

ASC2806C

20-1000 MHz Ultra Linear 1 Watts Amplifier



Features: (typical values)

- High IP3 +42.0 dBm.
- High Gain 40 dB.
- High Output Power +31.0 dBm.
- No external components required

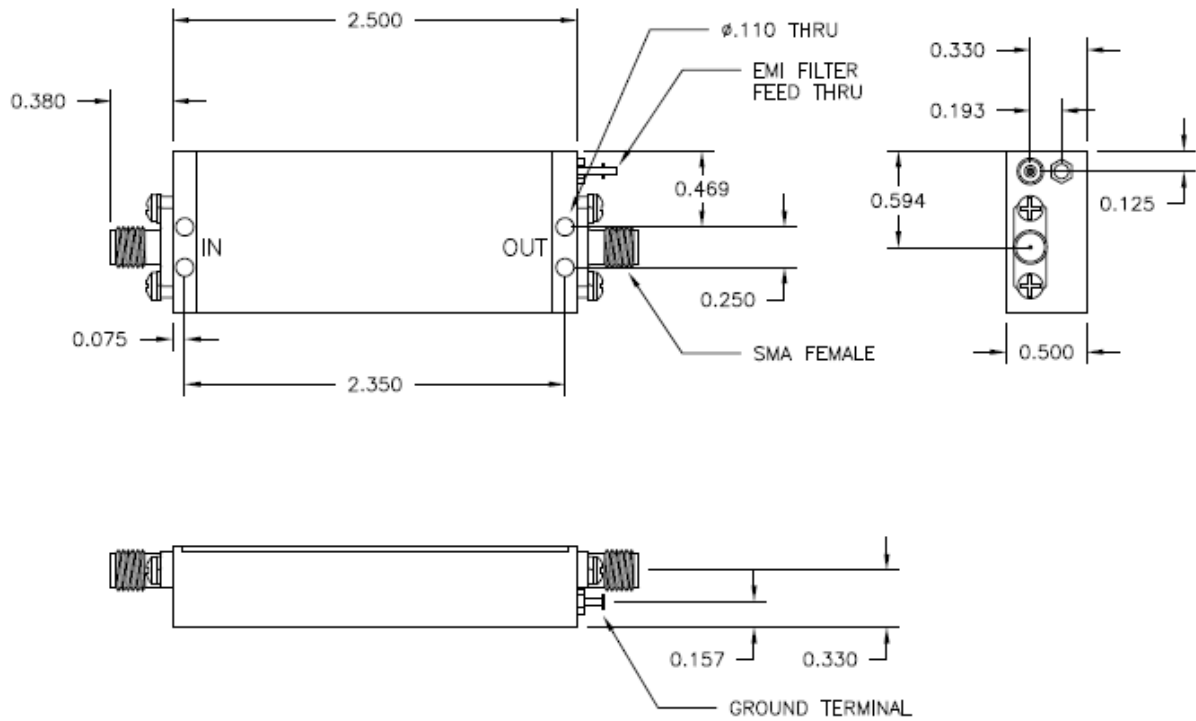
Maximum Ratings

Operating Temperature -20°C to +60°C
 Storage Temperature -20°C to +125°C
 DC Voltage +15volts
 RF Input Power -5 dBm.
 Case Temperature +95°C

Electrical Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	1000	MHz.
Gain	40.0	38.0		dB.
Gain Flatness	±0.5		±1.0	dB.
Pout @ 1dB Comp	31.0	30.0		dBm.
Noise Figure	2.5		3.0	dB.
VSWR (Input/Output)	1.8:1		2.0:1	dBm.
Impedance, Input/Output	50 Ohm			
Supply Required	+15/540		+15/600	v/mA.

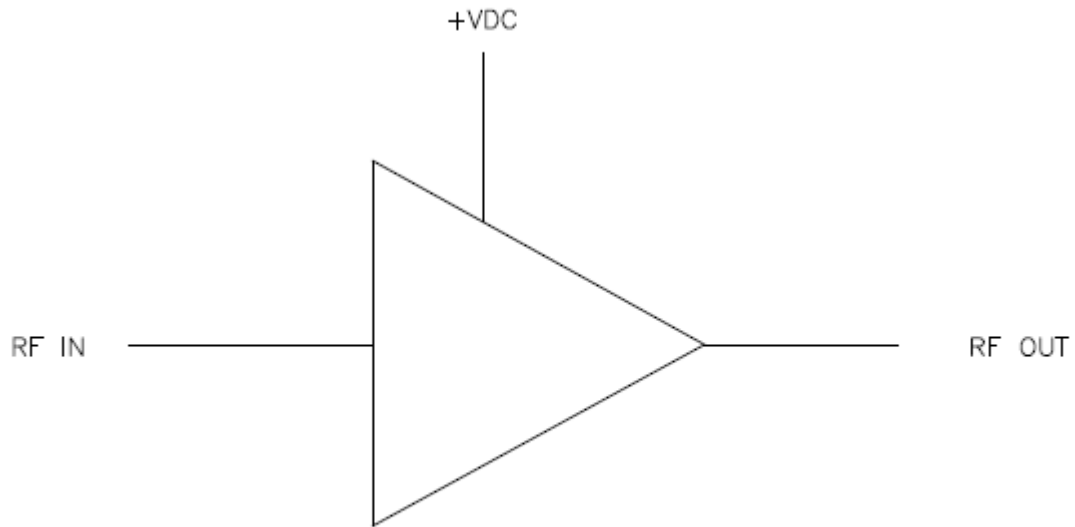
OUTLINE



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

TEST Vdc +15V	LIMITS -20°C/+25°C/+60°C	ACTUAL DATA
Gain 20 MHz to 1000 MHz	38.0 dB min 40.0 dB typ	39.0 39.5
Gain Flatness 20 MHz to 1000 MHz	± 1.0 dB max	±0.25
Spurious Response	Accept/Reject	AC
DC Current at +15 Vdc	500 mA max	452
Input VSWR 20 MHz to 1000 MHz	2.0 : 1 max	1.75
Output VSWR 20 MHz to 1000 MHz	2.0 : 1 max	1.56
Noise Figure 20 MHz to 1000 MHz	3.0 dB max	2.48
P 1.0 dB Compression 20 MHz to 1000 MHz	30.0 dBm min	30.2
Stability Test. For all frequency range where $ S_{21} > 0\text{dB}$	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED