



# Power Amplifier

## Model: PA-2G7-3G5-200-IP65

2.7-3.5GHz 200W CW

Ultrabroad frequency range, high performance and exceptional RF characteristics

### Features:

- Frequency range: 2.7-3.5GHz
- High output power at saturation, 200W Min.
- High gain, 53 dB Min.
- 50 Ohm Matched Input / Output.

### Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

### Product Overview:

The PA-2G7-3G5-200-IP65 is a power amplifier with a minimum power gain of 53 dB and a minimum Psat of 200W across the frequency range of 2.7 to 3.5 GHz. The DC power requirement for the amplifier is +28 VDC/25 A. The input and output port configuration offers coax adapter structure with N female. And it has built-in protection functions included over TEM, over voltage, and over current protection.



## Electrical Specifications at 25°C:

Parameter	Min	Typ	Max	Units
Frequency range	2.7		3.5	GHz
Power Gain	53			dB
Gain Flatness		±3	±4	dB
Output P1dB		50		dBm
Output Psat	53	54		dBm
Harmonics @Pout=53dBm			-20	dBc
Input VSWR		1.5	2.0	:1
DC Voltage	+26	+28	+30	V DC
DC Supply Current		25	30	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	N Female/N Female	
DC Bias	Four core avionics	
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	280*250*120	mm
Weight	≤17	Kg
Seal	IP65	

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

## Absolute Maximum Ratings:

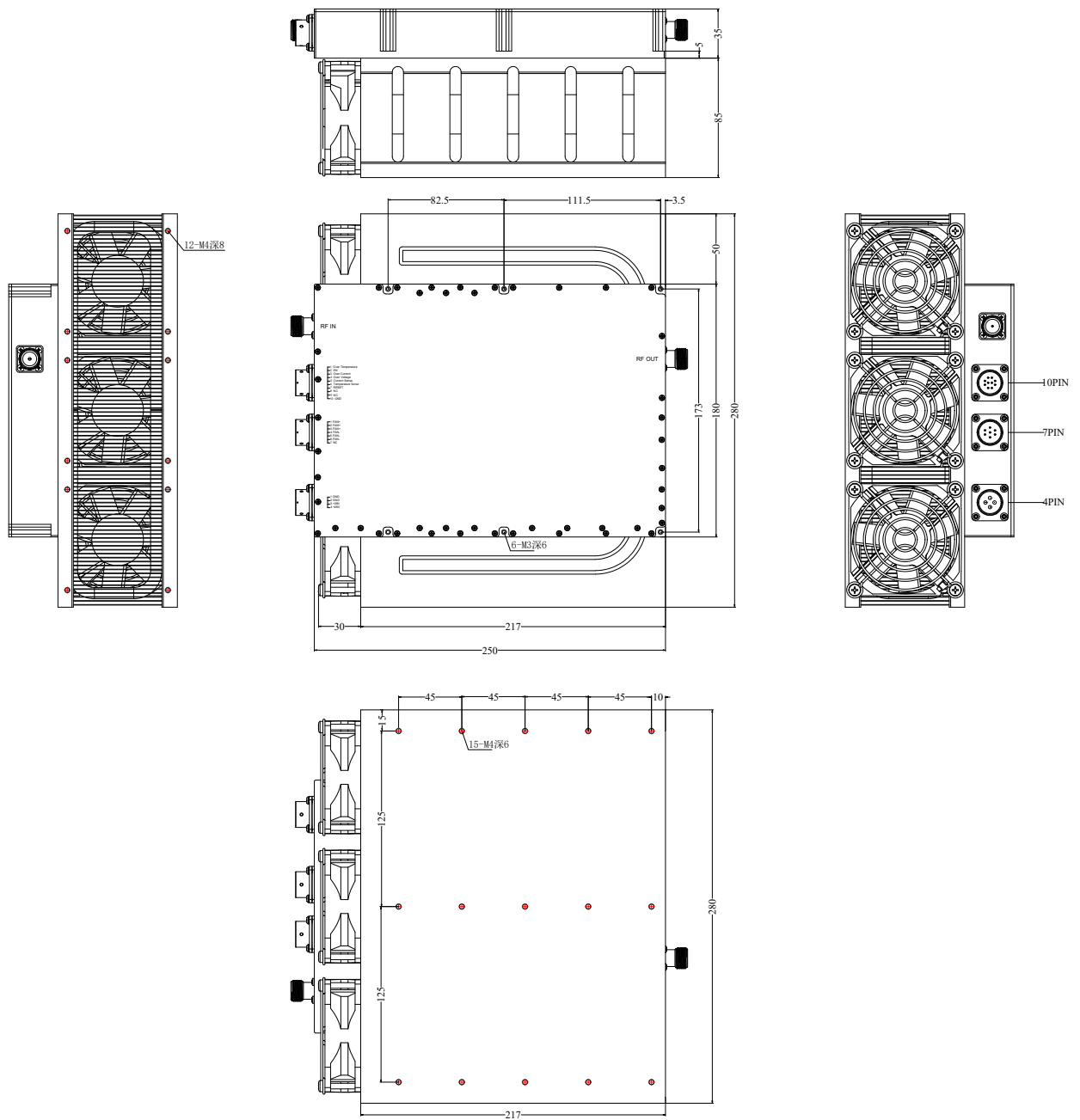
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+37 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



# Outline Drawing:

Unit:mm

## PA-2G7-3G5-200-IP65-HS





## Control Interface: Aviation socket,10-Pin, SF1613/P10:

Pin	Name	Function
1	Over Temperature	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 80 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
2	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: TTL Low (0V)
3	Over Current	Current FAULT:(TTL High= Fault, TTL Low =Normal)
4	Over Voltage	Voltage FAULT:(TTL High= Fault, TTL Low =Normal)
5	Current Sense	0.1V/1A
6	Temperature Sense	$VO = 10 \text{ mV}/^{\circ}\text{C} \times T^{\circ}\text{C} + 600 \text{ mV}$
7	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
8	NC	Not connected
9	NC	Not connected
10	GND	Ground

## FAN Interface: Aviation socket,7-Pin, SF1613/P7:

Pin	Name	Function
1	FAN+	Positive pole of fan
2	FAN+	Positive pole of fan
3	FAN+	Positive pole of fan
4	FAN-	Negative pole of fan
5	FAN-	Negative pole of fan
6	FAN-	Negative pole of fan
7	NC	Not connected



## DC power supply connector: Aviation socket,4-Pin, SF1613/P4B:

Pin	Name	Function
1	GND	Ground
2	GND	Ground
3	+28V	+26-30VDC
4	+28V	+26-30VDC

## Key Features:

Parameter	Advantages
Over Tem Protection	85°C Max(Case)
Over Voltage Protection	32V Max
Over Current Protection	35A Max
Current Sense(analog Voltage)	0.1V/1A
Temp Sense (analog Voltage)	$VO = 10 \text{ mV}/^{\circ}\text{C} \times T^{\circ}\text{C} + 600 \text{ mV}$

## Ordering Information:

Base Number	Description	Optional
PA-2G7-3G5-200-IP65	Power Amplifier, 2.7-3.5GHz, Gain:53dB,Psat:200W,+28V DC	Without Heatsink
PA-2G7-3G5-200-IP65-HS	Power Amplifier, 2.7-3.5GHz, Gain:53dB,Psat:200W,+28V DC	With Heatsink