

45 dB Gain High Power High Gain Amplifier at 100 Watt Psat Operating From 700 MHz to 2.7 GHz with SMA

FMAM5033F is a 100 W high gain Class A/AB GaN Linear Power Amplifier operating in the 0.7 to 2.7 GHz frequency range. The amplifier offers 100 Watts typical saturated power and 45 dB minimum small signal gain with ± 1.5 dB typical gain flatness. The amplifier requires typically a +30V DC power supply. The SMA connectorized module is unconditionally stable and operates over the temperature range of 0°C and +50°C. The unit comes with a Heatsink and Fan.

Electrical Specifications (TA = +25°C, DC Voltage = 30Volts , DC Current = 16,666mA)

Description	Min	Typ	Max	Unit
Frequency Range	0.7		2.7	GHz
Small Signal Gain	45			dB
Gain Flatness @ Psat		± 1.5	± 2	dB
Input Power (CW)		+7	+10	dBm
Psat	+49.5	+50		dBm
Efficiency (PAE)	25	30		%
Harmonics		-20	-15	dBc
Spurious		-70	-60	dBc
Input VSWR			2:1	
Switching Speed for On/Off Switch Gate			5	usec
TTL Control	"1": On, "0": Off, Enable: 5V, Disable: 0V			
Operating DC Voltage		30		Volts
Operating DC Current		16,666	16,666	mA
DC Consumption			500	Watts
Operating Temperature Range	0		+50	°C

Mechanical Specifications

Size	
Length	10.75 in [273.05 mm]
Width	7 in [177.8 mm]
Height	3.75 in [95.25 mm]
Weight	9.5 lbs [4.31 Kg]
Input Connector	SMA Female
Output Connector	SMA Female

Environmental Specifications

Temperature	
Operating Range	0 to +50 deg C
Humidity	95% Non-Condensing
Shock	Normal Truck Transport
Vibration	Normal Truck Transport
Altitude	10000 feet Above Sea Level



Features:

- 0.7 GHz to 2.7 GHz Frequency Range
- Psat 100 Watts typ
- Small Signal Gain: 45 dB min
- Gain Flatness ± 1.5 dB typ
- Switching Time 5 usec max
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply
- RF Input Signal Format: CW/AM/FM/Pulse
- Efficiency (PAE) 30% Typical
- Heatsink and Fan

Applications:

- Military Radio
- Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

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

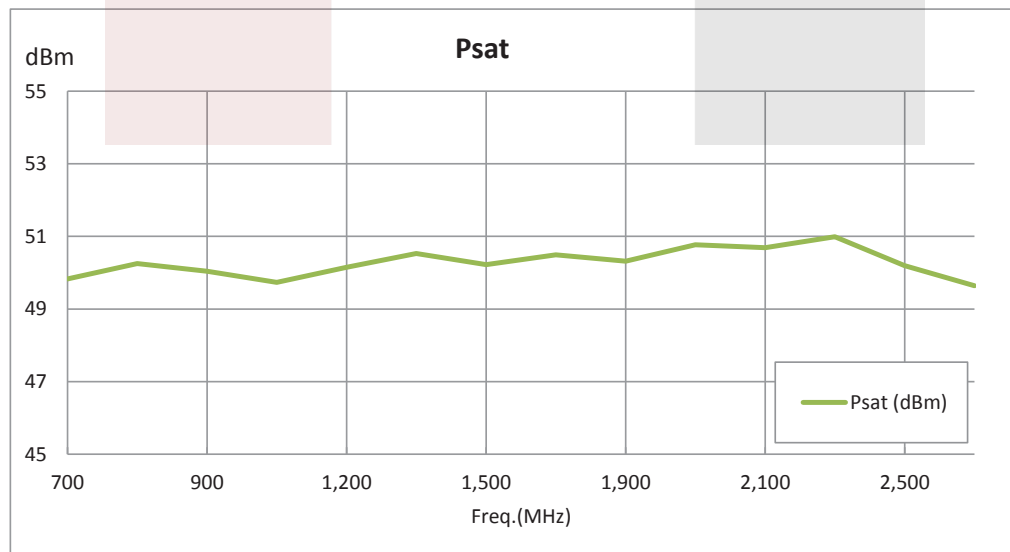
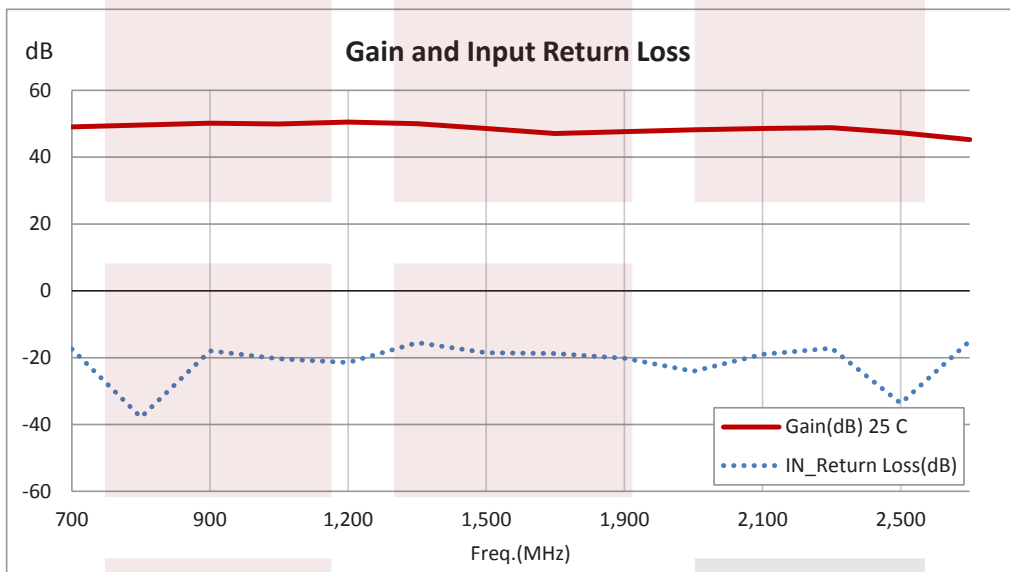
Plotted and Other Data

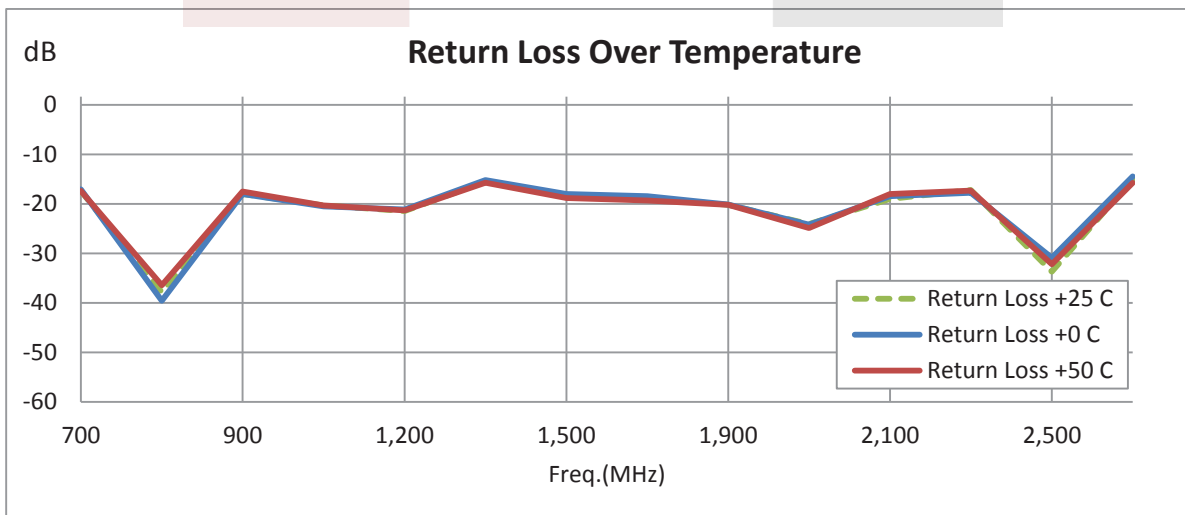
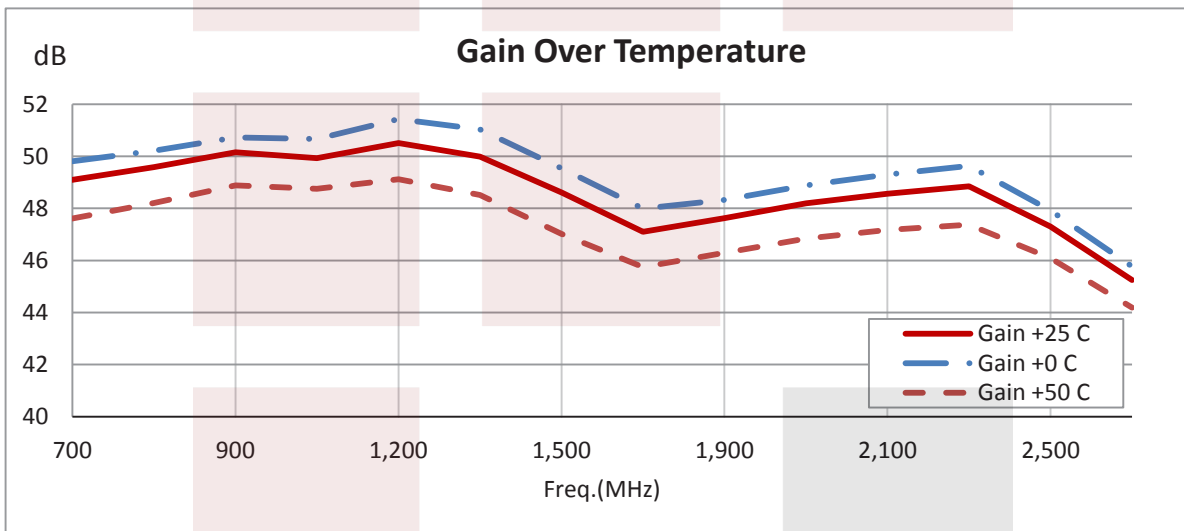
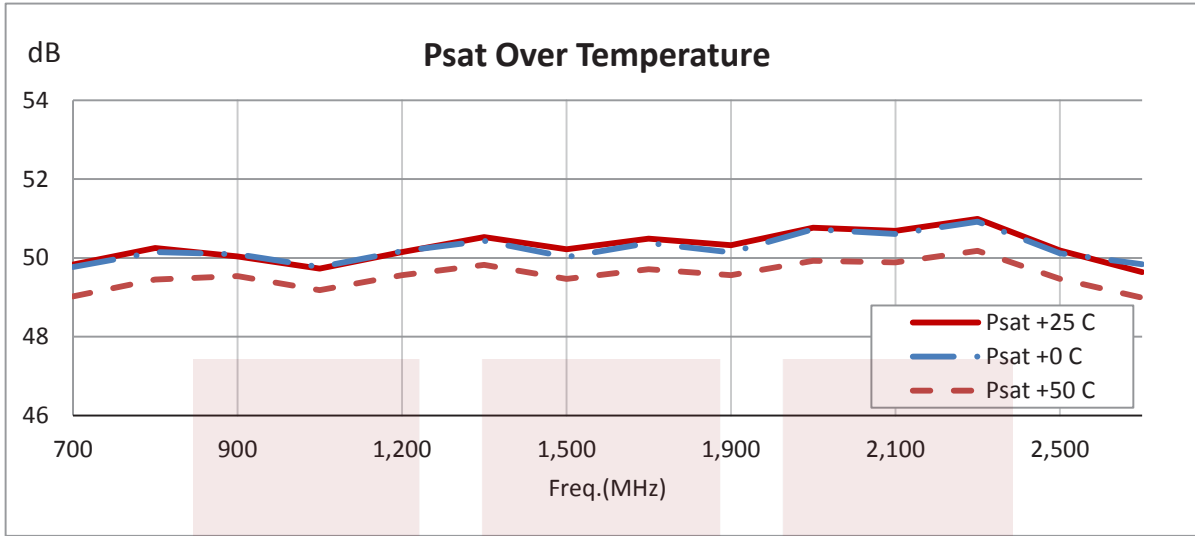
Notes:

- 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





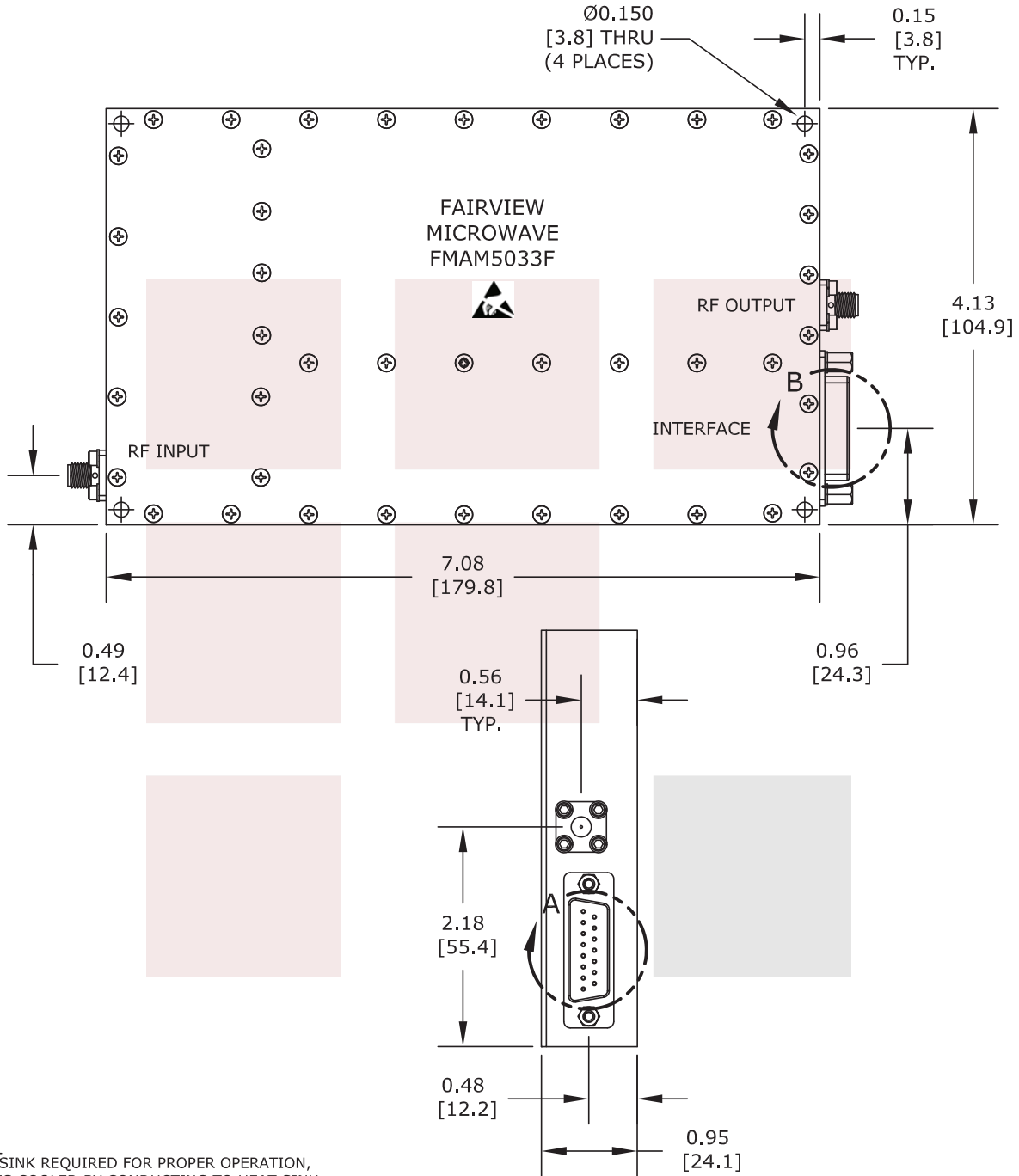
45 dB Gain High Power High Gain Amplifier at 100 Watt Psat Operating From 700 MHz to 2.7 GHz with SMA from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Allen, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [45 dB Gain High Power High Gain Amplifier at 100 Watt Psat Operating From 700 MHz to 2.7 GHz with SMA FMAM5033F](#)

URL: <https://www.fairviewmicrowave.com/45db-high-power-high-gain-amplifier-100watt-fmam5033f-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.





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

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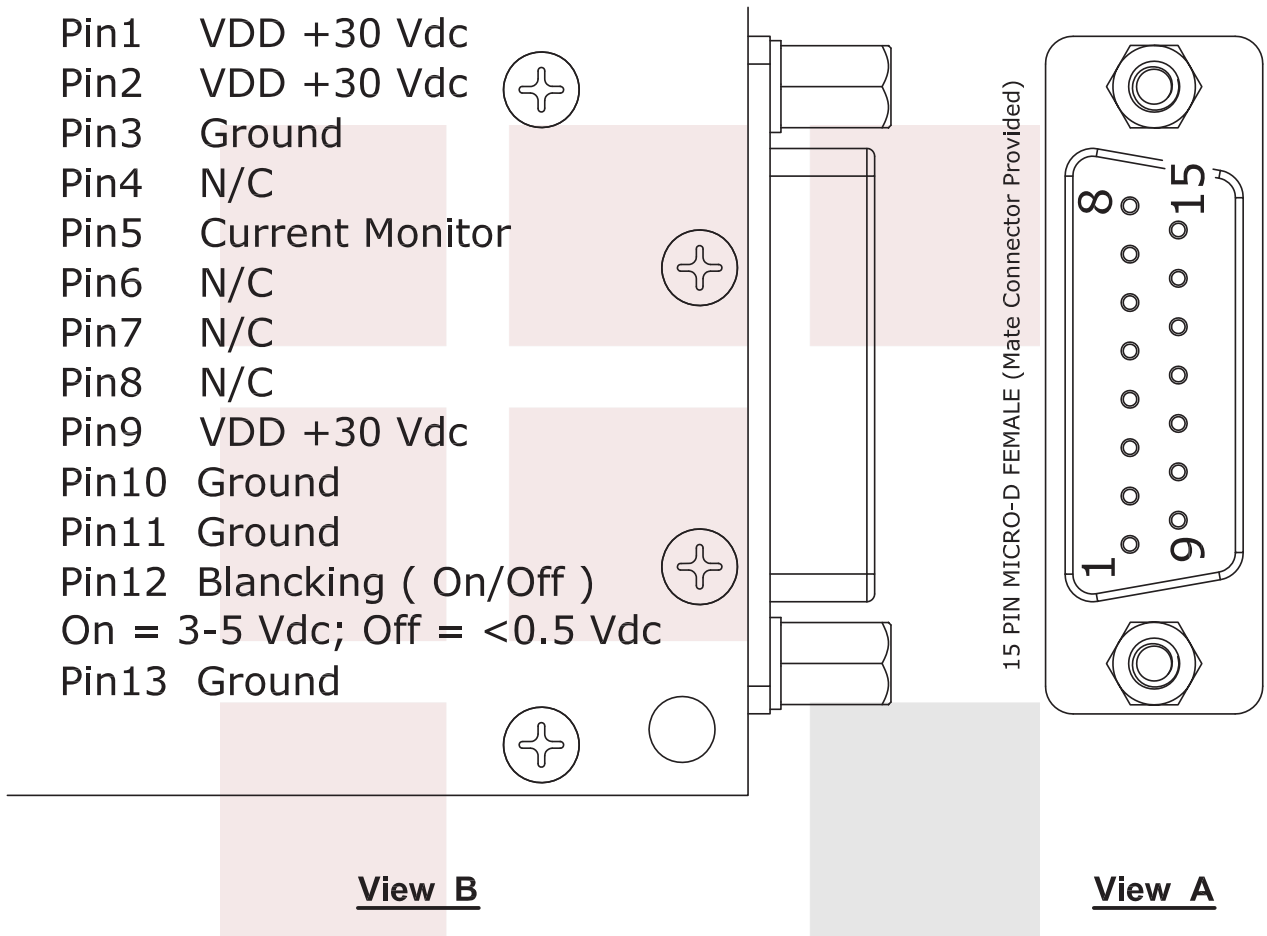
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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE
45 dB Gain High Power High Gain Amplifier at 100
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SMA

DWG NO	FMAM5033F	CAGE CODE	3FKR5		
CAD FILE	052015	SHEET	SCALE	N/A	SIZE A 2233

- Pin1 VDD +30 Vdc
- Pin2 VDD +30 Vdc
- Pin3 Ground
- Pin4 N/C
- Pin5 Current Monitor
- Pin6 N/C
- Pin7 N/C
- Pin8 N/C
- Pin9 VDD +30 Vdc
- Pin10 Ground
- Pin11 Ground
- Pin12 Blanking (On/Off)
 On = 3-5 Vdc; Off = <0.5 Vdc
- Pin13 Ground

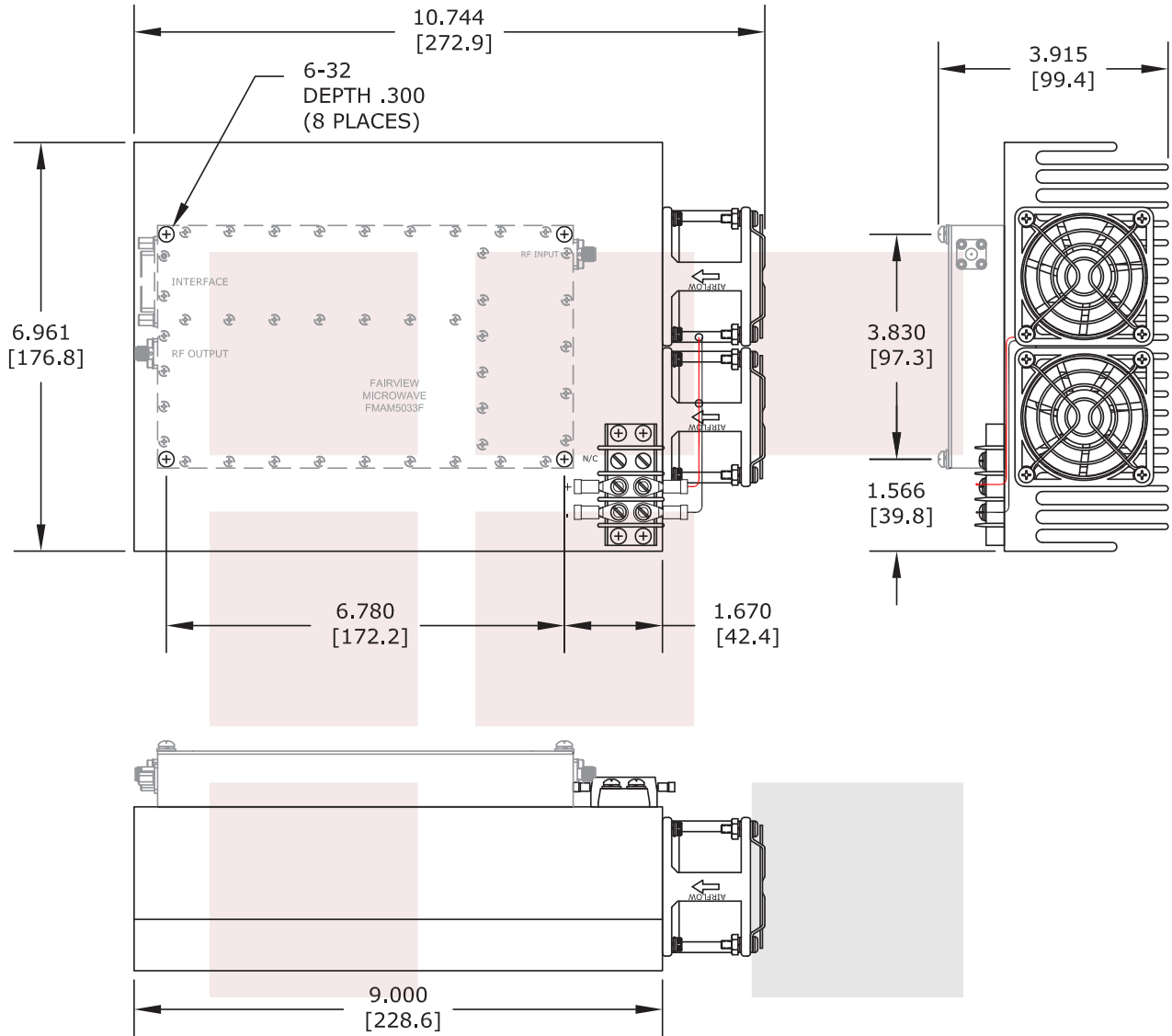


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