

# Standard Microwave Amplifier

Frequency Range: 100 MHz to 25 GHz



## Features

- Ultra Broad Bandwidth: 100 MHz to 25 GHz
- High Power: +25 dBm Typical
- Internal Voltage Regulator: +12 to +15 volts

Model BXHF1079 is a high frequency amplifier covering 100 MHz to 25 GHz. This design utilizes a laser sealed housing for superior environmental protection. 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   | 100 MHz to 25 GHz | 100 MHz to 25 GHz |
| Gain                                    | dB    | 10                | 9                 |
| Noise Figure                            | dB    | 5                 | 8                 |
| Output Power @ 1 dB Compression*        | dBm   | 25                | 22                |
| Output 3 <sup>rd</sup> Order Intercept* | dBm   | 34                | -                 |
| Output 2 <sup>nd</sup> Order Intercept* | dBm   | 40                | -                 |
| Reverse Isolation*                      | dB    | 30                | -                 |
| Input VSWR                              | ---   | 2.0:1             | 2.2:1             |
| Output VSWR                             | ---   | 2.0:1             | 2.2:1             |
| Supply Voltage                          | volts | +12 V to +15 V    | +12 V to +15 V    |
| Supply Current                          | mA    | 250               | 270               |

## Maximum No Damage Ratings

|                         |                 |
|-------------------------|-----------------|
| Storage Temperature     | -62°C to +125°C |
| Operating Temperature   | -55°C to +85°C  |
| DC Voltage @ 25°C       | +18 volts       |
| Input Drive @ 25°C (CW) | -5 dBm          |

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

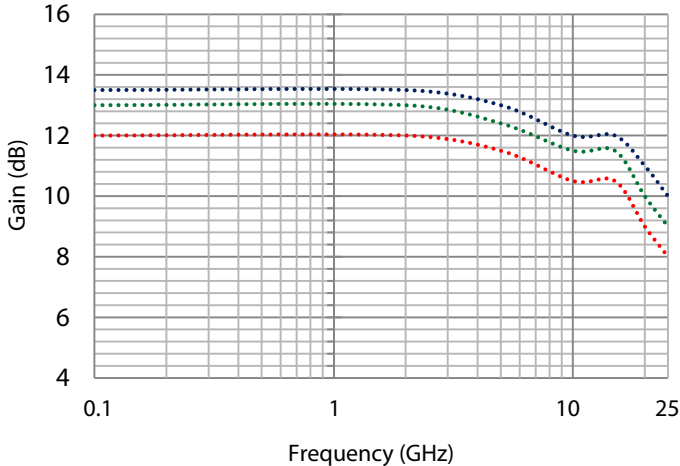
\* Performance tested and measured to 20 GHz.

## Mechanical & Electrical

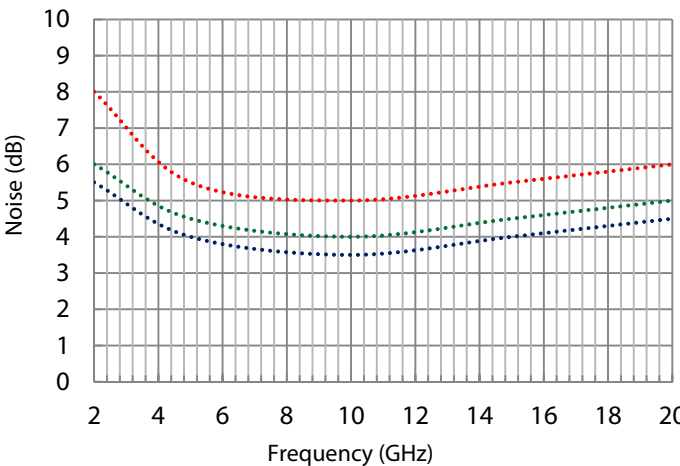
| Parameter                            | Specification                   |
|--------------------------------------|---------------------------------|
| Specification Temperatures (Min/Max) | -20°C to +75°C                  |
| Housing Size                         | 1.50" L x 1.06" W x 0.30" H     |
| Housing Drawing                      | SMA Connectorized Housing (HF2) |

Typical Performance Graphs

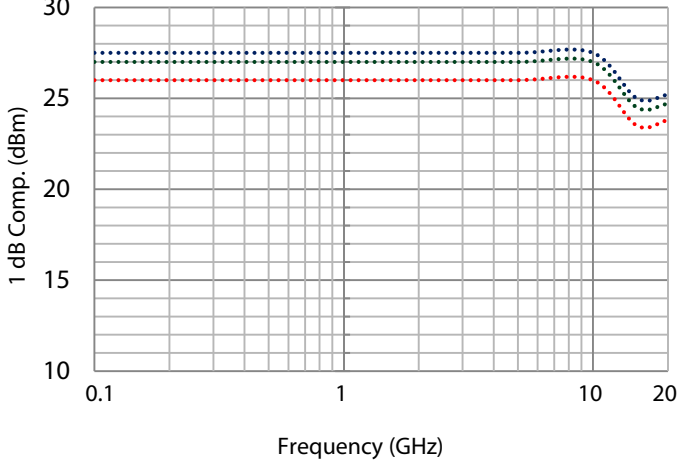
Gain (dB)



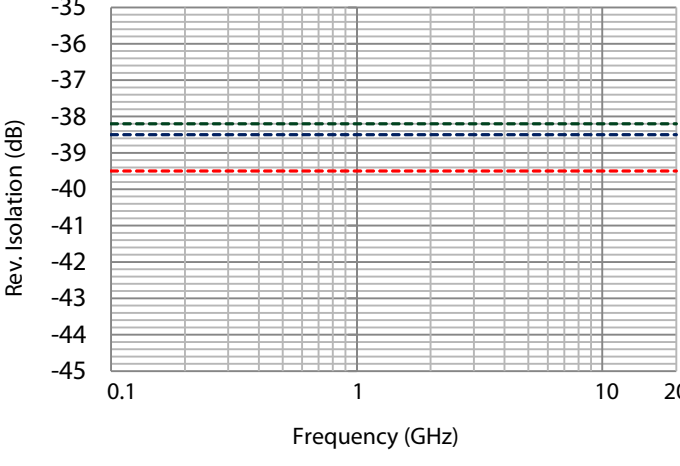
Noise Figure (dB)



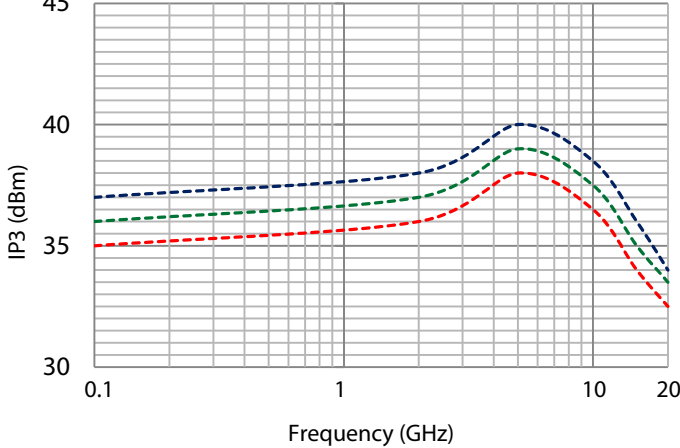
1 dB Compression (dBm)



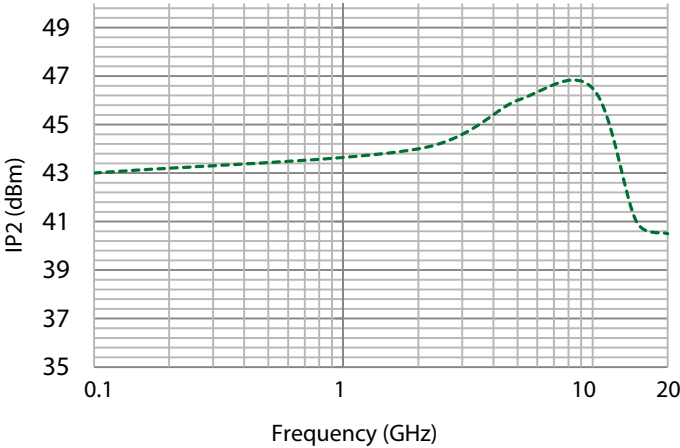
Reverse Isolation (dB)



3rd Order Intercept (dBm)

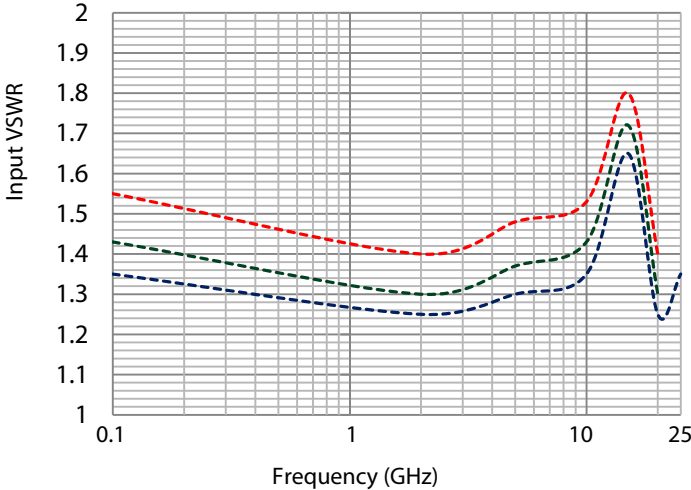


2nd Order Intercept (dBm)

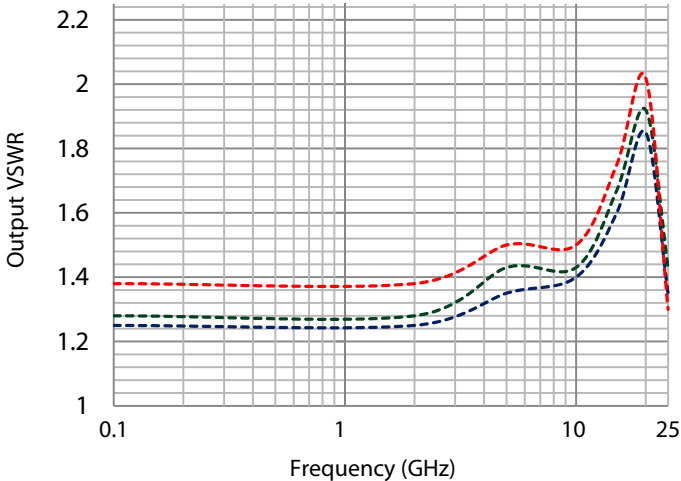


**Typical Performance Graphs**

**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**

