TELEDYNE
MICROWAVE SOLUTIONS
Everywhereyoulook™

**PRELIMINARY**

# A2P2130

## 30 TO 2000 MHz SMA CASCADED AMPLIFIER

| *Typical Values* | ***A2P2130*** |
|---|---|
| ***High Gain*** | ***21.5 dB*** |
| ***Low Noise Figure*** | ***3.5 dB*** |
| ***High Output Level*** | ***1 Watt*** |
| ***High Third Order I.P.*** | ***+41 dBm*** |
| ***High Reverse Isolation*** | ***38 dB*** |

***High Performance Thin Film***
***Power Pack SMA Package***

## SPECIFICATIONS*

| Parameter | Typical | Guaranteed 0 to 50 °C | Guaranteed -55 to +85 °C |
|---|---|---|---|
| **Frequency (Min.)** | **30-2100 MHz** | **30-2000 MHz** | **30-2000 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.)** 100-2000 MHz | 3.5 dB | 4.6 dB | 5.1 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** | 38 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* | ***A2P2130*** |
|---|---|
| **Second Order Harmonic Intercept Point** | +58 dBm |
| **Second Order Two Tone Intercept Point** | +52 dBm |
| **Third Order Two Tone Intercept Point** | +41 dBm |

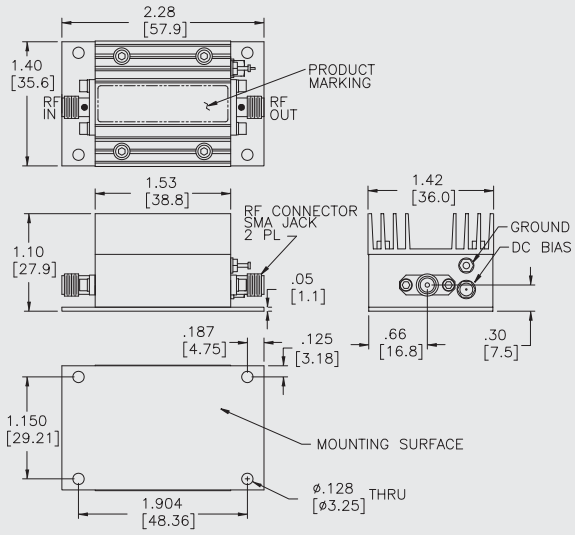
## ABSOLUTE MAXIMUM RATINGS

| | |
|---|---|
| **Storage Temperature** | -62 to +125 °C |
| **Maximum Case Temperature** | +110 °C |
| **Maximum DC Voltage** | +17 Volts |
| **Maximum Continuous RF Input Power** | +22 dBm[1] |
| **Maximum Short Term Input Power** (1 Minute Max.) | 200 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.

## A2P2130

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




DIMENSIONS ARE IN INCHES [MILLIMETERS]