

Features: (typical values)

- Bandwidth 20-3000 MHz.
- Power Out 20 dBm.
- Gain 24 dB.
- Noise Figure..... 3.5 dB.
- IP₃ 33 dBm.
- No external components required

**20 - 3000 MHz
Cascade Amplifier**



Maximum Ratings

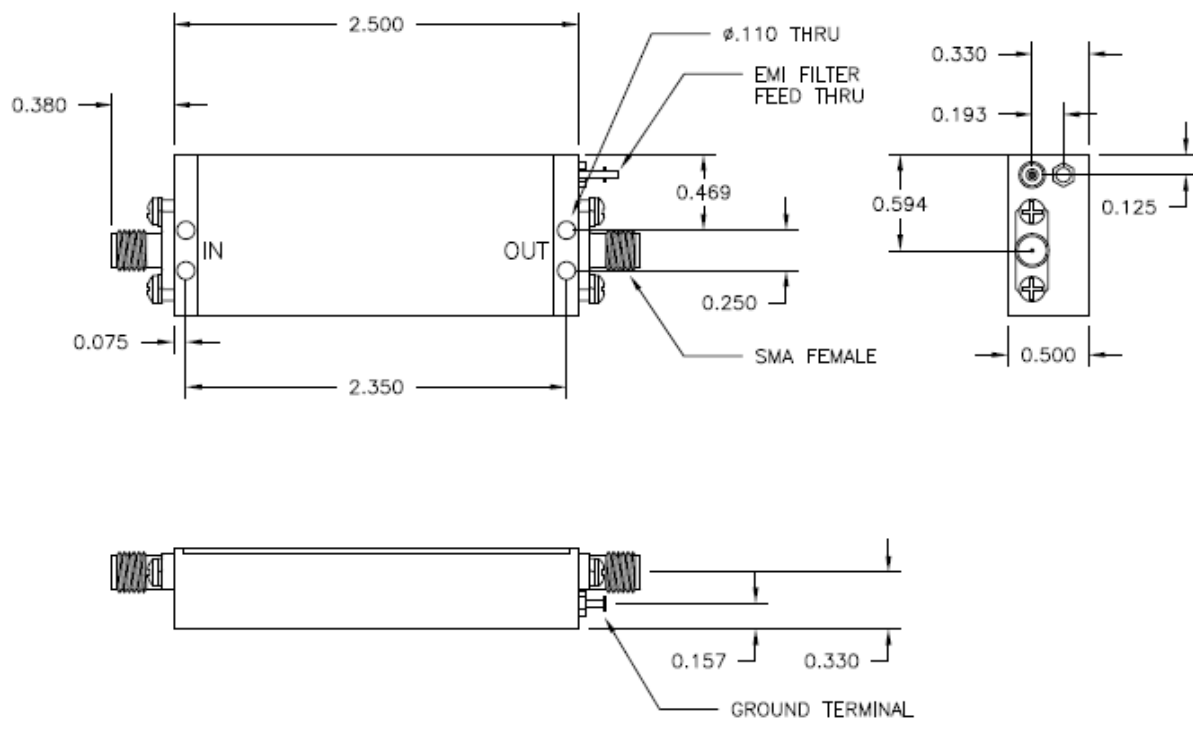
Storage Temperature -62°C to +125°C
 DC Voltage +17 volts
 RF Input Power +10 dBm.
 Case Temperature +100°C

Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	3000	MHz.
Gain	24	22		dB.
Gain Flatness	±0.75		±1.0	dB.
Gain Var. over temp	1.0			ΔdB.
Pout @ 1dB Comp	+20	+18		dBm.
Noise Figure	20-50MHz	5.0	6.5	dB.
	50-3000MHz	3.5	4.0	
IP3	33	30		dBm.
VSWR In/Out	1.7:1		2.0:1	
Supply Required	+15/250		+15/270	v/mA.

Min. and max. Values are from -20°C to +75°C

OUTLINE

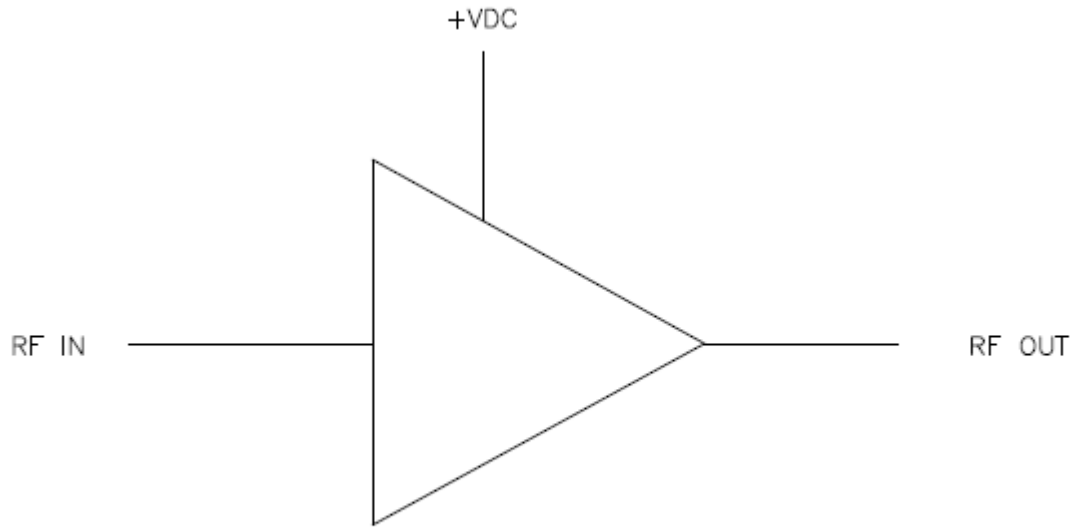


FINAL ELECTRICAL TEST REPORT

RECORD DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS 0°C/+25°C/+55°C	ACTUAL DATA
Gain 20 MHz to 3000 MHz	22.0 dB Min 24.0 dB Typ.	23.3 24.5
Gain Flatness 20 MHz to 3000 MHz	±1.0 dB Max	±0.6
Spurious Response	Accept/Reject	AC
DC Current at +15 Vdc	270 mA Max	213
Input VSWR 20 MHz to 3000 MHz	2.0 : 1 max	1.88
Output VSWR 20 MHz to 3000 MHz	2.0 : 1 max	1.96
Noise Figure 20 MHz to 50 MHz	6.5 dB Max	6.02
50 MHz to 3000 MHz	4.0 dB Max	3.68
P 1.0 dB Compression 20 MHz to 3000 MHz	18.0 dBm Min	>20.0
IP3 with Pout = +5.0 dBm each tone 1) F1/F2=21/22 MHz, Fc=19/23 MHz 2) F1/F2=1500//1501 MHz, Fc=1499/1502 MHz 1) F1/F2=2998/2999 MHz, Fc=2997/3000 MHz	30.0 dBm Min	33.0
Stability Test. For all frequency range where $ S_{21} > 0\text{dB}$	0 dB max	< 0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED