

# A2P2020

## 50 TO 2000 MHz SMA CASCADED AMPLIFIER

*Typical Values*

<b>High Gain</b> .....	<b>A2P2020</b>	<b>27.5 dB</b>
<b>Low Noise Figure</b> .....		<b>5.1 dB</b>
<b>High Output Level</b> .....		<b>+29.5 dBm</b>
<b>High Third Order I.P.</b> .....		<b>+41 dBm</b>
<b>High Reverse Isolation</b> .....		<b>52 dB</b>
<b>High Performance Thin Film</b>		
<b>Power Pack SMA Package</b>		

### SPECIFICATIONS\*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	30-2100 MHz	50-2000 MHz	50-2000 MHz
Small Signal Gain (Min.)	27.5 dB	25.5 dB	24.5 dB
Gain Flatness (Max.)	±0.5 dB	±0.7 dB	±0.8 dB
Noise Figure (Max.)	5.1 dB	7.0 dB	7.5 dB
SWR (Max.) Input/Output	1.7:1	1.9:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.5 dBm	+29.0 dBm	+28.5† dBm
Reverse Isolation	52 dB	—	—
DC Current (Max.)	620 mA	635 mA	650 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>A2P2020</b>	<b>+52 dBm</b>
<b>Second Order Two Tone Intercept Point</b> .....		<b>+55 dBm</b>
<b>Third Order Two Tone Intercept Point</b> .....		<b>+41 dBm</b>

### ABSOLUTE MAXIMUM RATINGS

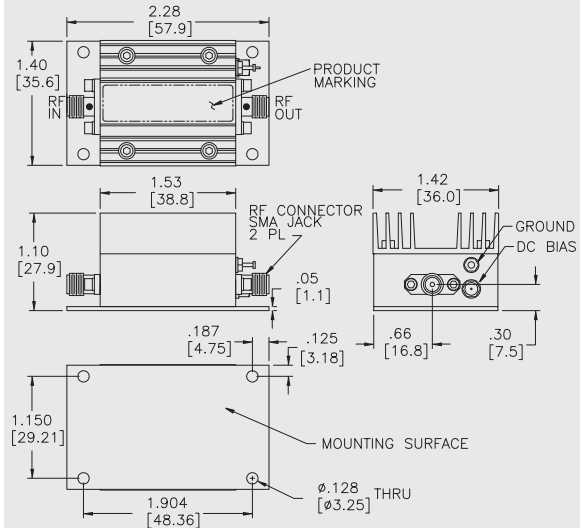
<b>Storage Temperature</b> .....	-62 to +125 °C
<b>Maximum Case Temperature</b> .....	+110 °C
<b>Maximum DC Voltage</b> .....	+17 Volts
<b>Maximum Continuous RF Input Power</b> .....	+22 dBm <sup>1</sup>
<b>Maximum Short Term Input Power (1 Minute Max.)</b> .....	200 Milliwatts
<b>Maximum Peak Power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

<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.

### A2P2020

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



DIMENSIONS ARE IN INCHES [MILLIMETERS]