



AXIOM[™]
MICRODEVICES INC.



AX502

GSM/GPRS Quad Band Power Amplifier

PRODUCT DESCRIPTION

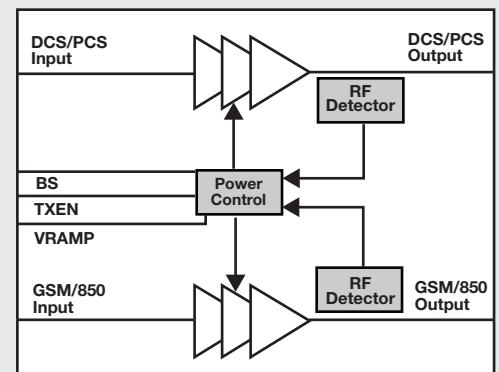
The AX502 device integrates a full quad band GSM/GPRS power amplifier function on a single Integrated Circuit (IC) using advanced 0.13 μm CMOS process technology. Axiom's patented technology is employed to integrate both input and output matching circuits, without the use of organic modules or costly ceramic substrates. It offers the handset designer an easy, zero-component interface to transceiver and transmit-receive switch module. The device supports GPRS class 12 operation at a case temperature of up to +85°C. High accuracy power control and ramping is achieved on-chip via a closed loop power control system. Axiom's breakthroughs in Power Amplifier technology allow for the creation of the world's smallest, lowest cost GSM/GPRS Power Amplifier with highly competitive performance.

APPLICATIONS

- ▶ GSM/GPRS Dual, Triple, Quad-Band Mobile Terminal and Data Applications

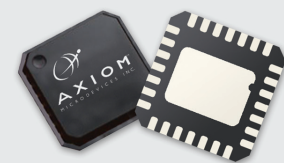
FEATURES

- ▶ Quad-Band GSM 850/900/1800/1900 Support
- ▶ Fully Integrated on Chip 50 Ω Matching Circuits
- ▶ GSM/GPRS Class 12 Operation
- ▶ Fully Integrated Closed Loop High Accuracy Power Control
- ▶ Dual, Voltage and Load Current, Sense Architecture for Robust Power Control
- ▶ Current Limiting Circuitry for Load Mismatch (VSWR) Events
- ▶ <100 dB/V Power Control Slope
- ▶ MSL JEDEC Level 2a, Lead (Pb) Free Green Package



TECHNOLOGY

- ▶ 0.13 μm CMOS Technology
- ▶ Patented Distributed Active Transformer (DAT) Technology
- ▶ MicroLeadFrame Package (5x5x0.9 mm)
- ▶ Supply Voltage 2.9V to 5.5V
- ▶ Temperature -20°C to +85 °C



powering wireless innovation.