

ASC2695C

**0.4 - 110 MHz
Cascade Amplifier**



Features: (typical values)

- Bandwidth 0.4-110 MHz.
- Power Out 31.0 dBm.
- Gain 36 dB.
- Noise Figure..... 4.0 dB.
- IP₃ 43 dBm.
- No external components required

Maximum Ratings

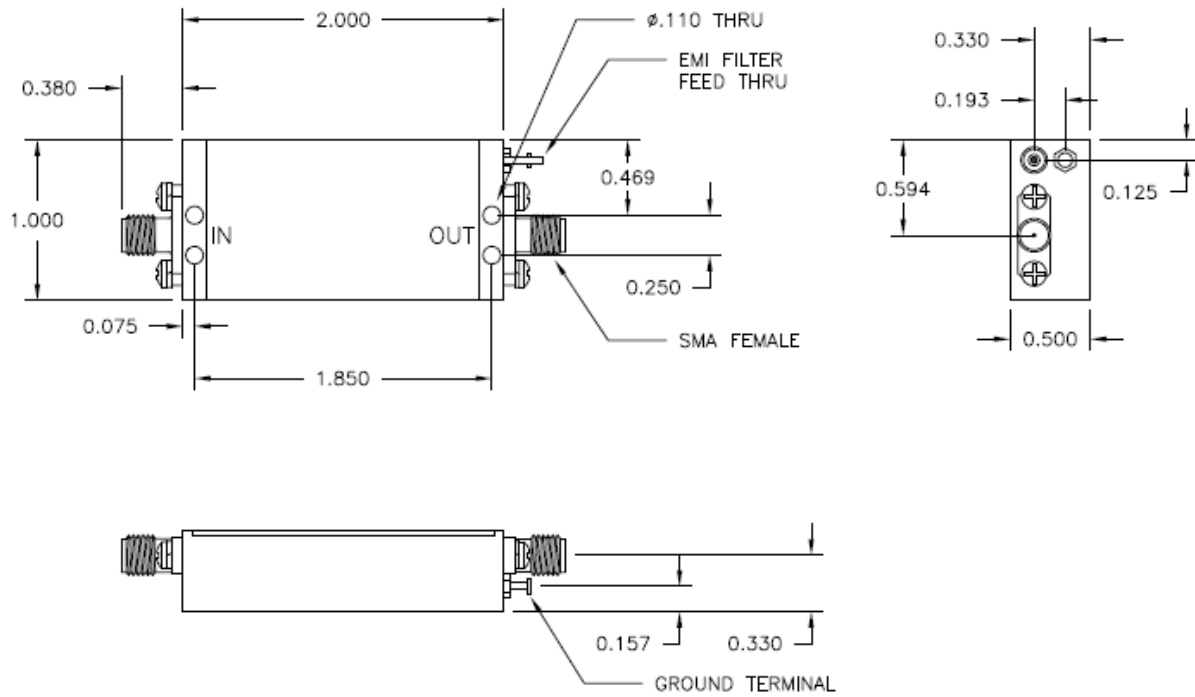
Storage Temperature -62°C to +125°C
 DC Voltage +12 volts
 RF Input Power 0 dBm.
 Case Temperature +100°C

Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		0.4	110	MHz.
Gain	36	30		dB.
Gain Flatness	±0.5		±1.0	dB.
Gain Var. over temp	1.0			ΔdB.
Pout @ 1dB Comp	+31	+30		dBm.
Noise Figure	4.0		6.0	dB.
IP ₃	43	40		dBm.
VSWR In/Out	1.8:1		2.0:1	
Supply Required	+12/370		+12/400	v/mA.

Min. and max. Values are from 0°C to +70°C

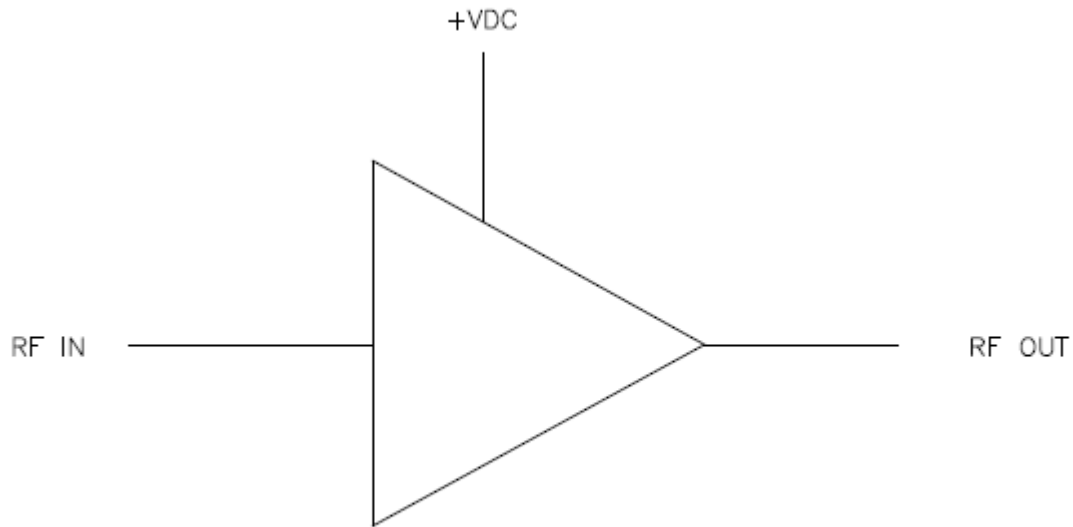
OUTLINE



FINAL ELECTRICAL TEST REQUIREMENTS

TEST Vdc +12V	LIMITS Tc = 250 C	ACTUAL DATA
Gain 0.4 MHz to 110 MHz	30.0 dB min 36.0 dB typ	37.0 37.2
Gain Flatness 0.4 MHz to 110 MHz	±1.0 db max	±0.1
Gain Variation vs. Temp. 0.4 MHz to 110 MHz	±1.0 db max	PASS
DC Current at +12Vdc	400 mA max	319
Input VSWR 0.4 MHz to 110 MHz	2.0 : 1 max	1.5
Output VSWR 0.4 MHz to 110 MHz	2.0 : 1 max	1.28
Noise Figure 0.4 MHz to 110 MHz	6.0 dB max	3.7
P 1.0 dB Compression 0.4 MHz to 110 MHz	28.0 dBm min	28.1
IP3 with Pout = +15dBm each tone 1) F1/F2 = 9/10 MHz Fc = 8/11 MHz 2) F1/F2 = 100/101 MHz Fc = 99/102MHz	40 dBm min	42.5
Stability Test For all frequency range Where S21 > 0dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED