

# A3CP8048

# 2.0-8.0 GHz COUGARPAK™ AMPLIFIER

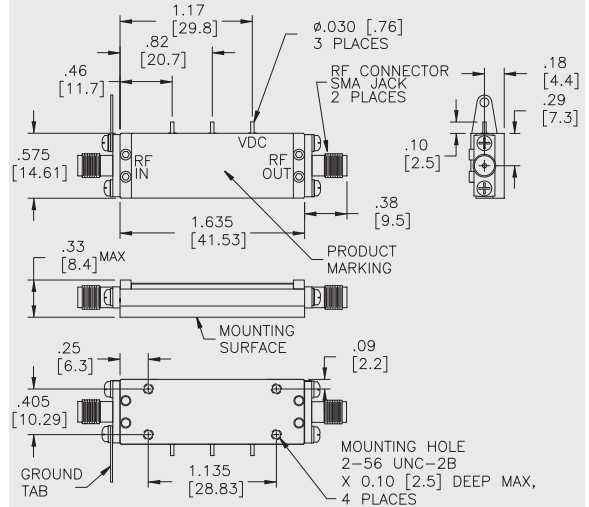
**Typical Values**

<b>High Gain</b> .....	<b>25.0 dB</b>
<b>High Output Power</b> .....	<b>+28.0 dBm</b>
<b>High Third Order I.P.</b> .....	<b>+35 dBm</b>
<b>High Reverse Isolation</b> .....	<b>55 dB</b>
<b>High Performance Thin Film</b> <b>Standard Three-stage CougarPak™ Package</b>	

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



## SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50 °C	-55 to +85 °C	
Frequency (Min.)	2.0-8.0 GHz	2.0-8.0 GHz	2.0-8.0 GHz	
Small Signal Gain (Min.)	25.0 dB	22.5 dB	21.5 dB	
Gain Flatness (Max.)	±0.8 dB	±1.0 dB	±1.0 dB	
Noise Figure (Max.)	2.0-4.0 GHz	8.5 dB	9.5 dB	10.5 dB
	4.0-8.0 GHz	4.4 dB	5.5 dB	6.5 dB
SWR (Max.)	Input/Output	1.8:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	2.0-3.0 GHz	+26.0 dBm	+25.5 dBm	+25.0 dBm
	3.0-8.0 GHz	+28.0 dBm	+26.5 dBm	+26.0 dBm
Reverse Isolation	55 dB	—	—	
DC Current (Max.)	400 mA	420 mA	450 mA	

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

## INTERMODULATION PERFORMANCE

**Typical @ 25 °C; 4 GHz**

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<b>Second Order Harmonic Intercept Point</b> .....	<b>+59 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+53 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+35 dBm</b>

## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	<b>-65 to 150 °C</b>
<b>Maximum Case Temperature</b> .....	<b>+85 °C</b>
<b>Maximum DC Voltage</b> .....	<b>+14 Volts</b>
<b>Maximum Continuous RF Input Power</b> .....	<b>+14 dBm</b>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	<b>+18 dBm</b>
<b>Maximum Peak Power (3 μsec Max.)</b> .....	<b>+21 dBm</b>
<b>Burn-in Temperature</b> .....	<b>+85 °C</b>
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	<b>+12.7 °C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	<b>+61 °C</b>

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

DIMENSIONS ARE IN INCHES [MILLIMETERS]