

# ACP8036

# 2.0-8.0 GHz COUGARPAK™ AMPLIFIER

**Typical Values**

<b>High Output Power</b> .....	<b>ACP8036</b>
<b>Ultra Broad Bandwidth</b> .....	<b>+25.5 dBm</b>
<b>High Third Order I.P.</b> .....	<b>2.0-8.0 GHz</b>
<b>High Performance Thin Film</b>	<b>+35 dBm</b>
<b>Standard Single-stage CougarPak™ Package</b>	

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50 °C	-55 to +85 °C	
<b>Frequency (Min.)</b>	<b>2.0-8.0 GHz</b>	<b>2.0-8.0 GHz</b>	<b>2.0-8.0 GHz</b>	
<b>Small Signal Gain (Min.)</b>	12.0 dB	11.0 dB	10.5 dB	
<b>Gain Flatness (Max.)</b>	±0.6 dB	±0.8 dB	±1.5 dB	
<b>Noise Figure (Max.)</b>	2-4 GHz 4-8 GHz	8.0 dB 4.2 dB	8.5 dB 4.8 dB	9.0 dB 5.3 dB
<b>SWR (Max.)</b>	Input/Output	1.8:1	1.9:1	2.0:1
<b>Power Output (Min.)</b> @ 1dB comp.	2-3 GHz 3-8 GHz	+22.5 dBm +25.5 dBm	+22.0 dBm +24.0 dBm	+21.5 dBm +23.5 dBm
<b>Reverse Isolation</b>	28 dB	—	—	
<b>DC Current (Max.)</b>	150 mA	160 mA	170 mA	

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

## INTERMODULATION PERFORMANCE

**Typical @ 25 °C**

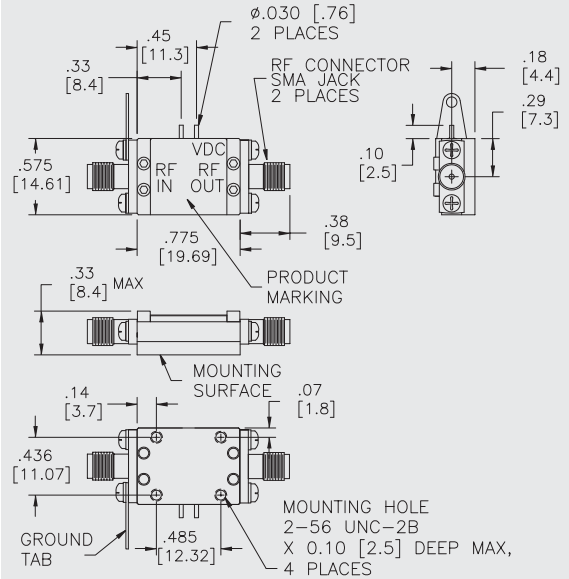
<b>Second Order Harmonic Intercept Point</b> .....	<b>ACP8036</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+58 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+52 dBm</b>
	<b>+35 dBm</b>

## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	-65 to +150 °C
<b>Maximum Case Temperature</b> .....	+125 °C
<b>Maximum DC Voltage</b> .....	+14 Volts
<b>Maximum Continuous RF Input Power</b> .....	+22 dBm
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	+25 dBm
<b>Maximum Peak Power (3 μsec Max.)</b> .....	+28 dBm
<b>Burn-in Temperature</b> .....	+125 °C
<b>Thermal Resistance (θjc)</b> .....	+68.8 °C/Watt
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	+44 °C

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]