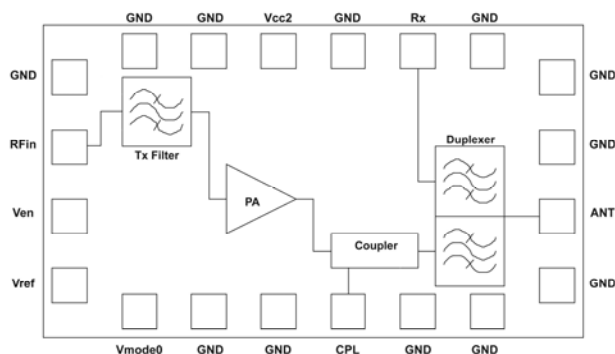


## CDMA Cellular Band PA/Duplexer Module

### Functional Block Diagram



### Product Description

TriQuint's TQM613026A is a fully matched CDMA cellular band PA/Duplexer (PAD) module for use in mobile phones. The 7.0 x 4.0 x 1.2 mm, 20-pin module includes a SAW Duplexer, Power Amplifier, single-ended input transmit filter, RF Power Coupler and Logic Controller. With an RF Power Output up to 25.5dBm the TQM613026A PAD meets the strict ACPR and ALTR requirements for products designed to the CDMA IS-95 standard. It's thin form factor and compact size, coupled with the low quiescent current, makes the TQM613026A ideal for today's compact feature rich multi-media handsets requiring longer battery life.

TriQuint's multilayer laminate technology provides low loss interconnect and optimized match between the duplexer, PA and filter enabling the TQM613026A to achieve only 50 mA of typical current consumption at maximum output power in low power mode (+13.5dBm). The small 7.0 x 4.0 mm module replaces four separate components and matching requiring less board space. TQM613026A provides handset designers with a simple to use surface mount module requiring minimal external circuitry for faster time to market and reduced BOM count.

### Electrical Specifications

Test Conditions  $V_{CC}=3.4V$ ,  $V_{REF}=2.85V$ ,  $T=+25^{\circ}C$

Parameter	Min	Typ	Max	Units
Frequency	824.7	836.5	848.3	MHz
Pout		+24.5		dBm
ACPR (+/- 885kHz offset)		-50		dBc
ALTR (+/- 1.98 MHz offset)		-60		dBc
Current Consumption @ +24.5 dBm		445		mA
Current Consumption @ +13.5 dBm		47		mA
Quiescent Current		19		mA
Leakage at Rx Port		-31	-28.5	dBm

### Features

- InGaP GaAs HBT PA with *B.E.S.T* (Bypass Efficient Switch Topology) architecture
- Low Quiescent Current  
Typical: 19 mA
- Low Current Consumption  
Typical: 445 mA @ +24.5dBm  
Typical: 47 mA @ +13.5dBm
- Excellent ACPR  
Typical: -50 dBc @ +/- 885kHz offset
- Excellent ALTR  
Typical: -60 dBc @ +/- 1.98 MHz offset
- Lead-free 260°C RoHS Compliant
- Small 20-pin, 7.0x4.0mm module with matching replacing ~10 discrete components
- Maximum height of 1.2mm for thin phones
- Integrated duplexer, coupler, single-ended input transmit filter and matching
- MSL 260 RoHS Compliant

### Applications

- IS-95/98/CDMA2000
- Single-band CDMA Cellular radios

### Package Style

