

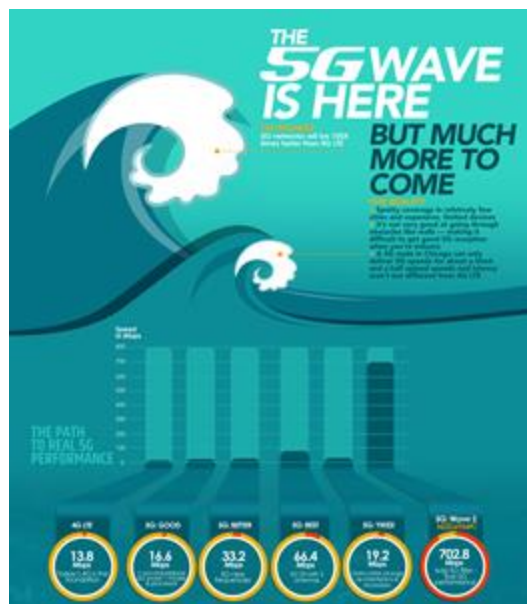
June 9, 2020



Resonant Infographic Shows Path to 5G Networks Offering Bandwidth of More Than 700 Mbps

5G Performance Is Essential To Meet Streaming Video Needs; Resonant's Shannon-Hartley Theorem Analysis Shows How 5G Can Deliver more than 700 Mbps

GOLETA, Calif., June 09, 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, today released a new infographic that details what is needed in a 5G "Wave 2" device to deliver mobile bandwidth of more than 700 Mbps.



This image is from a new infographic published by Resonant Inc. that describes the technology path required to reach 5G Wave 2, which delivers 700 Mbps throughput for mobile devices. This throughput is fast enough for a 3GB movie file to download in 34 seconds. The full infographic is available at <https://www.resonant.com/news-resources/5gwave2>.

Today's 5G "Wave 1" network is non-standalone (built on top of an existing 4G network) and offers speeds of about 16 Mbps. When 3GHz and higher 5G frequencies are available, this performance can increase to over 30 Mbps, and can double again to more than 60 Mbps on mobile devices with multiple antennas.

This performance improvement is significant, but it's not sustainable. As more users join the network, interference increases and this performance drops dramatically to just 19 Mbps. Overcoming this interference with a 5G radio frequency (RF) filter and 3GHz and higher 5G bandwidths can deliver throughput of over 700 Mbps – which is true 5G "Wave 2" performance.

"Early mobile users have pointed out the drawbacks to 5G "Wave 1," but we're believers in 5G technology and put together this infographic as a resource to show the importance of RF filters in reaching the maximum 5G throughput and the true promise of the technology," said George Holmes, Chairman and CEO of Resonant. "5G has many use cases, but by far the most important is video and streaming media, which requires the maximum throughput."

The infographic analysis utilizes the Shannon–Hartley theorem which predicts the maximum data rate over a communications channel. Inputs to the theorem include channel bandwidth (RF frequency), number of channels (multiple antennas) and signal reception quality.

The infographic also demonstrates the impact of interference on 5G "Wave 2" performance by measuring the download time for a 3GB movie file. With the expected 5G "Wave 1" network performance (19.2 Mbps), the movie file downloads in 20 minutes and 50 seconds. With a 5G "Wave 2" network connection (more than 700 Mbps), the same file downloads in just 34 seconds.

Resonant has developed its XBAR® resonator technology to provide 5G "Wave 2" performance in mobile devices and wireless infrastructure. XBAR is critical to 5G "Wave 2," delivering up to hundreds of megahertz of bandwidth, support for high radio frequencies, rejection of interfering signals and high power signal for increased coverage.

The full infographic can be found at <https://www.resonant.com/news-resources/5gwave2>.

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.

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 evolution of 5G technologies and the capabilities of our filter designs and software tools. 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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A photo accompanying this announcement is available at
<https://www.globenewswire.com/NewsRoom/AttachmentNg/37266ba8-75eb-4b6b-bb0a-6bb79a2c6a92>



Source: Resonant Inc.