



Taiwan Microelectronics Inc.

TM1007

QFN 3x3mm-16L

WLAN 802.11 b/g/n High-Gain Power Amplifier MMIC

The TM1007 manufactured on Gallium Arsenide Hetero-junction Bipolar Transistor (GaAs HBT) process is a low cost, high power, high efficiency amplifier IC designed for wireless data application at 2.4 to 2.5GHz ISM band. The device is packaged in a compact QFN 3mm by 3mm 16L package. This high linearity device makes it ideal for IEEE 802.11.b/g/n, Wireless Data Terminal and portable battery powered equipment. The device also features analog power control to optimize transmit power while maximizing battery life in portable equipment with 200mW transmit power at antenna port. The power control function also eliminates the need for directional couplers, detector diodes and other power control circuitry. This allows the device to be directly driven by the DAC output.

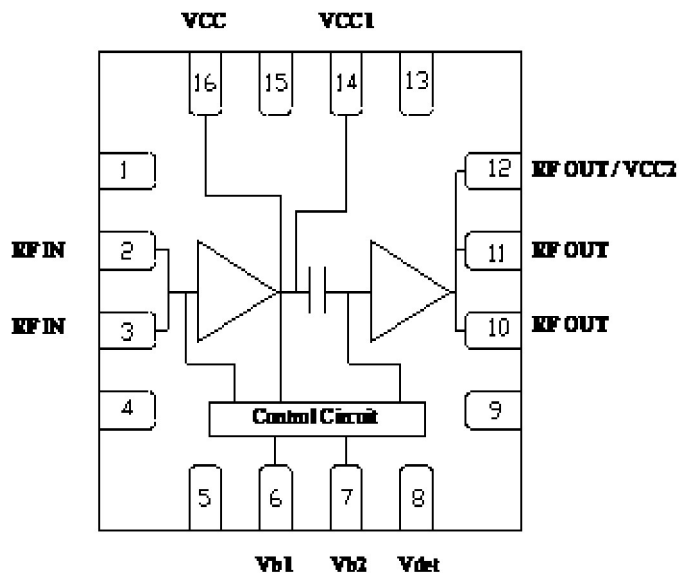
Features

- Analog Gain control and Power control in QFN-3x3 16L with thermal ground ultra small plastic package
- Pout =19dBm for 64QAM/54Mbps OFDM
- 26dB Power Gain
- Linear Output Power 19dBm/IEEE 802.11g
- Linear Output Power 23dBm/IEEE 802.11b
- MSL 1

Applications

- Bluetooth™ PA (Class 1)
- WLAN 802.11 b/g for 11Mbps, 22Mbps, 54 Mbps
- Wireless Data Terminal
- Portable Battery Powered Equipment

Functional Block Diagram



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