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# Resonant Inc. Successfully Fabricates 5G XBAR® Filters at Fourth Foundry

## Provides Update on Partnership with Teledyne Scientific

GOLETA, Calif., May 26, 2020 (GLOBE NEWSWIRE) -- Resonant Inc. (NASDAQ: RESN), a leader in transforming the way radio frequency, or RF, front-ends are being designed and delivered for mobile handset and wireless devices, provided an update on the progress it is making with its partner, Teledyne Scientific & Imaging, in further validating the power of Resonant's Infinite Synthesized Networks (ISN®) software platform by developing wide bandwidth, high frequency XBAR® filters with its fourth foundry for devices targeted at non-mobile applications.

These all-acoustic XBAR filters fabricated by Teledyne Scientific are predicted to exhibit the best-in-class wide bandwidth and low insertion loss performance required for the world's cutting edge 5G applications, without the need for lossy bandwidth-enhancing techniques, such as IPDs.

"Our partner Teledyne Scientific successfully fabricated 5G filters based on our XBAR technology with wide bandwidth and high frequency performance - a key step in bringing our industry-leading XBAR technology to the non-mobile RF-filter marketplace," stated George B. Holmes, Chairman and CEO of Resonant. "Our XBAR technology can be manufactured using standard semiconductor processing steps, and we have now demonstrated this in four unique fabs with first pass success. We remain on track to deliver the initial non-mobile samples in the first half of this year. Non-mobile target markets for our XBAR-based filters include WiFi CPE and Enterprise applications, 5G network infrastructure, and small cells - each of which expands our market opportunity beyond the mobile market."

"With this successful demonstration of 5G capable XBAR filter performance, we have moved closer to high volume manufacturing of Resonant's XBAR technology," stated Bobby Brar, President of Teledyne Scientific Company. "XBAR is manufactured using standard Semiconductor processes leveraging our capabilities, which translates to no new inventions, non-traditional processes or materials. All of the processing steps have been optimized and the first devices tested."

### About Teledyne Scientific Company

Teledyne Technologies is a leading provider of sophisticated instrumentation, digital imaging products and software, aerospace and defense electronics, and engineered systems. Teledyne Technologies' operations are primarily located in the United States, Canada, the United Kingdom, and Western and Northern Europe. For more information, visit Teledyne Technologies' website at [www.teledyne.com](http://www.teledyne.com).

Teledyne Scientific is the R&D center for Teledyne Technologies. For more than 50 years we have been working with our business units, government agencies and commercial

customers to develop new intellectual property and advanced technologies for future products. We have deep technical expertise in the areas of electronics, MEMS, information sciences, materials science, and optics. We operate as a high-tech, for-profit, business by supplying ultra-high-performance semiconductor products, high-frequency IC design services, novel materials, materials analysis, and semiconductor fabrication services. In addition to providing products and services, we also work closely with our customers to transition emerging technology into volume manufacturing at Teledyne business units.

### **About Resonant Inc.**

Resonant (NASDAQ: RESN) is transforming the market for RF front-ends (RFFE) by disrupting the RFFE supply chain through the delivery of solutions that leverage our Infinite Synthesized Network (ISN) software tools platform, capitalize on the breadth of our IP portfolio, and are delivered through our services offerings. In a market that is critically constrained by limited designers, tools and capacity, Resonant addresses these critical problems by providing customers with ever increasing design efficiency, reduced time to market and lower unit costs. Customers leverage Resonant's disruptive capabilities to design cutting edge filters and modules, while capitalizing on the added stability of a diverse supply chain through Resonant's fabless ecosystem-the first of its kind. Working with Resonant, customers enhance the connectivity of current mobile devices, while preparing for the demands of emerging 5G applications.

To learn more about Resonant, view the series of videos published on its website that explain Resonant's technologies and market positioning:

- [Resonant Corporate Video](#)
- [ISN and XBAR: Speeding the Transition to 5G](#)
- [Infinite Synthesized Networks, ISN Explained](#)
- [What is an RF Filter?](#)
- [RF Filter Innovation](#)
- [Transforming the Mobile Filter Supply Chain](#)

For more information, please visit [www.resonant.com](http://www.resonant.com).

Resonant uses its website (<https://www.resonant.com>) and LinkedIn page (<https://www.linkedin.com/company/resonant-inc-/>) as channels of distribution of information about its products, its planned financial and other announcements, its attendance at upcoming investor and industry conferences, and other matters. Such information may be deemed material information, and Resonant may use these channels to comply with its disclosure obligations under Regulation FD. Therefore, investors should monitor the company's website and its social media accounts in addition to following the company's press releases, SEC filings, public conference calls, and webcasts.

### **About Resonant's ISN® Technology**

Resonant can create designs for difficult bands, modules and other complex RF Front End requirements that we believe have the potential to be manufactured for less cost and less time than traditional approaches. ISN is a suite of proprietary mathematical methods, software design tools and network synthesis techniques that enable us to explore a much larger set of possible design solutions that regularly incorporate our proprietary technology. We then quickly deliver design simulations to our customers, which they manufacture or have manufactured by one of our foundry partners. These improved solutions still use

Surface Acoustic Wave (SAW) or Temperature Compensated Surface Acoustic Wave (TC-SAW) manufacturing methods and perform as well as those using higher cost manufacturing methods such as Bulk Acoustic Wave (BAW). Resonant's method delivers excellent predictability, enabling achievement of the desired product performance in roughly half as many turns through the fab. In addition, because Resonant's models are fundamental, integration with its foundry and fab customers is seamless because its models speak the "fab language" of basic material properties and dimensions.

### **Resonant Safe Harbor / Forward-Looking Statements**

This press release contains forward-looking statements, which include the following subjects, among others: the status of filter designs under development, the capabilities of our filter designs and software tools, and the markets our technologies address. Forward-looking statements are made as of the date of this document and are inherently subject to risks and uncertainties which could cause actual results to differ materially from those in the forward-looking statements, including, without limitation, the following: our limited operating history; our ability to complete designs that meet customer specifications; the ability of our customers (or their manufacturers) to fabricate our designs in commercial quantities; our customers' ability to sell products incorporating our designs to their OEM customers; changes in our expenditures and other uses of cash; the ability of our designs to significantly lower costs compared to other designs and solutions; the risk that the intense competition and rapid technological change in our industry renders our designs less useful or obsolete; our ability to find, recruit and retain the highly skilled personnel required for our design process in sufficient numbers to support our growth; our ability to manage growth; and general market, economic and business conditions. Additional factors that could cause actual results to differ materially from those anticipated by our forward-looking statements are under the captions "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our most recent Annual Report (Form 10-K) or Quarterly Report (Form 10-Q) filed with the Securities and Exchange Commission. Forward-looking statements are made as of the date of this release, and we expressly disclaim any obligation or undertaking to update forward-looking statements.

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Source: Resonant Inc.