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# Airgain Introduces New Testing Laboratory to Ensure High Performance 5G mmWave Solutions

*New facility enables sophisticated, high tolerance testing of complex new antennas*

SAN DIEGO--(BUSINESS WIRE)-- Airgain, Inc. (NASDAQ: AIRG), a leading provider of advanced antenna technologies used to enable high performance wireless networking across a broad range of devices and markets, including consumer, enterprise, and automotive, today announced the introduction of its new testing laboratory, designed specifically to meet the challenges inherent in the development of solutions supporting new 5G mmWave (millimeter wave) networks.

5G mmWave promises massive capacity increases, super-fast data rates, and ultra-low latency. However, the bands being used in 5G mmWave networks create a new set of challenges for development and testing, with much higher levels of atmospheric loss, very short channel coherence times and propagation of signals that is primarily line-of-sight. Overcoming these not only requires new design approaches, but also significant investments in new testing systems to help quickly identify issues and enable swift design revisions.

“5G mmWave will enable a dramatic shift in the capabilities of wireless connectivity. However, nothing comes without a cost, and development and testing of antennas to support the higher frequencies involved presents a unique set of challenges – from beamforming capabilities required in antennas to propagation characteristics of mmWave bands,” said Ricky Chair, PhD, Sr. Director of Engineering, 5G R&D at Airgain. “As a leader in the market and a pioneer of new testing protocols, we have always invested heavily in our testing facilities to ensure our partners get the best real-world performance. The new 5G mmWave test lab is confirmation of our commitment.”

**Challenges of 5G mmWave Testing**

- The nature of 5G mmWave frequencies demands more sophisticated radio frequency measurements, which is particularly challenging with smaller device and array sizes.
- Smart adaptive antennas in phase arrays pose additional testing challenges due to the need for greater accuracy in gain measurements.
- With significantly more antennas, ever smaller devices, and a lack of connectors on many components, testing for mmWave is being pushed away from conducted setups to chamber or OTA testing.
- While the 28 GHz and 39 GHz bands are the most popular initially, testing must cover all mmWave frequencies from 24 GHz to 65 GHz. This means testing must provide far field radio characterization capabilities across a very broad range of frequencies.

**Testing Laboratory Key Features**

- Designed for mmWave radio performance testing and validation from 24 GHz to 65 GHz
- Capability to test the full range of mmWave systems including small cells, enterprise access points, fixed wireless access, and CPE (consumer premise equipment) – including fixed and active beamforming antenna arrays
- The test chamber will provide S-parameter, gain, polarization, and other radiation pattern characteristics for both free space and embedded antennas.

More details can be found at www.airgain.com/

**About Airgain, Inc.**

Airgain is a leading provider of advanced antenna technologies used to enable high performance wireless networking across a broad range of devices and markets, including consumer, enterprise, and automotive. Combining design-led thinking with testing and development, Airgain works in partnership with the entire ecosystem, including carriers, chipset suppliers, OEMs, and ODMs. Airgain's antennas are deployed in carrier, fleet, enterprise, residential, private, government, and public safety wireless networks and systems, including set-top boxes, access points, routers, modems, gateways, media adapters, portables, digital televisions, sensors, fleet, and asset tracking devices. Airgain is headquartered in San Diego, California, and maintains design and test centers in the U.S., U.K., and China. For more information, visit airgain.com, or follow us on LinkedIn and Twitter.



**Forward-Looking Statements**

Airgain cautions you that statements in this press release that are not a description of historical facts are forward-looking statements. These statements are based on the company's current beliefs and expectations. These forward-looking statements include statements regarding the expected benefits of our testing laboratory and the ability to address the challenges of 5G mmWave testing, the promises and performance features of 5G mmWave networks, and statements regarding the company's position as a market leader and pioneer in new testing protocols. The inclusion of forward-looking statements should not be regarded as a representation by Airgain that any of our plans will be achieved. Actual results may differ from those set forth in this press release due to the risk and uncertainties inherent in our business, including, without limitation: the market for our products is developing and may not develop as we expect; risks associated with the performance of our products; risks associated with quality and timing in manufacturing our products; and other risks described in our prior press releases and in our filings with the Securities and Exchange Commission, including under the heading "Risk Factors" in our Annual Report on Form 10-K and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and we undertake no obligation to revise or update this press release to reflect events or circumstances after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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