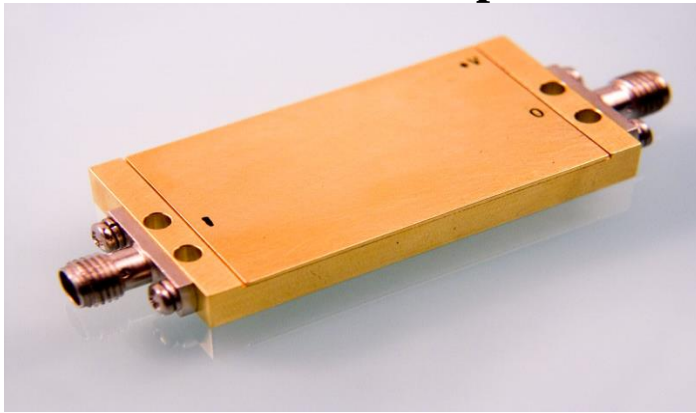


**ASC201C 20-2000 MHz. Wideband Amplifier**



**Features: (typical values)**

- Very high IP3..... + 34 dBm.
- High Gain..... +24.0 dB.
- Low NF ..... 4.0 dB.
- Super Linearity
- No external components required

**Specifications (Referenced to 50 ohms)**

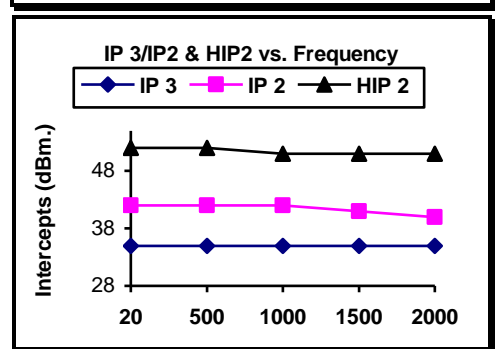
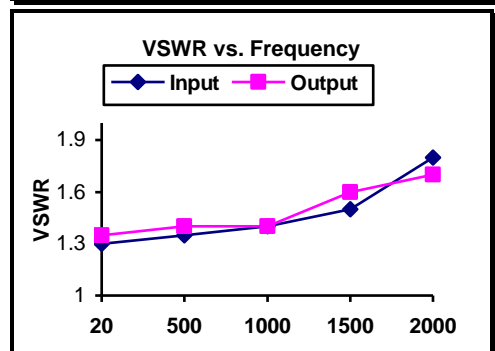
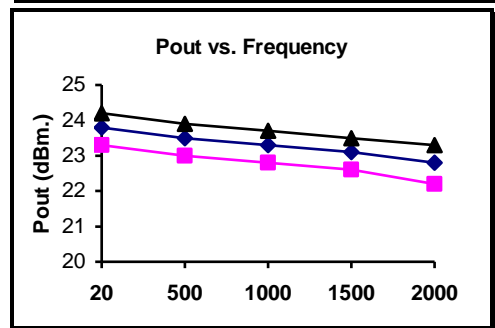
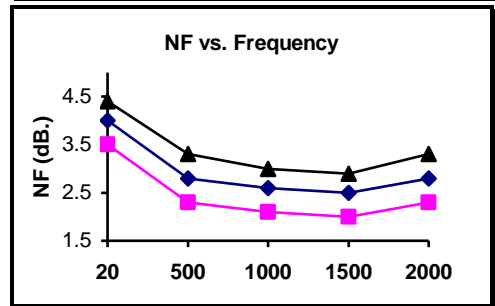
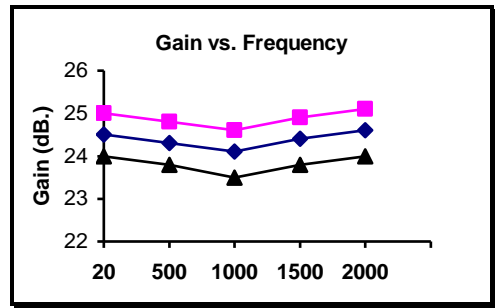
Parameter	Typical Value	Min. Value	Max. Value	Units
Frequency		20	2000	MHz.
Gain	24.0	22.0		dB.
Gain Flatness	±0.5		±1.0	dB.
Gain Var. over temp.	0.5			ΔdB.
Pout @ 1dB. Comp.	+23.0	+20.0		dBm.
NF 20-100mhz	4.0		5.0	dB.
NF 100-2000mhz	2.5		4.0	dB.
Reverse Isolation	35.0			dB.
IP <sub>3</sub> /IP <sub>2</sub> (two-tone)	35/47	31/40		dBm.
HIP2 (2 <sup>nd</sup> harm.)	52.0			dBm.
VSWR In/Out	1.7:1		2.0:1	
Supply Req'd	+15/250		+15/270	V/mA.

Min. and max. values are from -40°C to +85°C

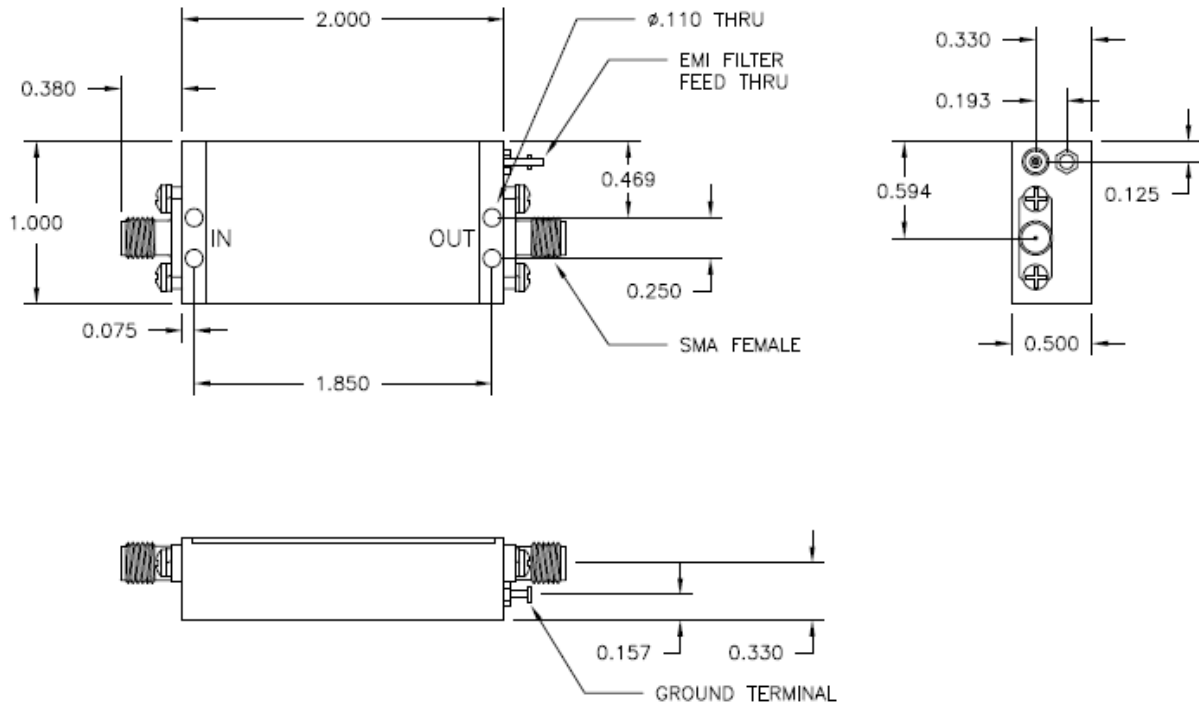
**Maximum Ratings**

Storage Temperature ..... -62°C to +125°C  
 DC Voltage ..... +17 volts  
 RF Input Power ..... +13.0 dBm.  
 Case Temperature ..... +95°C

**Typical Performance Curves**  
 - ■ - -40°C - ◆ - +25°C - ▲ - +85°C



# OUTLINE



DESCRIPTION: ASC201C

## FINAL ELECTRICAL TEST REPORT

RECORD DATA @ +25°C ONLY

TEST Vdc +15V	LIMITS -55°C/+25°C/+85°C	ACTUAL DATA
Gain 20 to 2000 MHz	22 dB min	23.1 23.7
Gain Flatness 20 to 2000 MHz	± 1.0 dB max	±0.3
Gain Variation Over Temp. 20 to 2000 MHz	0.7 dB typ	0.5
Reverse Isolation 20 to 2000 MHz	35 dB typ	>40
DC Current at +15 Vdc	270 mA max	218
Input VSWR 20 to 2000 MHz	2.0 : 1 max	1.41
Output VSWR 20 to 2000 MHz	2.0 : 1 max	1.7
Noise Figure @20 MHz 20 to 2000 MHz	5 dB max 4 dB max	2.83 2.76
P 1.0 dB Compression 20, 1000 & 2000 MHz	20 dBm min	>22
IP3 with Pout = +8.0 dBm each tone 1) F1/F2=21/22 MHz Fc=20&23 MHz 2) F1/F2=998/999MHz Fc=997&1000MHz 3) F1/F2=1998/1999MHz Fc=1997&2000MHz	31.0 dBm min	40.0
IP2 with Pout = +8.0 dBm each tone 1) F1-F2=500-480 Fc=20MHz 2) F1+F2=499+501 Fc=1000MHz 3) F1+F2=999+1001 Fc=2000MHz	40.0 dBm min	52.0
Stability Test : For all frequencies Where $ S_{21}  > 0dB$	0 dB max	<0

FUNCTIONAL BLOCK DIAGRAM

