TELEDYNE COUGAR
A Teledyne Technologies Company

PRELIMINARY

A2CP5009 2000-5000 MHz COUGARPAK™ AMPLIFIER

Typical Values	A2CP5009
High Power Output	+29.5 dBm
High Third Order I.P.	+42 dBm
Medium Gain	8.5 dB

High Performance Thin Film
Standard Two-stage CougarPak™ Package

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	1800-5000 MHz	2000-5000 MHz	2000-5000 MHz
Small Signal Gain (Min.)	8.5 dB	7.5 dB	7.0 dB
Gain Flatness (Max.)	±0.7 dB	±1.0 dB	±1.2 dB
Noise Figure (Max.)	5.5 dB	6.0 dB	6.5 dB
SWR (Max.) Input/Output	1.7:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.5 dBm	+28.5 dBm	+28.0 dBm
Reverse Isolation	22 dB	—	—
DC Current (Max.)	370 mA	390 mA	400 mA

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C	A2CP5009
Second Order Harmonic Intercept Point	+66 dBm
Second Order Two Tone Intercept Point	+60 dBm
Third Order Two Tone Intercept Point	+42 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+125 °C
Maximum DC Voltage	+17 Volts
Maximum Continuous RF Input Power	+13 dBm
Maximum Short Term Input Power (1 Minute Max.)	50 Milliwatts
Maximum Peak Power (3 µsec Max.)	0.5 Watt
Burn-in Temperature	— °C
Thermal Resistance[1] (θjc)	— °C/Watt
Junction Temperature Rise Above Case (Tjc)	— °C

[1] Thermal resistance is based on total power dissipation.

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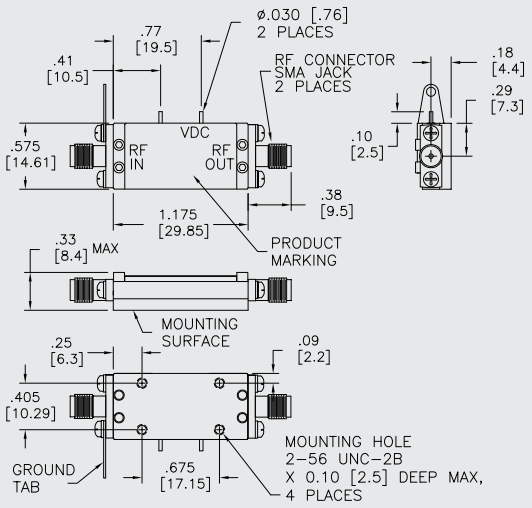
CougarPak™ SMA Package (two-stage)



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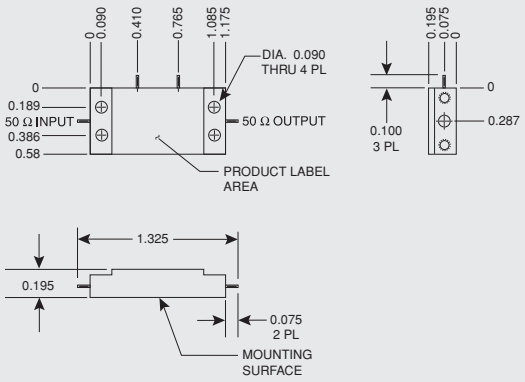
CougarPak™ Pin Package (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]