

ASC2727C

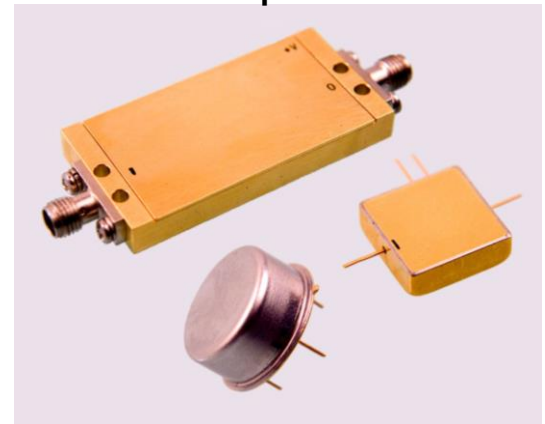
20-200 MHz Amplifier

Features: (typical values)

- Output Power +35 dBm.
- Low Noise 3.0 dB.
- High Gain+36 dB.
- No external components required

Maximum Ratings

Storage Temperature -62°C to +125°C
 DC Voltage +24volts
 RF Input Power +5 dBm.
 Case Temperature +95°C

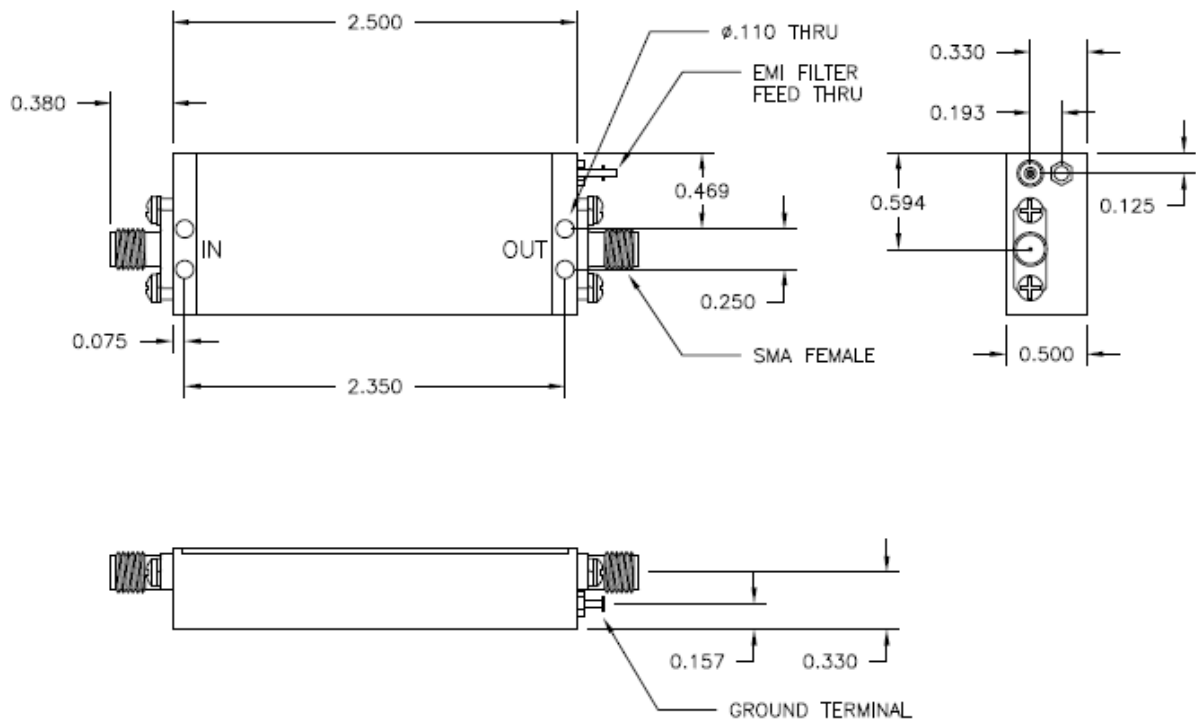


Specifications (Referenced to 50 ohms Impedance)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	200	MHz.
Gain	36	34		dB.
Gain Flatness	±0.25		±0.5	dB.
Pout @ 1dB Comp	+35.0	+33.0		dBm.
NF	3.0		4	dB.
OIP ₃ (two-tone)	51	49		dBm.
OIP ₂ (two-tone)	80	75		dBm.
VSWR	1.7:1		2.0 :1	dB
Supply Required	+24/550		+24/650	v/mA.

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

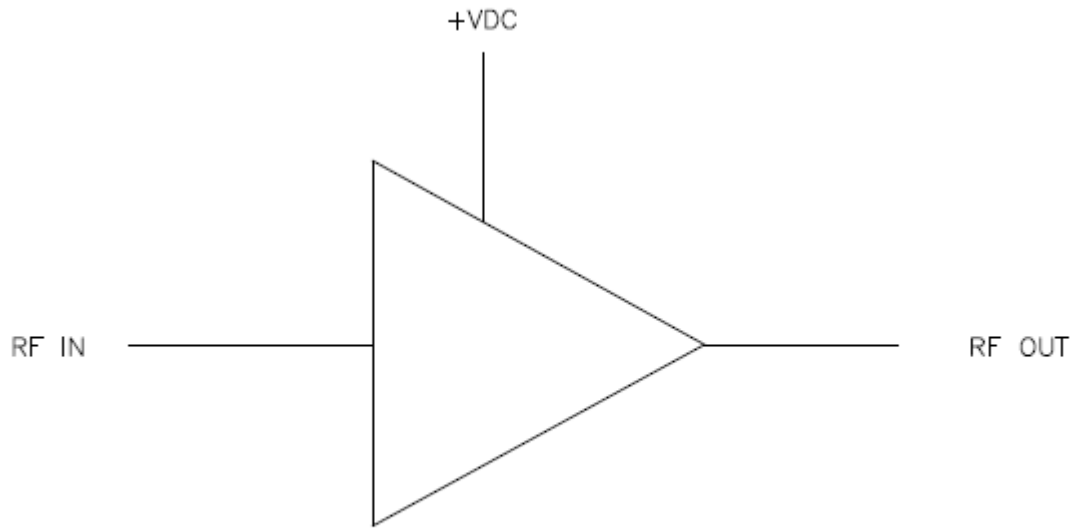
OUTLINE



FINAL ELECTRICAL TEST REPORT @ +25°C

TEST	LIMITS / SN	ACTUAL DATA
GAIN 20 MHz TO 200 MHz	34.0 dB min	35.1
	36.0 dB typ	35.2
GAIN FLATNESS 20 MHz TO 200 MHz	±0.5 dB max	±0.05
GAIN VARIATION vs TEMP	±1.25 dB max	<1
DC CURRENT AT +24 Vdc	650 mA max	533
INPUT VSWR 20 MHz TO 200 MHz	2.0: 1 max	1.72
OUTPUT VSWR 20 MHz TO 200 MHz	2.0: 1 max	1.79
NOISE FIGURE 20 MHz TO 200 MHz	4.0 dB max	2.6
P1.0 dB COMPRESSION 20 MHz TO 200 MHz	+33.0 dBm min	>34.0
IP3 WITH POUT= +15 dBm EACH TONE 1) F1/F2=20 / 21 MHz, Fc= 19 / 22 MHz 2) F1/F2=198 / 199 MHz, Fc= 197 / 200 MHz	49 dBm min	50.5
IP2 WITH POUT= +15 dBm EACH TONE 1) F1+F2 = 25 MHz + 175 MHz, Fc= 200 MHz 2) F1- F2 = 195 MHz - 175 MHz, Fc= 20 MHz	75 dBm min	83.0
Maximum Input power: no significant change in NF after +5 dBm @ 100/200 MHz applied to RF input for 1 min	NO CHANGE	NC
STABILITY TEST FOR ALL FREQUENCY RANGE WHERE [S21] > 0 dB	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED