

ASC2616C

54 MHz-870 MHz Amplifier



Features: (typical values)

- Bandwidth 54MHz-870MHz.
- Noise Figure 4.0 dB.
- Medium Gain 22 dB.
- No external components required

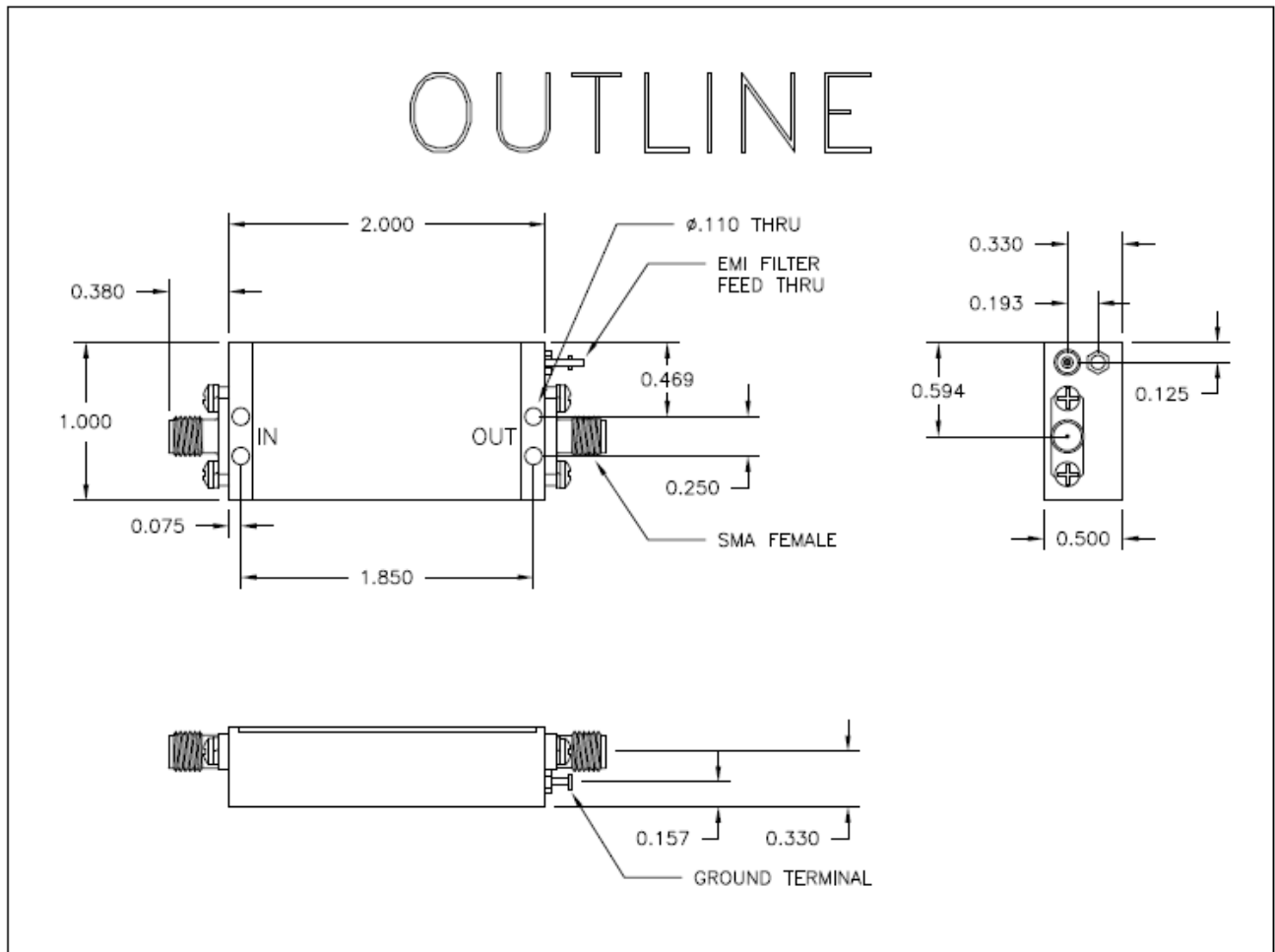
Maximum Ratings

Storage Temperature -55°C to +100°C
 DC Voltage +14 volts
 RF Input Power +10.0 dBm.
 Case Temperature +100°C

Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		54	870	MHz.
Gain	22	20		dB.
Gain Flatness	±0.5		±2.0	dB.
Gain Var. over temp			±1.5	ΔdB.
Noise Figure	4		5.0	dB.
Reverse Isolation	30			dB.
Ouput 1 dB Compression Point	+32.0	+30		dBm.
IP3	45	44		dBm.
VSWR In/Out	1.6:1		1.8:1	
Supply Required	+12/550		+12/600	v/mA.

Min. and max. values are from -20°C to +70°C



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

TEST Vdc +12V	LIMITS -20°C/+25°C/+70°C	ACTUAL DATA
Gain 54 MHz to 870 MHz	20.0 dB min 22.0 dB Typ	23.5 23.8
Gain Flatness 54 MHz to 870 MHz	± 2.0 dB max	±0.15
Spurious Response	Accept/Reject	AC
DC Current at +12 Vdc	600 mA max	472
Input VSWR 54 MHz to 870 MHz	1.8 : 1 max	1.34
Output VSWR 54 MHz to 870 MHz	2.0 : 1 max	1.87
Noise Figure 54 MHz to 870 MHz	5 dB max	3.8
P 1.0 dB Compression 54 MHz to 870 MHz	30.0 dBm min	31.0
IP3 with Pout = 15.0 dBm each tone 1) F1/F2=55/56 MHz, Fc=54/57 MHz 2) F1/F2=400/401 MHz, Fc=399/402 MHz 3) F1/F2=870/871MHz, Fc=869/872 MHz	44.0 dBm Min	45.0 45.0 45.0
Stability Test. For all frequency range where $ S_{21} > 0\text{dB}$	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM

