

CX77106

Power Amplifier Module for CDMA / PCS (1750–1805 MHz)

The CX77106 Power Amplifier Module (PAM) is a fully matched 10-pin surface mount module developed for Personal Communications Service (PCS) and Wireless Local Loop (WLL) applications. This small and efficient power amplifier packs full 1750–1805 MHz bandwidth coverage into a single compact package. The CX77106 meets the stringent spectral linearity requirements of Code Division Multiple Access (CDMA) PCS transmission with high power added efficiency for power output of up to 28 dBm. A low current pin (V_{CONT}) is provided to improve efficiency for the low RF power range of operation.

The single Gallium Arsenide (GaAs), Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry for the module. The MMIC contains on-board bias circuitry, as well as input and interstage matching circuits. Output match is realized off-chip within the module package to optimize efficiency and power performance into a 50 Ω load. Manufactured with Skyworks' GaAs Heterojunction Bipolar Transistor (HBT) process, this device provides for all positive voltage DC supply operation while maintaining high efficiency and good linearity. Primary bias to the CX77106 is supplied directly from a three-cell nickel cadmium, a single-cell lithium ion, or other suitable battery with an output in the 3 to 4 volt range. Power down is executed by setting the voltage on the low current reference pin to zero volts. No external supply side switch is needed as typical "off" leakage is a few microamperes with full primary voltage supplied from the battery.

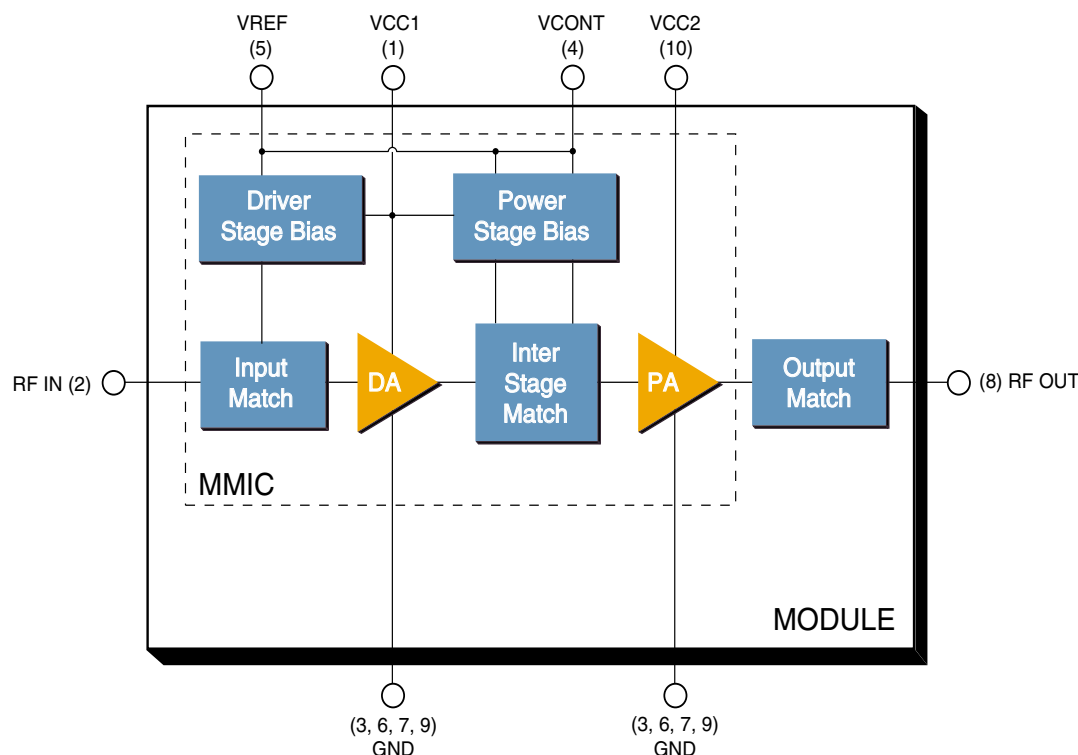
Distinguishing Features

- Low voltage positive bias supply (3 to 4 Volts)
- Good linearity
- High efficiency
- Large dynamic range
- 10-pin package (4 x 4 x 1.5 mm)
- Power down control
- Low power-state control
- InGaP
- IS95/CDMA2000
- Full Korean PCS coverage
- TD-SCDMA

Applications

- Personal Communications Services (PCS) 1750–1780 MHz
- Wireless Local Loop (WLL)

Functional Block Diagram



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