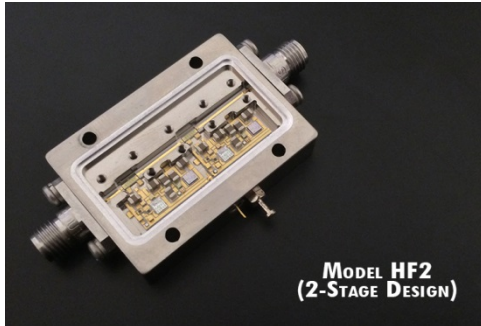


High Frequency Microwave Amplifier

Frequency Range: 6 to 12 GHz



Features

- High Output Power: +19 dBm Typical
- Laser Welded Housing for Ultimate Environmental Protection
- Internal Voltage Regulator
- RoHS Compliant Option: Model BXHF1089LF
- EAR99

Model BXHF1089 is a high frequency amplifier covering 6 to 12 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 #SXHF1089.) 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 | 6 to 12 | 6 to 12 |
| Gain | dB | 20 | 19 (Min.) |
| Noise Figure | dB | 7.0 | 8.0 (Max.) |
| Output Power @ 1 dB Compression | dBm | 19 | 18 (Min.) |
| Output 3 rd Order Intercept | dBm | 30 | - |
| Output 2 nd Order Intercept | dBm | 39 | - |
| Reverse Isolation | dB | 25 | - |
| Input VSWR | --- | 1.5:1 | 2.0:1 (Max.) |
| Output VSWR | --- | 1.5:1 | 2.0:1 (Max.) |
| Supply Voltage | volts | +12 to +15 | +12 to +15 |
| Supply Current | mA | 125 | 140 (Max.) |

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 |

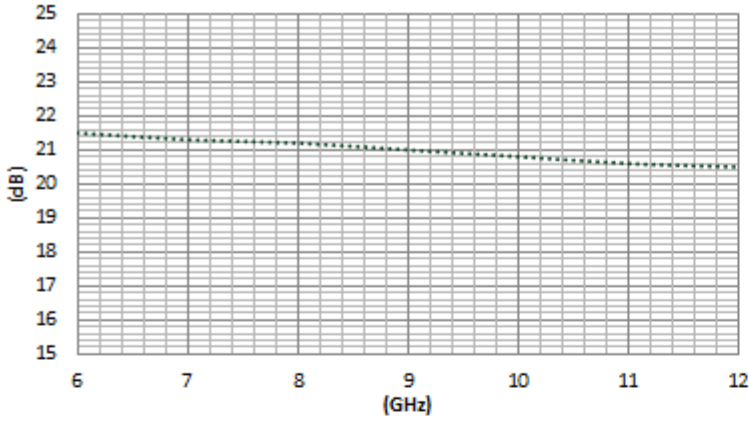
*Typical values are measured at 25°C, but not guaranteed.

Mechanical & Electrical

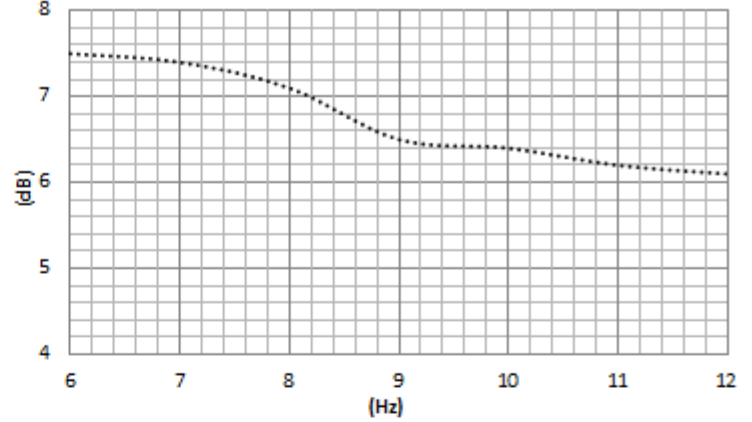
| Parameter | Specification |
|--------------------------------------|-----------------------------------|
| Specification Temperatures (Min/Max) | -20°C to +70°C |
| Housing Size | 1.500" L x 1.060" W x 0.300" H |
| Housing Drawing | HF2 Package |
| RF Connectors | SMA Female Replaceable Connectors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

Typical Performance Graphs

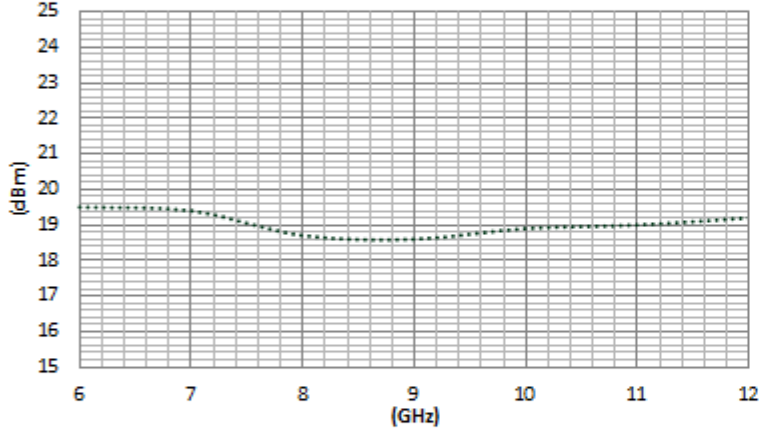
Gain



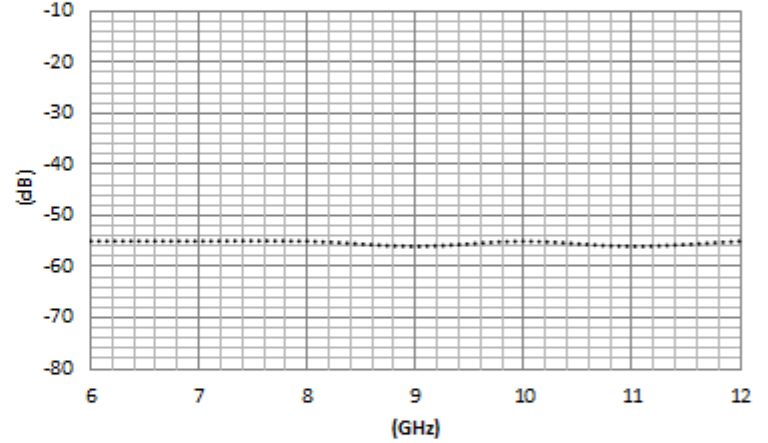
Noise Figure



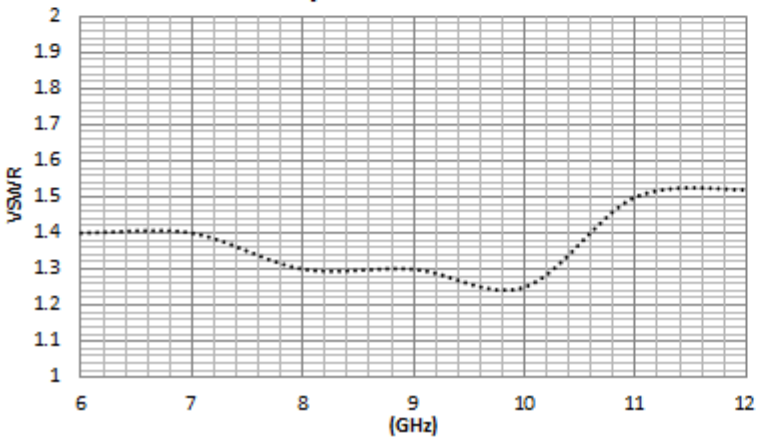
Output Power (1 dB Compression)



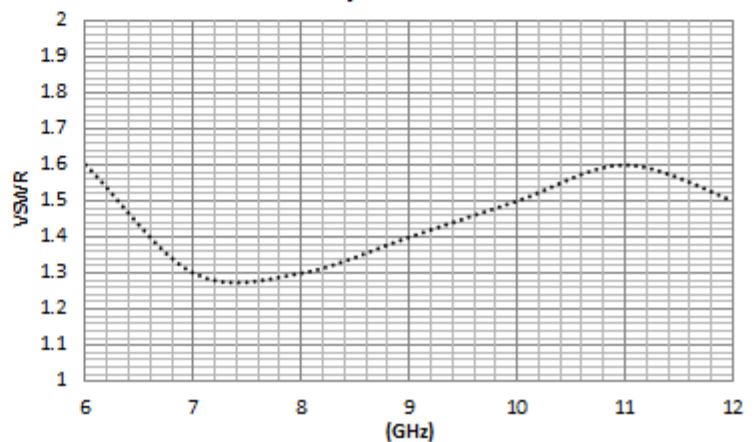
Reverse Isolation



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

(outlines for reference only)

