

A4C3120D

10 TO 3000 MHz SMA CASCADED AMPLIFIER

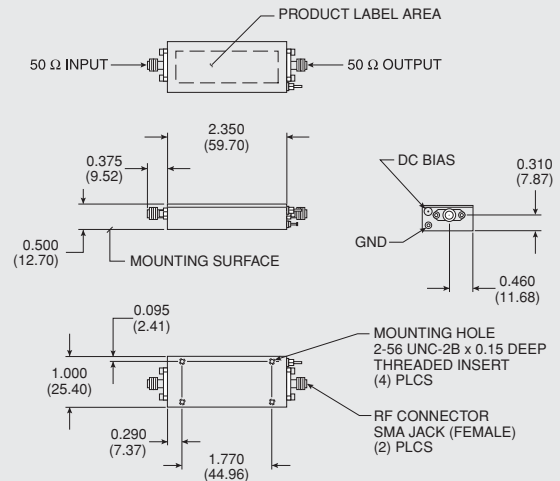
Typical Values

High Gain	30.0 dB
Low Noise Figure	3.4 dB
High Output Level	+21.0 dBm
High Third Order I.P.	+35 dBm
High Reverse Isolation	50 dB
High Performance Thin Film	
Four-stage SMA Package	

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TO-8 Amplifier SMA Case (three- and four-stage)



SPECIFICATIONS*

Parameter	Typical	Guaranteed	
		0 to 50 °C	-55 to +85 °C
Frequency (Min.)	10-3000 MHz	10-3000 MHz	10-3000 MHz
Small Signal Gain (Min.)	30.0 dB	27.3 dB	26.3 dB
Gain Flatness (Max.)	±0.7 dB	±1.3 dB	±1.5 dB
Noise Figure (Max.)	1.0-3.0 GHz	2.7 dB	4.2 dB
	0.2-1.0 GHz	3.5 dB	5.7 dB
SWR (Max.)	Input/Output	1.7:1	1.9:1
			2.0:1
Power Output (Min.) @ 1dB comp.	+21.0 dBm	+20.0 dBm	+19.5 dBm
Reverse Isolation	50 dB	—	—
DC Current (Max.)	240 mA	250 mA	260 mA

* Measured in a 50-ohm system at +15 Vdc unless otherwise specified.

INTERMODULATION PERFORMANCE

Typical @ 25 °C

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Second Order Harmonic Intercept Point	+71 dBm
Second Order Two Tone Intercept Point	+65 dBm
Third Order Two Tone Intercept Point	+35 dBm

ABSOLUTE MAXIMUM RATINGS

Storage Temperature	-62 to +125 °C
Maximum Case Temperature	+105 °C
Maximum DC Voltage	+17 Volts
Maximum Continuous RF Input Power	+15 dBm
Maximum Short Term Input Power (1 Minute Max.)	1 Watt
Maximum Peak Power (3 μsec Max.)	50 Watts
Maximum HBM ESD to RF Input	+1000 Volts
Burn-in Temperature	+85 °C
Thermal Resistance¹ (θjc)	+37 °C/Watt
Junction Temperature Rise Above Case (Tjc)	+66.8 °C

¹ Thermal resistance is based on total power dissipation.

DIMENSIONS ARE IN INCHES [MILLIMETERS]