

2 GHz to 6 GHz, 44 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA

SBBA-060-44-01-SMA is a 1W wideband coaxial power amplifier operating in the 2 to 6 GHz frequency range. The amplifier offers 30 dBm min of P1db and high 44 dB minimal small signal gain with the excellent gain flatness of ± 1.0 dB max and an outstanding output IP3 performance of 39 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)

Description	Min	Typ	Max	Unit
Frequency Range	2		6	GHz
Gain	30	44		dB
Gain Flatness		± 1		dB
P1dB	+30			dBm
IP3		+39		dBm
Reverse Isolation		50		dB
Noise Figure		5	5.5	dB
Input VSWR			2:1	
Output VSWR			2:1	
Operating DC Voltage 1	11		15	Volts
Operating DC Current		1,050		mA
Operating Temperature Range (OTR)	-55		+85	°C

Absolute Maximum Rating

Parameter	Rating	Units
Source Voltage	+15	Volts
RF input Power	+17	dBm
Operating Temperature (base-plate)	-30 to +70	°C
Storage Temperature	-55 to +85	°C



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

Mechanical Specifications

Weight	0.1529 lbs [69.35 g]
Input Connector	SMA Female
Output Connector	SMA Female

Features:

- 2 GHz to 6 GHz Frequency Range
- P1dB: 30 dBm min
- High Small Signal Gain: 44 dB Typical
- Gain Flatness: ± 1.0 dB
- High output IP3: 39 dBm
- Noise Figure: 5 dB typical
- 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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Environmental Specifications

Temperature

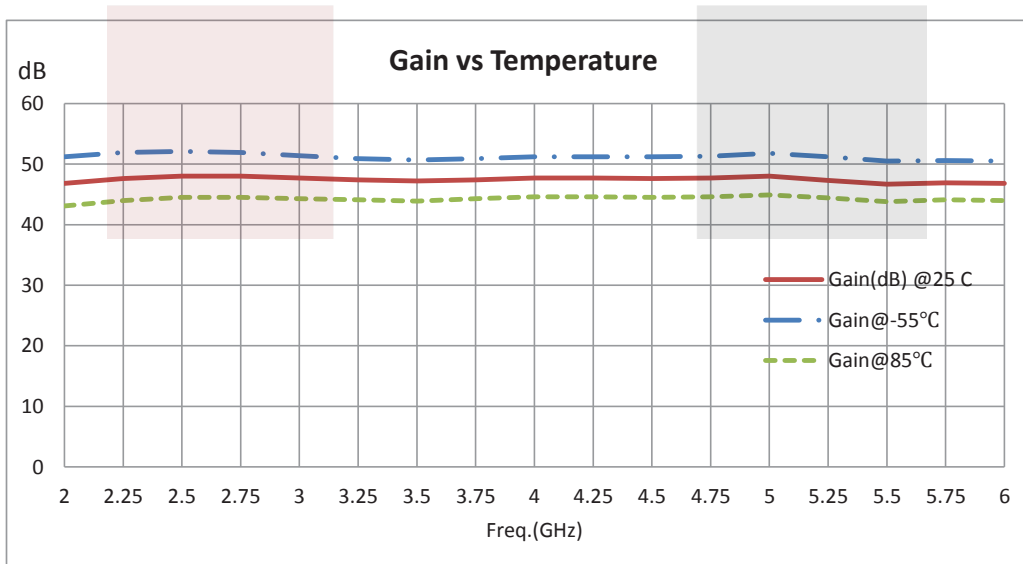
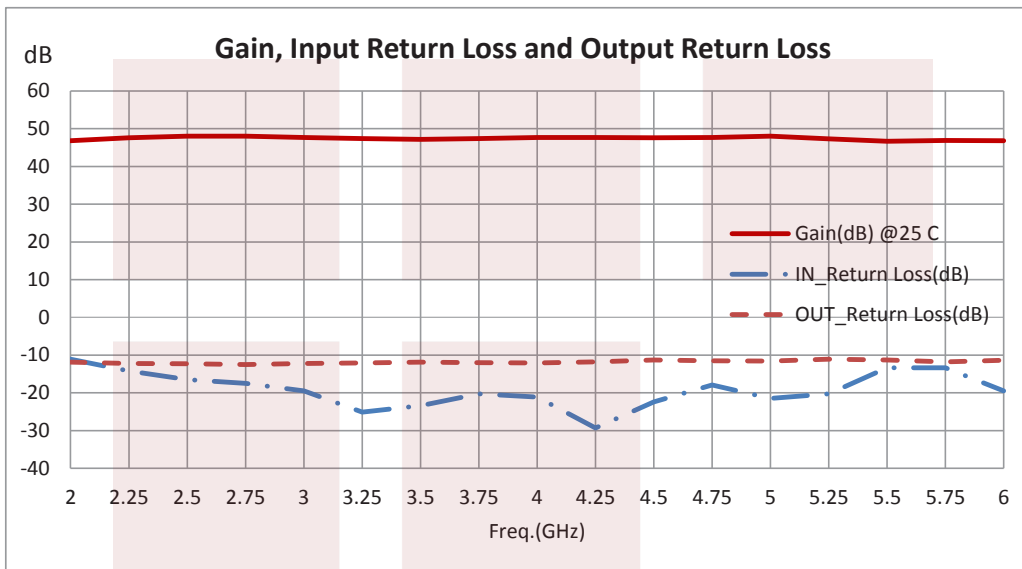
Operating Range -55 to +85 deg C

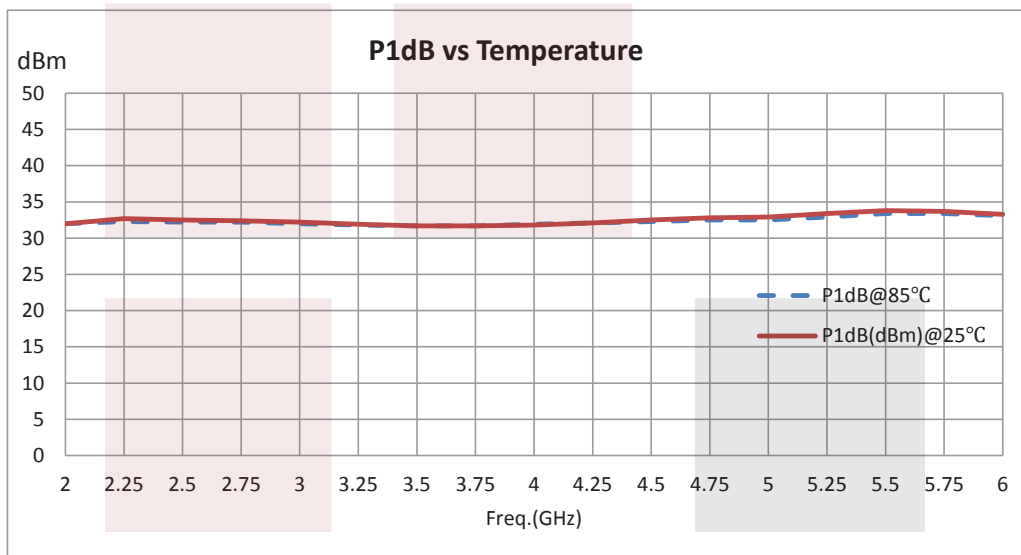
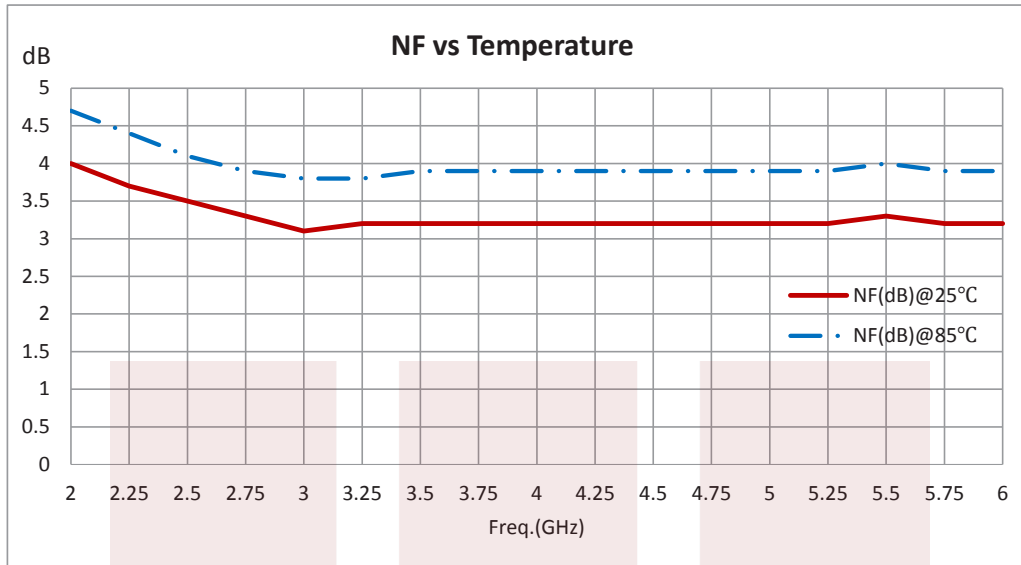
Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

Typical Performance Data



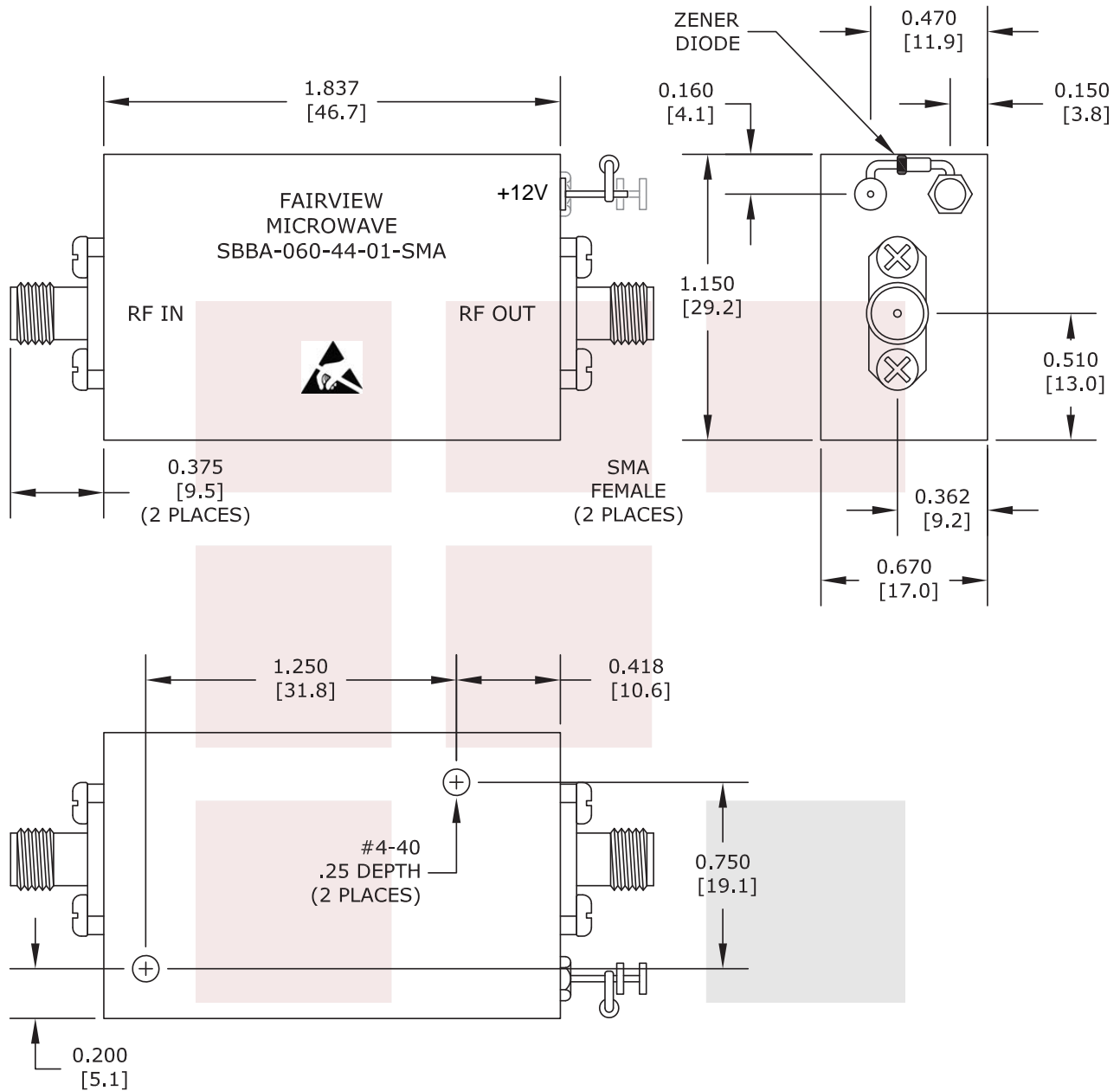


2 GHz to 6 GHz, 44 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [2 GHz to 6 GHz, 44 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA SBBA-060-44-01-SMA](https://www.fairviewmicrowave.com/2-6-ghz-broadband-high-gain-amplifier-sbba-060-44-01-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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TITLE 2 GHz to 6 GHz, 44 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA		DWG NO SBBA-060-44-01-SMA		CAGE CODE 3FKR5	
CAD FILE	071414	SHEET	SCALE	N/A	SIZE A 2233