury yield for a term consistent with the estimated expected term. The Monte-Carlo model used daily steps, assuming 252 trading days per year, which was based on 52 weeks of 5 trading days less 8 holidays, a standard assumption in the industry.

**NOTE 7.—STOCKHOLDERS' EQUITY (DEFICIT)**

Upon the formation of Resonant LLC, STI contributed assets to Resonant LLC in exchange for 300,000 Class C units, which constituted a 37.5% ownership interest in Resonant LLC. Our three founders simultaneously contributed \$200,000 (\$66,667 each) to Resonant LLC in exchange for 500,000 Class B units (166,667 units each), or a 62.5% ownership interest in Resonant LLC. In connection with his investment, each founder retained the right, but not the obligation, to require Resonant LLC to repurchase all of the Class B units held by the founder only if: (i) the founder's service agreement with Resonant LLC was terminated; (ii) Resonant LLC and the other members of Resonant LLC declined to exercise their right to purchase the founder's Class B units following termination of his services agreement; and (iii) the founder desired to work for a third party that, among other activities, engaged in a competing business. Upon exercise by a founder of his put right, Resonant LLC was obligated to purchase the founder's Class B units at a price equal to the founder's capital account balance in Resonant LLC. As a result of the allocation of the losses to the Class B unit holders, their capital account balances became zero.

The operating agreement provided that members did not have any voting rights except for those significant business matters expressly listed in the operating agreement, including the operating budget and hiring of key executives. The majority vote of each class of units was required for those matters. In addition, the Class B unit holders designated two managers and the Class C unit holder designated one manager. Although the managers ran the day-to-day business, all key business activities and decisions required the approval of a majority of the Class B unit holders and the Class C unit holder as noted above. Because STI was a member of Resonant LLC, with a 50% control factor, the value of the assets STI contributed to Resonant LLC was recorded at their carryover bases.

Resonant LLC reserved 200,000 Class A units for issuance as equity compensation, but no Class A units were ever issued.

Resonant Inc. was organized on January 14, 2012 by STI but had not conducted any operations through June 16, 2013. The common stock originally issued to STI on formation was surrendered and cancelled in the exchange transaction pursuant to which Resonant LLC became our wholly-owned subsidiary. *See Note 4.*

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 8.—COMMITMENT AND CONTINGENCIES**

In October 2013, we signed a lease for new office space for our corporate headquarters, and moved into the new location in the first quarter of 2014. The lease has a term of 38 months and a rental cost of approximately \$5,412 per month, increasing 3% annually after the first fourteen months. In addition, our share of building operating costs are estimated to be \$2,101 per month.

In November 2013, we signed a lease for our satellite development office in Burlingame, CA. The lease has a two-year term, and rental costs of approximately \$4,046 per month.

Facility and equipment rent expense, related to continuing operations, for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013 was \$22,338, \$22,338 and \$27,256, respectively. Facility and rent expense for the three months ended March 31, 2014 and 2013 was \$25,298 and \$11,169, respectively (unaudited).

As of December 31, 2013, future minimum lease payments due in fiscal years under operating leases are as follows:

<b>Years ending December 31,</b>	
2014	140,153
2015	137,639
2016	94,977
2017	15,885
2018 and thereafter	—
<b>Total</b>	<b>\$ 388,654</b>

*Legal Proceedings*—We are not currently involved in, but may in the future be involved in, legal proceedings, claims and governmental investigations in the normal course of business. Legal fees and other costs associated with such actions are expensed as incurred. We assess, in conjunction with our legal counsel, the need to record a liability for litigation and contingencies. Litigation accruals are recorded when and if it is determined that a loss related matter is both probable and reasonably estimable. Material loss contingencies that are reasonably possible of occurrence, if any, are subject to disclosure. As of December 31, 2012 and December 31, 2013, there was no litigation or contingency with at least a reasonable possibility of a material loss. No losses have been recorded during the year ended December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014 (unaudited) with respect to litigation or loss contingencies.

**NOTE 9.—FAIR VALUE MEASUREMENTS AND DERIVATIVE INSTRUMENTS**

We measure our financial assets and liabilities at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., exit price) in an orderly transaction between market participants at the measurement date. Additionally, we are required to provide disclosure and categorize assets and liabilities measured at fair value into one of three different levels depending on the assumptions (i.e., inputs) used in the valuation. Level 1 provides the most reliable measure of fair value while Level 3 generally requires significant management judgment. Financial

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 9.—FAIR VALUE MEASUREMENTS AND DERIVATIVE INSTRUMENTS (Continued)**

assets and liabilities are classified in their entirety based on the lowest level of input significant to the fair value measurement. The fair value hierarchy is defined as follows:

Level 1—Valuations are based on unadjusted quoted prices in active markets for identical assets or liabilities.

Level 2—Valuations are based on quoted prices for similar assets or liabilities in active markets, or quoted prices in markets that are not active for which significant inputs are observable, either directly or indirectly.

Level 3—Valuations are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. Inputs reflect management's best estimate of what market participants would use in valuing the asset or liability at the measurement date.

Our common stock purchase warrants issued in conjunction with debt and consulting services are detachable (or "free standing") instruments. In addition we have recorded a derivative liability associated with the conversion feature in our Senior Convertible Note. We estimate fair values of these warrants and derivative liabilities utilizing Level 3 inputs for all classes of warrants and derivative liabilities issued. Other than the Financing Warrant and Senior Convertible Note derivative liability, we use the Black-Scholes option valuation technique as it embodies all of the requisite assumptions (including trading volatility, remaining term to maturity, market price, strike price, and risk free rates) necessary to fair value these instruments. To determine the value of the Financing Warrant and Senior Convertible Note derivative liability, we used a Monte Carlo option-pricing model, which takes into consideration the market values of comparable public companies, considering among other factors, the use of multiples of earnings, and adjusted to reflect the restrictions on the ability of our shares to trade in an active market. We determined that as the Financing Warrant and debt conversion can only be exercised upon the probability of satisfying a performance condition such as a Qualifying IPO or Fundamental Transaction, as provided for in the applicable instrument, and thus a closed-form model such as the Black-Scholes model would not be appropriate (*see Note 6*).

The following assumptions were used in the Monte Carlo option-pricing model to determine the fair value of the Financing Warrant and Senior Convertible Note derivative liability during the period from June 17, 2013 to December 31, 2013:

	<u>Expected Life (Years)</u>	<u>Risk Free Rate</u>	<u>Volatility</u>	<u>Probability of a Capital Raise</u>
Financing Warrant	6.5 - 7	1.57 - 2.28%	65.3 - 68.6%	—
Senior Convertible Note Derivative Liability	0.75 - 1.75	0.19 - 0.24%	81.0 - 102.1%	75 - 90%

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 9.—FAIR VALUE MEASUREMENTS AND DERIVATIVE INSTRUMENTS (Continued)**

The following assumptions were used in the Monte Carlo option-pricing model to determine the fair value of the Financing Warrant and Senior Convertible Note derivative liability during the three months ended March 31, 2014 (unaudited):

	Expected Life (Years)	Risk Free Rate	Volatility	Probability of a Capital Raise
Financing Warrant	6.25	2.09%	69.9%	—
Senior Convertible Note Derivative Liability	0.5	0.13%	96.3%	80 - 95%

The following assumptions were used in the Black-Scholes option-pricing model to determine the fair value of the remaining warrant liabilities:

	December 31, 2013	March 31, 2014 (unaudited)
Assumptions:		
Risk-free interest rate	0.8% - 2.45%	1.32% - 2.02%
Expected dividend yield	0%	0%
Expected volatility	60.0% - 65.6%	64.3% - 69.8%
Expected term (in years)	4.08 - 7.0	3.83 - 6.25

We used a fair value per share of our common stock of \$5.54 and \$6.32 (unaudited) as of December 31, 2013 and March 31, 2014, respectively, to determine the fair value of derivative and warrant liabilities.

Liabilities measured at fair value on a recurring basis as of December 31, 2013, are as follows:

	Balance as of December 31, 2013	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Liabilities:				
Senior convertible note derivative	\$ 5,056,502	\$ —	\$ —	\$ 5,056,502
Bridge loan warrants	1,338,071	\$ —	—	1,338,071
Consulting warrant	1,228,616	—	—	1,228,616
Financing warrant	709,397	—	—	709,397
Total	\$ 8,332,586	\$ —	\$ —	\$ 8,332,586

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 9.—FAIR VALUE MEASUREMENTS AND DERIVATIVE INSTRUMENTS (Continued)**

Liabilities measured at fair value on a recurring basis as of March 31, 2014 (unaudited), are as follows:

	Balance as of March 31, 2014 (unaudited)	Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Liabilities:</b>				
Senior convertible note derivative	\$ 6,689,774	\$ —	\$ —	\$ 6,689,774
Bridge loan warrants	1,532,028	—	—	1,532,028
Consulting warrant	1,467,331	—	—	1,467,331
Financing warrant	910,819	—	—	910,819
Total	<u>\$ 10,599,952</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 10,599,952</u>

We estimate the fair value of our warrants and Senior Convertible Note derivative at the time of issuance and subsequently re-measure using the Black-Scholes option-pricing model or Monte Carlo option-pricing model as discussed above, at each reporting date, using the following inputs: the risk-free interest rates; the expected dividend rates; the remaining expected life of the warrants; and the expected volatility of the price of the underlying common stock. Under the Monte Carlo option pricing model we estimate the fair value of the Senior Convertible Note derivative liability and Financing Warrant liability at the time of issuance and subsequently re-measurement dates considering the probability of achieving a milestone, the cost of capital, and the estimated time period the right would be outstanding. The estimates are based, in part, on subjective assumptions and could differ materially in the future (*see Note 6*). Changes to these assumptions as well as our stock price on the reporting date can have a significant impact on the fair value of the senior convertible note derivative liability and Financing Warrant liability.

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 9.—FAIR VALUE MEASUREMENTS AND DERIVATIVE INSTRUMENTS (Continued)**

The following table provides a reconciliation of all liabilities measured at fair value using Level 3 significant unobservable inputs:

	Warrant Liabilities(1)	Senior Convertible Note Derivative Liability(2)
Balance at December 31, 2012	—	—
Issuance of warrant and derivative liabilities	\$ 1,806,701	\$ 2,005,015
Change in fair value	<u>1,469,383</u>	<u>3,051,487</u>
Balance at December 31, 2013	3,276,084	5,056,502
Issuance of warrant and derivative liabilities (unaudited)	—	—
Change in fair value (unaudited)	<u>634,094</u>	<u>1,633,272</u>
Balance at March 31, 2014 (unaudited)	<u>\$ 3,910,178</u>	<u>\$ 6,689,774</u>

- (1) The change in the fair value of the warrants was recorded as a reduction to other income (expense) in the statement of operations for the period from June 17, 2013 to December 31, 2013.
- (2) The change in the fair value of the senior convertible note derivative liability was recorded as a reduction to other income (expense) in the statement of operations for the period from June 17, 2013 to December 31, 2013 and the three months ended March 31, 2014.

**NOTE 10.—YEAR ENDED DECEMBER 31, 2013 FINANCIAL STATEMENTS**

As a result of the exchange transaction entered into on June 17, 2013 (*see Note 1 and Note 4*), the Class B units and Class C units issued by Resonant LLC were exchanged for shares of common stock of Resonant Inc., resulting in a change in the form of ownership of our company. As a result of the exchange transaction entered into on June 17, 2013 (*see Note 1 and Note 4*), the Class B units and Class C units issued by Resonant LLC were exchanged for shares of common stock of Resonant Inc., resulting in a change in the form of ownership of our company. The Consolidated Statement of Operations presented in our consolidated financial statements shows the Statement of Operations of Resonant LLC for the period from January 1, 2013 to June 16, 2013 and of Resonant Inc. for the period from June 17, 2013 to December 31, 2013. The schedule below combines the activities of both Resonant LLC and Resonant Inc. for the year ended December 31, 2013.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 10.—YEAR ENDED DECEMBER 31, 2013 FINANCIAL STATEMENTS (Continued)**

	Resonant LLC Period from January 1, 2013 to June 16, 2013	Resonant Inc. Period from June 17, 2013 to December 31, 2013	Total
<b>REVENUE</b>	\$ —	\$ —	\$ —
<b>OPERATING EXPENSES:</b>			
Research and development expenses	195,403	926,095	1,121,498
General and administrative expenses	135,993	1,485,313	1,621,306
Depreciation and amortization	4,905	14,424	19,329
<b>TOTAL OPERATING EXPENSES</b>	<u>336,301</u>	<u>2,425,832</u>	<u>2,762,133</u>
<b>OPERATING LOSS</b>	<u>(336,301)</u>	<u>(2,425,832)</u>	<u>(2,762,133)</u>
<b>OTHER INCOME (EXPENSE):</b>			
Interest income (expense), net	(199,961)	(1,355,425)	(1,555,386)
Fair value adjustments to warrant and derivative liabilities	—	(4,520,736)	(4,520,736)
Bridge warrant expense	(247,669)	(312,486)	(560,155)
Other income (expense)	—	(333)	(333)
<b>TOTAL OTHER INCOME (EXPENSE)</b>	<u>(447,630)</u>	<u>(6,188,980)</u>	<u>(6,636,610)</u>
<b>LOSS BEFORE INCOME TAXES</b>	(783,931)	(8,614,812)	(9,398,743)
Provision for income taxes	(800)	(1,256)	(2,056)
<b>NET LOSS</b>	<u>\$ (784,731)</u>	<u>\$ (8,616,068)</u>	<u>\$ (9,400,799)</u>
<b>NET LOSS PER SHARE</b>	<u>\$ —</u>	<u>\$ (8.62)</u>	<u>\$ —</u>
Weighted average shares outstanding—basic and diluted	<u>—</u>	<u>999,999</u>	<u>—</u>

**NOTE 11.—INCOME TAXES**

On May 29, 2012, we adopted ASC 740. There was no cumulative effect recorded as a charge to retained earnings from the adoption of ASC 740-10 for uncertain tax positions.

The income taxes by jurisdiction consist of the following for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013, the period from

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 11.—INCOME TAXES (Continued)**

June 17, 2013 to December 31, 2013 and the period from May 29, 2012 (inception) to December 31, 2013:

	Period from May 29, 2012 (inception) to December 31, 2012	Period from January 1, 2013 to June 16, 2013	Period from June 17, 2013 to December 31, 2013	Period from May 29, 2012 (inception) to December 31, 2013
U.S. federal				
Current	\$ —	\$ —	\$ —	\$ —
Deferred	—	—	—	—
Total U.S. federal	—	—	—	—
U.S. state and local				
Current	800	800	1,256	2,856
Deferred	—	—	—	—
Total U.S. state and local	800	800	1,256	2,856
<b>Total income taxes</b>	<b>\$ 800</b>	<b>\$ 800</b>	<b>\$ 1,256</b>	<b>\$ 2,856</b>

Income taxes differ from the amounts computed by applying the U.S. federal income tax rate to pretax income (loss) before income taxes as a result of the following for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013, the period from June 17, 2013 to December 31, 2013 and the period from May 29, 2012 (inception) to December 31, 2013:

	Period from May 29, 2012 (inception) to December 31, 2012	Period from January 1, 2013 to June 16, 2013	Period from June 17, 2013 to December 31, 2013	Period from May 29, 2012 (inception) to December 31, 2013
Expected income tax expense	\$ —	\$ —	\$ (2,929,037)	\$ (2,929,037)
State income tax (benefit), net of federal benefit	800	800	557	2,157
Valuation Allowance	—	—	2,693,235	2,693,235
Permanent Differences				
Meals & Entertainment	—	—	1,399	1,399
Penalties	—	—	38	38
Change in Fair Market Value—Financing Warrant	—	—	129,034	129,034
Additional Bridge Warrant Expenses	—	—	302,737	302,737
Interest Expenses	—	—	25,074	25,074
Research & Development Credit	—	—	(34,178)	(34,178)
Change of tax status	—	—	(187,603)	(187,603)
<b>Total provision for income taxes</b>	<b>\$ 800</b>	<b>\$ 800</b>	<b>\$ 1,256</b>	<b>\$ 2,856</b>

**RESONANT INC.****(a Development Stage Company)****NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)****NOTE 11.—INCOME TAXES (Continued)**

For the three months ended March 31, 2013 and 2014, income tax expense (unaudited) was \$0 and \$800, respectively.

Deferred income tax reflects the tax effects of temporary differences that gave rise to significant portions of our deferred tax assets and liabilities and consisted of the following as of December 31, 2012 and December 31, 2013:

	<u>December 31, 2012</u>	<u>December 31, 2013</u>
<b>DEFERRED TAX ASSETS:</b>		
Deferred tax assets—current:		
Accrued Expenses	\$ —	\$ 64,220
Deferred Rent	—	1,543
Less: Valuation Allowance	—	65,763
Total current assets	—	—
Deferred tax assets—long term:		
Fixed assets	—	45,386
Intangibles	—	30,486
Organization Cost	—	19,905
Startup Expenditures	—	244,539
OID—Consulting Warrant	—	636,646
Research and Development Credit	—	57,004
Derivatives	—	1,497,550
Net operating loss	—	583,117
Less: Valuation Allowance	—	(3,104,539)
Total long-term assets	—	10,094
Total deferred tax assets	—	10,094
Deferred tax liabilities—current:	—	—
Total current liabilities	—	—
Deferred tax liabilities—long term:		
OID—Financing Warrant	—	(10,094)
Total long-term liabilities	—	(10,094)
Total deferred tax liabilities	—	(10,094)
Net deferred tax assets	<u>\$ —</u>	<u>\$ —</u>

We recorded a full valuation allowance against our net deferred tax assets at December 31, 2013. In determining the need for a valuation allowance, we reviewed all available evidence pursuant to the requirements of FASB ASC 740. Based upon our assessment of all available evidence, we have concluded that it is more likely than not that the net deferred tax assets will not be realized. For the period May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013, the period from June 17, 2013 to December 31, 2013 and the period from May 29, 2012 (inception) to December 31, 2013, the valuation allowance increased by \$3,170,302.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 11.—INCOME TAXES (Continued)**

For operations through June 17, 2013, we were treated as a partnership for federal and state income tax under the entity classification domestic default rules. Our losses passed through to the partners who receive the tax benefit.

As of December 31, 2013, we had federal net operating loss carryforwards of approximately \$1,465,062, and state net operating loss carryforwards of approximately \$1,463,006. The federal net operating loss carryforwards will begin to expire in 2033, and the state net operating loss carryforwards will begin to expire in 2033. Our ability to utilize net operating loss carryforwards may be limited in the event that a change in ownership, as defined in the Internal Revenue Code, occurs in the future.

We recognize interest and penalties related to income tax matters in income taxes, and there were none during the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013.

The adoption of ASC 740 guidance required us to identify, evaluate and measure all uncertain tax positions taken or to be taken on tax returns and to record liabilities for the amount of these positions that may not be sustained, or may only partially be sustained, upon examination by the relevant taxing authorities. Although we believe that our estimates and judgments were reasonable, actual results may differ from these estimates. Some or all of these judgments are subject to review by the taxing authorities. We have no significant uncertain tax positions for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013.

Our annual income taxes and the determination of the resulting deferred tax assets and liabilities involve a significant amount of judgment. Our judgments, assumptions and estimates relative to current income taxes take into account current tax laws, their interpretation of current tax laws and possible outcomes of future audits conducted by domestic tax authorities. We operate within federal and state taxing jurisdictions and are subject to audit in these jurisdictions. These audits can involve complex issues which may require an extended period of time to resolve.

The following table sets forth the changes in the valuation allowance, for all periods presented:

	<u>Valuation Allowance</u>
Balance, December 31, 2012	\$ —
Addition	<u>3,170,302</u>
Balance, December 31, 2013	<u>\$ 3,170,302</u>

**NOTE 12.—RELATED PARTY TRANSACTIONS**

We rented office space from STI at a rate of \$3,723 per month pursuant to a month-to-month lease from July 2013 to March 2014. In addition, we received free rent from STI as we used office space owned by STI from July 2012 to June 2013 at a rate of \$3,723 per month. We recorded the cost of the free rent as a capital contribution from STI, the holder of Class C units with a corresponding charge to rent expense. The amount of the free rent charged to expense was \$22,338, \$22,338 and \$0 for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1,

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**NOTE 12.—RELATED PARTY TRANSACTIONS (Continued)**

2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013, respectively. Total rent expense to STI for the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013 was \$23,338 and \$23,336, respectively. We began paying rent to STI upon completion of our Secured Convertible Note financing.

**NOTE 13.—EMPLOYEE BENEFIT PLAN**

We have a 401(k) Savings Retirement Plan that covers substantially all full-time employees who meet the plan's eligibility requirements and provides for an employee elective contribution. We did not make any matching contributions to the plan for the period from May 29, 2012 (inception) to December 31, 2012, the period from January 1, 2013 to June 16, 2013 and the period from June 17, 2013 to December 31, 2013 and the period from May 29, 2012 (inception) to December 31, 2013. We made matching contributions to the plan of \$0 (unaudited) and \$0 (unaudited) for the three months ended March 31, 2013 and 2014, respectively.

**NOTE 14.—SUBSEQUENT EVENTS**

We evaluated subsequent events through April 11, 2014, the date of issuance of the consolidated financial statements for the year ended December 31, 2013.

**SUBSEQUENT EVENTS (UNAUDITED)**

We have evaluated subsequent events through May 16, 2014, the date of issuance of unaudited consolidated interim financial statements for the three months ended March 31, 2014.

