

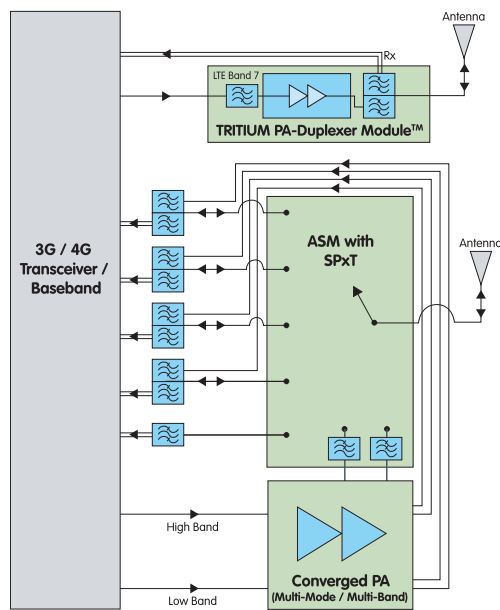
# THE INTEGRATED MODULE REVOLUTION CONTINUES



Highly-integrated modules are established as the preferred radio front-end architecture in mobile phones, spanning all sectors from ultra low cost in emerging markets, to the most sophisticated smartphones. New markets in data-centric devices such as data cards for laptops and netbooks, are seeing further evolution of a whole new genre of “infotainment” appliances such as e-book readers, MIDs, gaming and navigation devices.

Consumers’ insatiable demand for “always-on” wireless connectivity and the demands of a diverse global spectrum of frequency bands are driving convergence of the RF front-end into a sophisticated and compact set of modules that supports multiple modes in multiple bands.

Innovation at TriQuint is relentless in both process and design. Our in-house process technologies, CuFlip™ flip-chip interconnect and GaAs BiHEMT, are enabling our next-generation TRIUMF Module™ convergence architecture. **TriQuint Unified Mobile Front-end (TRIUMF)** supports protocols up to 4G in data-centric mobile devices that also offer traditional voice communication.



**TRIUMF Module™ Family**  
**TriQuint Unified Mobile Front-end**

- Multi-mode – GSM / GPRS / EDGE for voice / low-rate data with WCDMA / HSPA+ / LTE for high-speed data.

- Multi-band – Traditional quad-band GSM850 / 900 / DCS / PCS for GSM / GPRS / EDGE “unified” with options for bands 1 through 40 for worldwide WCDMA / HSPA+ / LTE.

- Size – A single converged PA module coupled with antenna switching, mode / band switch and duplexers reduces front-end board area.

- Battery Life – Electrical interfaces are optimized for maximum efficiency within the controlled environment of the modules in the TRIUMF architecture.



- Reduced Bill-of-Materials – Convergence of multiple separate PA modules into one, reduces inventory and centralizes sourcing with one preferred vendor, while cutting device assembly cost.
- Interoperability – Our modules are optimized for plug-and-play, aligned to industry leading silicon chip-set solutions.
- 4G – The TRIUMF Module™ family supports 4G Long Term Evolution (LTE).