

ACP14029 8.0 TO 14.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	ACP14029
High Output Power	+29.0 dBm
Ultra Broad Bandwidth	8.0-14.0 GHz
High Third Order I.P.	+43 dBm
High Performance Thin Film	
High Frequency Single-stage CougarPak™ Package	

SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	8.0-14.0 GHz	8.0-14.0 GHz	8.0-14.0 GHz
Small Signal Gain (Min.)	6.5 dB	5.5 dB	5.0 dB
Gain Flatness (Max.)	±0.8 dB	±1.0 dB	±1.0 dB
Noise Figure (Max.)	5.0 dB	6.5 dB	7.0 dB
SWR (Max.) Input/Output	1.8:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.0 dBm	+28.3 dBm	+27.9 dBm
Reverse Isolation	25 dB	—	—
DC Current (Max.)	350 mA	380 mA	410 mA

* Measured in a 50-ohm system at +12 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C	ACP14029
Second Order Harmonic Intercept Point	+68 dBm
Second Order Two Tone Intercept Point	+62 dBm
Third Order Two Tone Intercept Point	+43 dBm

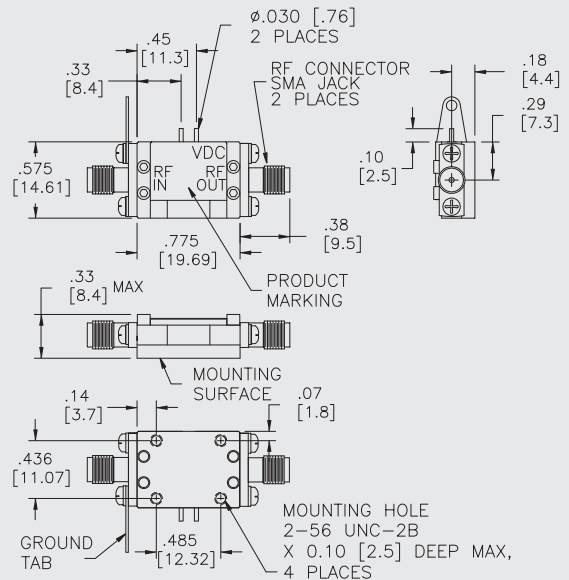
ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-65 to +150 °C
Maximum Case Temperature	+85 °C
Maximum DC Voltage	+13 Volts
Maximum Continuous RF Input Power	+28 dBm
Maximum Short Term Input Power (1 Minute Max.)	30 dBm
Maximum Peak Power (3 μsec Max.)	30 dBm
Burn-in Temperature	85 °C
Thermal Resistance ¹ (θjc)	11 °C/Watt
Junction Temperature Rise Above Case (Tjc)	46.2 °C

¹ Thermal resistance is based on total power dissipation.

ACP14029

High Frequency CougarPak™ SMA Package (single-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]