



Blue Danube Systems Expands Coherent Massive MIMO Portfolio with New TDD Solutions

- *Addition of TDD support provides complete market coverage for FDD and TDD in sub-6 GHz spectrum*
- *First TDD commercial deployments targeted for 3.5 GHz/CBRS and 2.5 GHz*

Santa Clara, Calif. – October 15, 2019 – [Blue Danube Systems](#), a provider of mobile wireless access solutions that significantly and cost-effectively increase network capacity, announced today its first Coherent Massive MIMO solution for TDD networks. Building on the success of its FDD solutions which have delivered 2X to 3X capacity increase through simple retrofit on existing cell sites, Blue Danube's TDD solution is expected to deliver similar performance gains that have not been possible to date in mobile environments.

Blue Danube's approach to Massive MIMO starts by assuring RF array coherency which, in conjunction with digital processing, uniquely enables the definition, placement and dynamic coordination of high precision beams. These beams can be software controlled to direct RF energy towards high user-density areas, while minimizing adjacent sector interference, to improve overall network performance. Blue Danube's FDD systems have been deployed by five operators worldwide and have been in commercial network operation in North America since 2016 serving thousands of users and carrying hundreds of gigabytes of data traffic daily.

With the addition of support for 3.5 GHz (3GPP Band 42, Band 43, Band 48) and 2.5 GHz (3GPP Band 38, Band 40, Band 41), network operators around the world can realize the benefits of true 3D beamforming and Massive MIMO in sub-6 GHz TDD spectrum. Blue Danube is partnering with leading CBRS equipment vendors to deliver an end to end beamforming solution in Q1'2020.

"Blue Danube has demonstrated that coherent massive MIMO yields clear performance gains in multiple FDD commercial networks," said Joe Madden, founder and principal analyst at Mobile Experts. "The coherent architecture will offer a significant performance boost for upcoming TDD networks as well, including 5G and CBRS deployments, and could be the key to making ORAN networks more competitive."

"Our unique approach to Massive MIMO and 3D beamforming allows us to seamlessly design systems regardless of the radio air-interface," said Blue Danube CEO, Mark Pinto. "In fact, we intentionally targeted the FDD market first since it accounted for 85% of the worldwide deployments and successfully delivered the industry's first commercial Massive MIMO solution in 2016. The rest of the industry has focused on TDD solutions to take advantage of channel reciprocity to simplify design, but they continue to struggle to deliver a robust system with realizable gains and at economical price points. We are confident of filling that gap for network operators by offering a complete sub-6 GHz product portfolio."



Blue Danube is participating at Mobile World Congress in Los Angeles, California, October 22-24. Blue Danube can be found in South Hall, Booth 1051.

About Blue Danube Systems

Blue Danube Systems designs next generation wireless solutions for mobile networks and other applications. Our Coherent Massive MIMO solution brings 5G beamforming to today's networks dramatically increasing network capacity and end user experience. Together with cloud-based software suite utilizing machine learning techniques, our technology enables up to a 10X capacity increase in cellular networks with today's smartphones. Blue Danube Systems is a privately held start-up backed by Sequoia Capital and Silver Lake along with other investors including AT&T. For more information, please visit www.bluedanube.com

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