

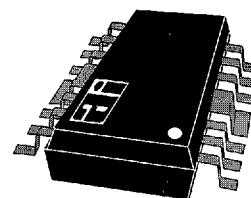
GaAs MMIC Power Amplifier in SOIC 16 Plastic Package



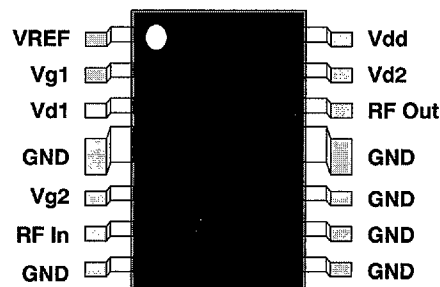
AP103-64

Features

- Saturated Power Up To 31 dBm
- 6 Volt Operation
- Efficiency Up To 65%
- Idle Current Typically Less Than 80 mA
- On Chip Bias Network Converts -4 Volt Supplies To Proper Gate Levels
- Excellent Temperature Stability
- High Power 16 Lead SOIC16 Batwing Package



Pin Out



Description

The AP103-64 is a low cost, MMIC power amplifier designed for the AMPS (824-849 MHz) frequency band. It features 5 cell battery operation, high efficiency, high output power, and low idle current. The amplifier is designed to be stable over a temperature range of -30 to 100 °C and 7:1 VSWR loads.

Absolute Maximum Ratings

Characteristic	Symbol	Value	Units
Drain Voltage	V _{DD}	10	V
Bias Voltage	V _{SS}	-6	V
Reference Voltage	V _{ref}	6	V
Power Input	P _{in}	12	dBm
Operating Temperature	T _{opt}	-30 to 100	°C
Storage Temperature	T _{stg}	-35 to 120	°C

Electrical Specifications at 25 °C

Characteristic	Condition	Min	Typ	Max	Unit
Output Power	0 < P _{in} < 7 dBm	30.5	31	—	dBm
Efficiency	P _{out} = 30 dBm	50	60	—	%
Small Signal Gain	P _{in} = -20 dBm	—	25	35	dB
Idle Current	P _{in} = -60 dBm	—	80	150	mA
Noise in the Receive Band	P _{out} = 30 dBm Rx Band = 869-894 MHz Rx Bandwidth = 30 KHz	—	-100	-90	dBm
Negative Bias Current	P _{out} = 30 dBm	—	4	7	mA
Reference Current	P _{out} = 30 dBm	—	0.5	1	mA
Input VSWR	P _{in} = -30 to +7 dBm	—	—	3:1	—

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RF GaAs MMIC Products in Metal Packages

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