

RF Amplifier

- * Operating Frequency : 1-300 MHz.
- * Gain : 16 dB.
- * High IP3 42 dBm.
- * No external components required

ELECTRICAL SPECIFICATION @ VDD= +15 VDC; Temp. = 25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	1		300	MHz.
Gain	G	15	16		dB.
Gain Flatness	Δ G		±0.5	±0.75	dB.
Noise Figure	N.F.		4.5	5.7	dB.
Output Power	P 1dB	27	28.5		dBm.
Two Tone Intercept @ 15dBm output per tone	IP3	40	42		dBm.
IP2 @ P Out = + 15dBm	IP2	60	70		dBm.
VSWR in/out	S11/S22		1.6:1	1.9:1	Ratio
Operating Voltage	Vdc		15		Volt
Operating Current	Id		230		mA.

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimension	SMA Housing		
Cooling	None		
Monitor Connector	None		

PROTECTION

		Max	
RF Input Power		20	dBm.
Reverse Polarity Protection	N/A		
Load VSWR	Infinite up to 1W		
Stability	100% Tested		

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min.	Typ.	Max.	Units
Operating Case Temperature	Tc	0		70C	°C
Storage Temperature	Tstg	- 55C		120°C	°C

3009 Old State Rd, Telford, PA 18969

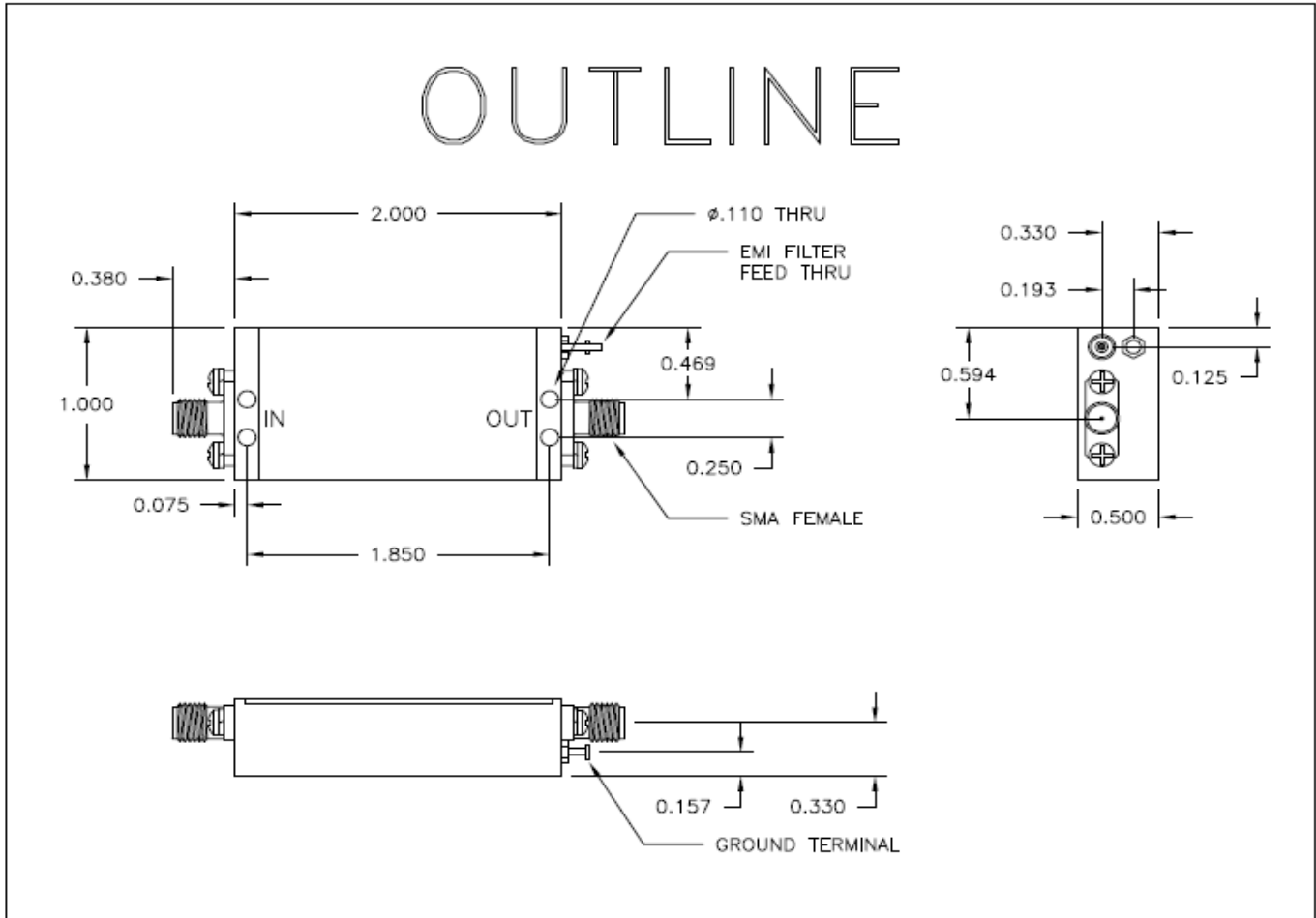
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FINAL ELECTRICAL TEST REPORT
RECORD 3 UNITS SAMPLE DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS 0°C/+25°C/+50°C	ACTUAL DATA
Gain 1 MHz to300 MHz	15.0 dB min	17.6 18.1
Gain Flatness 1 MHz to300 MHz	±0.75dB max	±0.25
Gain Variation vs. Temp. 1 MHz to300 MHz	±1.0 dB max	<1
DC Current at +15 Vdc	230 mA typ.	198
Input VSWR 1 MHz to300 MHz	1.9 : 1 max	1.69
Output VSWR 1 MHz to300 MHz	1.9 : 1 max	1.54
Noise Figure 1 MHz to300 MHz	5.7 db max	5.62
P 1.0 dB Compression 1 MHz to300 MHz	27 dBm min	27.4
IP3 with Pout = +15 dBm each tone 1) F1/F2 = 5/6 MHz Fc = 4/7 MHz 2) F1/F2 = 298/299 MHz Fc = 297/300 MHz	40 dBm min	40.5
IP2 with Pout = +15 dBm each tone 1) F1-F2 = 20+280 MHz Fc = 300MHz 2) F1-F2 = 290-280MHz Fc = 10 MHz	60 dBm min	69.0 75.0
Stability Test For all frequency range Where S21 > 0dB	0 dB max	<0
Max Pin: No Change in NF with Pin @ +20dBm, 30MHz for 1 min	Accept / Reject	Accept

Outline Drawing



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FUNCTIONAL BLOCK DIAGRAM

