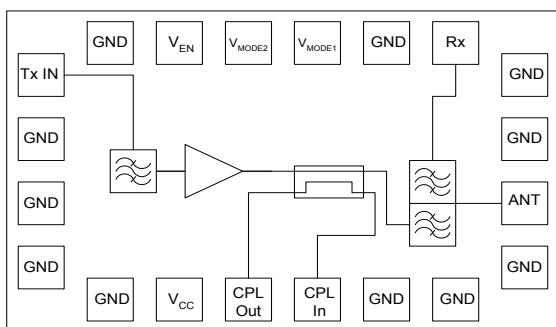


**Tritium II PA-Duplexer Module™ CDMA Cellular Band**

**Functional Block Diagram**



**Product Description**

The TQM613029 is a fully matched CDMA cellular band PA-Duplexer module for use in mobile phones as part of TriQuint's Tritium II product family. The module is designed with a focus on size, current consumption and phone layout simplicity. Within a compact area of only 28mm<sup>2</sup>, 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 25dBm the TQM613029 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 50mA. 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<sub>CC</sub>=3.4V, V<sub>EN</sub>=High, T=25°C

Parameter	Typ	Units
Frequency	824 - 848	MHz
Max P <sub>OUT</sub>	26	dBm
ACPR (±885kHz offset) at Max P <sub>OUT</sub>	-50	dBc
ALTR (±1.98MHz offset) at Max P <sub>OUT</sub>	-60	dBc
Current Consumption (at +25dBm P <sub>out</sub> )	380	mA
Quiescent Current in LPM	5	mA
Leakage at Rx Port	-30	dBm
Rx Noise	-183	dBm/Hz

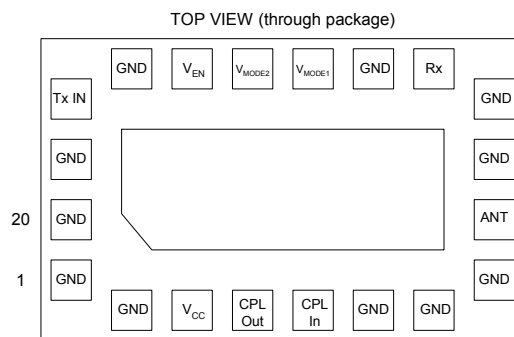
**Features**

- Compact 7.0x4.0x1.1mm module replacing more than 12 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) = 20mA  
 High Power Mode (HPM) = 80mA
- Low Current Consumption  
 Typical: 380 mA @ +25dBm  
 Typical: 23 mA @ +8dBm
- Excellent ACPR  
 Typical: -50 dBc @ +/- 885kHz offset
- Excellent ALTR  
 Typical: -60 dBc @ +/- 1.98 MHz offset
- Lead-free 260°C RoHS Compliant
- Halogen Free (HF)

**Applications**

- IS-95/98/CDMA2000
- EVDO Rev A Compliant

**Package Style**



**Data Sheet**

For additional information and latest specifications, see our website: [www.triquint.com](http://www.triquint.com)

