



Power Amplifier

Model: PA-4G-8G-158

4-8GHz 158W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 4-8GHz
- High output power at saturation, 158W Typ.
- High gain, 52 dB Typ.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-4G-8G-158 is a power amplifier with a typical small signal gain of 52 dB and a nominal P_{sat} of 158W across the frequency range of 4 to 8GHz. The DC power requirement for the amplifier is +28 VDC/3 A. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.



Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	4		8	GHz
Small Signal Gain	50	52		dB
Gain Flatness		±2	±3	dB
Output P1dB	50	50.5		dBm
Output Psat	51	52		dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28	+30	V DC
Static Current		3		A
Saturation current		20	22	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temperature*	-20°C to +50°C	
Non-operating Temperature*	-30°C to +60°C	
Relative humidity	95	%
RF Input/Output Connector	SMA Female/N Female	
DC Bias	D-SUB-15Pin	
Altitude	10,000	feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis	
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions	
Dimensions W x H x D	270*160*40	mm
Weight	1500	g

*Note: For a wider temperature range, please consult the manufacturer.

Absolute Maximum Ratings:

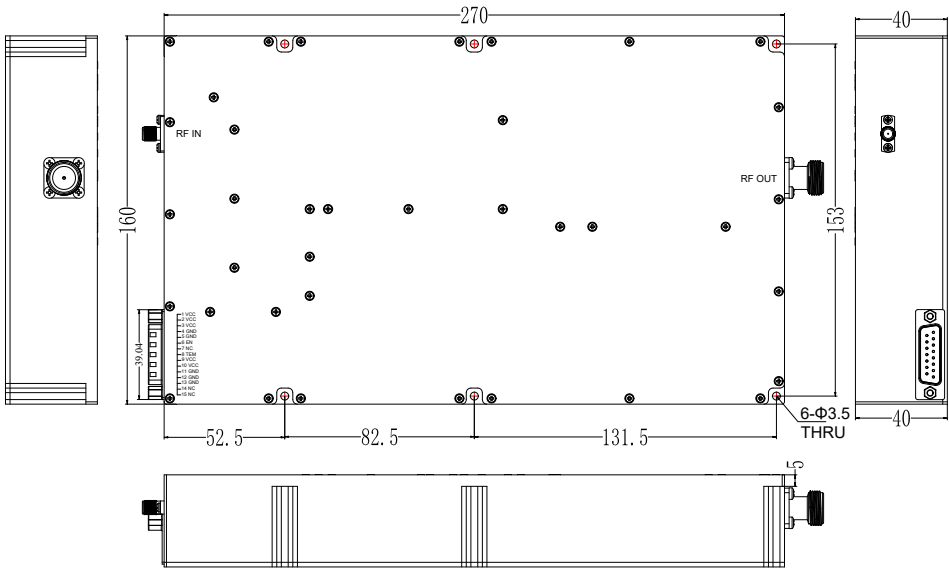
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



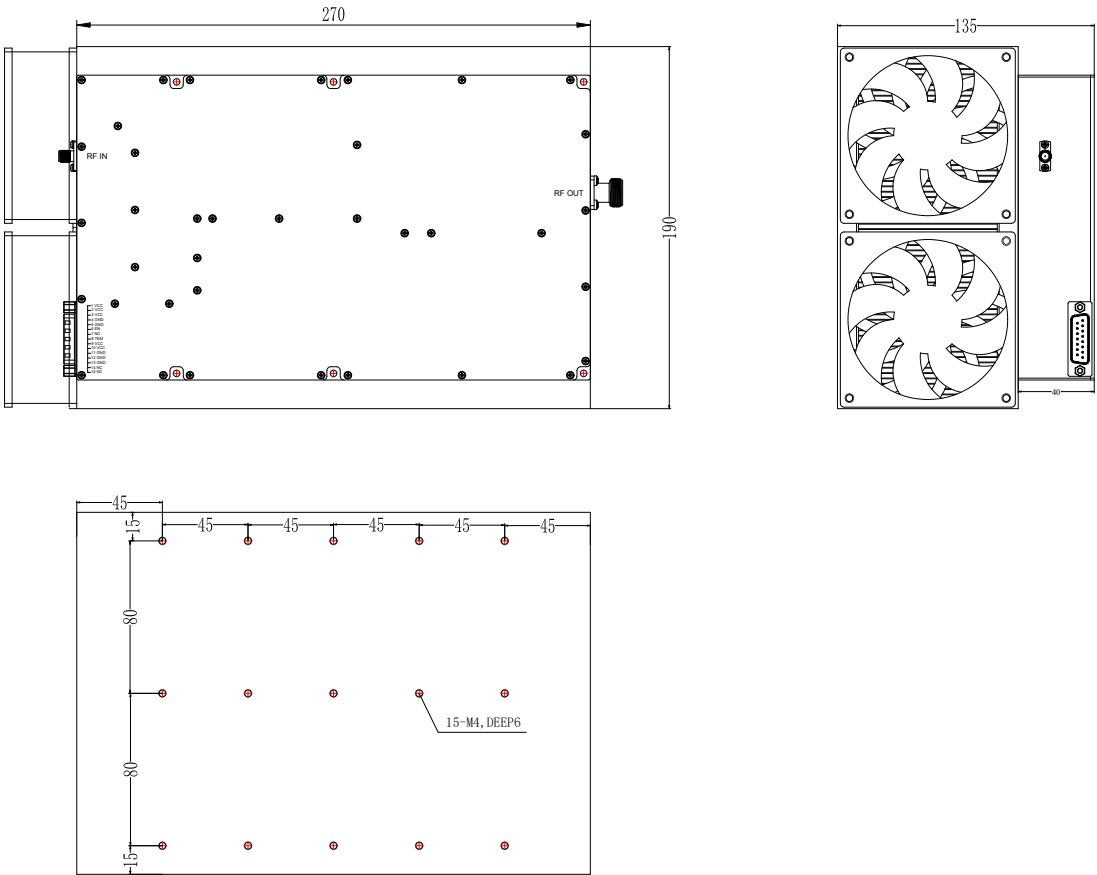
Outline Drawing:

Unit:mm

PA-4G-8G-158



PA-4G-8G-158-HS





DC Supply Connector(DSUB-9 Female):

Pin	Name	Function
1~3、 9、 10	VCC	Power supply positive,+26.0-30.0VDC
4~5、 11~13	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7、 14、 15	NC	Not Connected
8	TEM	When the temperature of the case exceeds 75 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.

Ordering Information:

Base Number	Description	Optional
PA-4G-8G-158	Power Amplifier, 4-8GHz, Gain:52dB,Psat:158W,+28V DC	Without Heatsink
PA-4G-8G-158-HS	Power Amplifier, 4-8GHz, Gain:52dB,Psat:158W,+28V DC	With Heatsink