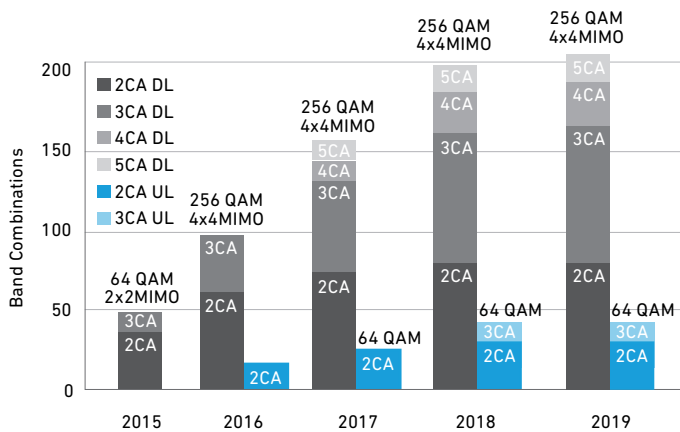


With ever-increasing RF complexity, implementing advanced carrier aggregation (CA) consumes valuable resources and time. These challenges stem from a collision of differing carrier and consumer requirements. Qorvo offers the solutions needed to help handset OEMs minimize compliance risk and avoid delays to product launch.

Year-Over-Year Carrier Aggregation Evolution



RF front-end complexity is on the rise. Carriers are using CA and MIMO (multiple-in multiple-out) technologies to increase capacity and data downlink/uplink speeds.

RF Front-End Insertion Loss vs. Antenna Power

Smartphone Features Impacting RF Challenges

- Full screen
- Facial recognition covering antenna area
- Increases in carrier aggregation usage and bands
- MIMO requires 8-10 antennas, up from 2-3 a few years ago
- HPUE (high-power user equipment); i.e. ≥ 26 dBm Pout
- Total radiated power customer specification increases









Qorvo Addresses These Challenges

(over)

RF FUSION™ LTE

Qorvo helps you deliver the world's most advanced mobile devices. The RF Fusion LTE portfolio contains multiple high-performance modules that deliver global CA band coverage in the industry's smallest form factors.

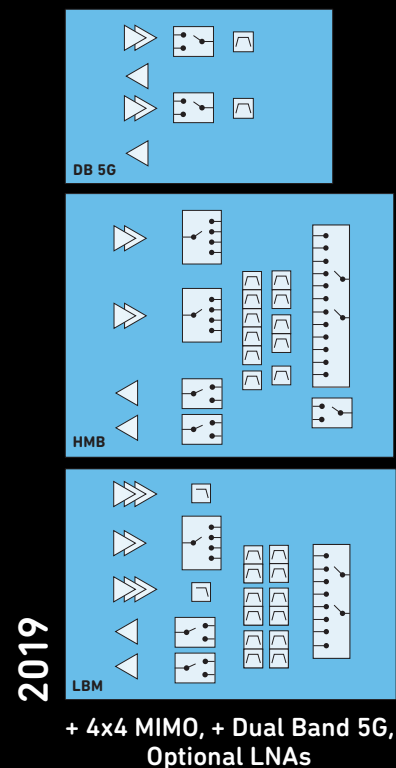
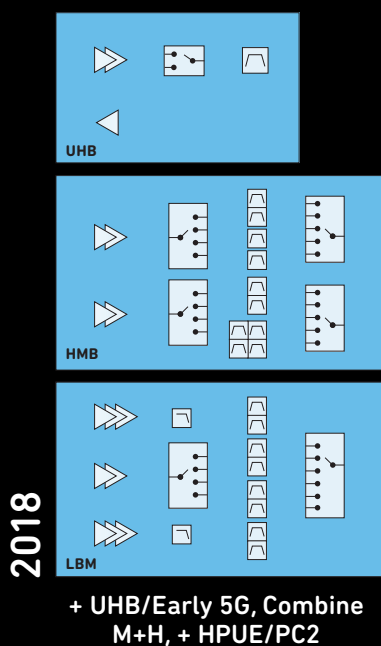
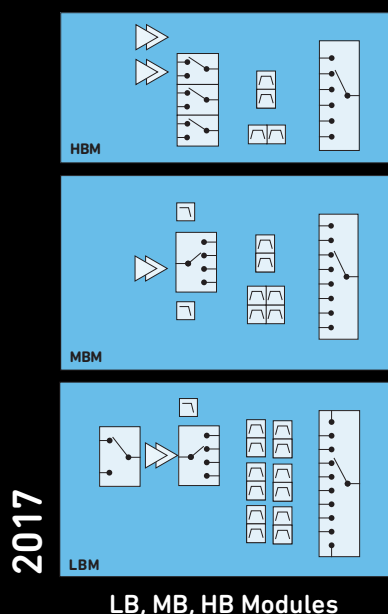
-  Solving advanced RF complexity
-  Providing a complete, global CA platform
-  Delivering flagship performance
-  Speeding an OEM's time-to-market
-  Enabling a small RF solution size
-  Addressing many sub-markets with a broad portfolio

2018 RF Fusion LTE Solution: S-PAD Evolution

Carrier Aggregation PAMiDs

Improved Performance
Increased Integration

High Order CA, MIMO



RF Fusion Roadmap

2016
LB/MB/HB

2017
LB/MB/HB + LNAs & PC2

2018
LB/HMB/UHB

2019
LB/HMB/UHB + 5G NR