

# PCS-CDMA/Cellular-CDMA/AMPS Dual-Band Tri-Mode Power Amplifier Module

## QCPM-9804

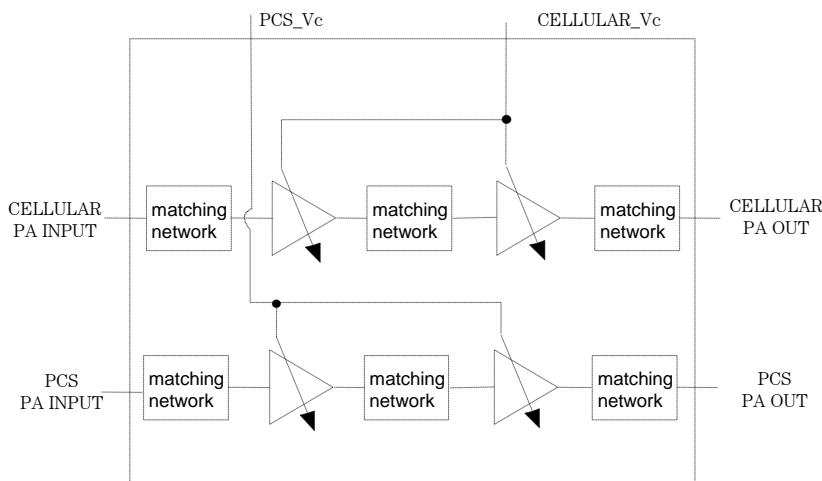
### Features

- Operating frequency:
  - PCS-CDMA: 1850 - 1910 MHz
  - AMPS: 824 - 849 MHz
  - Cellular CDMA: 824 - 829 MHz
- Typical Output Power @ 3.4V:
  - PCS-CDMA : 28.5 dBm
  - AMPS: 32.5 dBm
  - Cellular-CDMA: 28.5 dBm
- Internal 50 ohm matching networks for both RF IN/OUT
- 3.4 - 4.2 V operation (reduced performance at 3V)
- Dynamic bias controls optimize PAE at low output power for PCS-CDMA and Cellular-CDMA mode
- 11.5 mm x 11.5 mm SMT RF MultiPak

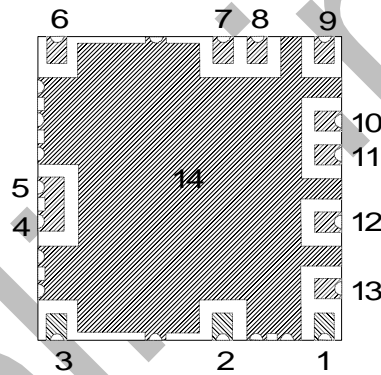
### Applications

- Dual Band CDMA handsets
- Wireless Data terminals
- Wireless Local Loop

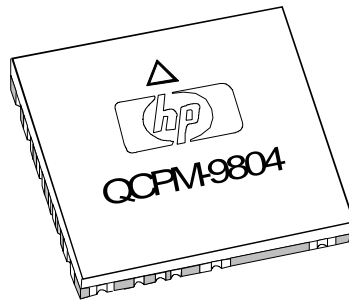
### Functional Block Diagram



### Package Pin Configuration (Back side)



### Small SMT RF MultiPak



### General Description

The Dual-Band Tri-Mode Power Amplifier Module (PAM) offers a highly integrated solution for the CDMA dual-band tri-mode handsets. The integrated solution leads to improvement in cost, size, performance, and reliability. This PAM also offers several features that will make handset design more flexible and robust. The module contains two power amplifiers (PCS and Cellular PAs), two driver amplifiers with power control and bias circuits.

The cellular power amplifier provides: 32.5 dBm Pout at 3.4 V in AMPS mode, and 28.5 dBm Pout at 3.4 V in cellular CDMA mode. The PCS power amplifier achieves 28.5 dBm at 3.4V in PCS mode. The PAM is designed for dynamic bias control to optimize the PAE (Power Added Efficiency) at lower output power levels in PCS and cellular CDMA mode to maximize the system talk time.

The surface mount RF MultiPak insures cost, size, and high volume manufacturing advantages over traditional approaches.