

12 GHz to 18 GHz, 43 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA

SBBA-180-43-01-SMA is a 1W wideband coaxial power amplifier operating in the 12 to 18 GHz frequency range. The amplifier offers 30 dBm min of P1dB and high 43 dB typical small signal gain with the gain flatness of ± 1.5 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, DC Voltage = 15Volts, DC Current = 2,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	12		18	GHz
Gain		43		dB
Gain Flatness		± 2		dB
P1dB	+29	+30		dBm
IP3		+39		dBm
Reverse Isolation		50		dB
Noise Figure		6	6.5	dB
Input VSWR			2.5:1	
Output VSWR			2.5:1	
Operating DC Voltage	11		15	Volts
Operating DC Current		2,000		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)	-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.



Features:

- 12 GHz to 18 GHz Frequency Range
- P1dB: 30 dBm typical
- High Small Signal Gain: 43 dB typical
- Gain Flatness: ± 2 dB
- High output IP3: 39 dBm
- Noise Figure: 6 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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Configuration

- Connector 1
- Connector 2

SMA Female
SMA Female

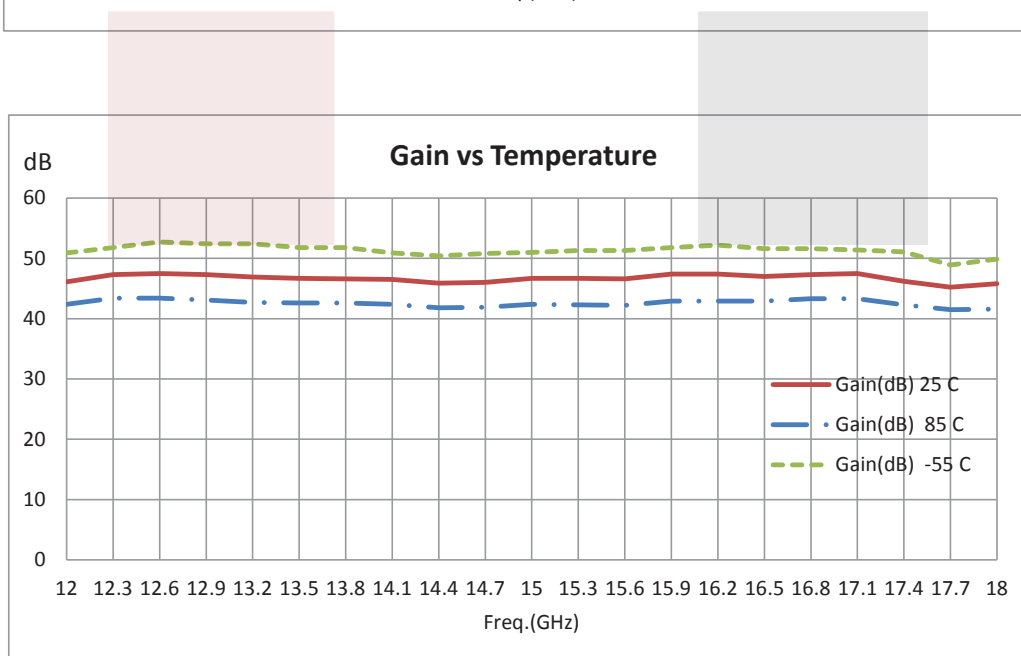
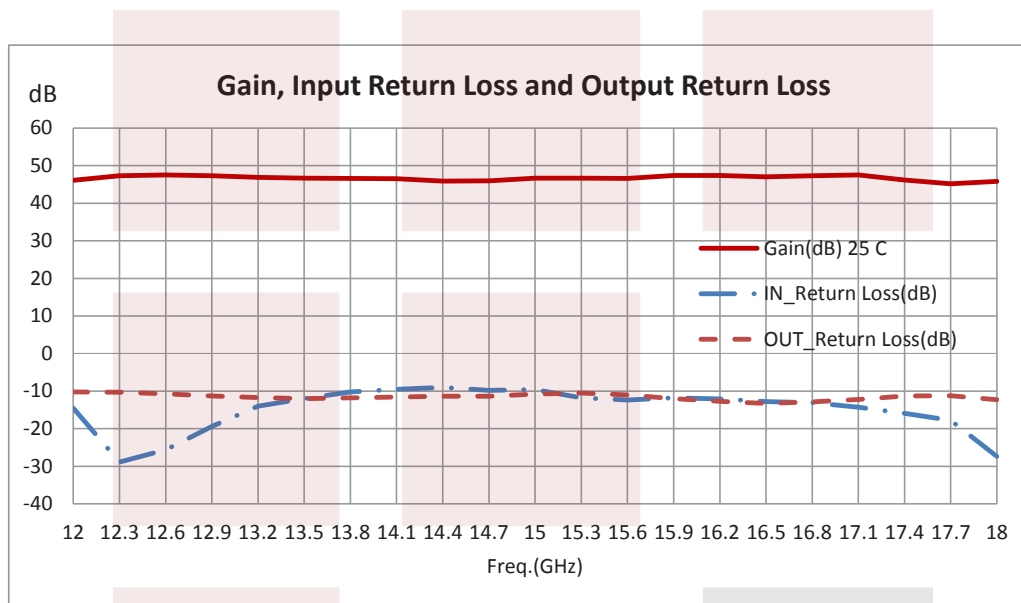
Compliance Certifications (visit www.FairviewMicrowave.com for current document)

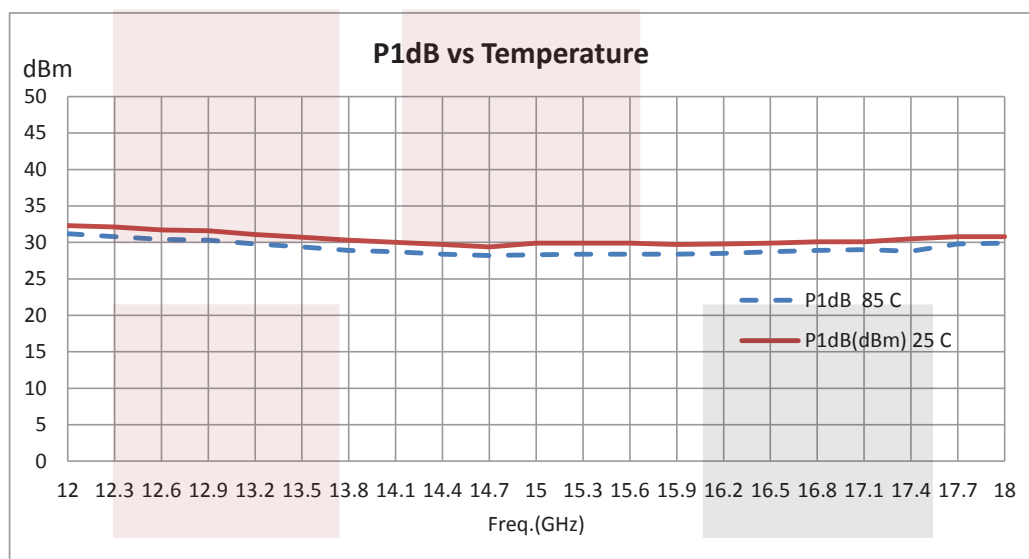
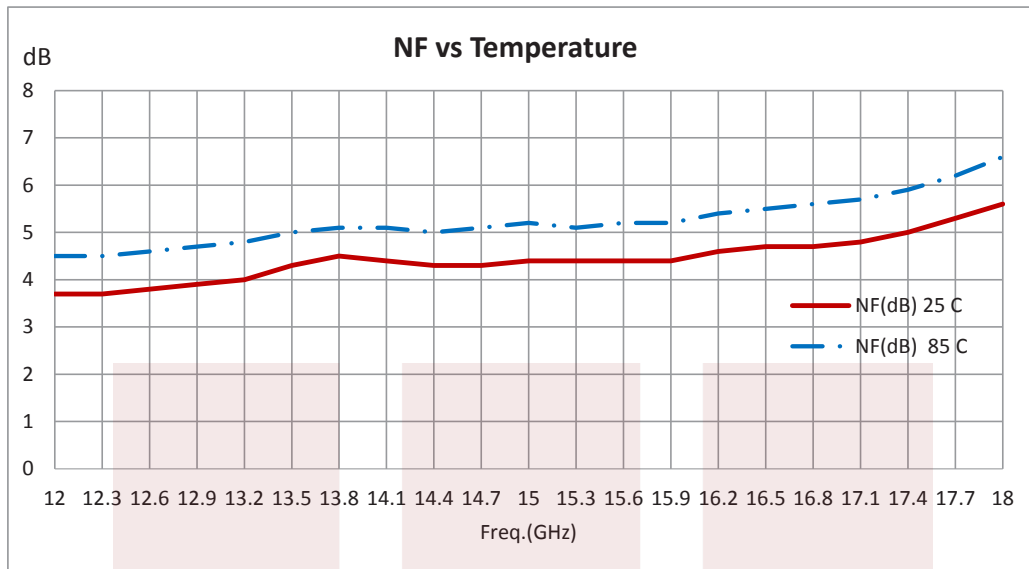
Plotted and Other Data

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



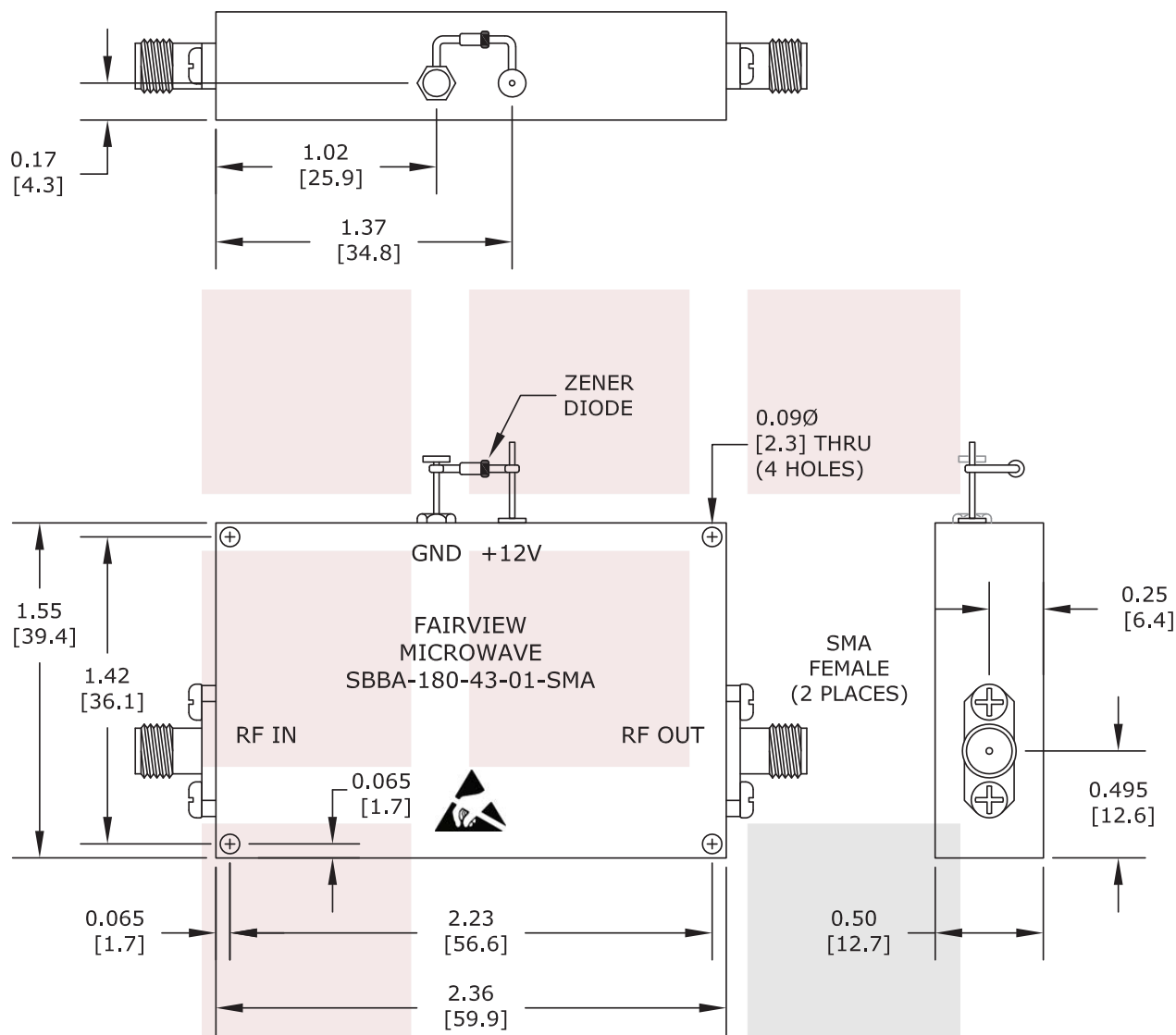


12 GHz to 18 GHz, 43 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [12 GHz to 18 GHz, 43 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA SBBA-180-43-01-SMA](http://www.fairviewmicrowave.com/12-18-ghz-broadband-high-gain-amplifier-sbba-180-43-01-sma-p.aspx)

URL: <http://www.fairviewmicrowave.com/12-18-ghz-broadband-high-gain-amplifier-sbba-180-43-01-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 12 GHz to 18 GHz, 43 dB Gain Broadband High Gain Amplifier with 1 Watt and SMA		DWG NO SBBA-180-43-01-SMA		CAGE CODE 3FKR5	
CAD FILE	050914	SHEET	SCALE	N/A	SIZE A 2233