

# A2P2130 10 TO 2000 MHz SMA CASCADED AMPLIFIER

**Typical Values**

<b>High Gain</b> . . . . .	<b>21.5 dB</b>
<b>Low Noise Figure</b> . . . . .	<b>3.5 dB</b>
<b>High Output Level</b> . . . . .	<b>1 Watt</b>
<b>High Third Order I.P.</b> . . . . .	<b>+41 dBm</b>
<b>High Reverse Isolation</b> . . . . .	<b>40 dB</b>
<b>High Performance Thin Film</b>	
<b>Power Pack SMA Package</b>	

**A2P2130**

## SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50° C	-55 to +85° C
Frequency (Min.)	5-2100 MHz	10-2000 MHz	10-2000 MHz
Small Signal Gain (Min.)	21.5 dB	19.0 dB	17.5 dB
Gain Flatness (Max.)	±0.7 dB	±0.9 dB	±1.2 dB
Noise Figure (Max.)	3.5 dB	4.0 dB	4.5 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+30.0 dBm	+29.0 dBm	+28.5† dBm
Reverse Isolation	40 dB	—	—
DC Current (Max.)	495 mA	510 mA	525 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>+58 dBm</b>
<b>Second Order Two Tone Intercept Point</b> . . . . .	<b>+52 dBm</b>
<b>Third Order Two Tone Intercept Point</b> . . . . .	<b>+41 dBm</b>

## ABSOLUTE MAXIMUM RATINGS

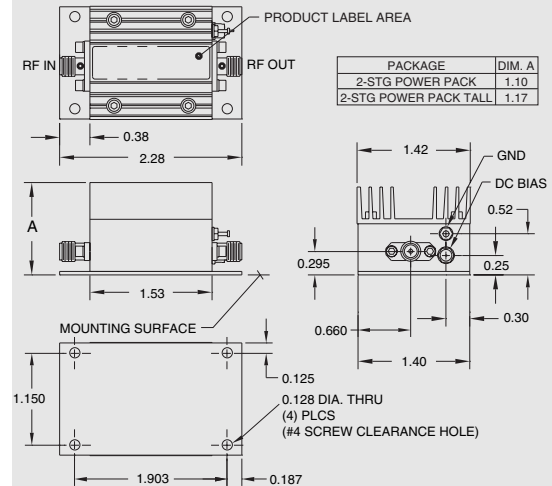
<b>Storage Temperature</b> . . . . .	<b>-62 to +125° C</b>
<b>Maximum Case Temperature</b> . . . . .	<b>+110° C</b>
<b>Maximum DC Voltage</b> . . . . .	<b>+17 Volts</b>
<b>Maximum Continuous RF Input Power</b> . . . . .	<b>+22 dBm<sup>1</sup></b>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> . . . . .	<b>200 Milliwatts</b>
<b>Maximum Peak Power (3 μsec Max.)</b> . . . . .	<b>0.5 Watt</b>
<b>Burn-in Temperature</b> . . . . .	<b>+85° C</b>
<b>Thermal Resistance<sup>2</sup> (θjc)</b> . . . . .	<b>+10° C/Watt</b>
<b>Junction Temperature Rise Above Case (Tjc)</b> . . . . .	<b>+57.8° C</b>

<sup>1</sup> If no load on output; decrease input power (no damage) by 10 dBm.

<sup>2</sup> Thermal resistance is based on total power dissipation.

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



DIMENSIONS ARE IN INCHES (MILLIMETERS)