

6 GHz to 12 GHz, 47 dB Gain Broadband High Gain Amplifier with 2 Watt and SMA

SBBA-120-47-02-SMA is a 2W wideband coaxial power amplifier operating in the 6 to 12 GHz frequency range. The amplifier offers 33 dBm min of P1db and high 47 dB typical small signal gain with the excellent gain flatness of ± 1.5 dB max and an outstanding output IP3 performance of 42 dBm. This excellent technical performance is achieved through the use of hybrid MIC design and advanced GaAs PHEMT devices. The amplifier requires typically a +12V DC power supply. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and reverse bias protection for added reliability. The amplifier operates over the temperature range of -55°C and +85°C.

Electrical Specifications (TA = +25°C, DC Voltage = 15Volts, DC Current = 2,500mA)

| Description | Min | Typ | Max | Unit |
|-----------------------------------|-----|-----------|-----|-------|
| Frequency Range | 6 | | 12 | GHz |
| Gain | | 47 | | dB |
| Gain Flatness | | ± 1.5 | | dB |
| P1dB | +33 | | | dBm |
| IP3 | | +42 | | dBm |
| Reverse Isolation | | 50 | | dB |
| Noise Figure | | 6 | 6.5 | dB |
| Input VSWR | | | 2:1 | |
| Output VSWR | | | 2:1 | |
| Operating DC Voltage | 11 | | 15 | Volts |
| Operating DC Current | | 2,500 | | mA |
| Operating Temperature Range (OTR) | -55 | | +85 | °C |

Absolute Maximum Rating

| Parameter | Rating | Units |
|------------------------------------|------------|-------|
| Source Voltage | +16 | Volts |
| RF input Power | +17 | dBm |
| Operating Temperature (base-plate) | -55 to +85 | °C |
| Storage Temperature | -65 to +95 | °C |



ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Configuration

- Connector 1 SMA Female
- Connector 2 SMA Female

Compliance Certifications (visit www.FairviewMicrowave.com for current document)

RoHS Compliant Yes



Features:

- 6 GHz to 12 GHz Frequency Range
- P1dB: 33 dBm min
- High Small Signal Gain: 47 dB typical
- Gain Flatness: ± 1.5 dB
- High output IP3: 42 dBm
- Noise Figure: 6.0 dB
- Reverse Isolation: 50 dB
- 50 Ohms Input and Output Matched
- -55 to +85°C Operating Temperature
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Hermetically Sealed Module
- Overvoltage External Protection for Easy Repair

Applications:

- Electronic Warfare
- Electronic Countermeasures
- Radar Systems
- Telecom Infrastructure
- Test Instrumentation
- Military & Space
- Communication Systems
- Satellite Communication
- Microwave Radio Systems
- Driver Amplifier
- High Power Output Amplifier

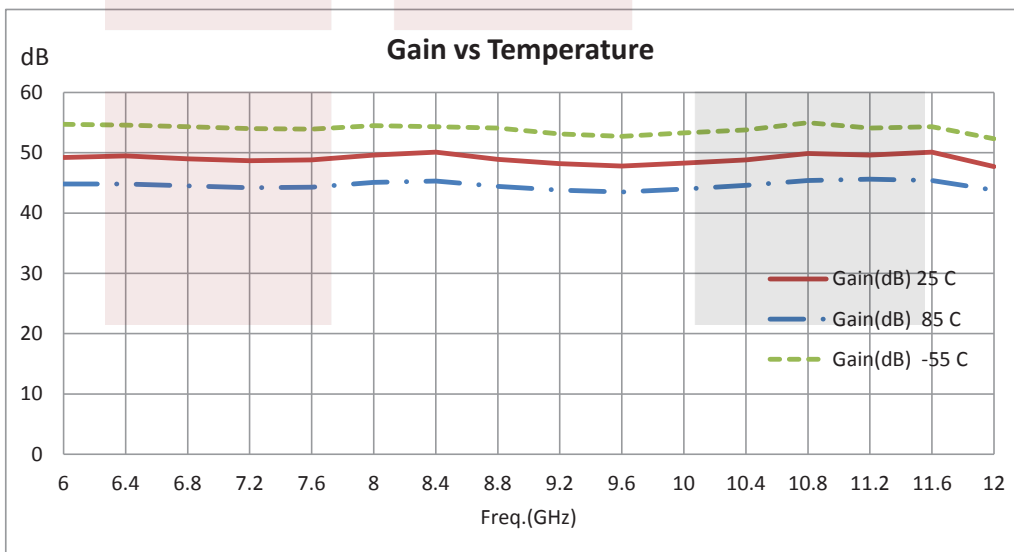
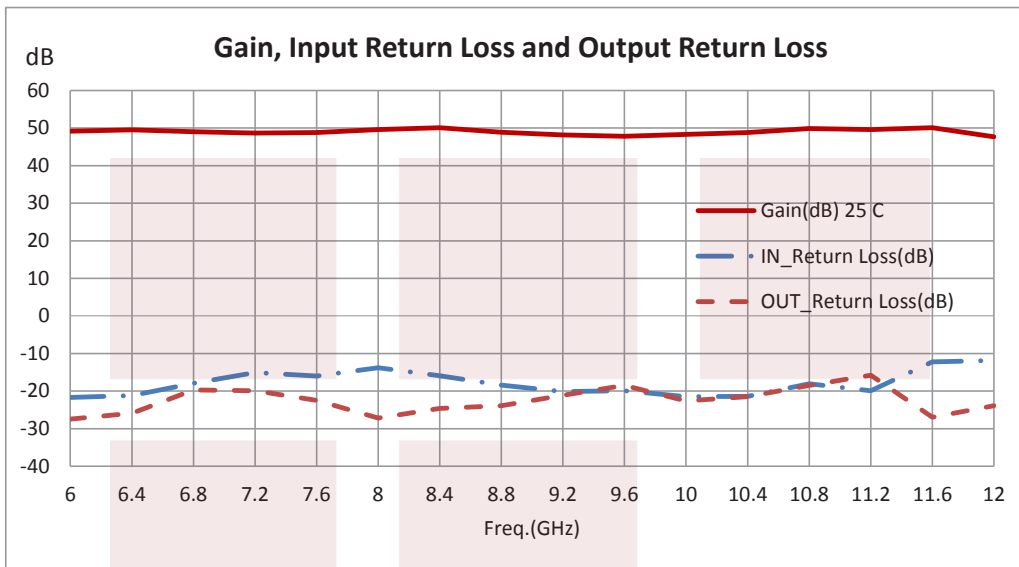
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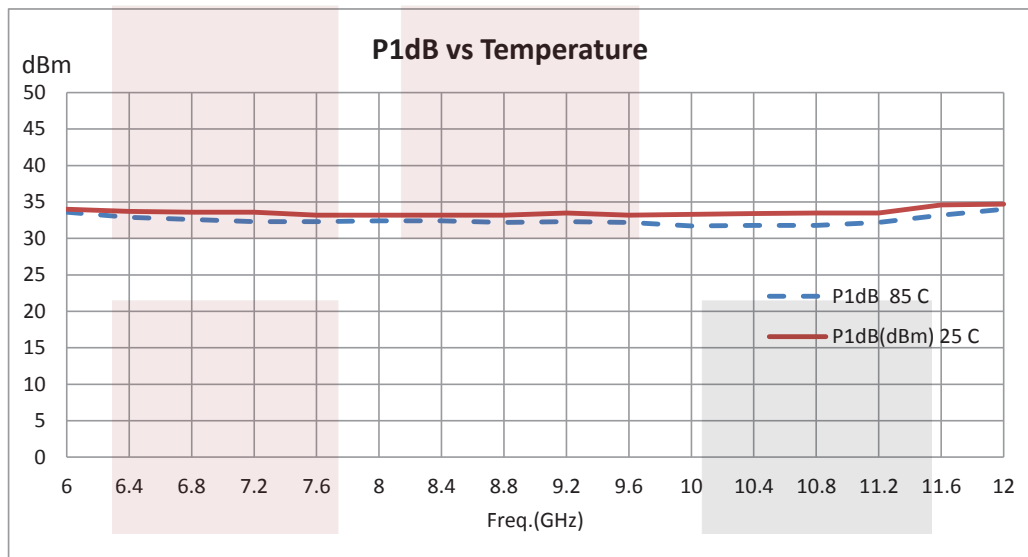
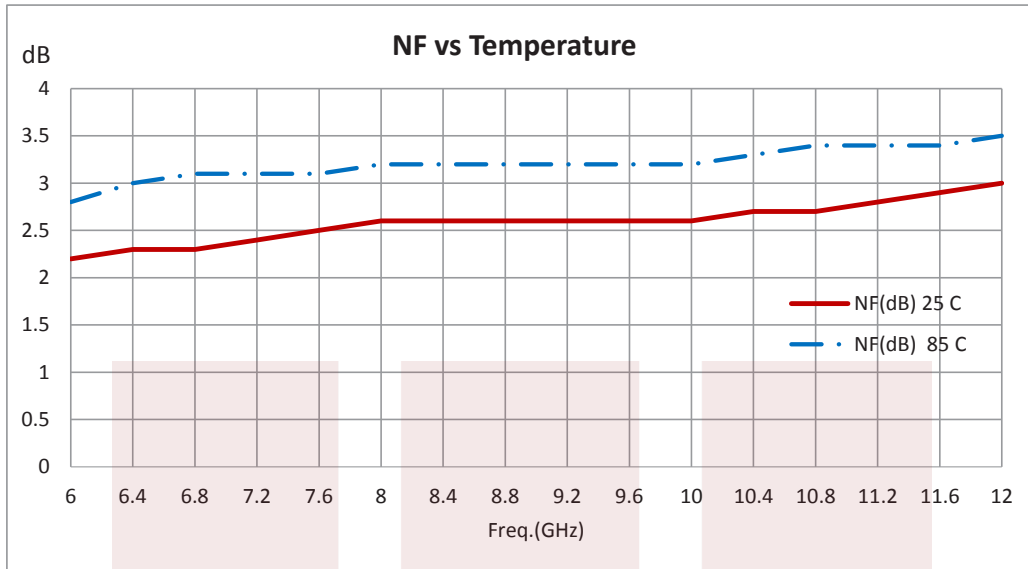
Plotted and Other Data

Notes:

- Values at 25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.

Power Data



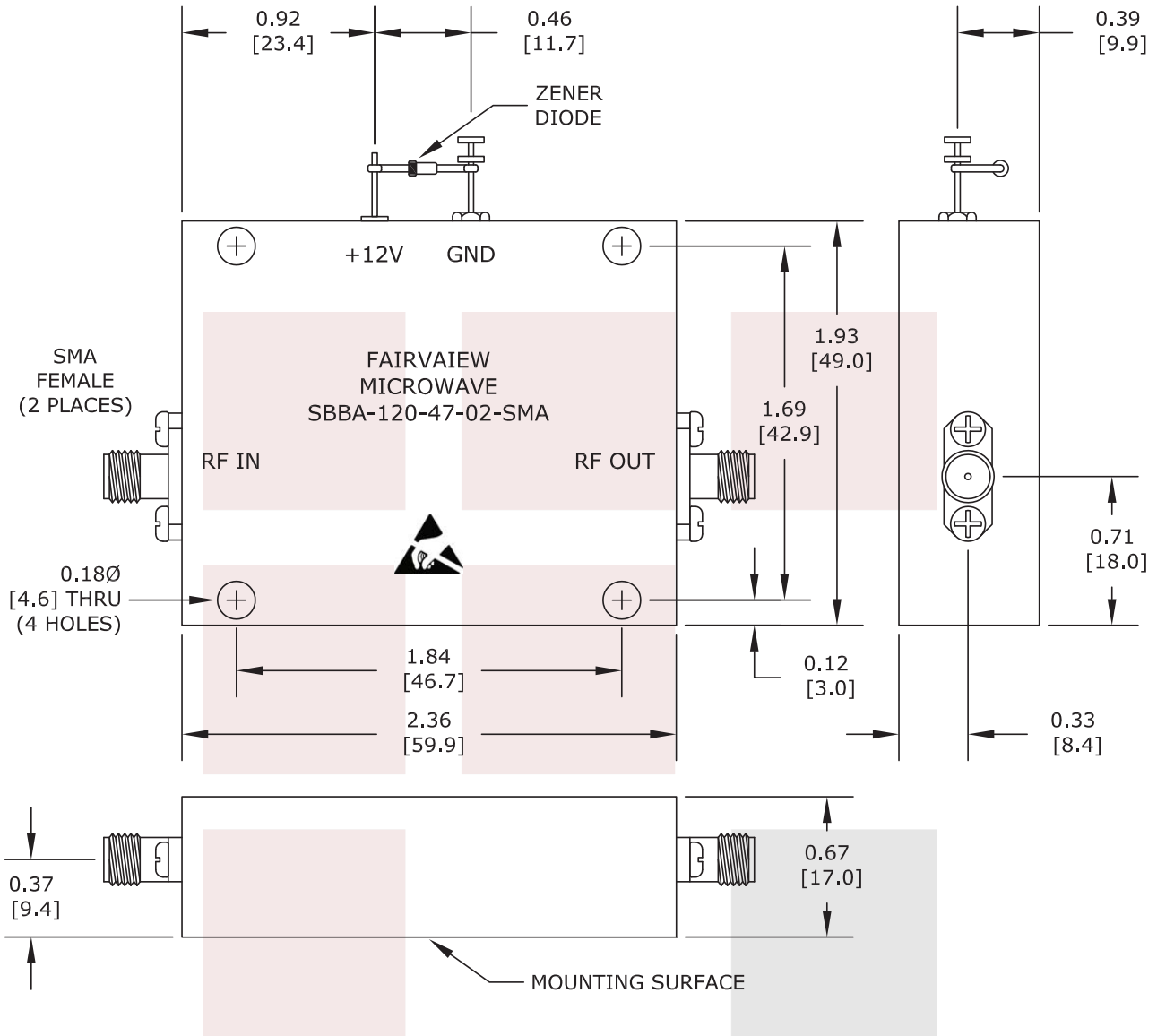


6 GHz to 12 GHz, 47 dB Gain Broadband High Gain Amplifier with 2 Watt and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [6 GHz to 12 GHz, 47 dB Gain Broadband High Gain Amplifier with 2 Watt and SMA SBBA-120-47-02-SMA](#)

URL: <http://www.fairviewmicrowave.com/6-12-ghz-broadband-high-gain-amplifier-sbba-120-47-02-sma-p.aspx>

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NOTE:
 HEAT SINK REQUIRED FOR PROPER OPERATION,
 UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

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| FAIRVIEW MICROWAVE INC. ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM | | NOTES: 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL. 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME. 3. DIMENSIONS ARE IN INCHES [mm]. | | | |
| TITLE 6 GHz to 12 GHz, 47 dB Gain Broadband High Gain Amplifier with 2 Watt and SMA | | DWG NO SBBA-120-47-02-SMA | | CAGE CODE 3FKR5 | |
| CAD FILE | 050914 | SHEET | SCALE | N/A | SIZE A 2233 |