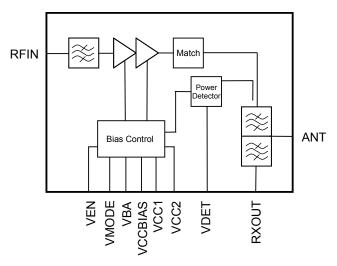


**Advance Data Sheet** 



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

## Functional Block Diagram



### **Product Description**

The Tritium III PAD Module <sup>™</sup> 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 datarates 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	Тур	Max	Units
Frequency	1922.4		1977.6	MHz
Linear Pout(HSUPA) high power mode		25.2		dBm
Maximum current high power mode		450		mA
Linear Pout(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

### 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  $\Omega$
- 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

