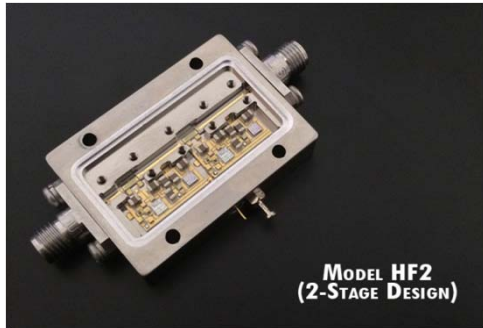



# High Frequency Microwave Amplifier

**Frequency Range: 5-20 GHz**



## Features

- High Frequency and Broad Bandwidth: 5-20 GHz
- High Output Power :+ 23 dBm Typical
- Laser Welded Housing for Ultimate Environmental Protection
- Internal Voltage Regulator
- RoHS Compliant Option: BXHF1085LF 

Model BXHF1085 is a high frequency amplifier covering 5-20 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 #SXHF1085.) 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	5-20	5-20
Gain	dB	20	18
Noise Figure	dB	4.0	5.5
Output Power @ 1 dB Compression	dBm	23	-
Output 3 <sup>rd</sup> Order Intercept	dBm	32	-
Output 2 <sup>nd</sup> Order Intercept	dBm	38	-
Reverse Isolation	dB	60	-
Input VSWR	---	1.4:1	2.0:1
Output VSWR	---	1.4:1	2.0:1
Supply Voltage	volts	+12 to +15	+12 to +15
Supply Current	mA	450	460

## 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

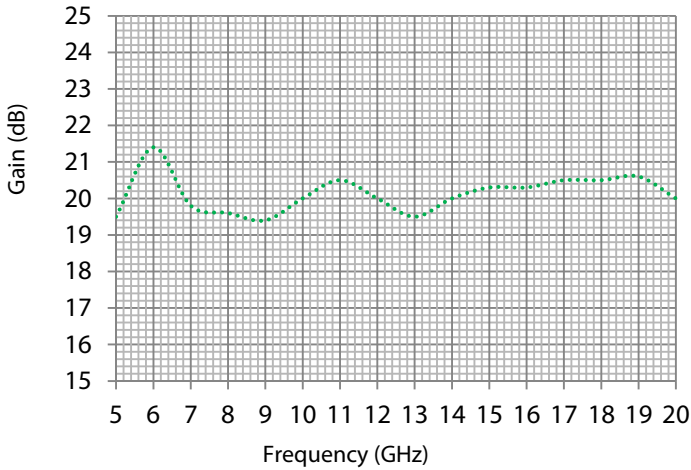
\* Typical values are measured at 25°C, but not guaranteed.

## Mechanical & Electrical

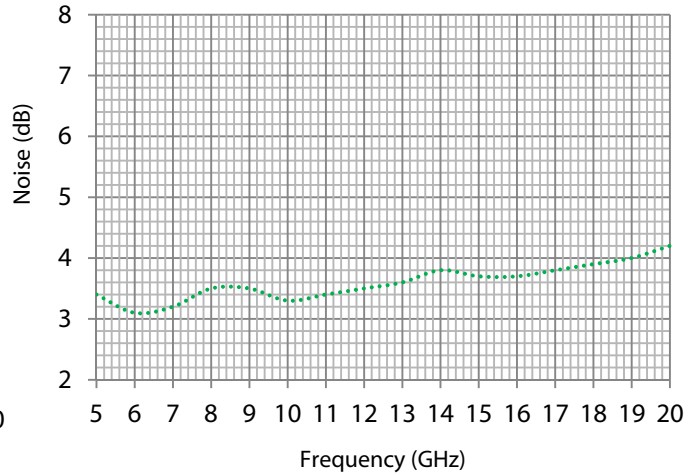
Parameter	Specification
Specification Temperatures (Min/Max)	-20°C to +70°C
Housing Size	1.500" L x 1.060" W x 0.300" H
Housing Drawing	HF2 Package
RF Connectors	SMA Female Replaceable Connectors

## Typical Performance Graphs

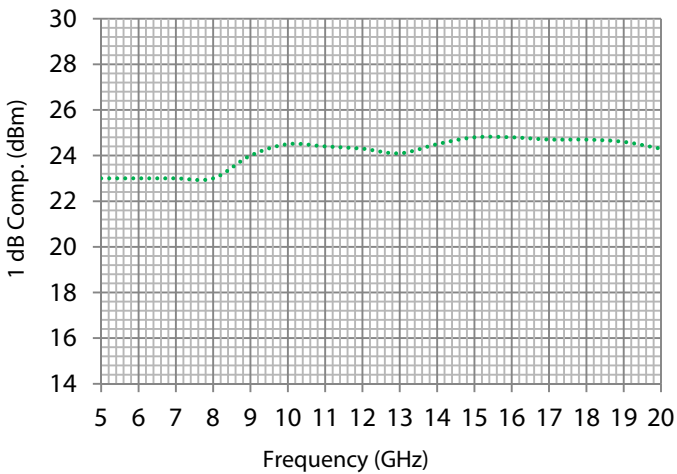
### Gain (dB)



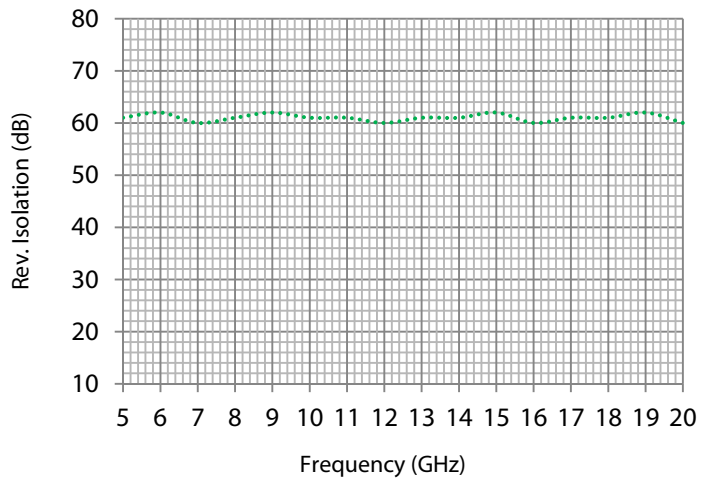
### Noise Figure (dB)



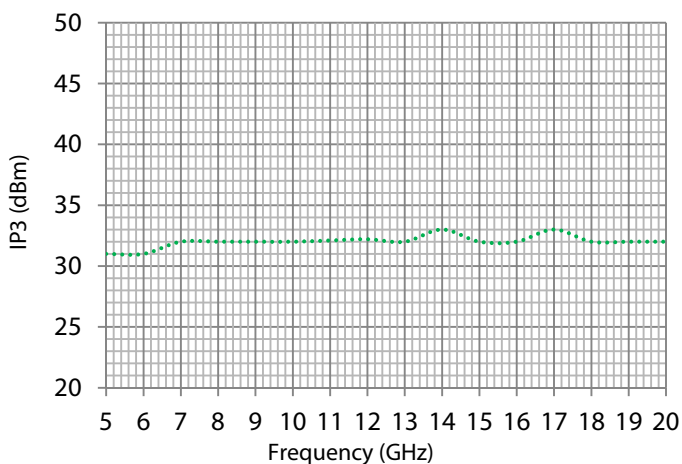
### 1 dB Compression (dBm)



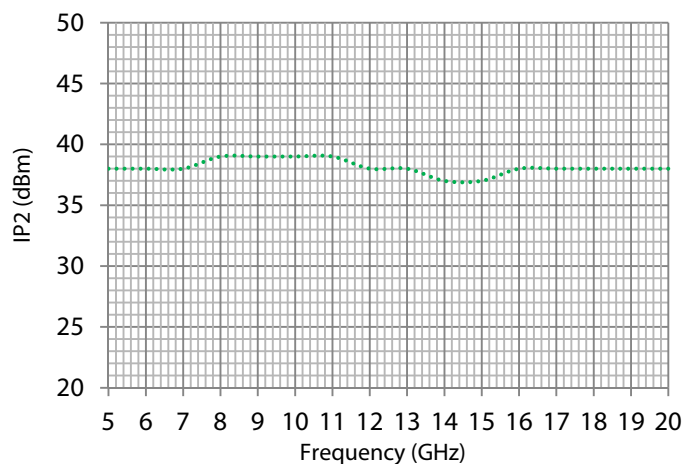
### Reverse Isolation (dB)



### 3<sup>rd</sup> Order Intercept (dBm)

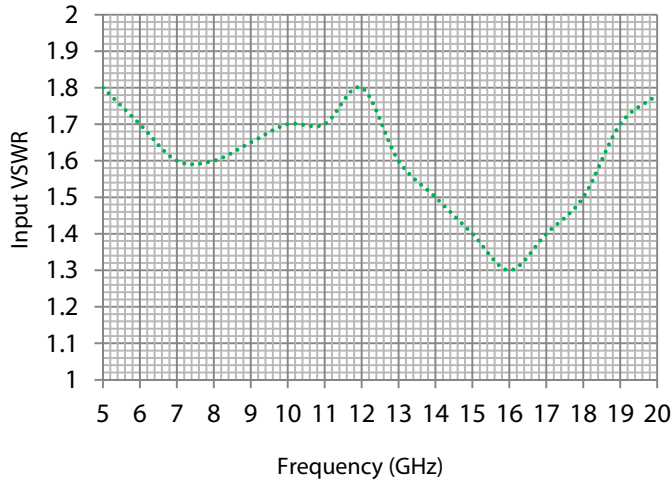


### 2<sup>nd</sup> Order Intercept (dBm)

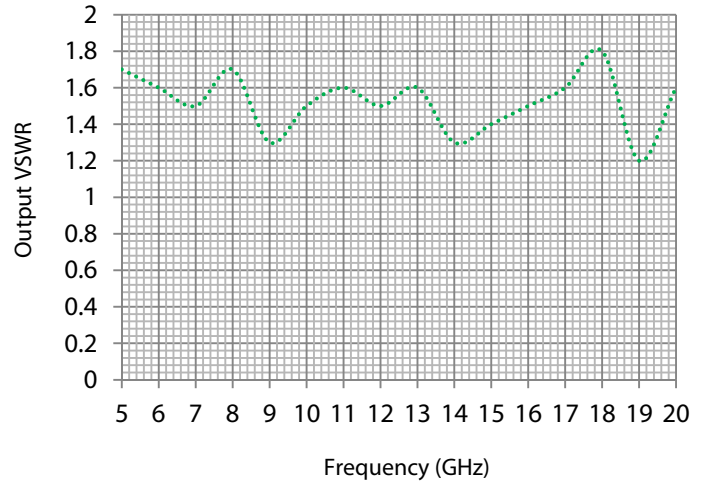


## Typical Performance Graphs

### 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

