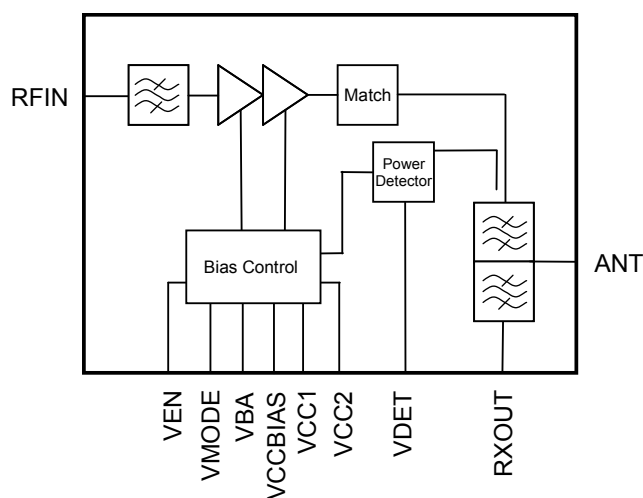


**WCDMA / HSUPA Band I Tritium III PA-Duplexer Module™**

**Functional Block Diagram**



**Product Description**

The Tritium III PAD Module™ is an integrated 3V Linear Power Amplifier, Duplexer and Transmit Filter Module including a highly accurate Output Power Detector designed for mobile UMTS handset applications, supporting HSUPA operation with transmission data-rates up to 10Mb/s.

It features 2 output power modes, additional continuous bias in low power mode, 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. Tritium III gives excellent RF performance with low current consumption resulting in longer talk times in portable applications. The tiny 7x4x1.1 mm<sup>3</sup> surface mount package is ideal for new generation slim, small and light phones.

**Electrical Specifications**

Parameter	Min	Typ	Max	Units
Frequency	1922.4		1977.6	MHz
Linear P <sub>OUT</sub> (HSUPA) high power mode		25.2		dBm
Maximum current high power mode		450		mA
Linear P <sub>OUT</sub> (HSUPA) low power mode		16.2		dBm
Idle current low power mode		15		mA
ACPR (HSUPA) 5 MHz		-45		dBc
ALPR (HSUPA) 10 MHz		-60		dBc
Ant-to-RX Insertion Loss		2		dB

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

Advance Data Sheet: Subject to change without notice

For additional information and latest specifications, see our website: [www.triquint.com](http://www.triquint.com)  
Revision B, January 31, 2008

**Features**

- Handset Tritium III™ (PA-Duplexer) Module for UMTS Band I (IMT2100 band)
- Specified for HSUPA Modulation (Transmission Data-Rates up to 10Mb/s)
- Integrates Power Amplifier, Highly Accurate Output Power Detector, Transmit Filter and Duplexer
- No Regulated Voltage Required
- Separate 'Module Enable' Pin
- All RF Ports Matched to 50 Ω
- Low Current Consumption:
  - 2 Power Modes
  - Continuous Bias in Low Power Mode
  - Extremely Low Idle Current (15mA typ.) in Low Power Mode
- Compatible for Low Collector Voltage Operation with DC-DC-Converters

**Applications**

- 3G UMTS Handsets and Data-Cards

**Package Style**

- Compact 7 x 4 x 1.1 mm<sup>3</sup> 16-Pin LGA Package

