C O N E X A N T ™

RM914

Power Amplifier Module for AMPS (824–849 MHz) Applications

The RM914 Advanced Mobile Phone Service (AMPS) Power Amplifier is a fully matched 6-pin LCC surface mount module designed for mobile units operating in the 824-849 MHz cellular bandwidth. This device can be driven to power output levels beyond 31 dBm for high efficiency FM mode operation. A single GaAs Microwave Monolithic Integrated Circuit (MMIC) contains all active circuitry in the module. The MMIC contains on-board bias circuitry as well as input and interstage matching circuits. The output match is realized off-chip within the module package to optimize efficiency and power performance into a 50 Ω load. This device is manufactured with Conexant's GaAs HBT process that provides for all positive voltage DC supply operation while maintaining high efficiency. Primary bias to the RM914 can be supplied directly from a three cell nickel-cadmium, single cell lithium-ion, or other suitable battery with output in the 3-4 volt range. Power down is accomplished 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.
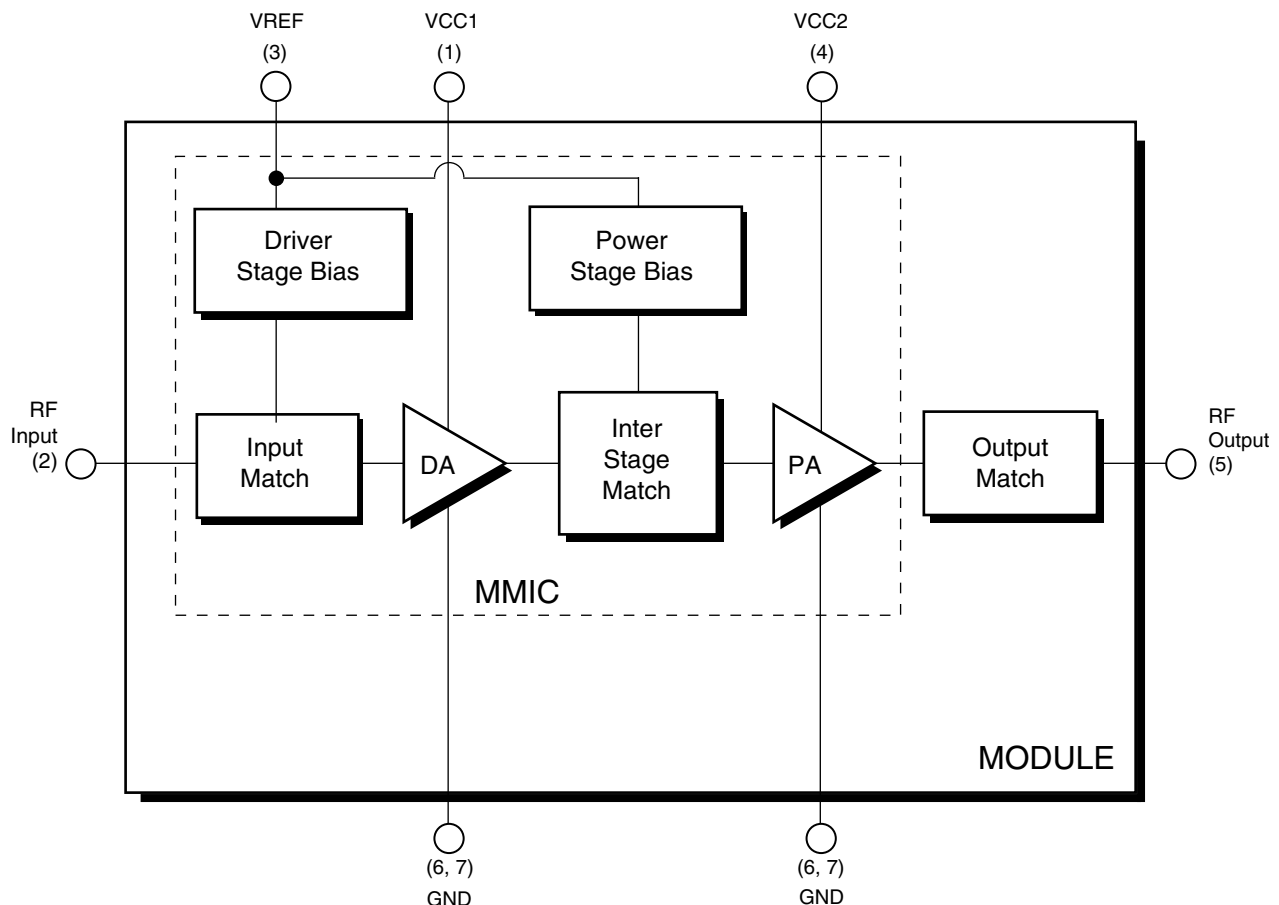
Distinguishing Features

- Low voltage positive bias supply (3 to 4 volts, typical)
- High efficiency
- Large dynamic range
- 6-pin LCC package (6 mm x 6 mmx 1.5 mm)
- Power down control

Applications

- Analog cellular (AMPS)
- Wireless local loop (WLL)

Functional Block Diagram

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What's next in communications technologies