



# Power Amplifier

## Model: PA-2G5-6G-250

2.5-6GHz 250W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 2.5-6GHz
- High output power at saturation, 250W Min.
- High gain, 66 dB Min.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-2G5-6G-250 is a power amplifier with a minimum gain of 66 dB and a minimum Psat of 250W across the frequency range of 2.5 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/50 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	2.5		6	GHz
Gain	66	68		dB
Gain Flatness		±1.5	±3	dB
Output Psat	54	55		dBm
Harmonic@Pout=54dBm		-15	-10	dBc
Switching Time			50	us
Input VSWR		1.5	2.0	:1
DC Voltage		+28	+30	V DC
DC Supply Current		50	60	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, 5W5	
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	330*210*30	mm
Weight	2500	g

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

## Absolute Maximum Ratings:

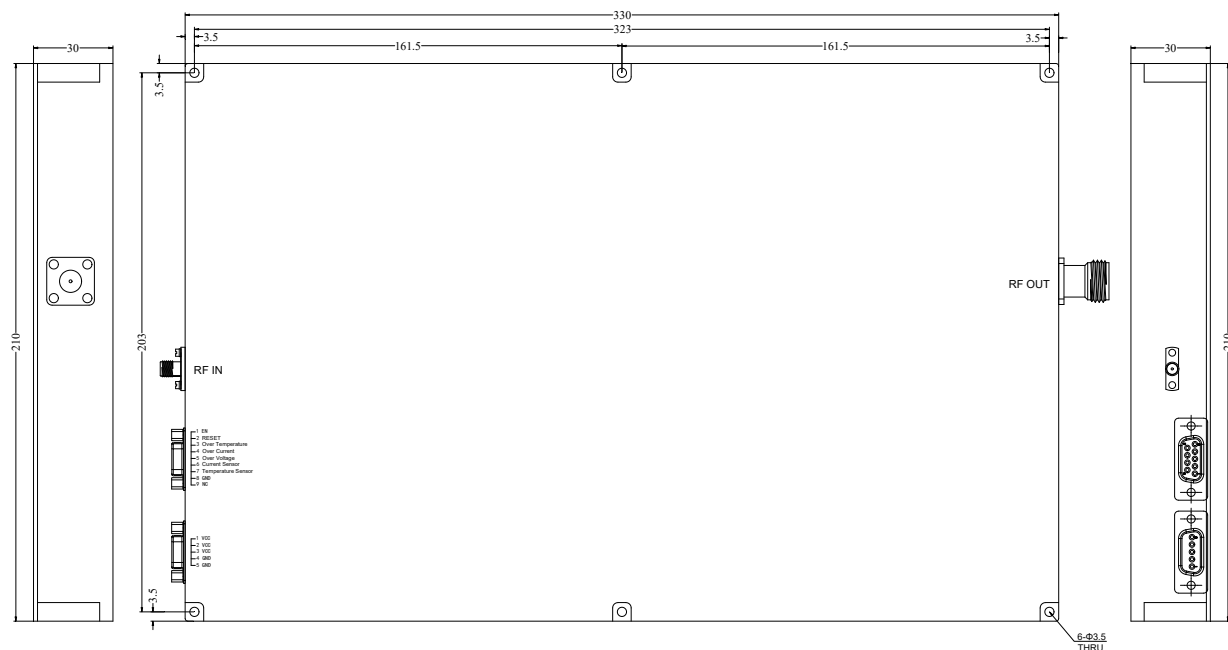
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	-5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



## Outline Drawing:

Unit:mm

### PA-2G5-6G-250



## DC Supply Connector(DSUB-5W5 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	Power supply negative
5	GND	Power supply negative



## Monitor and Control Interface(DSUB-9 Female):

Pin	Name	Function
1	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
2	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
3	Over Temperature	When the temperature of the case exceeds 60 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 55 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
4	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
5	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)
6	Current Sensor	0.1V/A
7	Temperature Sensor	$VO = 10 \text{ mV}/^{\circ}\text{C} \times T^{\circ}\text{C} + 600 \text{ mV}$
8	GND	Ground
9	NC	No internal connection

## Ordering Information:

Base Number	Description	Optional
PA-2G5-6G-250	Power Amplifier, 2.5-6GHz, Gain:66dB,Psat:250W,+28V DC	Without Heatsink
PA-2G5-6G-250HS	Power Amplifier, 2.5-6GHz, Gain:66dB,Psat:250W,+28V DC	With Heatsink