

Ultra High Linearity RF Amplifier

Frequency Range: 2 MHz to 30 MHz



Features

- Ultra High Linearity: +80 dBm
- High Output Power
- High Efficiency Design
- Broad Bandwidth 2 MHz to 30 MHz

Model BXMP1173 is a high linearity amplifier covering 2 MHz to 30 MHz. This design also offers exceptional efficiency consuming only 250 mA while delivering nearly 1 watt of output power. 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	2 MHz to 30 MHz	2 MHz to 30 MHz
Gain	dB	22	21 Min.
Gain Flatness	dB	+/- 1.0	-
Noise Figure*	dB	4.0	5.0 Max.
Output Power @ 1 dB Compression	dBm	29	27 Min.
Output 3 rd Order Intercept **	dBm	52	48 Min.
Output 2 nd Order Intercept **	dBm	80	65 Min.
Reverse Isolation	dB	30	-
Input VSWR	---	1.5:1	1.75:1 Max.
Output VSWR	---	1.5:1	1.75:1 Max.
Supply Voltage	volts	+24	+24
Supply Current	mA	250	300 Max.

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

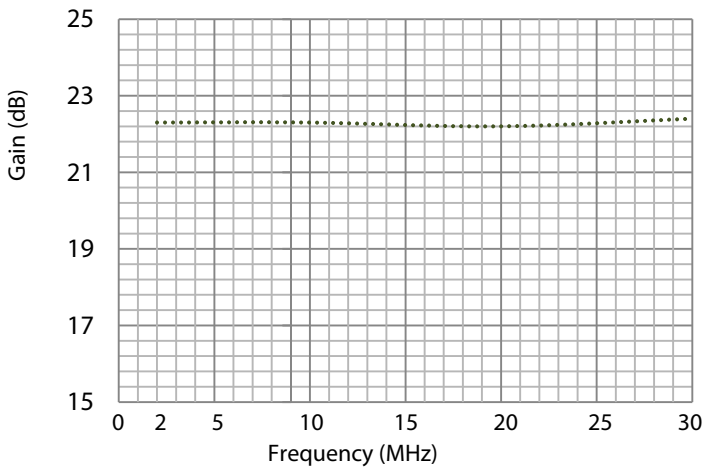
- Typical values are measured at 25°C, but not guaranteed.
- * Noise Figure measurements taken and guaranteed only from 10 MHz to 30 MHz.
- ** IP3 and IP2 measurements acquired and guaranteed only at 15 MHz.

Mechanical & Electrical

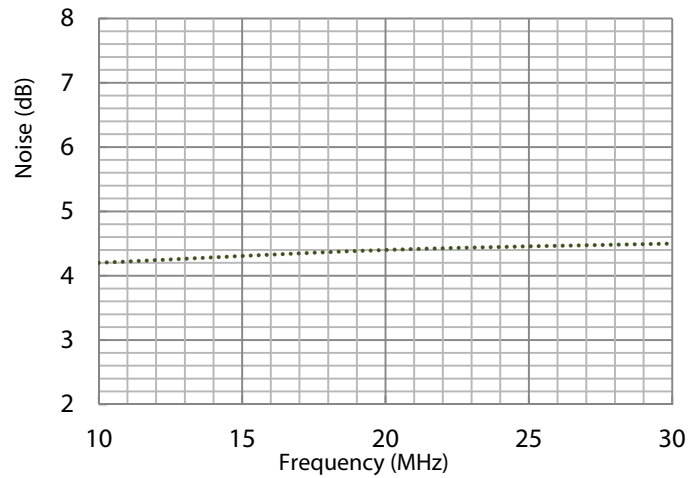
Parameter	Specification
Specification Temperatures (Min/Max)	-20°C to +85°C
Housing Size	2.17" L x 1.85" W x .500" H
Housing Drawing	SMA Connectorized Housing

Typical Performance Graphs

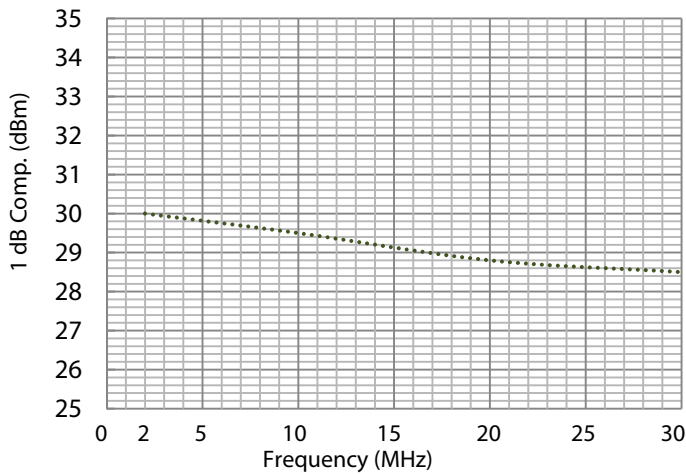
Gain (dB)



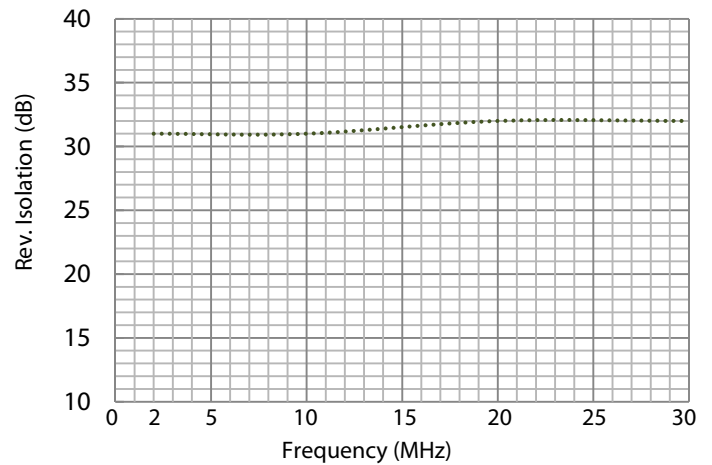
Noise Figure (dB)



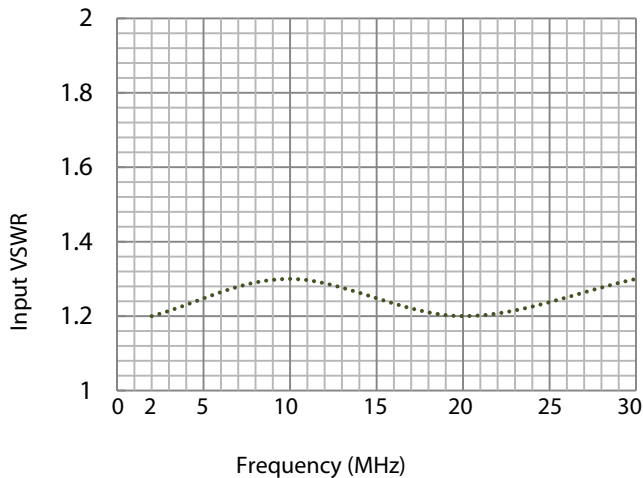
1 dB Compression (dBm)



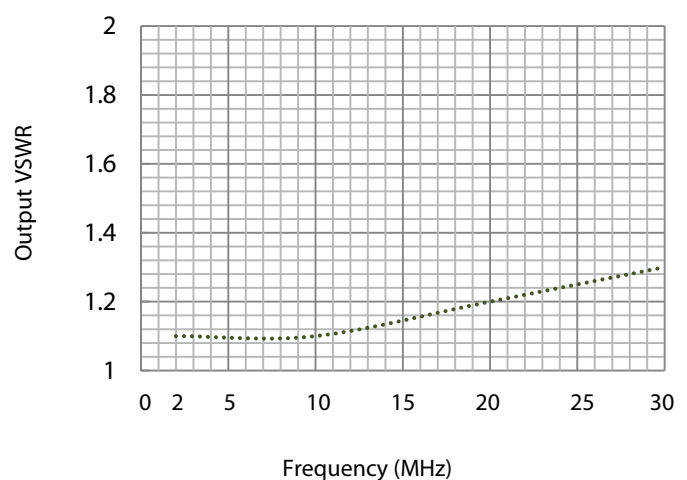
Reverse Isolation (dB)



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

(For Reference Only)

