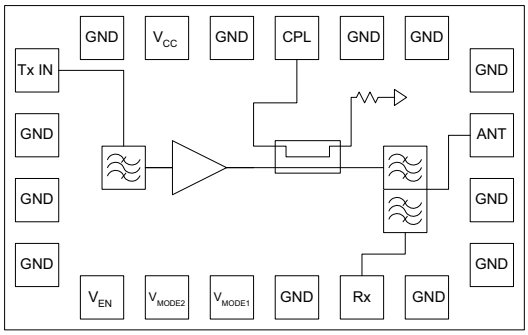
TQM663029

Data Sheet

Tritium II PA-Duplexer Module™ CDMA PCS Band

Functional Block Diagram



Product Description

The TQM663029 is a fully matched CDMA PCS band PA-Duplexer module for use in mobile phones and part of TriQuint's Tritium III product family. The module is designed with a focus on size, current consumption and phone layout simplicity. Within a compact area of only 28mm2, the module integrates a single-ended transmit filter, duplexer, high efficiency PA die, RF power coupler, matching and built in voltage regulator functionality eliminating the need for external switch circuitry. With an RF power output up to 26dBm the TQM663029 meets the strict ACPR/ALTR requirements of multi-band, feature-rich CDMA2000 handset designs.

The module will provide the lowest overall current consumption available in the market based on the current sub-urban CDG (CDMA Development Group) curve by providing a 3 Gain state amplifier. In Low-Power mode operation a quiescent current of only 5mA will allow the module to achieve an overall average current of less than 44mA including RFT currents. The pin layout is optimized for use with new CDMA discrete and packaged transceiver solutions although its operation is backwards compatible with existing chipsets.

Electrical Specifications

Test Conditions V_{CC}=3.4V, V_{EN}=High, T=25ºC

Parameter	Typ	Units
Frequency	1880	MHz
Max P_{OUT}	26	dBm
ACPR (±885kHz offset)	-50	dBc
ALTR (±1.98MHz offset)	-60	dBc
Current Consumption (at +25dBm Pout)	350	mA
Quiescent Current in LPM	5	mA
Leakage at Rx Port	-31	dBm
Rx Noise	-182	dBm/Hz

Data Sheet
For additional information and latest specifications, see our website: *www.triquint.com*

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Features

- Compact 7.0x4.0x1.1mm module replacing more than 16 discrete components
- Integrated duplexer, single-ended Tx filter, PA die, RF power coupler and matching
- Built-in voltage regulator functionality eliminating any external switch circuitry
- High efficiency three gain state PA for lowest overall current consumption
- Typical quiescent current values:
  - Low Power Mode (LPM) = 5mA
  - Medium Power Mode (MPM) = 17mA
  - High Power Mode (HPM) = 85mA
- Low Current Consumption
  - Typical: 350 mA @ +25dBm
  - Typical: 43 mA @ +13dBm
- Excellent ACPR
  - Typical: -54 dBc @ +/- 1.25MHz offset
- Excellent ALTR
  - Typical: -60 dBc @ +/- 1.98 MHz offset
- Lead-free 260°C RoHS Compliant

Applications

- IS-95/98/CDMA2000
- EVDO Rev A Compliant
- Single/Dual/Tri-band CDMA Cellular radios

Package Style

TOP VIEW (through package)