



Power Amplifier

Model: PA-5G1-5G9-100

5.1-5.9GHz 100W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

Features:

- Frequency range: 5.1-5.9GHz
- High output power at saturation, 100W Min.
- High gain, 50 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview:

The PA-5G1-5G9-100 is a power amplifier with a minimum small signal gain of 50 dB and a minimum P_{sat} of 100W across the frequency range of 5.1 to 5.9 GHz. The DC power requirement for the amplifier is +28 VDC/12 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	5.1		5.9	GHz
Small Signal Gain	50	53		dB
Gain Flatness		±1	±2	dB
Output P1dB	46	47		dBm
Output Psat	50	50.5		dBm
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
Static Current		2		A
Saturation Current		12	13	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-9	
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	168*75*23.5	mm
Weight	500	g

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

Absolute Maximum Ratings:

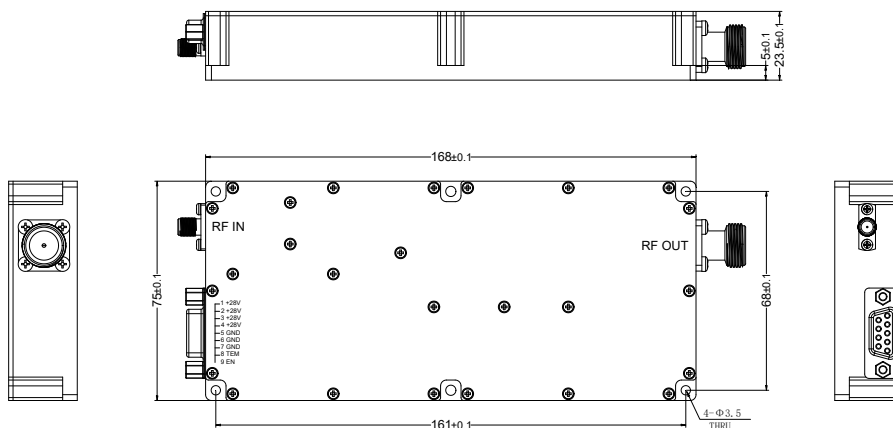
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



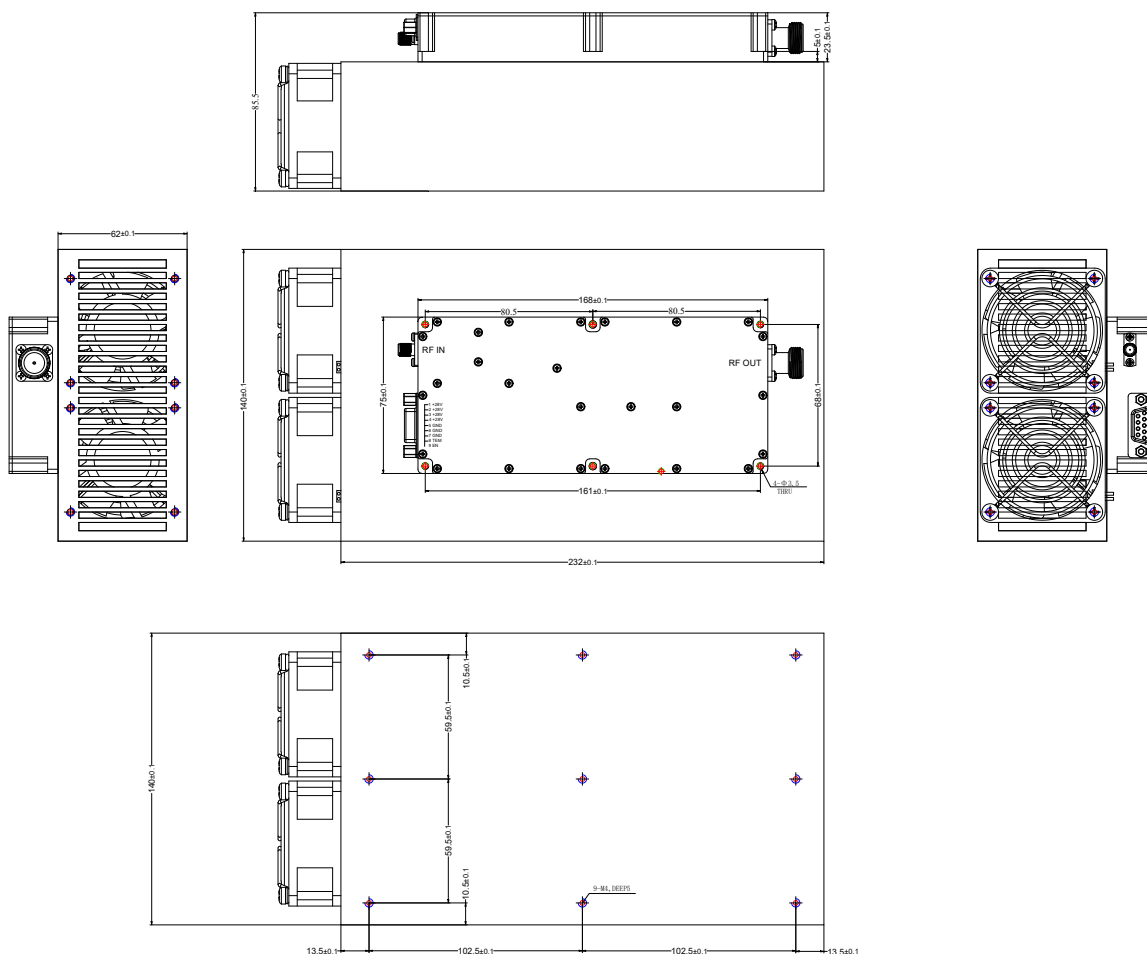
Outline Drawing:

Unit:mm

PA-5G1-5G9-100



PA-5G1-5G9-100-HS





DC Supply Connector(DSUB-9 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	VCC	Power supply positive,+26.0-30.0VDC
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	Over TEM	When the temperature of the case exceeds 85 °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	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground

Ordering Information:

Base Number	Description	Optional
PA-5G1-5G9-100	Power Amplifier, 5.1-5.9GHz, Gain:50dB,Psat:100W,+28V DC	Without Heatsink
PA-5G1-5G9-100-HS	Power Amplifier, 5.1-5.9GHz, Gain:50dB,Psat:100W,+28V DC	With Heatsink