

# A2CP16216 6.0-16.0 GHz COUGARPAK™ AMPLIFIER

<i>Typical Values</i>	<b>A2CP16216</b>
<b>High Gain</b> .....	<b>20.0 dB</b>
<b>High Reverse Isolation</b> .....	<b>35 dB</b>
<b>Ultra Broad Bandwidth</b> .....	<b>6.0-16.0 GHz</b>
<b>Low Noise</b> .....	<b>3.5 dB</b>
<b>High Performance Thin Film</b>	
<b>High Frequency Two-stage CougarPak™ Package</b>	

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50° C	-55 to +85° C	
Frequency (Min.)	6.0-16.0 GHz	6.0-16.0 GHz	6.0-16.0 GHz	6.0-16.0 GHz
Small Signal Gain (Min.)	20.0 dB	18.7 dB	17.5 dB	17.5 dB
Gain Flatness (Max.)	±1.2 dB	±1.5 dB	±1.5 dB	±1.5 dB
Noise Figure (Max.)	3.5 dB	4.2 dB	5.0 dB	5.0 dB
SWR (Max.) Input/Output	1.8:1	2.0:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+15.3 dBm	+14.0 dBm	+13.5 dBm	+13.5 dBm
Reverse Isolation	35 dB	—	—	—
DC Current (Max.)	125 mA	135 mA	145 mA	145 mA

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

## INTERMODULATION PERFORMANCE

<i>Typical @ 25° C</i>	<b>A2CP16216</b>
<b>Second Order Harmonic Intercept Point</b> .....	<b>+43 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+37 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+25 dBm</b>

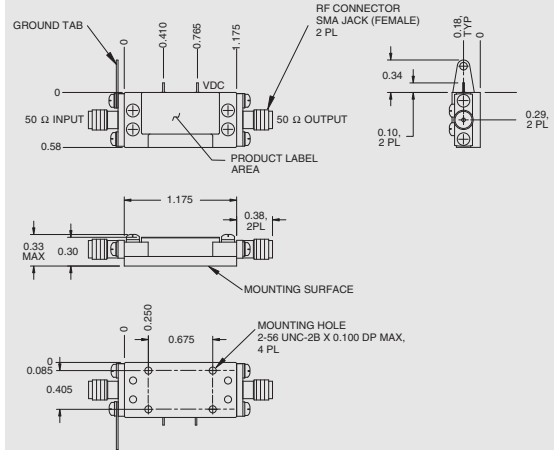
## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	<b>-62 to +125° C</b>
<b>Maximum Case Temperature</b> .....	<b>+125° C</b>
<b>Maximum DC Voltage</b> .....	<b>+14 Volts</b>
<b>Maximum Continuous RF Input Power</b> .....	<b>+19 dBm</b>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	<b>100 Milliwatts</b>
<b>Maximum Peak Power (3 μsec Max.)</b> .....	<b>1.0 Watt</b>
<b>Burn-in Temperature</b> .....	<b>+125° C</b>
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	<b>—° C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	<b>—° C</b>

<sup>1</sup> Thermal resistance is based on total power dissipation.

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### High Frequency CougarPak™ SMA Package (two-stage)



DIMENSIONS ARE IN INCHES