TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

PRELIMINARY

A2P1220

30 TO 1200 MHz SMA CASCADED AMPLIFIER

Typical Values	***A2P1220***
High Gain	***31.5 dB***
Low Noise Figure	***4.3 dB***
High Output Level	***+29.7 dBm***
High Third Order I.P.	***+40 dBm***
High Reverse Isolation	***53 dB***

High Performance Thin Film
Power Pack SMA Package

SPECIFICATIONS*

Parameter	Typical	Guaranteed 0 to 50 °C	Guaranteed -55 to +85 °C
Frequency (Min.)	**20-1200 MHz**	**30-1200 MHz**	**30-1200 MHz**
Small Signal Gain (Min.)	31.5 dB	29.0 dB	27.5 dB
Gain Flatness (Max.)	±0.5 dB	±0.7 dB	±1.0 dB
Noise Figure (Max.)	4.3 dB	5.5 dB	6.0 dB
SWR (Max.)			
Input/Output 30-500 MHz	1.8:1	1.9:1	2.1:1
500-1200 MHz	1.6:1	1.8:1	2.0:1
Power Output (Min.) @ 1dB comp.	+29.7 dBm	+29.0 dBm	+28.5† dBm
Reverse Isolation	53 dB	—	—
DC Current (Max.)	500 mA	520 mA	530 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	***A2P1220***
Second Order Harmonic Intercept Point	+59 dBm
Second Order Two Tone Intercept Point	+53 dBm
Third Order Two Tone Intercept Point	+40 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+110 °C
Maximum DC Voltage	+17 Volts
Maximum Continuous RF Input Power	0 dBm[1]
Maximum Short Term Input Power (1 Minute Max.)	50 Milliwatts
Maximum Peak Power (3 µsec Max.)	0.5 Watt
Burn-in Temperature	+85 °C
Thermal Resistance[2] (θjc)	+10 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+57.8 °C

[1] If no load on output; decrease input power (no damage) by 10 dBm.
[2] Thermal resistance is based on total power dissipation.

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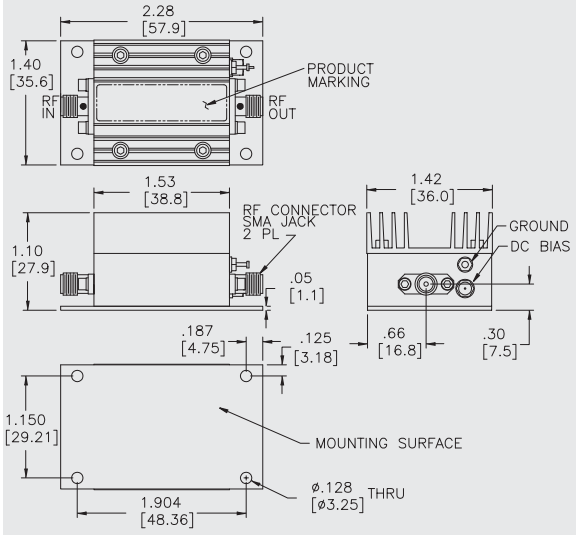
Power Pack SMA Case (two-stage)



DIMENSIONS ARE IN INCHES [MILLIMETERS]