

# A2CP16225 8.0-16.0 GHz COUGARPAK™ AMPLIFIER

**Typical Values** **A2CP16225**  
**High Power Output** ..... +28.0 dBm  
**High Reverse Isolation** ..... 35 dB  
**Ultra Broad Bandwidth** ..... 8.0-16.0 GHz  
**High Performance Thin Film**  
**High Frequency Two-stage CougarPak™ Package**

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	8.0-16.0 GHz	8.0-16.0 GHz	8.0-16.0 GHz
Small Signal Gain (Min.)	17.0 dB	15.0 dB	14.5 dB
Gain Flatness (Max.)	±1.2 dB	±1.5 dB	±1.5 dB
Noise Figure (Max.)	4.2 dB	4.7 dB	5.2 dB
SWR (Max.) Input/Output	1.8:1	2.0:1	2.0:1
Power Output (Min.) @ 1dB comp.	+28.0 dBm	+26.5 dBm	+26.0 dBm
Reverse Isolation	35 dB	—	—
DC Current (Max.)	325 mA	340 mA	355 mA

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

## INTERMODULATION PERFORMANCE

**Typical @ 25 °C** **A2CP16225**  
**Second Order Harmonic Intercept Point** ..... +54 dBm  
**Second Order Two Tone Intercept Point** ..... +48 dBm  
**Third Order Two Tone Intercept Point** ..... +36 dBm

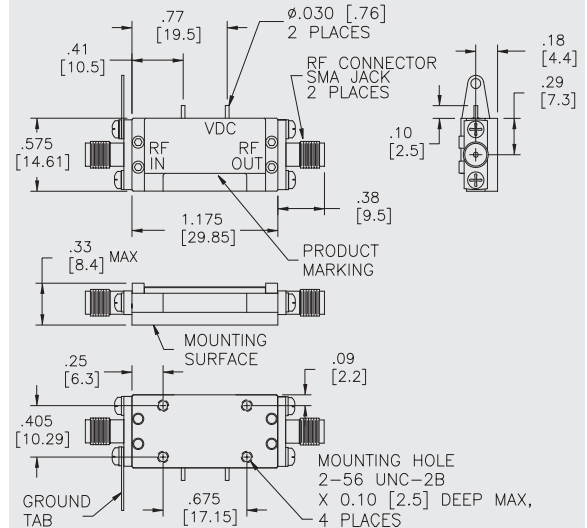
## ABSOLUTE MAXIMUM RATINGS

**Storage Temperature** ..... -62 to +125 °C  
**Maximum Case Temperature** ..... +125 °C  
**Maximum DC Voltage** ..... +14 Volts  
**Maximum Continuous RF Input Power** ..... +13 dBm  
**Maximum Short Term Input Power (1 Minute Max.)** ..... +17 dBm  
**Maximum Peak Power (3 μsec Max.)** ..... +13 dBm  
**Burn-in Temperature** ..... +125 °C  
**Thermal Resistance<sup>1</sup> (θjc)** ..... — °C/Watt  
**Junction Temperature Rise Above Case (Tjc)** ..... — °C

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

## A2CP16225

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]