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Qualcomm Acquires Remaining Interest in RF360 Holdings

-- Strengthens RF Business to Drive 5G Era and Paves Way for Future Growth --

SAN DIEGO, Sept. 16, 2019 /PRNewswire/ -- Qualcomm Incorporated (NASDAQ: QCOM) announced a significant milestone in its 5G strategy and leadership by completing the acquisition of the remaining interest in RF360 Holdings Singapore Pte. Ltd., a joint venture with TDK Corporation (TSE: 6762)¹. Together with Qualcomm Technologies, Inc., the joint venture has produced RF front-end (RFFE) filters which enable Qualcomm Technologies to deliver complete 4G/5G RFFE solutions. With this acquisition, Qualcomm Technologies is able to provide customers a complete end-to-end solution from modem to antenna, the Qualcomm® Snapdragon™ 5G Modem-RF System, including the world's first commercial 5G NR sub-6 and mmWave solutions, integrating power amplifiers, filters, multiplexers, antenna tuning, LNAs, switching and envelope tracking products².

Qualcomm Technologies' second generation RFFE solutions for its 5G portfolio will further enable OEM customers to design thin, high-performance, battery-efficient 5G multimode devices at scale and on time. Qualcomm Technologies' system-level innovations such as wideband envelope tracking and adaptive antenna tuning intelligently combine the modem and RFFE to help achieve best-in-class 4G/5G power efficiency, data speeds and coverage. Due to the complexity of 5G, with its new spectrum and wider bandwidths, Qualcomm Technologies' advanced RFFE solutions are very well-positioned to win future smartphone designs.

This acquisition is the final step to formally bring in-house more than 20 years of expertise in RFFE filtering. Qualcomm Technologies now has one of the broadest portfolios of RFFE products, including integrated and discrete micro-acoustic components utilizing RFFE filter technologies such as BAW, SAW, TC-SAW, as well as Thin Film SAW, all of which are core to developing and producing filters, duplexers, multiplexers for discrete, power amplifiers and diversity modules, as well as n-plexers and extractors for the very complex front end necessary for today's leading mobile phones and connected devices.

"Our goal in the formation of this joint venture was to enhance Qualcomm Technologies' front-end solutions to enable us to deliver a truly complete solution to the mobile device ecosystem, and we have done exactly that," said Cristiano Amon, president of Qualcomm Incorporated. "We are excited about the strong adoption of Qualcomm Snapdragon 5G Modem-RF Systems in virtually all of our 150+ 5G design wins. Our systems approach has created a benchmark for 5G RFFE performance. I am very pleased to formally welcome to Qualcomm the talented employees of the joint venture, who already have been an integral part of the Qualcomm Technologies RFFE team, and I look forward to celebrating even more innovation as we continue to invent breakthrough technologies on the path towards a 5G connected world. Additionally, I would like to thank our long-time partner TDK. We look forward to continued opportunities to collaborate and to bring leading products from both companies to the market in the years ahead."

TDK Electronics' (formerly EPCOS) remaining interest in the joint venture was valued at \$1.15 billion in August 2019. The total purchase price, including the initial investment, payments to TDK based on sales by the joint venture, and development obligations, will be approximately \$3.1 billion.

About Qualcomm

Qualcomm invents breakthrough technologies that transform how the world connects, computes and communicates. When we connected the phone to the Internet, the mobile revolution was born. Today, our inventions are the foundation for life-changing products, experiences, and industries. As we lead the world to 5G, we envision this next big change in cellular technology spurring a new era of intelligent, connected devices and enabling new opportunities in connected cars, remote delivery of health care services, and the IoT — including smart cities, smart homes, and wearables. Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of our engineering, research and development functions, and substantially all of our products and services businesses, including the QCT semiconductor business. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

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¹ The agreement was made between Qualcomm's indirect, wholly-owned subsidiary, Qualcomm Global Trading Pte. Ltd. (QGT), and other Qualcomm affiliates, including Qualcomm Technologies, Inc. (QTI), and TDK and other TDK affiliates.

² Qualcomm RF front-end products are products of Qualcomm Technologies, Inc. ("Qualcomm Technologies") and/or its subsidiaries.

Qualcomm Contacts:

Pete Lancia, Corporate Communications

Phone: 1-858-845-5959

Email: corpcomm@qualcomm.com

Mauricio Lopez-Hodoyan, Investor Relations

Phone: 1-858-658-4813

Email: ir@qualcomm.com

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