

ASC229C

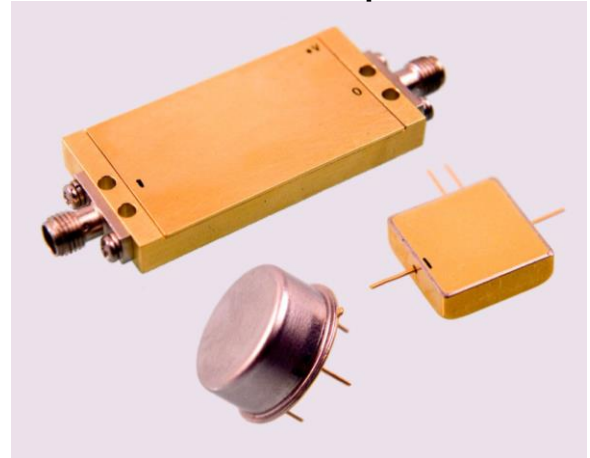
**400-2700 MHz
Wideband Amplifier**

Features: (typical values)

- Wideband 400-2700 MHz.
- High Second Order IP2 +55.0 dBm.
- High Third Order IP3 +40.0 dBm.
- High Gain..... +22 dB.
- Low Noise + 4.0 dB.
- No external components required

Maximum Ratings

- Storage Temperature -55°C to +125°C
 DC Voltage +17 volts
 RF Input Power +15.0 dBm.
 Case Temperature +95°C

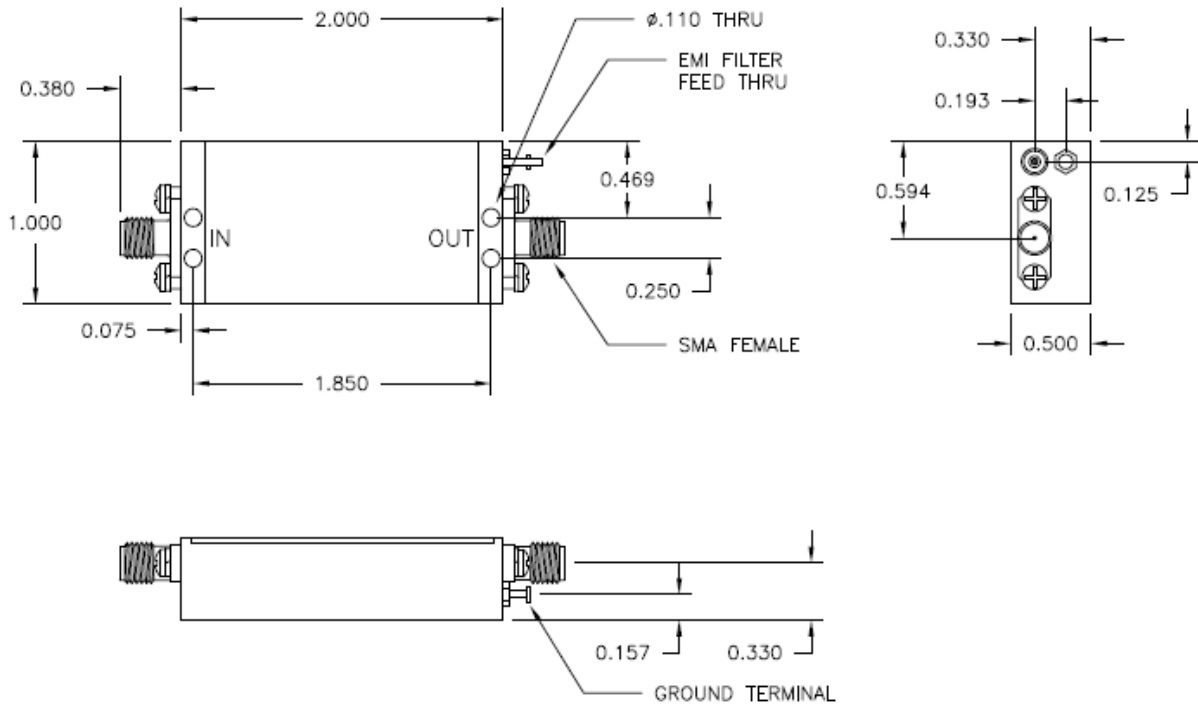


Specifications (Referenced to 50 ohms)

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		400	2700	MHz.
Gain	22	20		dB.
Gain Flatness	±0.3		±1.0	dB.
Gain Var. over temp.	0.5			ΔdB.
Pout @ 1dB Comp	+24	+22		dBm.
Noise Figure	4.0		5.0	dB.
Reverse Isolation	30			dB.
IP ₃ /IP ₂ (two tone)*	40/55	35/50		dBm.
HIP2 (2 nd harm.)	60			dBm.
VSWR In/Out	1.5:1		2.0:1	Ratio
Supply Required	+15/200		+15V/250	v/mA

Min. and max. values are from 0°C to +85°C
 *IP3 and IP2 are in band output intercept points

OUTLINE



FINAL ELECTRICAL TEST REPORT

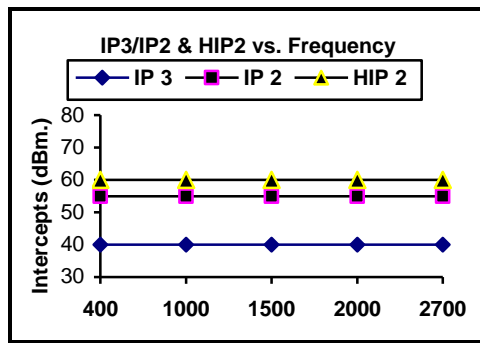
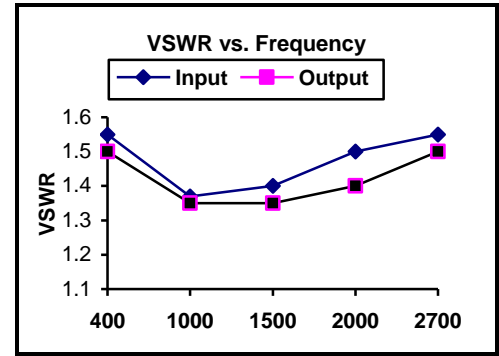
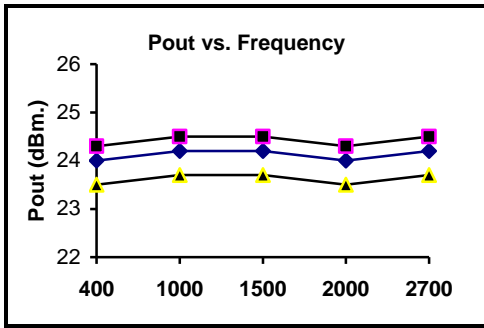
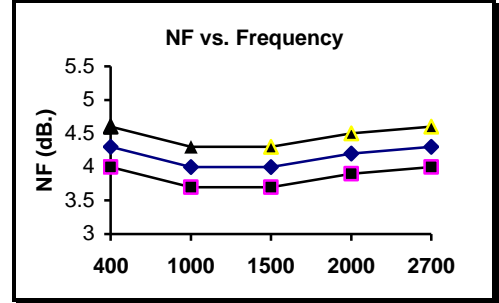
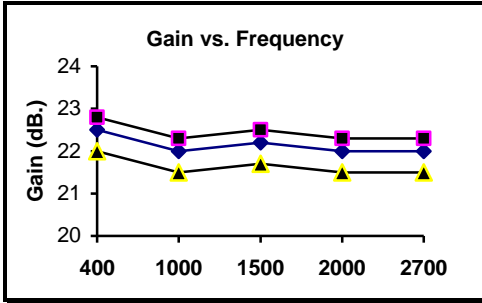
RECORD DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS -55°C/+25°C/+85°C	ACTUAL DATA
Gain 400 to 2700 MHz	20 dB min	22.1 22.9
Gain Flatness 400 to 2700 MHz	± 1.0 dB max	±0.4
Reverse Isolation 400 to 2700 MHz	30 dB typ	>37
DC Current at +15 Vdc	250 mA max	214
Input VSWR 400 to 2700 MHz	2.0 : 1 max	1.7
Output VSWR 400 to 2700 MHz	2.0 : 1 max	1.7
Noise Figure 400 to 2700 MHz	6 dB max	4.1
P 1.0 dB Compression 400 to 2700 MHz	22 dBm min	>23
IP3 with Pout = +12.0 dBm each tone 1) F1/F2=401/402 MHz Fc=400&403 MHz 2) F1/F2=1500/1501MHz Fc=1499&1502MHz 3) F1/F2=2698/2699MHz Fc=2697&2700MHz	36.0 dBm min	38.0
IP2 with Pout = +12.0 dBm each tone 1) F1+F2=400+401 Fc=801MHz 2) F1+F2=1000+1001 Fc=2001MHz 3) F1+F2=1000+1700 Fc=2700MHz	50.0 dBm min	51.0
Stability Test : For all frequencies Where $ S_{21} > 0\text{dB}$	0 dB max	<0

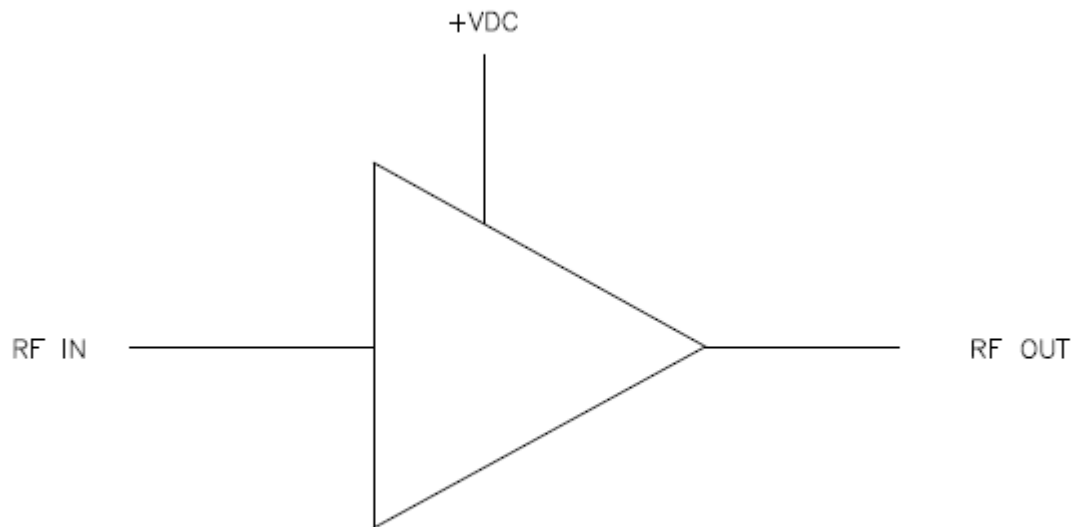
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Typical Performance Curves @

■ - 0°C ◆ - +25°C ▲ - +85°C



FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED