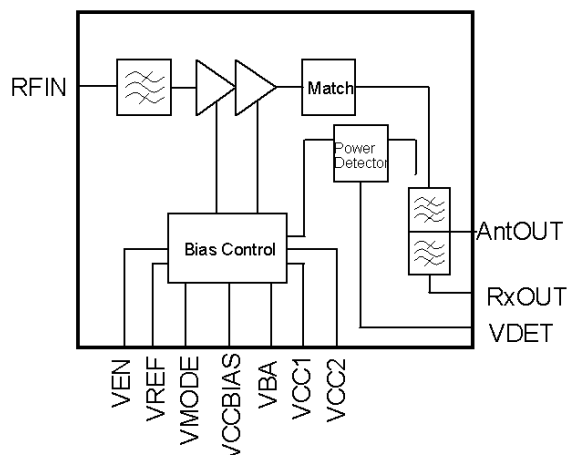


**3V PCS Band WCDMA PA-Duplexer-Module**

**Functional Block Diagram**



**Product Description**

The PowerPAD™ is an integrated 3V linear Power Amplifier, Duplexer and Transmit filter Module including power detection designed for mobile UMTS handset applications, supporting HSDPA operation.

It features high/low output power modes, analog bias control, low off and standby currents, and a separate pin for module enable. RF input and output matching is included within the module; therefore, minimal external circuitry is required.

The 8X5mm PowerPAD™ gives excellent RF performance with low current consumption resulting in longer talk times in portable applications. The small 8 x 5 mm<sup>2</sup> surface mount package is ideal for new generation small and light phones.

**Electrical Specifications**

Parameter	Min	Typ	Max	Units
Tx-Frequency	1852.4	1880	1907.6	MHz
Rx-Frequency	1932.4	1960	1987.6	
Linear P <sub>OUT</sub> (Voice) high mode	24.9			dBm
Maximum current high mode		450		mA
ACLR (HSDPA) 5 MHz		-45		dBc
ACLR (HSDPA) 10 MHz		-60		dBc
Ant-to-Rx Insertion Loss		2.8		dB

Test Conditions: V<sub>CC1</sub> = V<sub>CC2</sub> = V<sub>CCBIAS</sub> = 3.4 V, V<sub>REF</sub> = 2.775 V, T = 25°C

**Features**

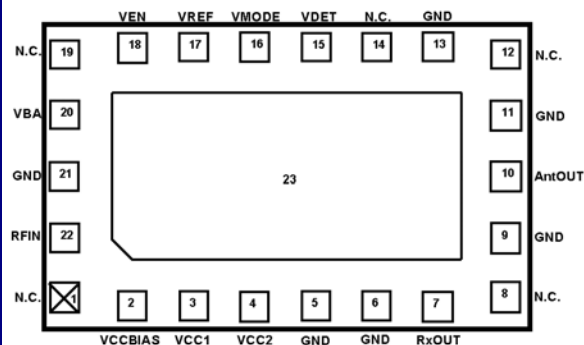
- Handset power amplifier PA / Duplexer Module for W-CDMA PCS Band
- Supports two modulation schemes: standard WCDMA, HSDPA
- Integrates power amplifier, power detector, interstage filter and duplexer
- Low current consumption:
  - high/low power mode
  - analog bias control
- Low V<sub>Ref</sub> = 2.775 V
- Separate 'module enable' pin
- RF input and output matched to 50 Ω
- High-reliability InGaP HBT technology
- 22-pin package
- Compact size: 8 x 5 x 1.5 mm<sup>3</sup>

**Applications**

- 3G Handsets and Data-Cards

**Package Style**

- 8 x 5 mm<sup>2</sup> LGA package



**Data Sheet**

For additional information and latest specifications, see our website: [www.triquint.com](http://www.triquint.com)  
Revision B, July 25, 2006