TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

A2CP12024 6.0 TO 12.0 GHz COUGARPAK™ AMPLIFIER

Typical Values	A2CP12024
High Gain	**24.0 dB**
Low Noise Figure	**3.2 dB**
High Reverse Isolation	**35 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.)	**5.0-12.0 GHz**	**6.0-12.0 GHz**	**6.0-12.0 GHz**
Small Signal Gain (Min.)	24.0 dB	23.0 dB	22.5 dB
Gain Flatness (Max.)	±1.2 dB	±1.5 dB	±1.7 dB
Noise Figure (Max.)	3.2 dB	3.7 dB	4.2 dB
SWR (Max.) Input/Output	1.8:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+13.5 dBm	+12.5 dBm	+12.0 dBm
Reverse Isolation	35 dB	—	—
DC Current (Max.)	84 mA	94 mA	100 mA

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

INTERMODULATION PERFORMANCE

Typical @ 25 °C	A2CP12024
Second Order Harmonic Intercept Point	+36 dBm
Second Order Two Tone Intercept Point	+30 dBm
Third Order Two Tone Intercept Point	+20 dBm

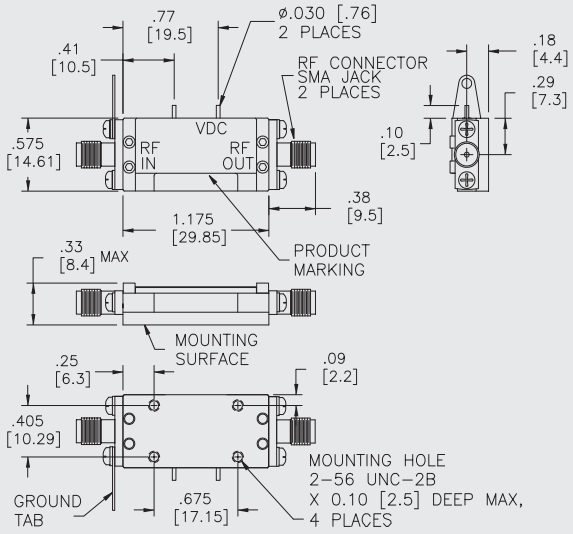
ABSOLUTE MAXIMUM RATINGS

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)	+11.5 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+7.7 °C

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

A2CP12024

High Frequency CougarPak™ SMA Package (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]