

# High Frequency Microwave Amplifier

**Frequency Range: 2-18 GHz**



## Features

- High Frequency and Broad Bandwidth: 2-18 GHz
- High Output Power: +20 dBm Typical
- Laser Welded Housings for Ultimate Environmental Protection
- Internal Voltage Regulators

Model BXHF1104 is a high frequency amplifier covering 2-18 GHz. This design utilizes a laser sealed housing for superior environmental protection. This standard design may also be ordered in a screened MIL-STD-883 version (Model #SXHF1104.) 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	GHz	2 to 18	2 to 18
Gain	dB	9	7
Noise Figure	dB	4.5	6.5
Output Power @ 1 dB Compression	dBm	20	---
Output 3 <sup>rd</sup> Order Intercept	dBm	35	---
Output 2 <sup>nd</sup> Order Intercept	dBm	40	---
Reverse Isolation	dB	40	---
Input VSWR	---	1.5:1	2.0:1
Output VSWR	---	1.5:1	2.0:1
Supply Voltage	volts	+15	+15
Supply Current	mA	370	400

## Absolute Maximum Ratings

Maximum (No Damage) Ratings	
Storage Temperature	-55°C to +85°C
Operating Temperature	-40°C to +85°C
DC Voltage @ 25°C	18 volts
Input Drive @ 25°C (CW)	+13 dBm

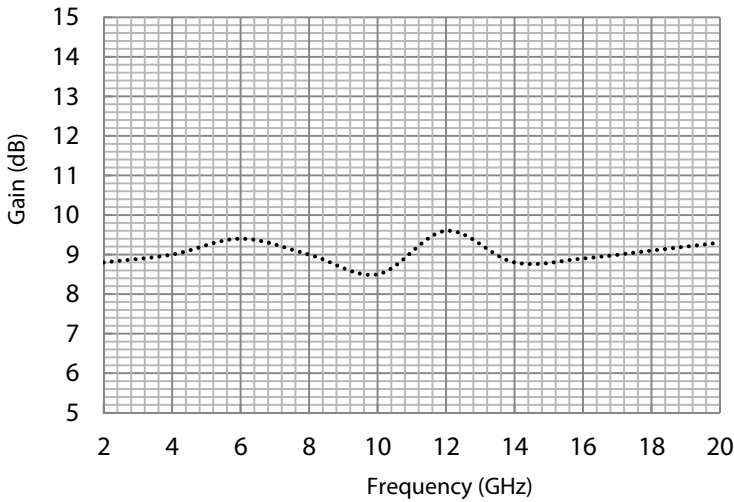
\* Typical values are measured at 25°C, but not guaranteed.

## Mechanical & Electrical

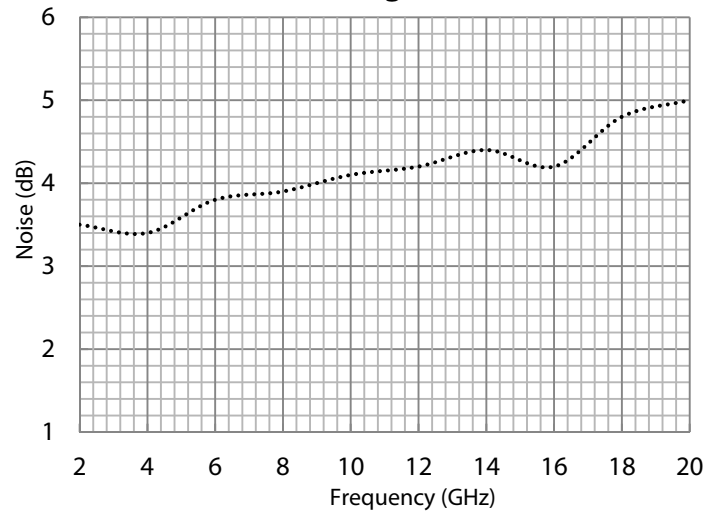
Parameter	Specification
Specification Temperatures (Min/Max)	-20°C to +70°C
Housing Size	1.500" L x 1.060" W x 0.300" H
Housing Drawing	HF2 Package
RF Connectors	SMA Female Replaceable Connectors

**Typical Performance Graphs**

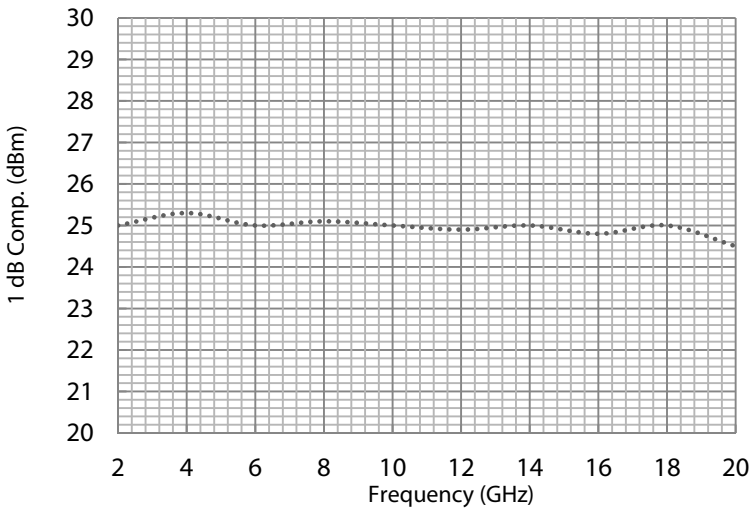
**Gain (dB)**



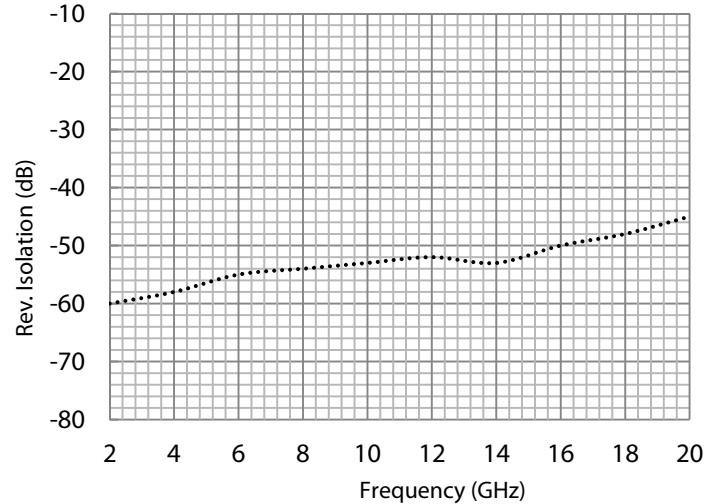
**Noise Figure (dB)**



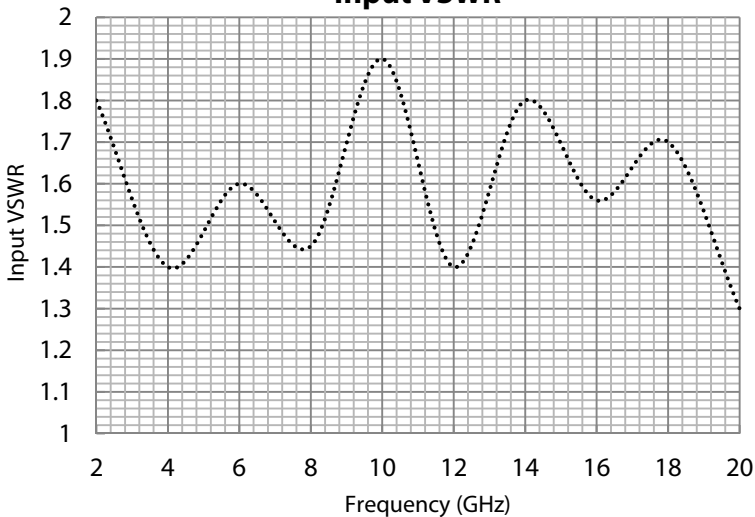
**1 dB Compression (dBm)**



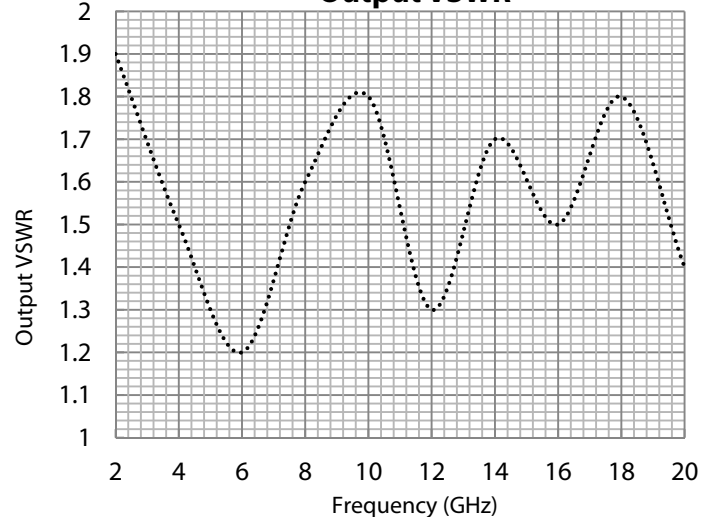
**Reverse Isolation (dB)**



**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)

