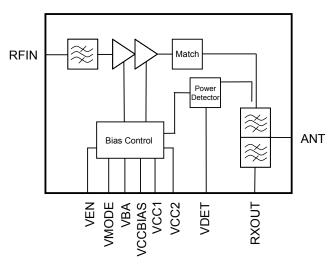


### WCDMA / HSUPA Band I Tritium III PA Duplexer Module™

### Functional Block Diagram



## **Product Description**

The Tritium III PAD™ 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. The Tritium III PADTM gives excellent RF performance with low current consumption resulting in longer talk times in portable applications. The tiny  $7x4x1.1 \text{ mm}^3$  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	252			dBm
Maximum current high power mode		450		mA
Idle current low power mode		15		mA
ACPR (HSUPA) 5 MHz		-45		dBc
ALPR (HSUPA) 10 MHz		-55		dBc
Ant-to-RX Insertion Loss		2		dB

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

#### Data Sheet

### Features

- Handset Tritium III PAD™ (PA-Duplexer) Module for UMTS Band I (IMT2100 band)
- Specified for HSDPA Modulation (HSUPA capable)
- 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 mm³ 16-Pin LGA Package

