



Power Amplifier

Model: PA-6G-8G-100

6-8GHz 100W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 6-8GHz
- High output power at saturation, 100W Typ.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-6G-8G-100 is a power amplifier with a minimum small signal gain of 50 dB and a nominal P_{sat} of 100W across the frequency range of 6 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/14 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	6		8	GHz
Small Signal Gain	50	53		dB
Small Signal Gain Flatness		±1.5	±2	dB
Output P1dB	45	46		dBm
Output Psat	49.5	50		dBm
Input VSWR		1.5	2	:1
DC Voltage		+28	+30	V DC
Static Current		3		A
Saturation current		14	15	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 Supply Connector	DSUB-15	
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	240*140*35(Without heatsink) 270*190*130(With heatsink)	mm
Weight	2000	g

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

Absolute Maximum Ratings:

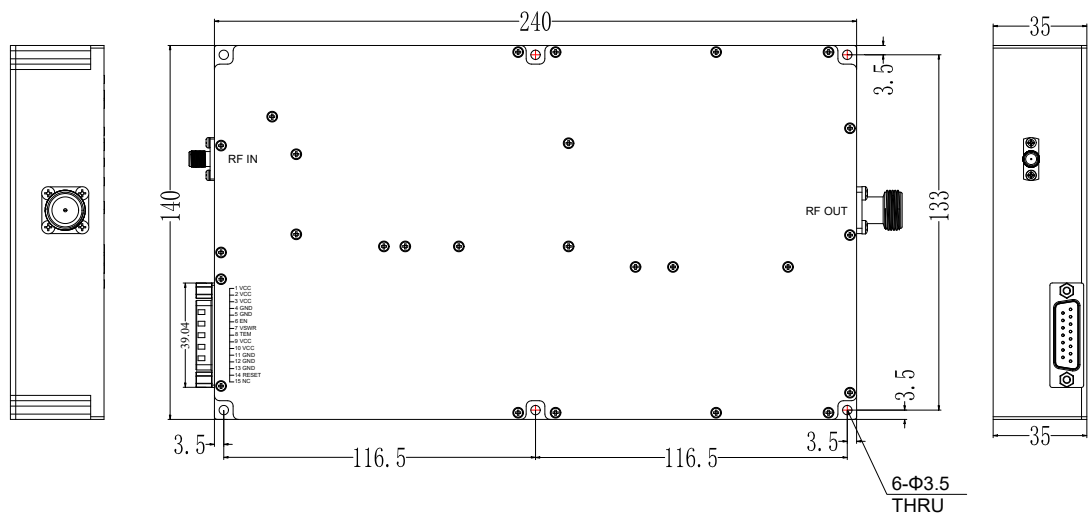
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



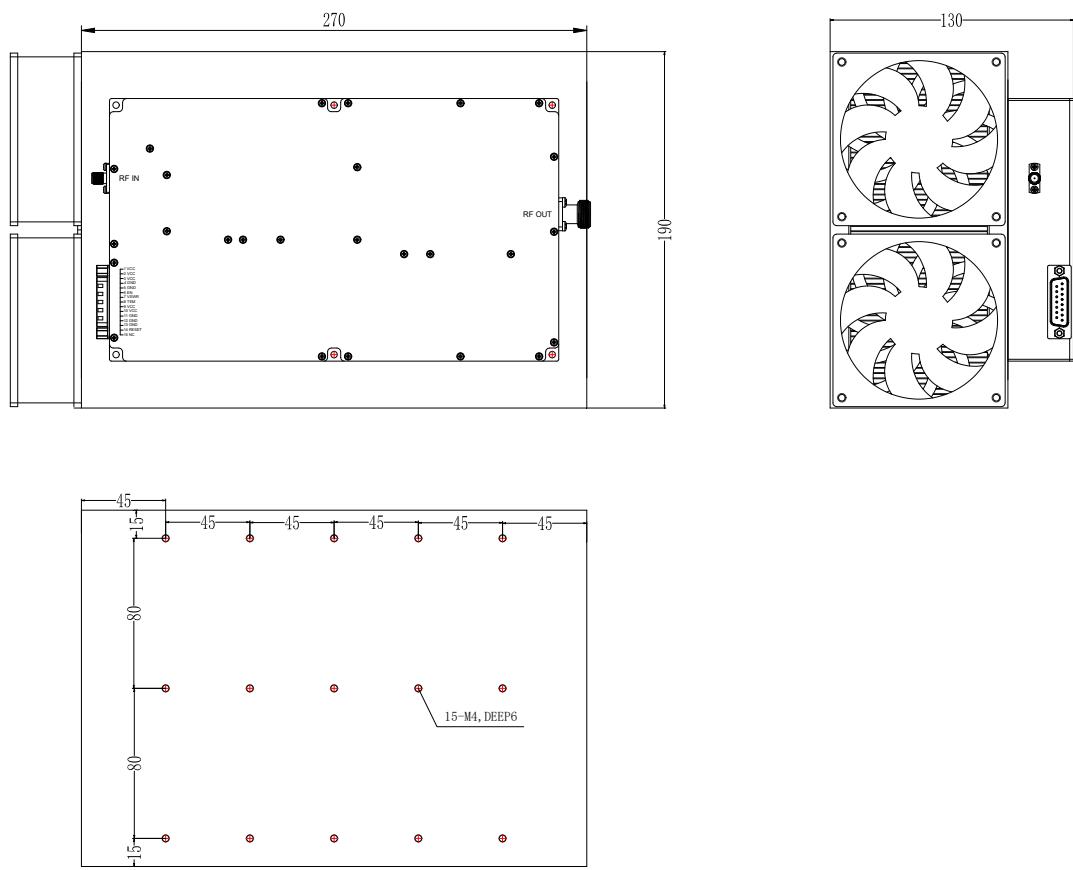
Outline Drawing:

Unit:mm

PA-6G-8G-100



PA-6G-8G-100-HS





Fan power supply:

Fan power supply	
Red line	Power supply positive,+24.0-28.0VDC DC current: 0.5A
Black line	Ground

DC Supply Connector(DSUB-15 Female)

Pin	Name	Function
1	VCC	Power supply positive,+26.0-30.0VDC
2	VCC	Power supply positive,+26.0-30.0VDC
3	VCC	Power supply positive,+26.0-30.0VDC
4	GND	Ground
5	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7	Over VSWR	VSWR FAULT: (TTL High= Fault, TTL Low =Normal).
8	Over 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.
9	VCC	Power supply positive,+26.0-30.0VDC
10	VCC	Power supply positive,+26.0-30.0VDC
11	GND	Ground
12	GND	Ground
13	GND	Ground
14	Reset	Resets PA when logic LOW is applied and released (Internally Pulled-High).
15	NC	Not Connected



Ordering Information:

Base Number	Description	Optional
PA-6G-8G-100	Power Amplifier, 6-8GHz, Gain:50dB,Psat:100W,+28V DC	Without Heatsink
PA-6G-8G-100	Power Amplifier, 6-8GHz, Gain:50dB,Psat:100W,+28V DC	With Heatsink