

ASC3193C

20 - 1000 MHz Low Noise Figure Amplifier

Features: (typical values)

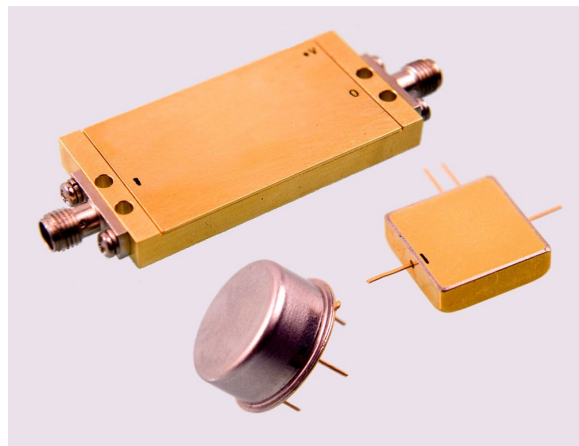
- Noise Figure 1.3 dB
- Output Power @ P1dB +23 dBm
- Third Order IP3 +39 dBm
- Second Order IP2 +49 dBm
- Gain +19 dB
- No external components required
- Available with +5V DC supply
- Available with internal limiting diode for maximum RF input = +30 dBm

Maximum Ratings (No Damage)

- Storage Temperature -62°C to +125°C
- DC Voltage +13 Volts
- RF Input Power +13.0 dBm
- Case Temperature +125°C

Packages Options:

- SMA-F CONNECTORIZED
- TO-8
- PCB



Specifications @ T_{CASE} = 25°C, V_{CC} = +12V, 50Ω systems unless otherwise noted.

Parameter	Typical Conditions	Min Value	Max Value	Units
Frequency		20	1000	MHz
Gain	19	17		dB
Gain Flatness	±0.8		±1.0	dB
Pout @ 1dB Comp	+23	+21		dBm
Noise Figure	1.3		1.8	dB
Output IP3 (two tone)	+39	+37		dBm
Output IP2 (two tone)	+49	+47		dBm
VSWR In	1.4 : 1		2.0 : 1	Ratio
VSWR Out	1.4 : 1		1.6 : 1	Ratio
Supply Current @ +12V	90		100	mA

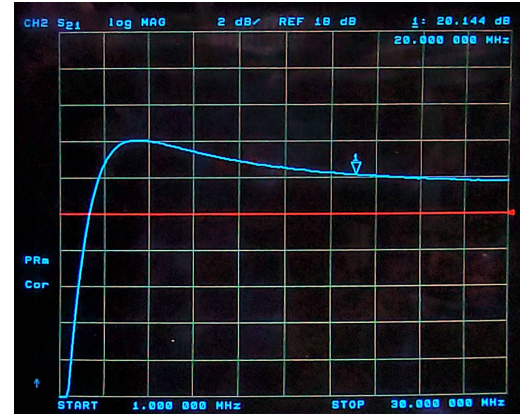
Min. and max. values are from -40°C to +85°C.

TYPICAL GAIN, INPUT VSWR, AND OUTPUT VSWR CURVES @ 25°C

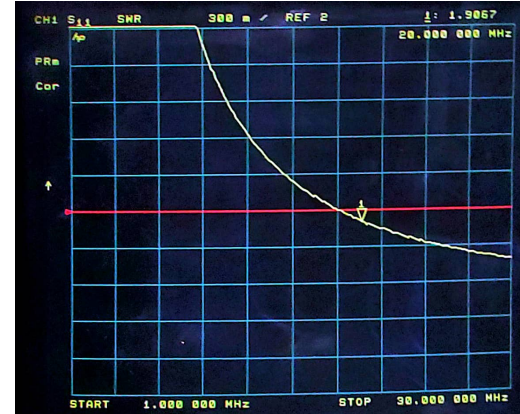
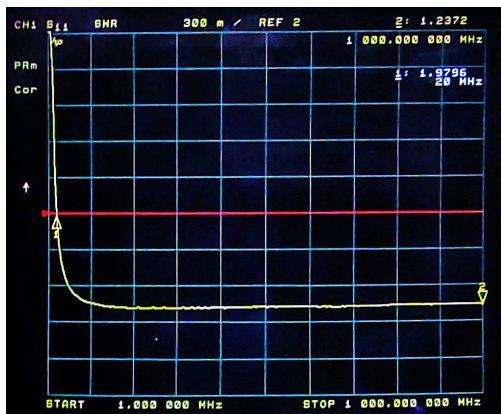
Full Bandwidth
1 – 1000MHz

Low Frequency Roll-off
1 – 30MHz

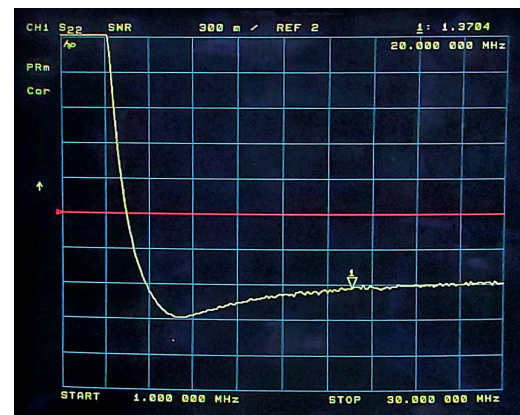
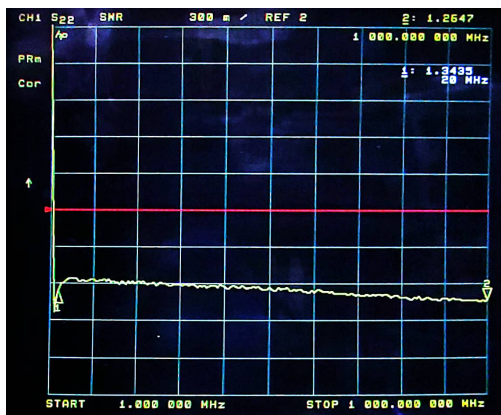
GAIN



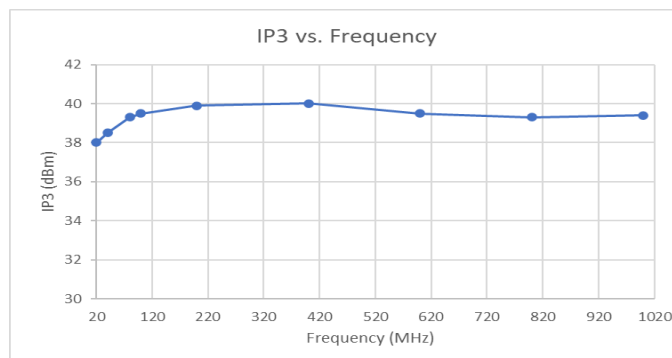
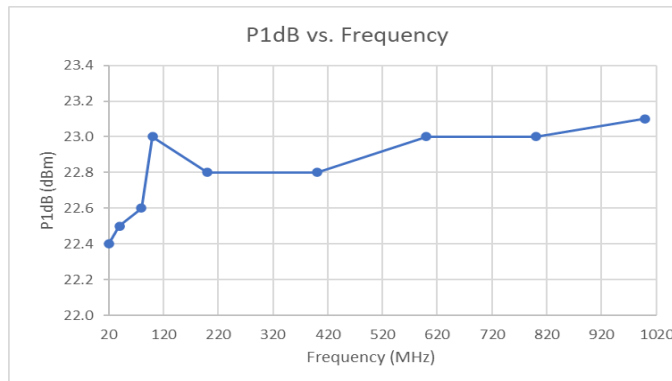
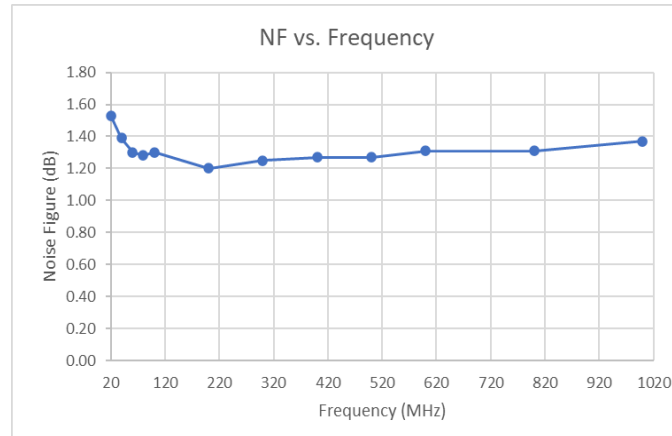
VSWR IN



VSWR OUT

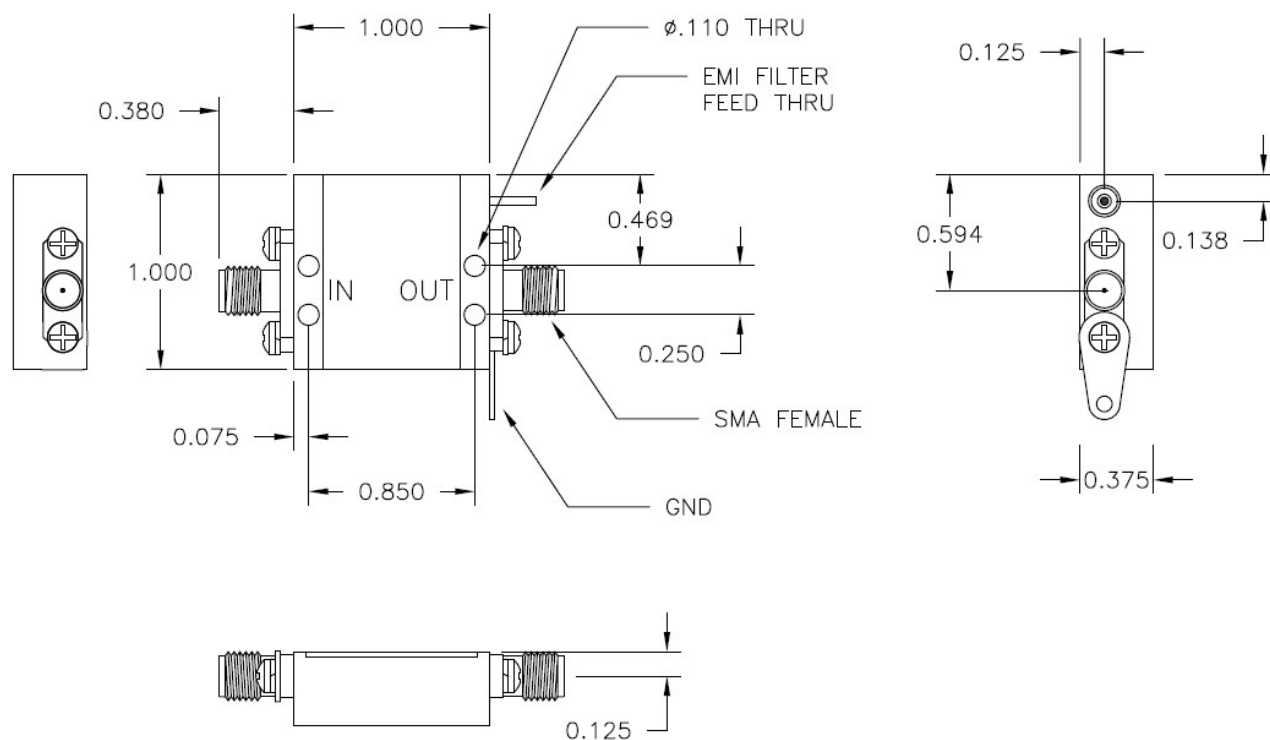


TYPICAL NOISE FIGURE, P1dB, AND IP3 CURVES @ 25°C

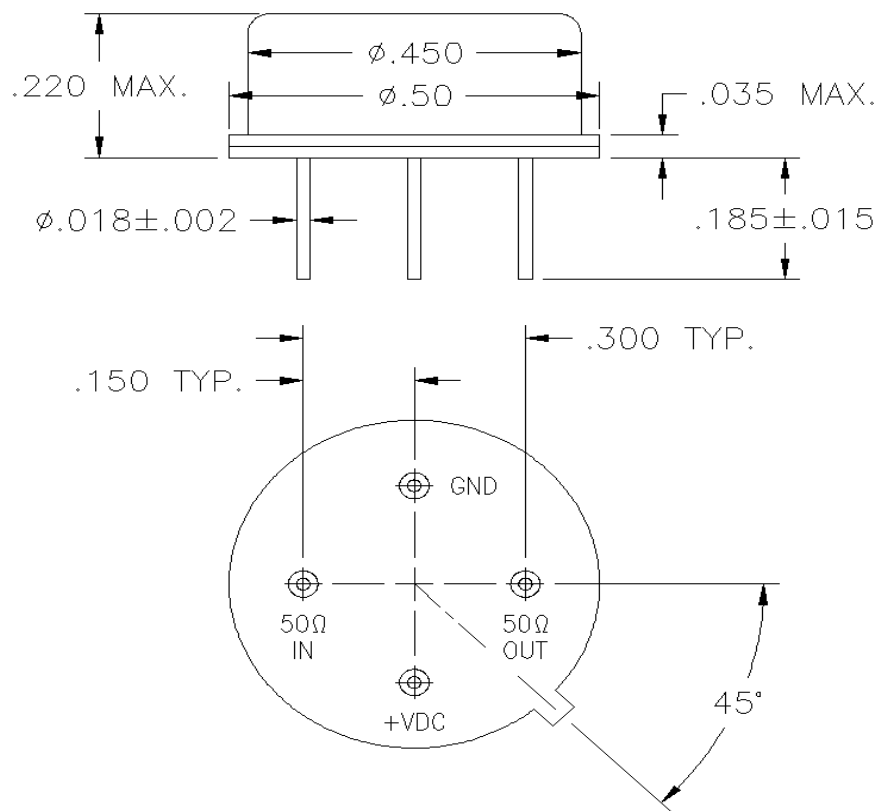


SMA-F CONNECTORIZED PACKAGE

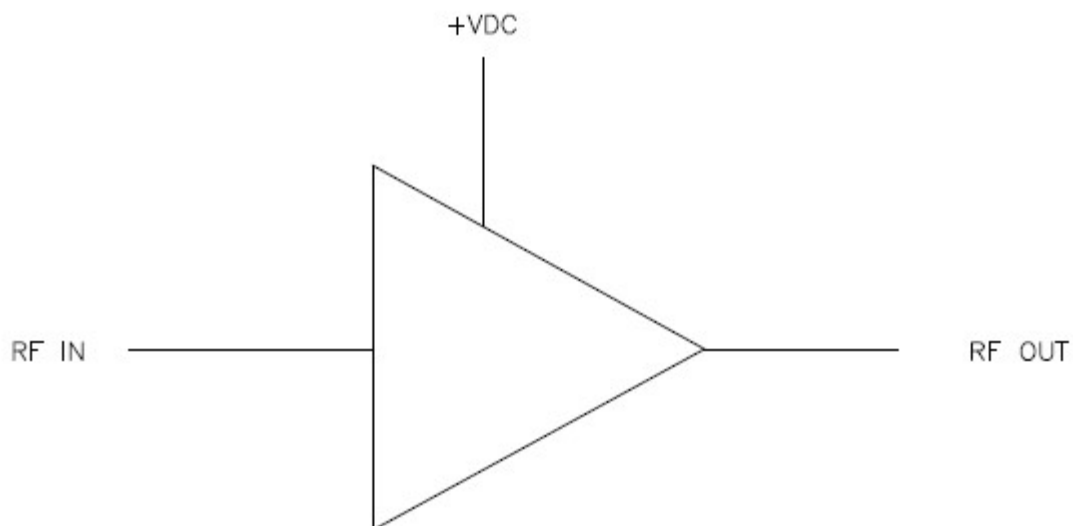
OUTLINE



TO-8 PACKAGE



FUNCTIONAL BLOCK DIAGRAM



NO EXTERNAL COMPONENT REQUIRED