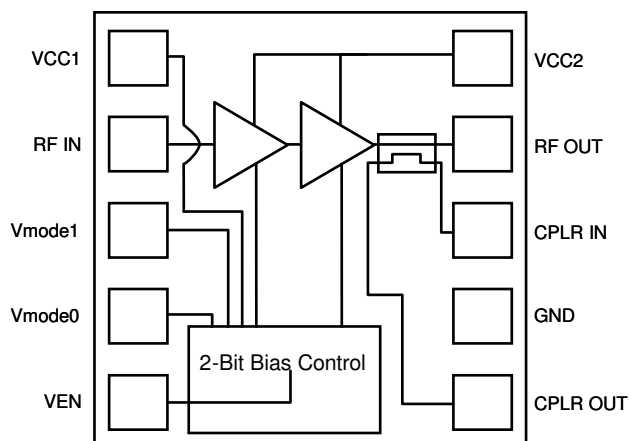


Multi-mode (WCDMA B1 / CDMA BC6 / HSPA+ / LTE) 3x3mm PA Module

Functional Block Diagram



Product Description

The TQM776011 is fully matched Power Amplifier Module designed for use in WCDMA UMTS Band 1, CDMA BC6 (IMT) & LTE handsets. Its compact 3x3mm package including a coupler and built-in voltage regulator makes it ideal for today's extremely small data enabled phones. Its RF performance meets the stringent linearity requirements for multi-mode operation.

The TQM776011 is designed on TriQuint's GaAs BiHEMT technology with CuFlip® assembly offering state of the art reliability, temperature stability and ruggedness. The 3-Gain state PA die operates in LPM, MPM and HPM to maximize talk time over the entire range of operating conditions. To simplify the cost/time of calibration while in production the TQM776011 can be used in 1-bit operation; either LPM/HPM with only 4mA of IcQ up to +13dBm in LPM, or MPM/HPM with 9mA of IcQ up to +17dBm in MPM.

Electrical Specifications

| Parameter | Typ | Units |
|--------------------------------------|-------|--------|
| Frequency | 1950 | MHz |
| WCDMA mode maximum Pout ¹ | 28.25 | dBm |
| LPM Quiescent Current | 4 | mA |
| ACLR5 | -41 | dBc |
| ACLR10 | -57 | dBc |
| Power Supply Current @ 28.25dBm | 490 | mA |
| Rx Band Noise | -140 | dBm/Hz |

Note 1: Test Conditions WCDMA Rel99 Test Mode: V_{CC}=3.4VDC, V_{EN}=HIGH, T_C=25°C

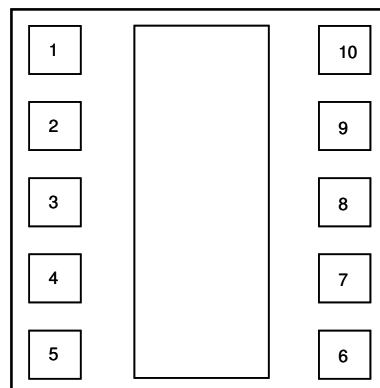
Features

- GaAs BiHEMT / CuFlip® PA Technology
- Typical Quiescent Current values:
LPM: 4 mA
MPM: 9 mA
HPM: 90 mA
- Excellent Linearity in all modes
- Excellent Phase Discontinuity
- Integrated high performance coupler
- Built-in voltage regulator functionality eliminating any external switch circuitry
- Small 10-pin, 3x3mm module
- Lead-free 260°C / RoHS / Halogen-free
- Full ESD protection

Applications

- WCDMA B1 Applications
- CDMA2000 IMT (BC6) Applications
- HSDPA/HSUPA/HSPA+ Applications
- LTE-Compatible Applications

Package Style



10-Pin Laminate Module
Top View (through package)

Datasheet

For additional information and latest specifications, see our website: www.triquint.com
Revision Q, August 08, 2012

