

# A2P2520

# 100 TO 2500 MHz SMA CASCADED AMPLIFIER

*Typical Values*

<b>High Gain</b> .....	<b>A2P2520</b>
<b>Low Noise Figure</b> .....	<b>36.0 dB</b>
<b>High Output Level</b> .....	<b>3.2 dB</b>
<b>High Third Order I.P.</b> .....	<b>0.5 Watt</b>
<b>High Reverse Isolation</b> .....	<b>+40 dBm</b>
<b>High Performance Thin Film</b>	<b>63 dB</b>
<b>Power Pack SMA Package</b>	

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed		
		0 to 50 °C	-55 to +85 °C	
Frequency (Min.)	50-2500 MHz	100-2500 MHz	100-2500 MHz	
Small Signal Gain (Min.)	36.0 dB	33.0 dB	32.0 dB	
Gain Flatness (Max.)	±0.7 dB	±1.0 dB	±1.2 dB	
Noise Figure (Max.)	3.5 dB	4.5 dB	5.0 dB	
SWR (Max.)	Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+27.5 dBm	+26.5 dBm	+26.0† dBm	
Reverse Isolation	63 dB	—	—	
DC Current (Max.)	363 mA	370 mA	392 mA	

\* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.  
† Indicates minimum temperature at -55/+71 °C.

## INTERMODULATION PERFORMANCE

*Typical @ 25 °C*

<b>Second Order Harmonic Intercept Point</b> .....	<b>A2P2520</b>
<b>Second Order Two Tone Intercept Point</b> .....	<b>+59 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....	<b>+53 dBm</b>
	<b>+38 dBm</b>

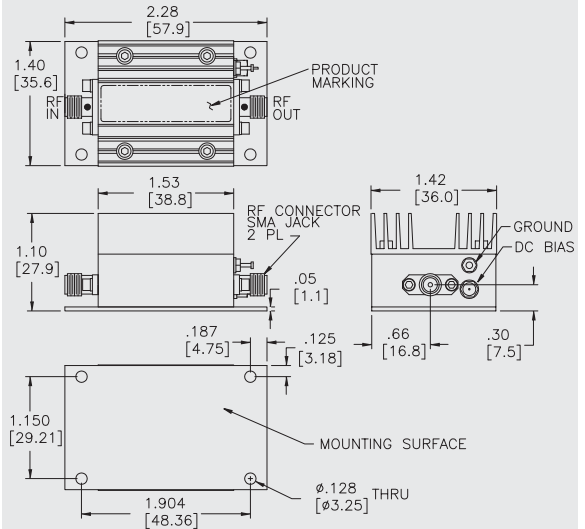
## ABSOLUTE MAXIMUM RATINGS

<b>Storage Temperature</b> .....	-62 to +125 °C
<b>Maximum Case Temperature</b> .....	+115 °C
<b>Maximum DC Voltage</b> .....	+16 Volts
<b>Maximum Continuous RF Input Power</b> .....	-4 dBm
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	50 Milliwatts
<b>Maximum Peak Power (3 μsec Max.)</b> .....	0.5 Watt
<b>Burn-in Temperature</b> .....	+85 °C
<b>Thermal Resistance<sup>1</sup> (θjc)</b> .....	+14 °C/Watt
<b>Junction Temperature Rise Above Case (Tjc)</b> .....	+60.0 °C

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

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### Power Pack SMA Case (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]