

Ultra High Linearity RF Amplifier

Frequency Range: 1 MHz to 50 MHz



Features

- Ultra High Linearity: +105 dBm
- High Output Power: 1 watt
- High Efficiency Design
- Broad Bandwidth: 1 MHz to 50 MHz

Model BXMP1172 is a high linearity amplifier covering 1 MHz to 50 MHz. This design also offers exceptional efficiency consuming only 350 mA while delivering 1 watt of output power. This standard design may also be ordered in a screened MIL-STD-883 version (Model #SXMP1172). All specification ratings are based on measurements in a 50 Ω (ohm) system with a DC supply voltage tolerance of +/- 2%.

Technical Specifications

Parameter	Unit	Typical	Min/Max
Frequency Range	MHz	1 MHz to 50 MHz	1 MHz to 50 MHz
Gain	dB	12	11
Gain Flatness	dB	+/- 0.5	-
Noise Figure*	dB	5.5	6.5
Output Power @ 1 dB Compression	dBm	30	28
Output 3 rd Order Intercept **	dBm	53	50
Output 2 nd Order Intercept **	dBm	105	100
Reverse Isolation	dB	25	-
Input VSWR	---	1.5:1	2.0:1
Output VSWR	---	1.5:1	2.0:1
Supply Voltage	volts	+24	+24
Supply Current	mA	350	400

Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-65°C to +125°C
Operating Temperature	-40°C to +85°C
DC Voltage @ 25°C	+25 volts
Input Drive @ 25°C (CW)	+20 dBm

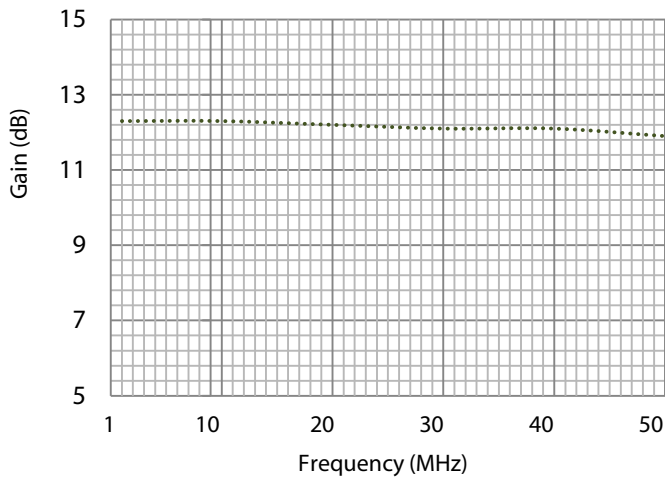
- Typical values are measured at 25°C, but not guaranteed.
- * Noise Figure measurements taken and guaranteed only from 10 MHz to 50 MHz.
- ** IP3 and IP2 measurements acquired and guaranteed only at 15 MHz.

Mechanical & Electrical

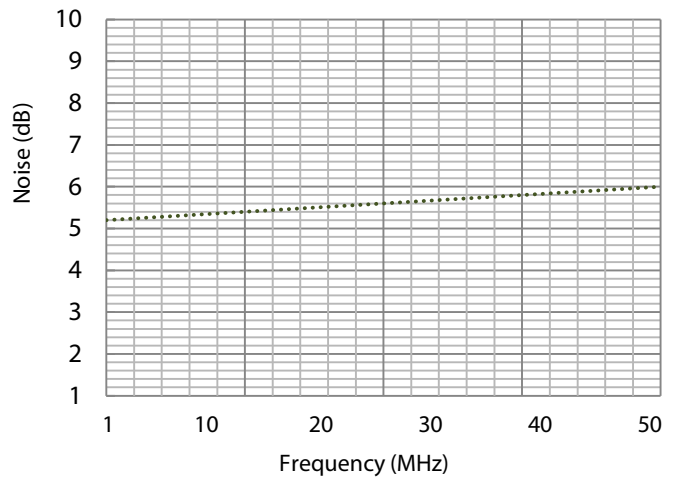
Parameter	Specification
Specification Temperatures (Min/Max)	0°C to +50°C
Housing Size	2.980" L x 3.905" W x .757" H
Housing Drawing	SMA Connectorized Housing

Typical Performance Graphs

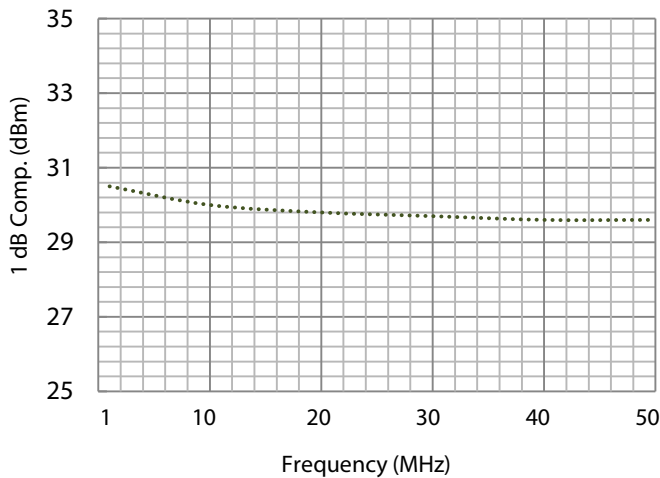
Gain (dB)



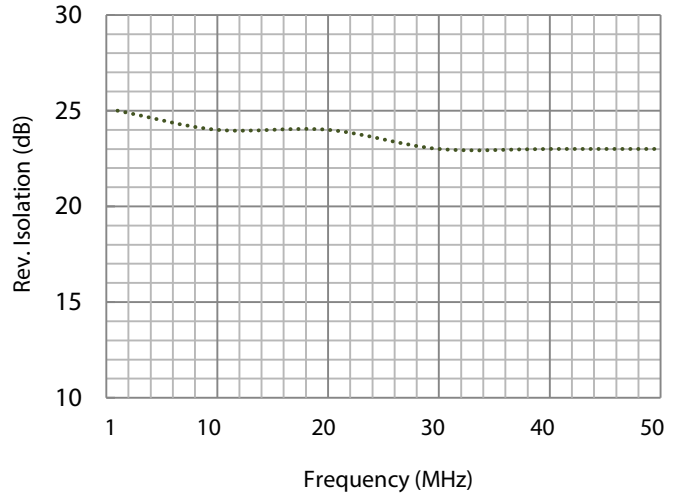
Noise Figure (dB)



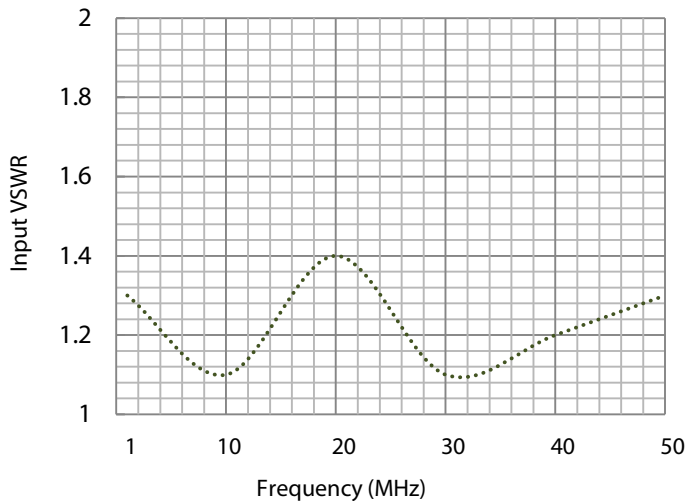
1 dB Compression (dBm)



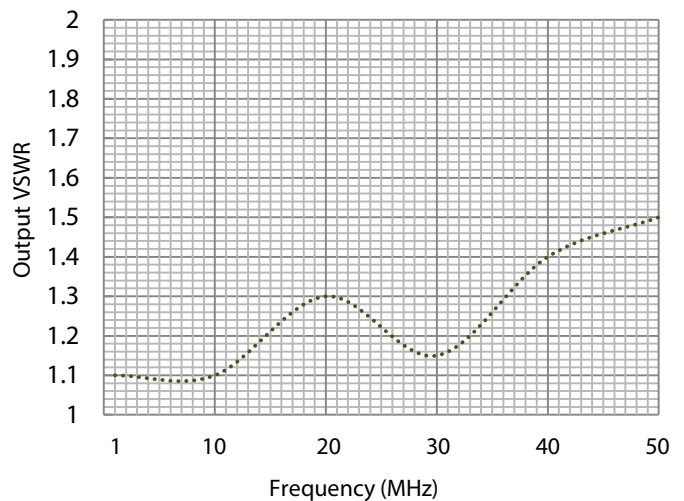
Reverse Isolation (dB)



Input VSWR



Output VSWR



Instructions

Grounding Instructions	Care should be taken to effectively ground each unit.
Revisions	API reserves the right to make revisions to both product and/or the information contained within their datasheets without advanced notice.
Min./Max. Values	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

Outline Drawing

