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# **Resonant Customers Exceed Shipment Milestone of 100 Million RF Filters Designed with WaveX™ Software and Proprietary IP Library**

**Unit Volumes Accelerate to Over 21 Million RF Filters Shipped in Q3 2021; Represents Year-Over-Year Growth of Over 433%**

AUSTIN, Texas, Oct. 12, 2021 (GLOBE NEWSWIRE) -- Resonant Inc. (NASDAQ: RESN), a provider of radio frequency (RF) filter solutions developed on a robust intellectual property platform, designed to connect People and Things, today announced that its customers have cumulatively surpassed the milestone of shipping 100 million RF filters designed with the Company's proprietary WaveX™ technology.

Resonant's customers shipped over 47 million RF filters year-to-date, and a total of 21 million RF filters in the third quarter of 2021 alone, representing a year-over-year increase of approximately 433% and a sequential increase of approximately 23%. The RF filters cover a total of eleven cellular, Wi-Fi, and GPS bands across a combination of tier-1 and tier-2 customers. Designed using low-cost processes, such as those used for surface acoustic wave (SAW) or temperature-compensated SAW (TC-SAW) technologies and competing with the top bulk acoustic wave (BAW) manufacturers for sockets at the world's largest OEM's, Resonant's customers delivered RF filters for use in mobile handset, infrastructure, asset tracking (GPS), and automotive applications.

"Exceeding the 100 million milestone for RF filters cumulatively shipped by our customers is a testament to the effectiveness of our foundry partner model, the depth of our proprietary IP, and the effectiveness of our WaveX™ software platform in helping IDMs meet the heightened demand for innovative, cost-effective filter solutions," said George B. Holmes, Chairman and CEO of Resonant. "This acceleration of unit shipment volumes is a key indicator of progress with our strategy to revolutionize the RF filter supply chain with solutions that innately and reliably meet the complex requirements of next-generation, ultra-fast networks. Once designs have been locked in, our licensees have shown they can ramp quickly to mass production. As we continue to further penetrate this multi-billion-dollar opportunity, this proven model gives us confidence that we have a strong foundation to facilitate the high-volume manufacture of our best-in-class XBAR® filters with our strategic partner—the largest RF filter manufacturer in the world."

## **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 WaveX™ design 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](#)
- [WaveX™ Design Technology and XBAR®: Speeding the Transition to 5G](#)
- [Expert Insights on Unlocking the Potential of 5G](#)
- [The Technology Enabling the Transition to 5G](#)

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 XBAR® Filter Technology**

Resonant pioneered a novel Bulk Acoustic Wave (BAW) filter technology, XBAR®, to meet the challenging and complex RF front-end requirements of next-generation 5G, Wi-Fi and UWB networks and beyond. 4G BAW filter structures have traditionally been used at frequencies up to 3GHz and adapted to filter higher frequency bands, which has presented significant performance and capability challenges. Using WaveX™, Resonant evaluated various resonator, filter building blocks for wide-bandwidth, high-frequency and high-power filter designs. XBAR® was the result of these extensive studies – the optimal next-generation filter technology.

XBAR® is the first and only RF filter solution that has natively demonstrated the performance necessary to fully realize the potential of next-generation wireless technologies, including 5G and Wi-Fi 6/6E. In addition, future wireless networks will continue to move to wider bandwidths, higher frequencies and added complexity, which will further increase the demand for XBAR® filters. Unlike traditional BAW filters which require complex, multi-step manufacturing processes. XBAR® filters are much simpler to manufacture and hence can leverage SAW foundries.

Resonant continues to protect XBAR® technology through the fundamental patents and trade secrets associated with a disruptive technology, in addition to the intellectual property associated with know-how and expertise developed subsequently.

## **About Resonant's WaveX™ Design Technology**

Resonant creates designs for difficult RF frequency bands and modules that meet challenging and complex 5G, Wi-Fi and UWB RF front-end requirements. Using WaveX™, Resonant's designs have the potential to be developed in half the time and manufactured at a lower cost than traditional approaches. WaveX™ is a suite of proprietary algorithms, software design tools and network synthesis techniques that enables Resonant to explore a much larger set of possible design solutions.

Resonant delivers rapid design simulations to its customers, which they manufacture in their captive fabs or have manufactured by one of Resonant's foundry partners. These improved solutions still use Surface Acoustic Wave (SAW) or Temperature Compensated Surface Acoustic Wave (TC-SAW) technologies with the performance of higher cost manufacturing methods like Bulk Acoustic Wave (BAW).

Resonant's WaveX™ delivers excellent predictability, enabling achievement of the desired product performance in roughly half as many turns through the fab. In addition, Resonant's simulations model fundamental material and structure properties, which makes integration with foundry and fab customers much more intuitive, because they speak the "fab language" of basic material properties and dimensions.

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

This press release contains forward-looking statements, which include the following subjects, among others: the capabilities of our filter designs and software tools, the timing and amount of future unit shipments, and the high-volume manufacture of our filters. 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.

### **Investor Relations Contact:**

Greg Falesnik or Brooks Hamilton  
MZ Group - MZ North America  
(949) 546-6326  
[RESN@mzgroup.us](mailto:RESN@mzgroup.us)



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