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News Release

ON Semiconductor Unveils New QCS-AX2 Series for Wi-Fi 6E Applications

AdaptivMIMO technology provides flexible configurations for fast 6 GHz adoption

PHOENIX, Ariz. – Apr. 21, 2020 – ON Semiconductor (Nasdaq: ON), driving energy efficient innovations, announced sampling of its new QCS-AX2 chipset family that supports the 6GHz spectrum band based on the enhanced Wi-Fi 6E standard. Designed with a high performance, flexible architecture to maximize usage of the 6GHz band, the new product family is optimized for high-throughput Wi-Fi applications, such as access points, gateways, and mesh networking solutions for dense environments and underserved areas.

The QCS-AX2 series is built on an integrated baseband and RF (radio frequency) architecture that supports key Wi-Fi 6E features, such as orthogonal frequency-division multiple access (OFDMA), advanced MU-MIMO (Multi-User, Multi-Input, Multi-Output), and 160MHz channel support for faster speeds, and SmartScan channel selection for maximum band utilization. The new product portfolio will include the following:

- **QCS-AX2-A12:** tri-band (6GHz/5GHz/2.4GHz) with AdaptivMIMO technology supports flexible 8x8 or 4x4 configurations
- **QCS-AX2-T12:** tri-band concurrent 4x4 operation for high performance, cost-effective router solutions
- **QCS-AX2-T8:** tri-band concurrent 8-stream configurations for mesh nodes and mainstream access points

As the Federal Communications Commission anticipates the opening of the 6GHz band in the United States later this year, up to 1,200 MHz of newly available spectrum will be designated for Wi-Fi and other unlicensed use. With almost 5 times of spectrum more than the current 2.4 GHz and 5GHz bands combined, the 6GHz band is accelerating the development of next generation Wi-Fi 6 applications. While the 6GHz client ecosystem takes time to build out, Wi-Fi infrastructure devices, such as gateways, routers, and access points will need to continue to support existing dual band (2.4GHz/5GHz) clients; infrastructure applications such as 6GHz backhaul between gateways and mesh nodes will lead deployments.

ON Semiconductor's Wi-Fi 6E solutions are designed to accommodate the transition to the 6GHz band with AdaptivMIMO technology while addressing mainstream 6GHz applications. A Wi-Fi 6E infrastructure device with AdaptivMIMO allows the network to operate in the 5GHz or 6GHz band depending on the clients present in a subscriber's home network to maximize performance, coverage, and utilization. The QCS-AX2 series provides the Wi-Fi performance and connectivity in congested environments to multiple devices that applications demand.

"We are excited about the tremendous opportunities that Wi-Fi 6E opens for the industry. We are in the forefront of building Wi-Fi 6E platforms that enable even better speed, efficiency and performance for the Home, Enterprise, Automotive and IoT segments," said Irvind Ghai, Vice President of Marketing, Quantenna Connectivity Solutions at ON Semiconductor. "ON Semiconductor is dedicated to innovation



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- 2 -

in Wi-Fi technology, and will continue to leverage its connectivity excellence to provide end-to-end solutions that accelerate key Wi-Fi 6E ecosystems.”

“Our new generation of QCS-AX2 with AdaptivMIMO allows OEMs fast time-to-market with optimized performance across the 3 bands. As Wi-Fi 6E infrastructure proliferates, it will seed the 6GHz ecosystems. Client devices will also benefit from improved efficiency, lower latency and jitter, and less interference, providing better user experience across applications and environments,” said Simon Duxbury, General Manager & Vice President, Quantenna Connectivity Solutions, ON Semiconductor.

ON Semiconductor is now sampling the QCS-AX2 solutions to customers.