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**Qualcomm and TDK Form Joint Venture to Provide Industry-Leading  
RF Front-End Solutions for Mobile Devices**

— *Qualcomm and TDK to expand their collaboration across multiple technologies*—

SAN DIEGO— January 12, 2016 — and TOKYO — January 13, 2016 — Qualcomm Incorporated (NASDAQ: QCOM) and TDK Corporation (TSE: 6762) today announced an agreement to form a joint venture to enable delivery of RF front-end (RFFE) modules and RF filters into fully integrated systems for mobile devices and fast-growing business segments, such as Internet of Things (IoT), drones, robotics, automotive applications and more, under the name RF360 Holdings Singapore PTE. Ltd. (RF360 Holdings)<sup>1</sup>. The joint venture will draw upon TDK's capabilities in micro-acoustic RF filtering, packaging and module integration technologies and Qualcomm's<sup>2</sup> expertise in advanced wireless technologies to serve customers with leading-edge RF solutions into fully integrated systems.

In addition to creating RF360 Holdings, Qualcomm and TDK will expand their collaboration around key technology fields, including sensors and wireless charging.

The agreement is subject to receipt of regulatory approvals and other closing conditions and is expected to close by early 2017.

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<sup>1</sup> 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.

<sup>2</sup> Qualcomm RF front-end products are products of QTI.

“TDK is a leading electronic components manufacturer with cutting-edge expertise in RF filters and modules, and we are looking forward to deepening our collaboration and together accelerating innovation and better serving the ecosystem for next-generation mobile communications,” said Steve Mollenkopf, CEO of Qualcomm Incorporated. “The joint venture’s RF filters will bolster Qualcomm RF360™ front-end solutions to enable Qualcomm Technologies, Inc. (QTI) to deliver a truly complete solution to the ecosystem. This will enable us to expand our growth opportunity by allowing us to accelerate our strategy to provide OEMs across our business segments with fully integrated systems that will enable them to deliver at scale and on an accelerated timeframe.”

“The joint venture with Qualcomm is a win for both companies, which complement each other ideally,” said Mr. Takehiro Kamigama, President and CEO of TDK. “Customers will benefit from our unique and comprehensive portfolio, which will further strengthen TDK’s position in key growth business segments and open new and exciting business opportunities. In this context, it was a major objective to ensure that our customers can continue to expect a seamless supply of discrete filters and duplexers, as well as modules.”

### **RF360 Holdings poised to meet challenging RF industry requirements**

As one of the world’s most dynamic and fast-moving global industries, mobile communications is placing growing demands on all players. Current and future smartphones, for example, must support dozens of frequency bands for 2G, 3G and 4G LTE, while offering connectivity for wireless LAN, satellite navigation, Bluetooth, and more. In addition, the convergence of 4G mobile communications and the IoT means that manufacturers of wireless solutions for mobile IoT devices must achieve new levels of miniaturization, integration and performance, especially for the RFFE in these devices. Further, 5G will expand this complexity even more. Module solutions will be essential to supporting this increasing complexity in the RFFE.

Together with RF360 Holdings, QTI will be ideally positioned to design products from the modem/transceiver to the antenna in a fully integrated system.

RF360 Holdings will have a comprehensive set of filters and filter technologies, including surface acoustic wave (SAW), temperature-compensated surface acoustic wave (TC-SAW) and bulk

acoustic wave (BAW) to support the wide range of frequency bands being deployed in networks across the globe. Moreover, RF360 Holdings will enable the delivery of RFFE modules that will include front-end components designed and developed by QTI. These components include CMOS, SOI and GaAS Power Amplifiers<sup>3</sup>, a broad portfolio of Switches enhanced via a recent acquisition, Antenna Tuning and the industry's leading Envelope Tracking solution.

RFFE is an \$18 billion US dollar opportunity by 2020<sup>4</sup> — with filters acting as a key driver of this opportunity. The filter assets that will reside in RF360 Holdings currently are among the top 3 in the industry<sup>5</sup>. TDK is currently shipping in excess of 25 million filter functions per day, and growing, and holds design wins at all major handset OEMs, including leading premium tier smartphones. TDK, and subsequently RF360 Holdings, are committed to investing in capacity increases to meet the growing industry demand. The business that will be transferred constitutes a part of the total TDK SAW Business Group activities and the current run rate is approaching \$1 billion US dollars of sales per annum and approximately 4200 employees are involved in that business. RF360 Holdings will be a Singapore corporation and will have a global presence, with R&D, manufacturing and/or sales locations in the US, Europe and Asia and its headquarters function in Munich, Germany.

### **Deepening collaboration between Qualcomm and TDK**

In addition to the joint venture, Qualcomm and TDK have agreed to deepen their technological cooperation to cover a wide range of cutting-edge technologies for next-generation mobile communications, IoT and automotive applications, including passive components, batteries, wireless charging, sensors, MEMS and more.

### **Additional transaction details**

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<sup>3</sup> CMOS: complementary metal–oxide–semiconductor; SOI: silicon on insulator; GaAS: gallium arsenide

<sup>4</sup> 2020 estimated RFFE market opportunity according to Mobile Experts (December 2015)

<sup>5</sup> According to Mobile Experts (US), Navian (JP) market researchers

RF360 Holdings will initially be owned 51 percent by Qualcomm Global Trading PTE. Ltd. (QGT) and 49 percent by EPCOS AG, a wholly-owned subsidiary of TDK (EPCOS). As part of their agreement, filter and module design and manufacturing assets, plus related patents, will be carved out from TDK and its subsidiaries and be largely acquired by RF360 Holdings, with certain assets being acquired directly by Qualcomm affiliates. QGT has an option to acquire (and EPCOS has an option to sell) the remaining interest in the joint venture 30 months after the closing date.

Giving effect to the payments to be made at the closing, additional future payments to TDK based on sales by the joint venture of RF filter functions, as well as Qualcomm and TDK's joint collaboration efforts, and assuming QGT's exercise of its option to acquire EPCOS' interest in the joint venture, the aggregate transaction value is expected to be approximately \$3 billion US dollars. Qualcomm expects the transaction to be accretive to Non-GAAP earnings per share in the 12 months following the transaction close.

### **About Qualcomm Incorporated**

Qualcomm Incorporated (NASDAQ: QCOM) is a world leader in 3G, 4G and next-generation wireless technologies. Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a wholly-owned subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services businesses, including its semiconductor business, QCT, and its IoE businesses. For more than 30 years, Qualcomm ideas and inventions have driven the evolution of digital communications, linking people everywhere more closely to information, entertainment and each other. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

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Qualcomm and Qualcomm RF360 are trademarks of Qualcomm Incorporated, registered in the United States and other countries. RF360 is a trademark of Qualcomm Incorporated.

## **Note Regarding Forward-Looking Statements**

This news release contains forward-looking statements that are subject to risks, uncertainties and assumptions. If such risks or uncertainties materialize or such assumptions prove incorrect, actual results could differ materially from those expressed or implied by such forward-looking statements. All statements other than those of historical fact could be deemed forward-looking statements, including but not limited to statements regarding the manner in which the parties plan to effect the transaction; the expected benefits and costs of the transaction; the anticipated technology and industry trends and related expected developments in the relevant business segments; the expertise each party brings to the transaction; the size of the RFFE opportunity and the competitive position of QTI and the joint venture; the parties' plans relating to the transaction and other technology collaborations; the expected timing of the completion of the transaction; the parties' ability to complete the transaction considering the various regulatory approvals and other closing conditions; the parties' plans, strategies and objectives for future operations, product offerings, product development, product extensions, product integration, and growth opportunities in certain business areas, including RFFE modules and RF filters; the importance of module solutions to support the increasing complexity in the RFFE; the potential future financial impact of the transaction; and any assumptions underlying any of the foregoing. Actual results may differ materially from those referred to in the forward-looking statements due to a number of important factors, including but not limited to the possibility that expected benefits of the transaction may not materialize as anticipated; that the transaction may not be timely completed, if at all; as well as the other risks detailed from time to time in Qualcomm's SEC reports, including its most recent Annual Report on Form 10-K for the fiscal year ended September 27, 2015. The parties do not undertake any obligation to update, or continue to provide information with respect to, any forward-looking statement, whether as a result of new information, future events or otherwise.

## **About TDK Corporation**

TDK Corporation is a leading electronics company based in Tokyo, Japan. It was established in 1935 to commercialize ferrite, a key material in electronic and magnetic products. TDK's portfolio includes electronic components, modules and systems\* marketed under the product brands TDK and EPCOS, power supplies, magnetic application products as well as energy devices, flash memory application devices, and others. TDK focuses on demanding markets in the areas of information and communication technology and consumer, automotive and industrial electronics. The company has a network of design and manufacturing locations and sales offices in Asia, Europe, and in North and South America. In fiscal 2015, TDK posted total sales of \$9.0 billion US dollars and employed about 88,000 people worldwide.

\* The product portfolio includes ceramic, aluminum electrolytic and film capacitors, ferrites, inductors, high-frequency components such as surface acoustic wave (SAW) filter products and modules, piezo and protection components, and sensors.

### **Note Regarding Forward-Looking Statements**

This material contains forward-looking statements, including projections, plans, policies, management strategies, targets, schedules, understandings, and evaluations about TDK, or its group companies (TDK Group). These forward-looking statements are based on the current forecasts, estimates, assumptions, plans, beliefs, and evaluations of the TDK Group in light of the information currently available to it, and contain known and unknown risks, uncertainties, and other factors. The TDK Group therefore wishes to caution readers that, being subject to risks, uncertainties, and other factors, the TDK Group's actual results, performance, achievements, or financial position could be materially different from any future results, performance, achievements, or financial position expressed or implied by these forward-looking statements, and the TDK Group undertakes no obligation to publicly update or revise any forward-looking statements after the issue of this material except as provided for in laws and ordinances. The electronics markets in which the TDK Group operates are highly susceptible to rapid changes, risks, uncertainties, and other factors that can have significant effects on the TDK Group including, but not limited to, shifts in technology, fluctuations in demand, prices, interest and foreign

exchange rates, and changes in economic environments, conditions of competition, laws and regulations.