Fairview Microwave
RF COMPONENTS ON DEMAND. Done!

SPA-027-20-100-SMA
DATA SHEET

50 dB Gain High Power High Gain Amplifier at 79 Watt Psat Operating From 2.2 GHz to 2.7 GHz with SMA

The SPA-027-20-100-SMA is a class AB LDMOS amplifier module that is ideal for both military and commercial applications. The amplifier is capable of supporting any signal type and modulation format, including but not limited to 3-4G telecom, WLAN, OFDM, DVB, and CW/AM/FM. The amplifier produces a Psat of 79 Watts and offers 50 dB typical small signal gain with ±1.5 dB typical, gain flatness. The high gain power coaxial amplifier operates in the 2.2 to 2.7 GHz frequency range. The amplifier has several protection circuits including load VSWR protection, low and high bias protection, reverse bias protection and thermal protection. The connectorized SMA module is unconditionally stable and includes built-in voltage regulation, bias sequencing, and requires typically a +28V DC power supply. The amplifier operates over the temperature range of -40°C and +85°C.

Electrical Specifications (TA = +25°C, DC Voltage = 28Volts , DC Current = 11,000mA)

Description	Min	Typ	Max	Unit
Frequency Range	2.2		2.7	GHz
Small Signal Gain		50		dB
Gain Flatness		±1.5	±2	dB
Psat	+47	+49		dBm
Linear COFDM Power Output		+40		dBm
Input Return Loss	-16	-18		dB
Switching Speed for On/Off Switch Gate		1	2	usec
Operating DC Voltage	27	28	32	Volts
Operating DC Current		11,000		mA
Quiescent Current		2,200		mA
Operating Temperature Range	-40		+85	°C

Mechanical Specifications

Size

Length	7.7 in [195.58 mm]
Width	6.7 in [170.18 mm]
Height	0.985 in [25.02 mm]
Weight	3 lbs [1.36 Kg]
Input Connector	SMA Female
Output Connector	N Female

Environmental Specifications

Temperature

Operating Range	-40 to +85 deg C
Storage Range	-60 to +100 deg C
Humidity	0-100% Non-Condensing

Features:

- 2.2 GHz to 2.7 GHz Frequency Range
- Linear Power 40 dBm typ
- Small Signal Gain: 50 dB typ
- Gain Flatness: ±1.5 typical
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply & Bias Sequencing
- Overvoltage Protection
- Thermal Protection
- Modulation Formats: 3-4 G Telecom, WLAN, OFDM, DVB, and CW/AM/FM

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

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

Plotted and Other Data

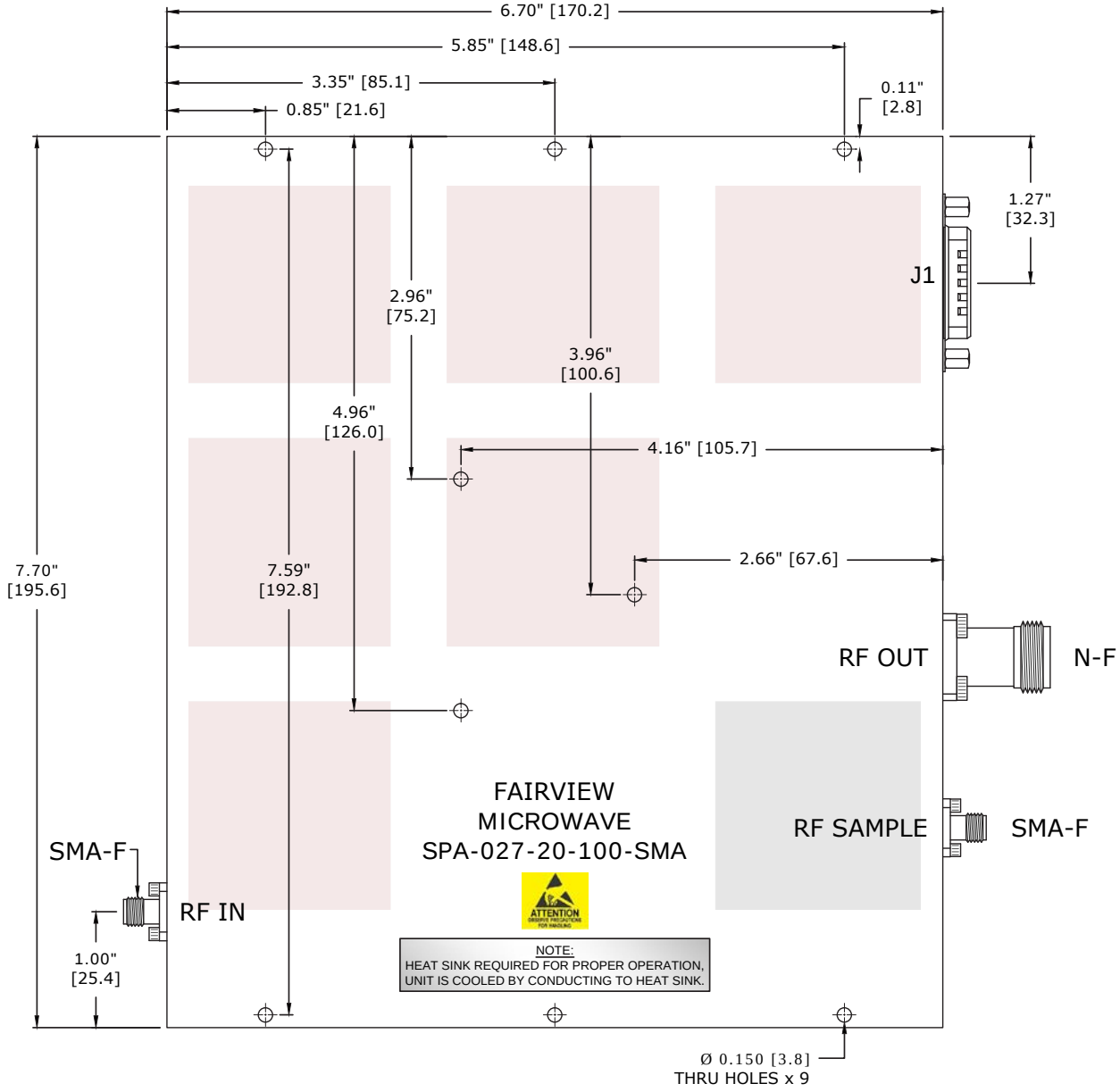
Notes:

- 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.

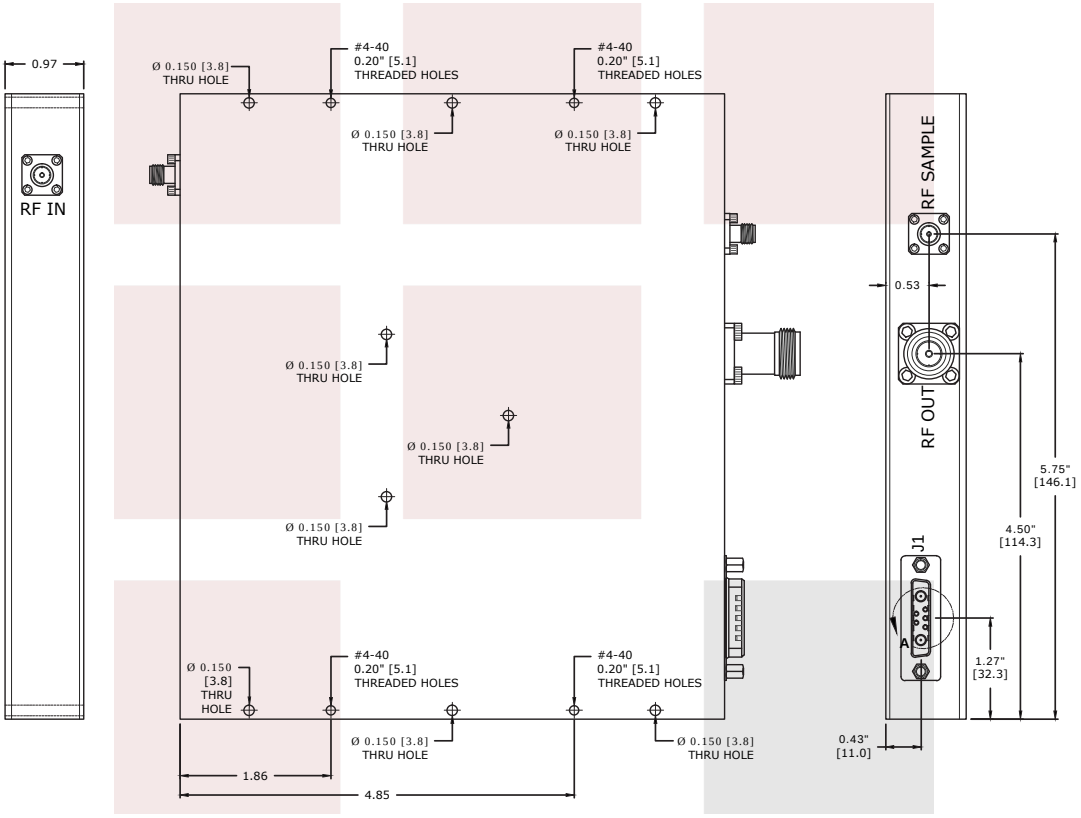
50 dB Gain High Power High Gain Amplifier at 79 Watt Psat Operating From 2.2 GHz to 2.7 GHz with SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: 50 dB Gain High Power High Gain Amplifier at 79 Watt Psat Operating From 2.2 GHz to 2.7 GHz with SMA SPA-027-20-100-SMA

URL: http://www.fairviewmicrowave.com/50db-high-power-high-gain-amplifier-79watt-spa-027-20-100-sma-p.aspx



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 50 dB Gain High Power High Gain Amplifier at 79 Watt Psat Operating From 2.2 GHz to 2.7 GHz with SMA	DWG NO SPA-027-20-100-SMA CAGE CODE 3FKR5 CAD FILE 031115 | SHEET | SCALE N/A | SIZE A | 5568



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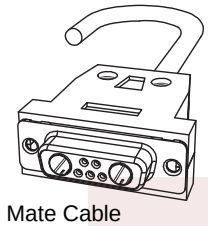
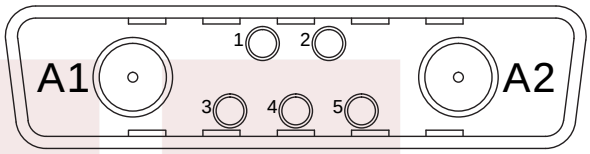


Mate Cable
(Not Included)



View A

CONNECTOR PINOUT		
PIN	DESCRIPTION	NOTES
1	Temperature	Temp. Monitor: Temp. in DegC =(Vout. - 0.5V) /10
2	Amplifier Enable	TTL On/Off Low = Disable, High = Enable
3	NC	Not Connected
4	Ground	Ground
5	FWD	Forward Power Measurement
A1	Ground	Ground
A2	+VDC	Supply Voltage - Range Specified in Datasheet

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