

43 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 700 MHz to 6 GHz with SMA

SPA-060-43-10-SMA is a Class AB, GaN 10W broadband amplifier module operating in the 0.7 to 6 GHz frequency range. The amplifier offers 39 dBm min of saturated power and high 43 dB typical small signal gain with the gain flatness of ± 2 dB max. The amplifier offers high linear transmit power with superior EVM performance and efficiency over 40% to maintain the highest data rate possible. The driver amplifier requires typically a +28V DC power supply, provides TTL amplifier enable control for ease of use. The connectorized SMA module is unconditionally stable and operates over the temperature range of -20°C and +80°C.



Electrical Specifications (TA = +25°C, DC Voltage = 32Volts , DC Current = 2,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.7		6	GHz
Small Signal Gain		43		dB
Gain Flatness			± 2	dB
Input Power (CW)			+5	dBm
Psat	+39	+40		dBm
Input Return Loss		-13		dB
Operating DC Voltage	9		32	Volts
Operating DC Current		2,000		mA
Operating Temperature Range	-20		+80	°C

Features:

- 0.7 GHz to 6 GHz Frequency Range
- P1dB 39 dBm min
- Small Signal Gain: 43 dB min
- 50 Ohms Input and Output Matched
- Unconditionally Stable

Applications:

- L-band Military Radar
- Commercial Air Traffic Control
- Weather & Earth Observation Satellites
- Radar & Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Mechanical Specifications

Size	
Length	3.75 in [95.25 mm]
Width	1.75 in [44.45 mm]
Height	1.06 in [26.92 mm]
Weight	0.5201 lbs [235.91 g]
Input Connector	SMA Female
Output Connector	SMA Female
Cooling	HEATSINK REQUIRED use FMAMC5013 or FMAMG5011F

Environmental Specifications

Temperature	
Operating Range	-20 to +80 deg C
Storage Range	-65 to +150 deg C
Humidity	95
Shock	MIL-STD-810F Method 516.5
Vibration	MIL-STD-810F Method 516.5
Altitude	0-30,000 Feet

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

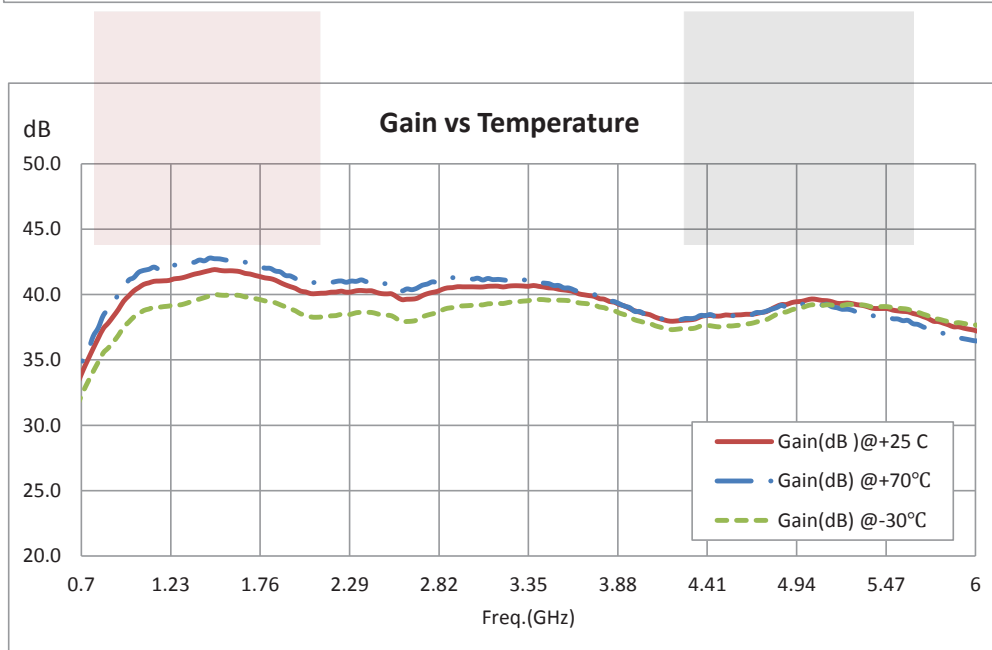
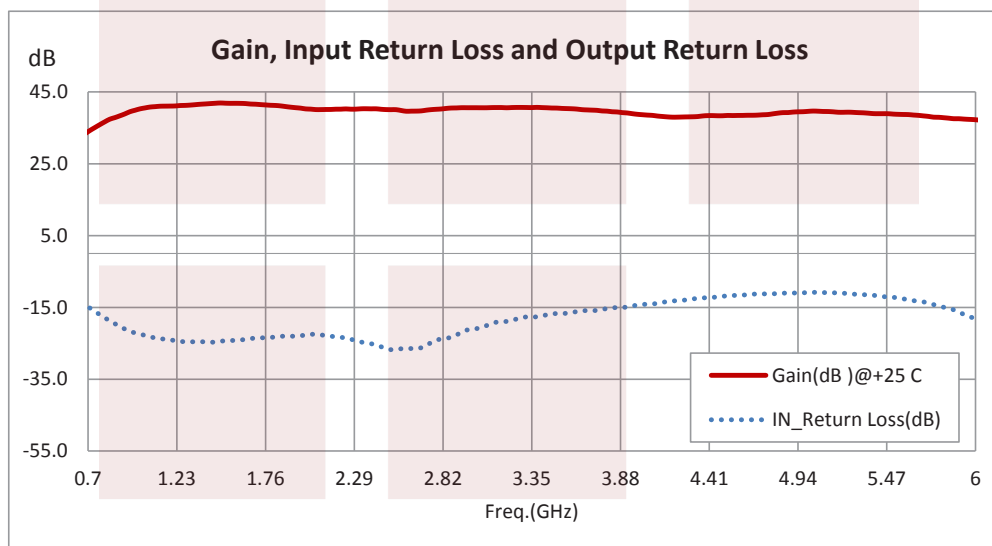
Plotted and Other Data

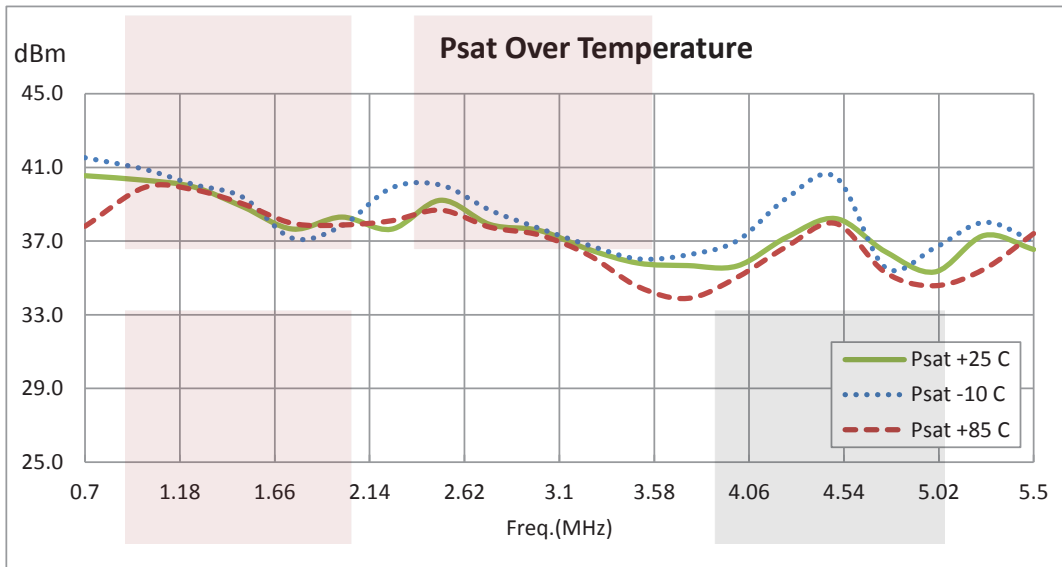
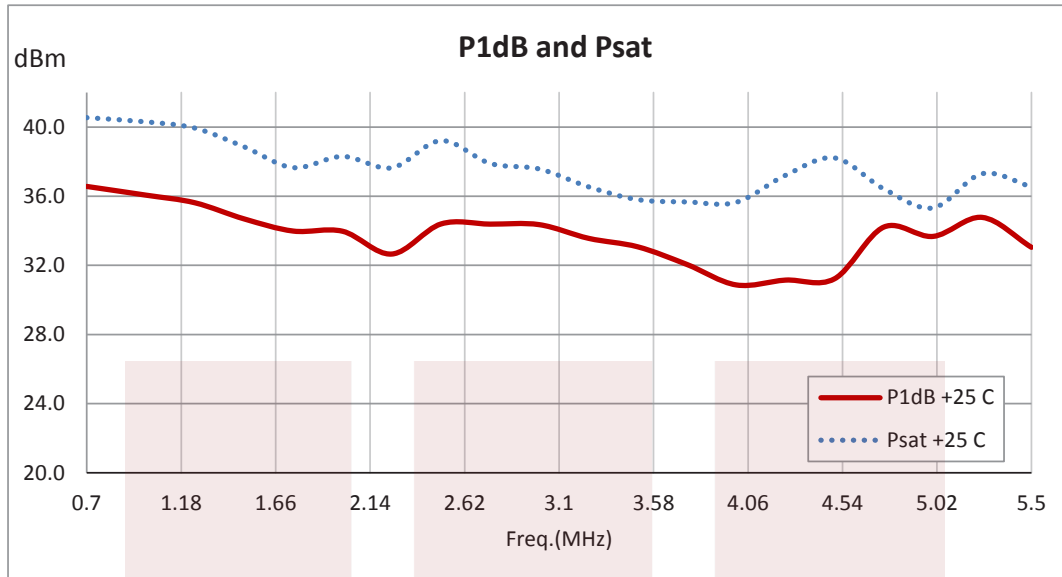
Notes:

- 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.



Typical Performance Data



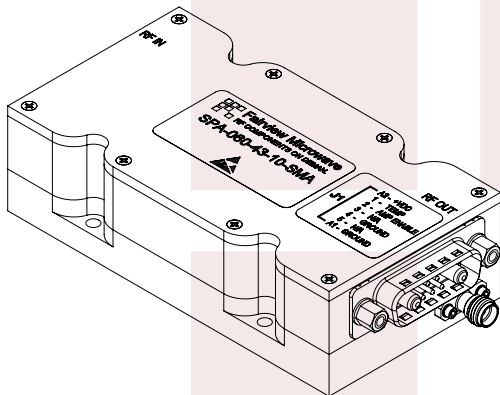
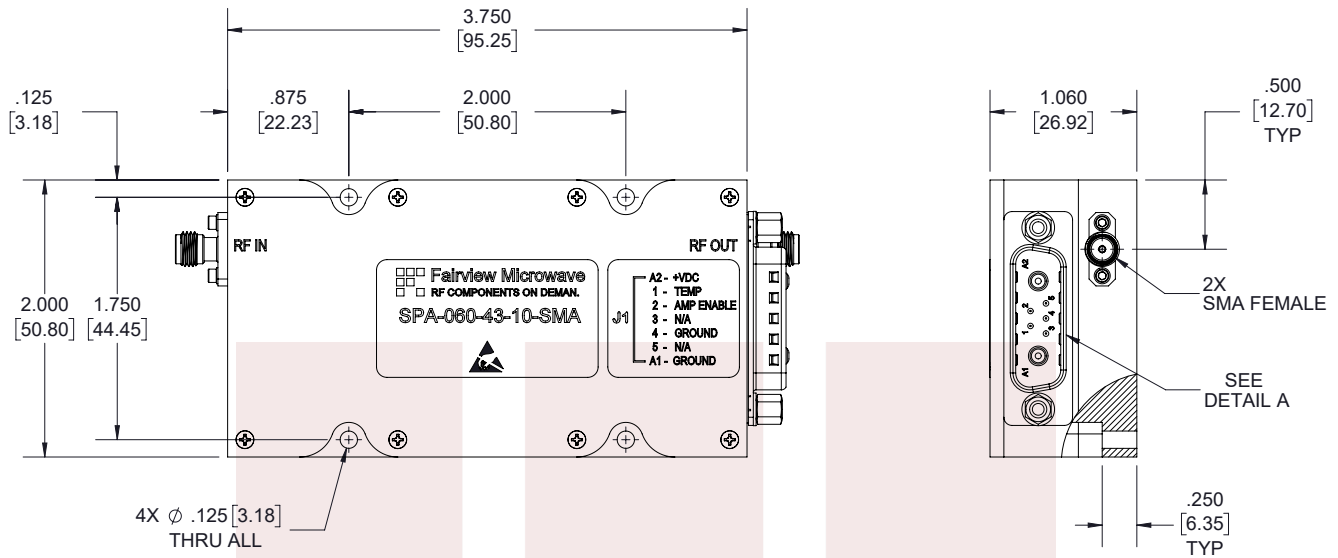


43 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 700 MHz to 6 GHz with SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

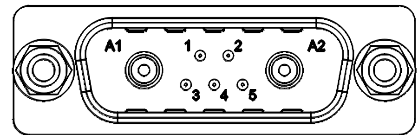
For additional information on this product, please click the following link: [43 dB Gain High Power High Gain Amplifier at 10 Watt Psat Operating From 700 MHz to 6 GHz with SMA SPA-060-43-10-SMA](#)

URL: <https://www.fairviewmicrowave.com/43db-high-power-high-gain-amplifier-10watt-spa-060-43-10-sma-p.aspx>

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J1 (7W2)



DETAIL A

- NOTES:
- HEAT SINK REQUIRED FOR PROPER OPERATION.
 - UNIT IS COOLED BY CONDUCTING TO HEAT SINK.

STANDARD TOLERANCES

.X	±0.2
.XX	±0.01
.XXX	±0.005

*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

J1 (7W2)		
PIN	DESCRIPTION	SPECIFICATION
A1	GROUND	VDC GROUND
A2	+VDC	+9.0V TO +32.0V
1	TEMPERATURE SENSOR	.75V AT +25°C (±0.05V)
		1.0V AT +50°C (±0.05V)
		1.25V AT +75°C (±0.05V)
2	AMPLIFIER ENABLE	ENABLE: +5.0V TTL High
		DISABLE: 0V TTL Low (+ 5.5V Max.)
		NO CONNECTION IS ENABLE
3	N/A	N/A
4	GROUND	GROUND
5	N/A	N/A