



Product Feature

MPT RF Amp, Low Noise 1

Features

- 1.1 dB typical noise figure
- 18.5 dB typical gain
- 32 dBm typical third order intercept point
- 20 dB typical input and output return loss
- +5 and -5 volt bias, sequencing not required

Descriptions

The MPT LNA1 is a low noise, high dynamic range amplifier suitable for use in PCS base station receivers and transmitters, as well as in other systems operating in the frequency range of 1800 to 2000 MHz. The amplifier displays an exceptional combination of low noise, high linearity and excellent impedance match. The amplifier comes in a 16 lead surface mount package and requires no external components. Bias is +5 and -5 volts which can be applied in any order without concern for damage.

Maximum Ratings

Operating Temperature	-40°C to +85°C
Storage Temperature	-65°C to +125°C
Positive Supply Voltage	+6 Volts
Negative Supply Voltage	-6 Volts
RF Input Power	+15

Specifications

(frequency: 1800 MHz to 2000 MHz, Positive Supply = +5 Volts, Negative Supply = -5 Volts, Temp. = 25 degrees C)

Characteristic	Units	Typical	Specification
Gain	dB	18.5	16.5 (min.)
Noise Figure	dB	1.2	1.7 (max.)
Input and output Return Loss	dB	20	15 (min.)
Third Order Intercept ¹	dBm	32	28 (min.)
1 dB Compression	dBm	18.5	16.5 (min.)
Group Delay	nS	1	
DC current at +5 Volts	mA	64	80 (max.)
DC current at -5 Volts	mA	2	5 (max.)

¹ Measured with 2 tones spaced 1MHz, each at 0 dBm output

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