

# A2CP2010

## 30 TO 2000 MHz COUGARPAK™ AMPLIFIER

Typical Values	A2CP2010
High Gain .....	19.2 dB
Low Noise Figure .....	5.0 dB
High Output Level .....	+29.5 dBm
High Third Order I.P. ....	+40 dBm
High Reverse Isolation .....	37 dB
High Performance Thin Film Standard Two-stage CougarPak™ Package	

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	20-2100 MHz	30-2000 MHz	30-2000 MHz
Small Signal Gain (Min.)	19.2 dB	17.5 dB	16.5 dB
Gain Flatness (Max.)	±0.5 dB	±0.7 dB	±0.8 dB
Noise Figure (Max.)	5.0 <sup>^</sup> dB	7.0 <sup>^</sup> dB	7.5 <sup>^</sup> dB
SWR (Max.)	Input/Output	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.5 <sup>†</sup> dBm	+29.0 <sup>†</sup> dBm	+28.5 <sup>†</sup> dBm
Reverse Isolation	37 dB	—	—
DC Current (Max.)	555 mA	585 mA	600 mA

\* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.  
<sup>^</sup> 1.0 dB higher between 100-200 MHz and at 2000 MHz.  
<sup>†</sup> 1.0 dBm lower below 900 MHz. Indicates minimum temperature at -55/+71 °C.

### INTERMODULATION PERFORMANCE

Typical @ 25 °C	A2CP2010
Second Order Harmonic Intercept Point .....	+61 dBm
Second Order Two Tone Intercept Point .....	+55 dBm
Third Order Two Tone Intercept Point .....	+40 dBm

### ABSOLUTE MAXIMUM RATINGS

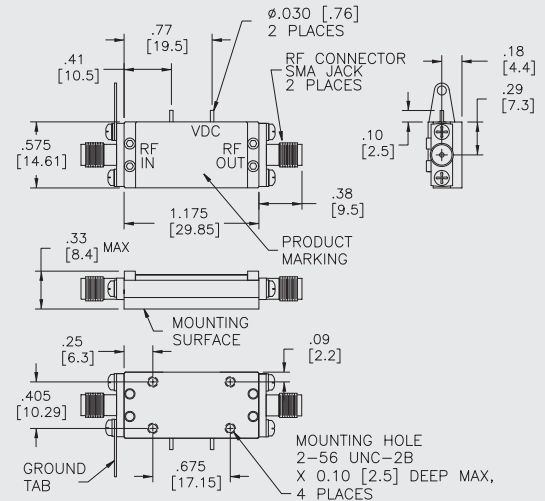
Storage Temperature .....	-62 to +125 °C
Maximum Case Temperature .....	+105 °C
Maximum DC Voltage .....	+17 Volts
Maximum Continuous RF Input Power .....	+13 dBm <sup>1</sup>
Maximum Short Term Input Power (1 Minute Max.) .....	200 Milliwatts
Maximum Peak Power (3 μsec Max.) .....	0.5 Watt
Burn-in Temperature .....	+85 °C
Thermal Resistance <sup>2</sup> (θjc) .....	+24 °C/Watt
Junction Temperature Rise Above Case (Tjc) .....	+69.5 °C

<sup>1</sup> If no load on output; decrease input power (no damage) by 10 dBm.

<sup>2</sup> Thermal resistance is based on total power dissipation.

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#### CougarPak™ Connectorized Package (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]