Power Amplifier

Model: PA-0G5-6G-40

0.5-6GHz 40W CW

Ultrabroad frequency range, high performanceand exceptional RF characteristics

Features:

- Frequency range: 0.5-6GHz
- High output power at saturation, 40W Typ.
- High gain, 45 dB Min.
- 50 Ohm Matched Input / Output.

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Product Overview：

The PA-0G5-6G-40 is a power amplifier with a minimum power gain of 45 dB and a nominal Psat of 40W across the frequency range of 0.5 to 6GHz. The DC power requirement for the amplifier is +28 VDC/6 A. The input and output port configuration offers coax adapter structure with SMA female.

Electrical Specifications at 25℃:

Parameter	Min	Typ	Max	Units
Frequency range	0.5		6	GHz
Power Gain	45	47		dB
Power Gain Flatness		±4	±5	dB
Output P1dB	43	44		dBm
Output Psat	45	46		dBm
Harmonic		-15	-8	dBc
Input VSWR		1.5	2	:1
DC Voltage		+28	+30	V DC
Static Current		1		A
Saturation current		6	8	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Notes
Operating Temerature*	-40℃ to +50℃	
Non-operating Temperature*	-50℃ to +60℃	
Relative humidity	95%	
RF Input/Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
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	200*120*25(Without heatsink) 262.2*140*62(With heatsink)	mm
Weight	1.2	Kg

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

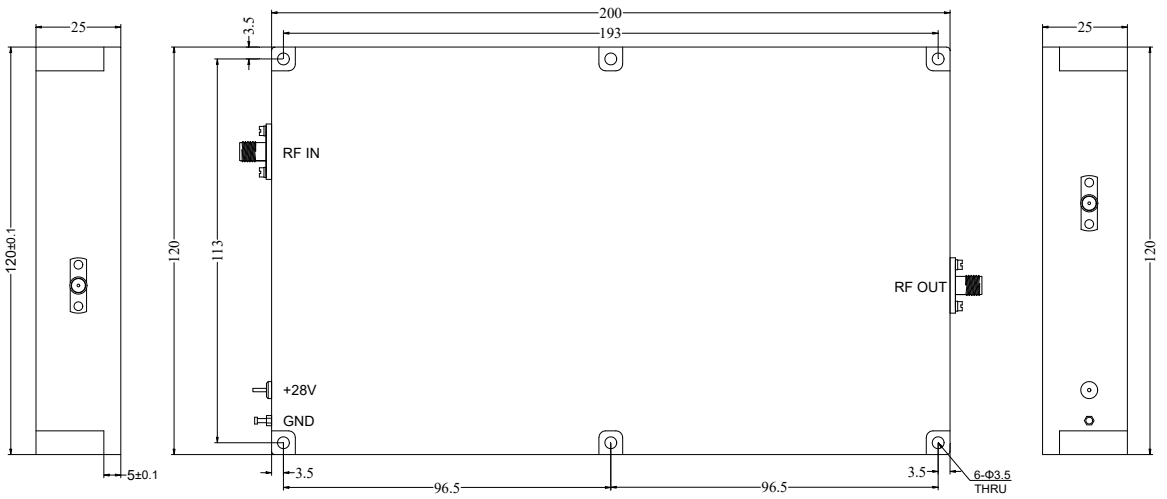
Absolute Maximum Ratings:

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

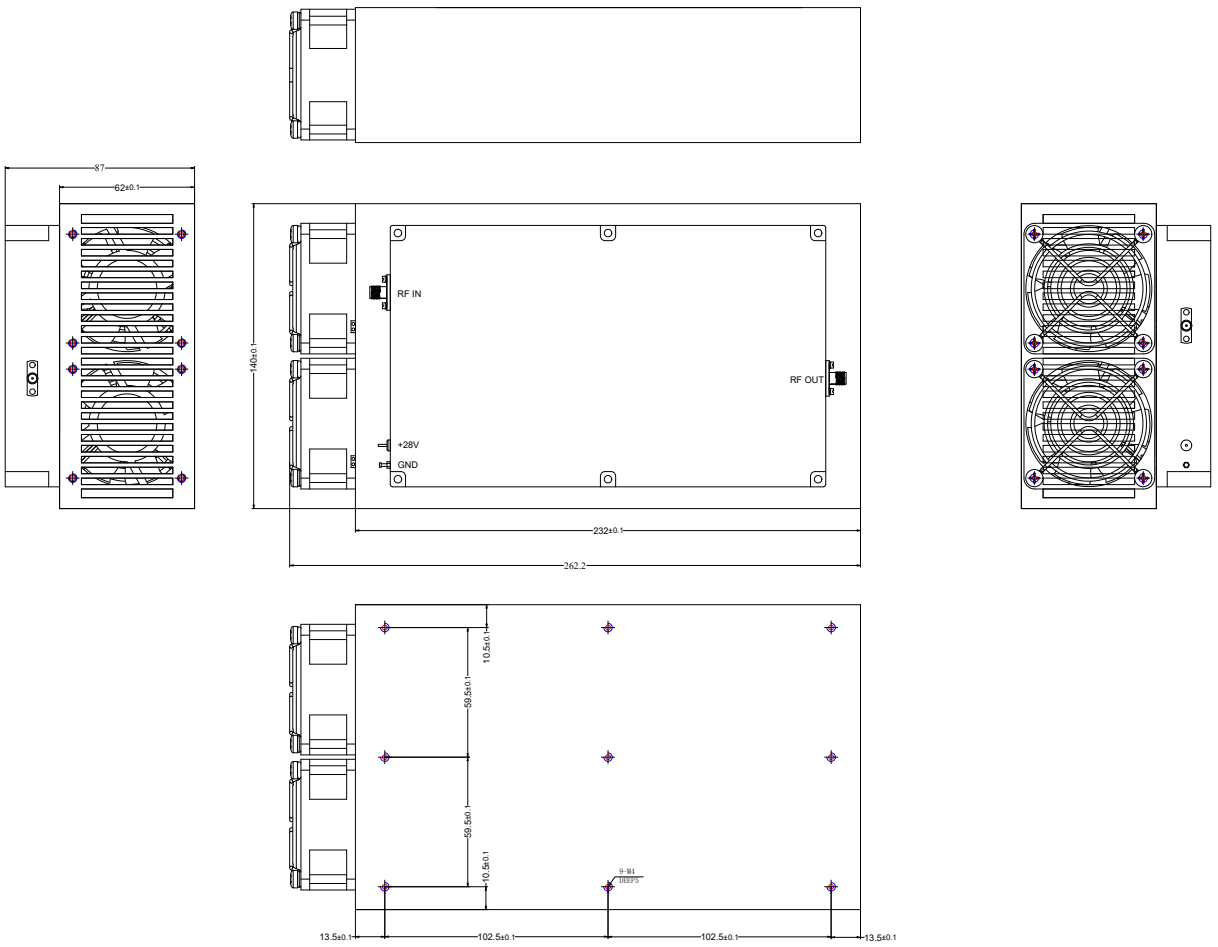
Outline Drawing:

Unit:mm

PA-0G5-6G-40



PA-0G5-6G-40-HS



Fan power supply:

Fan power supply	
Red line	Power supply positive,+24.0-28.0VDC DC current: 0.3A
Black line	Ground

Instruction Manual:

Power on	
1	Connect ground and RF input connector
2	Connect the RF output port to the load (The VSWR of the load should be less than 3:1)
3	Connect the 24V power supply to the fan
4	Connect the 28V power supply to the amplifier
5	Turn on the RF signal and ensure that the input signal does not exceed 5dBm

Power off	
1	Turn off RF signal
2	Disconnect the 28V power supply to the amplifier
3	Disconnect the 24V power supply to the fan
4	Disconnect the RF connectors

Ordering Information:

Base Number	Description	Optional
PA-0G5-6G-40	Power Amplifier, 0.5-6GHz, Gain:45dB,Psat:40W,+28V DC	Without Heatsink
PA-0G5-6G-40-HS	Power Amplifier, 0.5-6GHz, Gain:45dB,Psat:40W,+28V DC	With Heatsink