

ACP12013

6.0 TO 12.0 GHz COUGARPAK™ AMPLIFIER

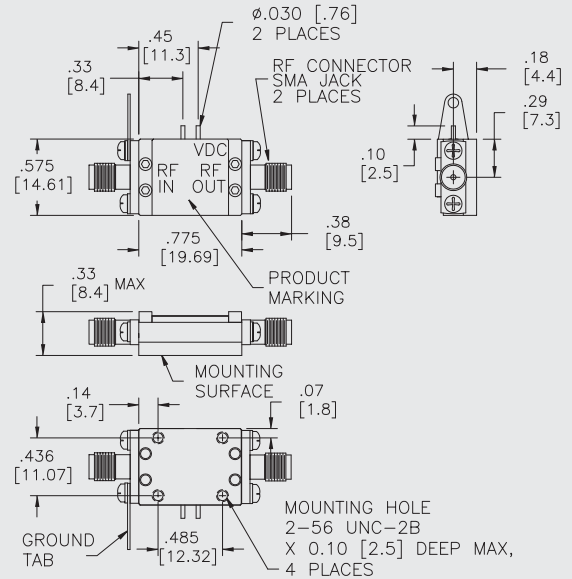
Typical Values

Medium Gain	13.0 dB
Low Noise Figure	2.2 dB
Medium Output Level	+17.0 dBm
High Performance Thin Film Standard Single-stage CougarPak™ SMA Package	

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CougarPak™ SMA Package (single-stage)



SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	6.0-12.0 GHz	6.0-12.0 GHz	6.0-12.0 GHz
Small Signal Gain (Min.)	13.0 dB	11.5 dB	12.0 dB
Gain Flatness (Max.)	±0.6 dB	±0.8 dB	±1.0 dB
Noise Figure (Max.)	3.2 dB	3.7 dB	4.2 dB
SWR (Max.) Input/Output	1.6:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.			
6.0 - 8.0 GHz	+12.0 dBm	+11.5 dBm	+11.0 dBm
8.0 - 12.0 GHz	+14.0 dBm	+13.5 dBm	+13.0 dBm
Reverse Isolation	22 dB	—	—
DC Current(Max.)	44 mA	50 mA	52 mA

* Measured in a 50-ohm system at +8 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C; 9.0 GHz

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Second Order Harmonic Intercept Point	+53 dBm
Second Order Two Tone Intercept Point	+47 dBm
Third Order Two Tone Intercept Point	+28 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-65 to +150 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+11 Volts
Maximum Continuous RF Input Power	+20 dBm
Maximum Short Term Input Power (1 Minute Max.)	+23 dBm
Maximum Peak Power (3 μsec Max.)	+27 dBm
Burn-in Temperature	+125 °C
Thermal Resistance ¹ (θjc)	+9.8 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+3.5 °C

¹ Thermal resistance is based on total power dissipation.

DIMENSIONS ARE IN INCHES [MILLIMETERS]