



# Qualcomm and TDK Joint Venture

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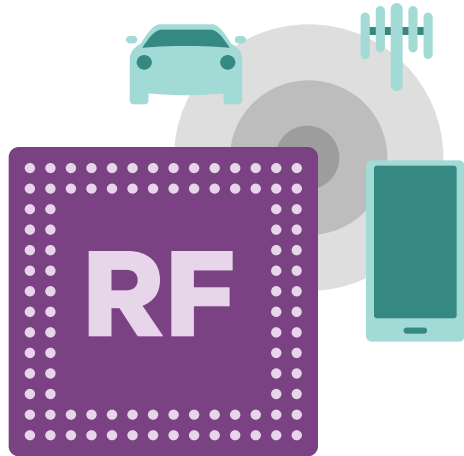


# Note regarding forward-looking statements

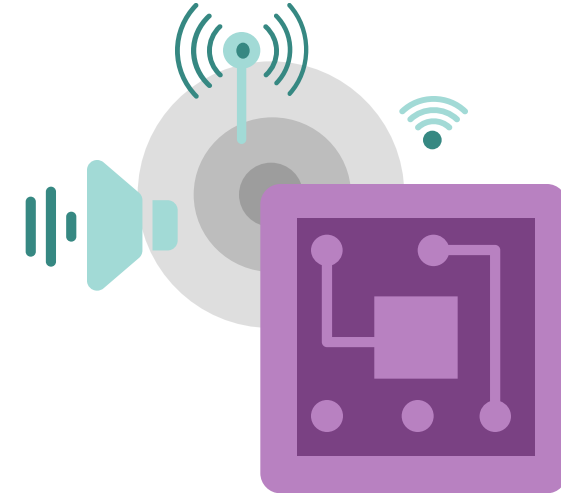
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# Qualcomm and TDK agree to form joint venture

Providing leading-edge RF front-end solutions



Enable delivery of RF front-end (RFFE) modules and RF filters in fully-integrated systems for mobile devices and fast-growing business segments, such as IoT, drones, robotics, automotive applications and more



Draw upon Qualcomm's expertise in advanced wireless technologies and TDK's capabilities in micro-acoustic RF filtering, packaging and module integration technologies

# RFFE

A key catalyst for growth

# \$18B

Opportunity by 2020\*

# 13%

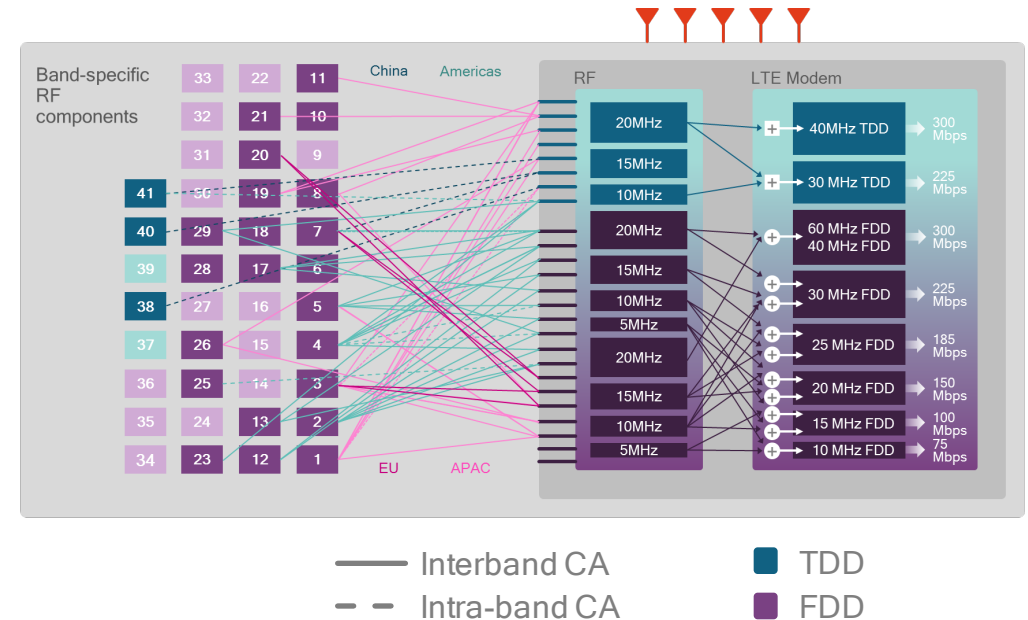
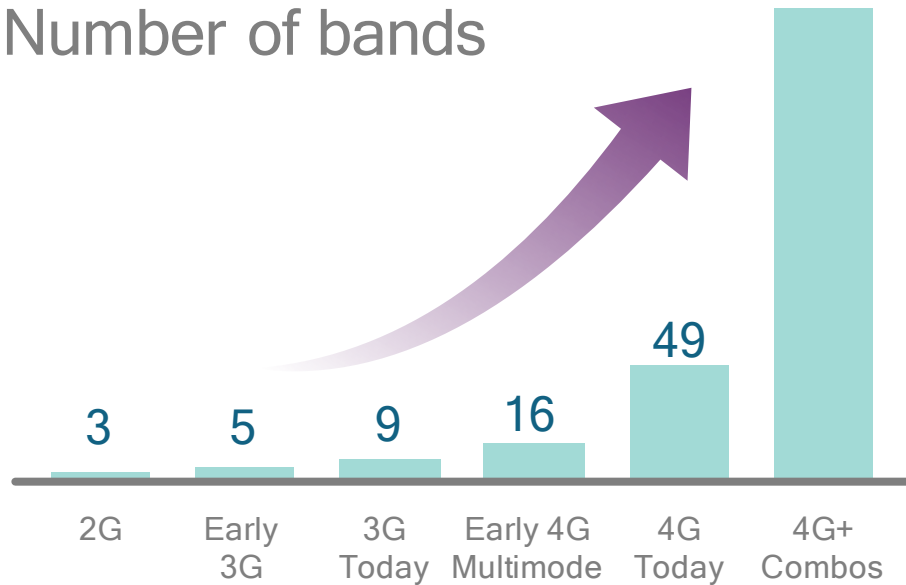
'15-'20 CAGR



\* 2020 estimated RFFE market opportunity according to Mobile Experts (December 2015)

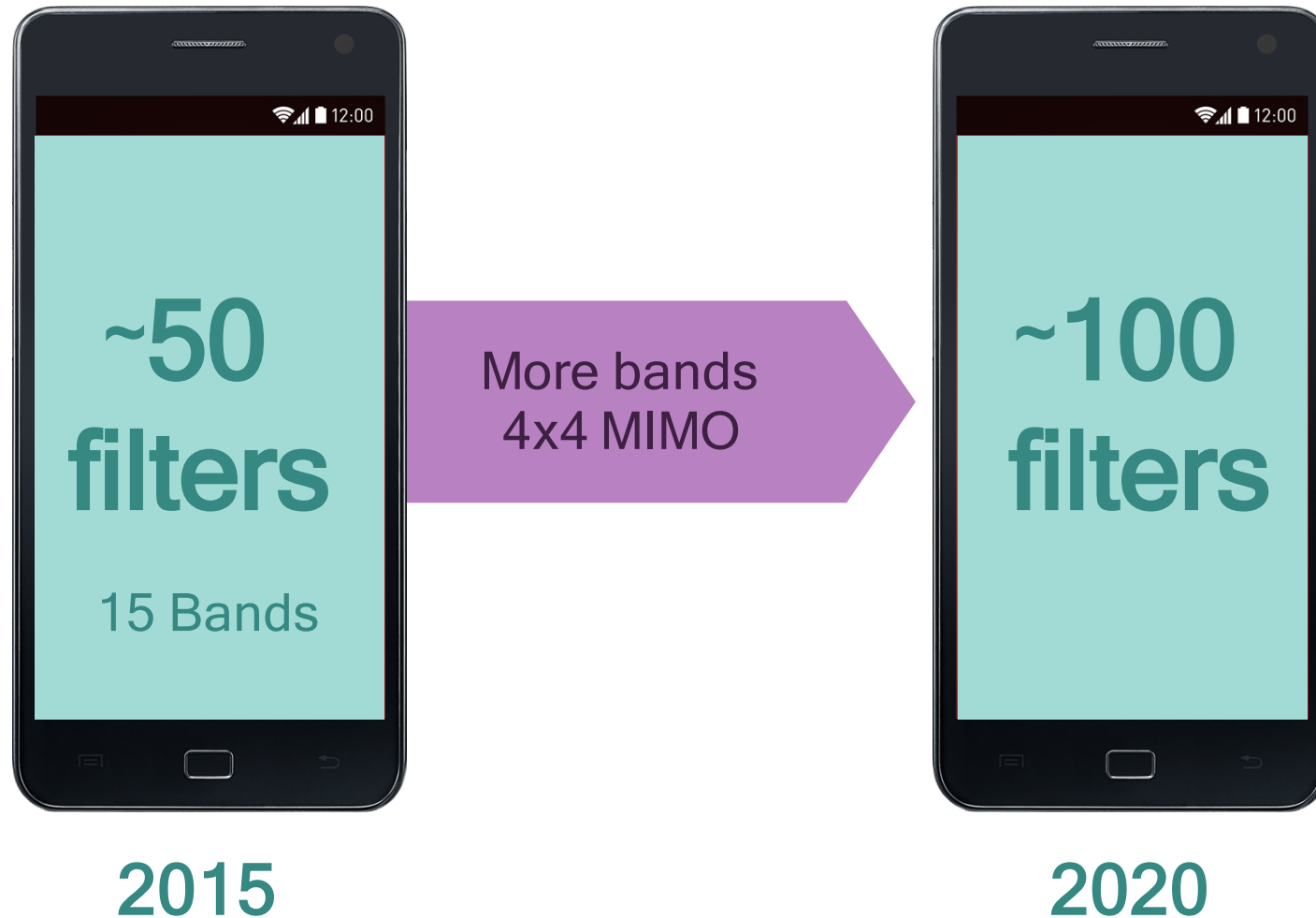
# Solving RF Complexity

Number of bands



Module solutions to address growing RFFE complexity – delivering at global scale, accelerated timeline, greater ease of design for OEMs

# Filter content in mobile devices to grow dramatically



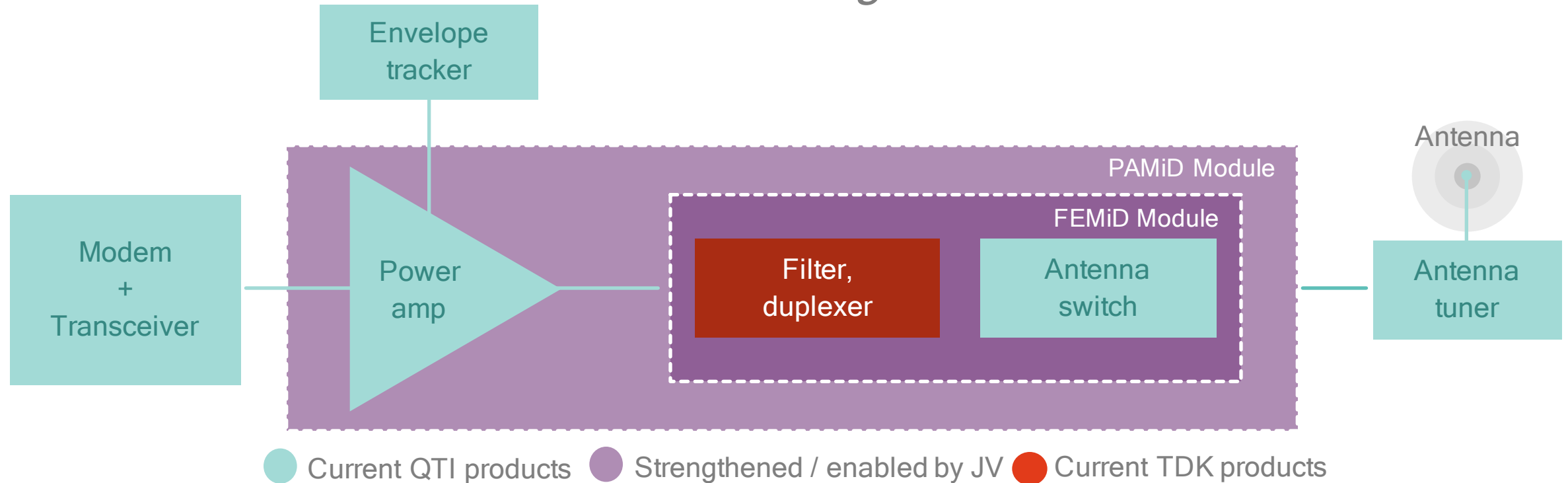
Band proliferation biggest contributor to RFFE growth

- New LTE spectrum
- Carrier aggregation
- Global smartphones
- MIMO

Filter content is the fastest growing segment in RF front-ends

# Transaction Provides Key Assets to Complete RFFE Portfolio

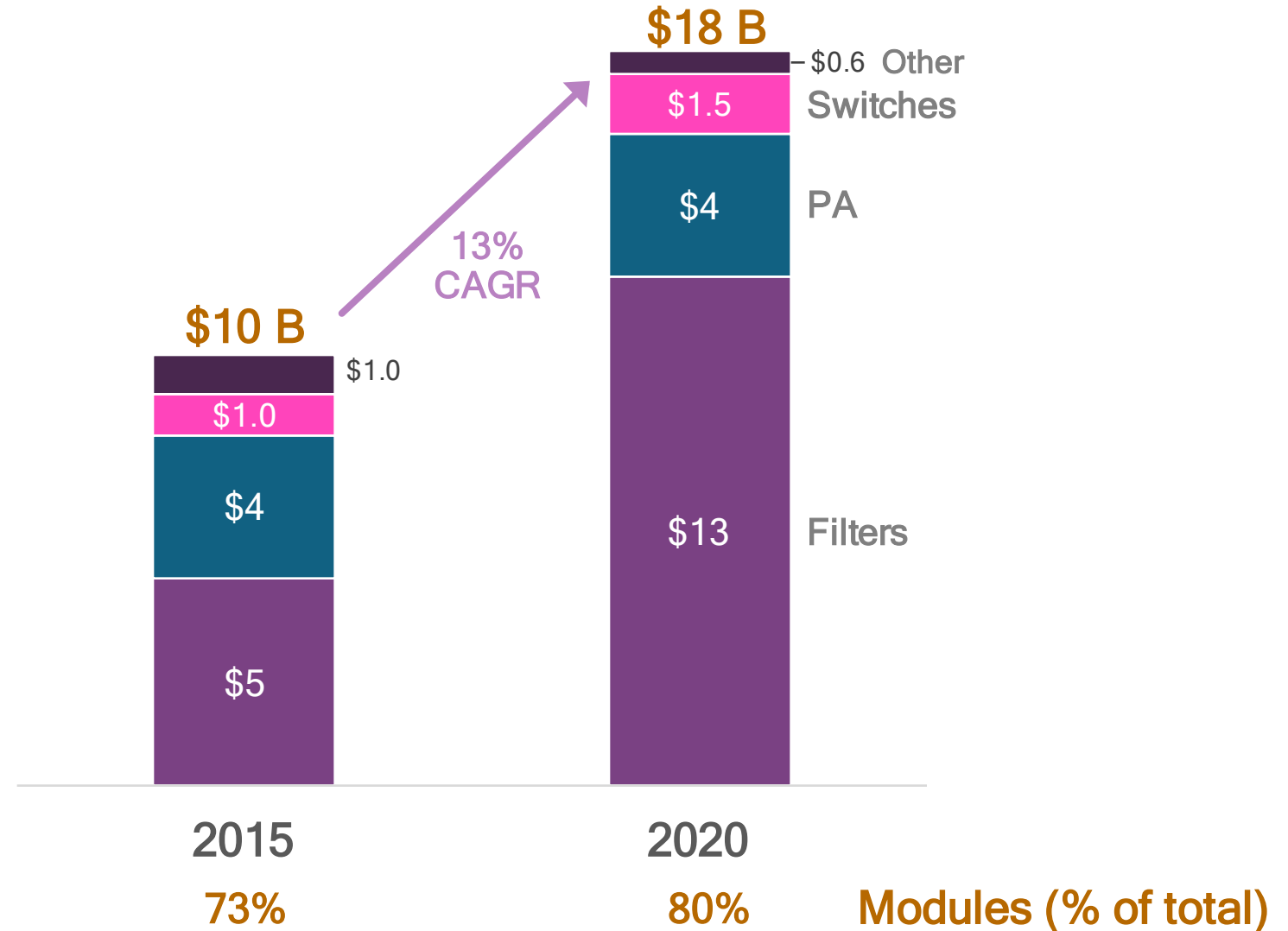
*“From digital to the antenna”*



*Ideally positioned to deliver end-to-end system design and optimization*

# Filters and Modules driving RFFE growth

## RFFE Opportunity (\$bil)



Source: "RF Front End for Mobile Devices", December 2015 update, Mobile Experts

Other = LNA and tuning



# Strongly positioned to succeed in RFFE

Adds an important piece to Qualcomm's RF360™ portfolio

- Expertise and production capacity in all 3 major filter types (SAW, TC-SAW, BAW)
- Expertise in module design and testing capabilities

QTI brings best-in-class expertise, platform and execution in wireless system solutions

- A leading supplier of modem, transceivers, AP, and PMIC
- Capability to provide a complete solution from modem to antenna
- History of solving complex technical challenges

# Deal elements

- QGT\* to own 51% of JV and have control of JV operations. EPCOS AG (a wholly-owned subsidiary of TDK) to own 49%. Certain other assets to be acquired by Qualcomm affiliates
- QGT has option to acquire remaining interest, and EPCOS AG has an option to put its remaining interest, 30 months after closing
- Expected to close by early 2017
- TDK would receive participation payments for 3 years following transaction close
  - These payments, up to \$200 million, shall be in lieu of any right to receive any profit sharing
- JV expected to be accretive to Qualcomm Non-GAAP EPS in the 12 months following transaction close
- Transaction value approximately \$3 billion US dollars including closing purchase price (as adjusted for working capital, certain capital expenditure and other adjustments), the assumed option exercise, participation payments, and joint collaboration efforts
- The business that will be transferred has a current run rate is approaching \$1 billion US dollars of sales per annum and approximately 4.200 employees

# Thank you

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