

Power Amplifier

0.5-3GHz/50dB Gain/50dBm Psat

Model: TLPA0.5G3G-50-50

TLPA0.5G3G-50-50 is a power amplifier with a minimum small signal gain of 50 dB and a minimum Psat of 50 dBm across the frequency range of 0.5 to 3 GHz. The DC power requirement for the amplifier is +28 VDC/10A. The input ports configuration offers coax adapter structure with SMA female and output ports configuration offers coax adapter structure with N female.

Features:

- Frequency range: 0.5-3GHz
- Gain: 50dB Min
- Output Power Psat: 50dBm Min
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.5		3	GHz
Gain	50	53		dB
Gain Flatness		±2	±3	dB
Output P1dB	46	47		dBm
Output Psat	50			dBm
Input VSWR		1.5	2	:1
DC Voltage	26	28	30	V DC
Static Current		2		A
Saturation current		10	13	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Bias	D-SUB-9Pin	
Size	170*130*22(Without heatsink) 292*200*84(With heatsink)	mm
Weight	1000	g

Absolute Maximum Ratings:

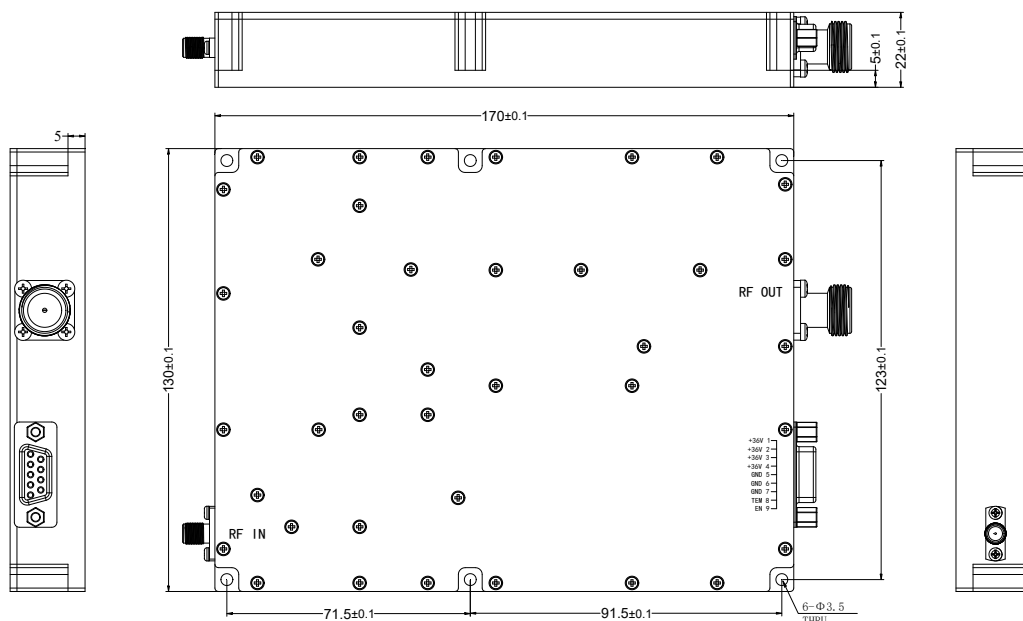
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



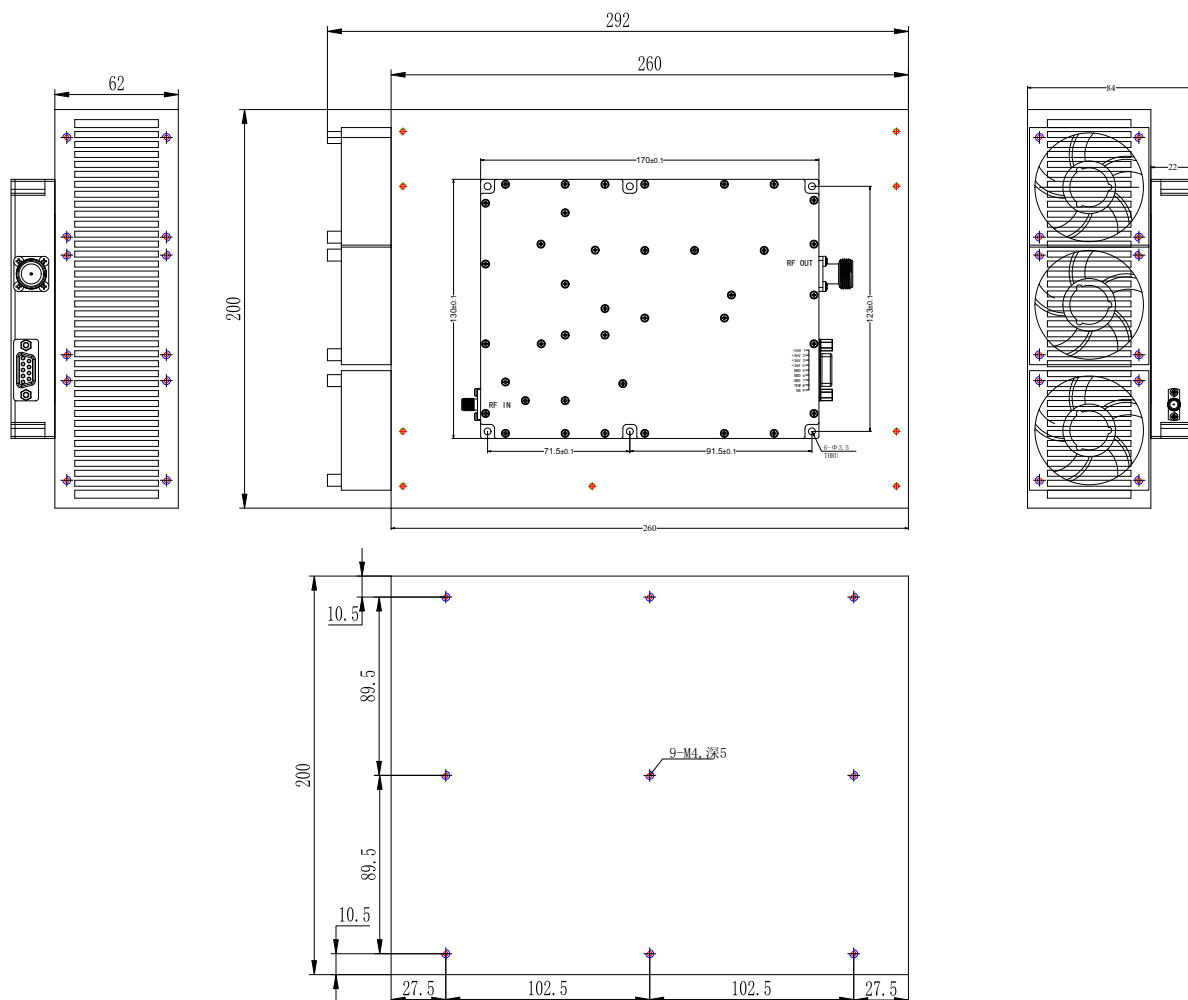
*****Heat Sink Required During Operation**



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



DC Supply Connector(DSUB-9 Female):

Pin	Name	Function
1~4	VCC	Power supply positive, +26.0-30.0VDC.
5~7	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 80 °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.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	°C
Non-operating Temperature*	-30		+60	°C
Relative humidity		95		%
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			

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

Ordering Information:

Base Number	Description	Revision
TLPA0.5G3G-50-50	Power amplifier 0.5-3GHz, Gain:50dB,Psat:50dBm,+28V DC,Without Heatsink	Rev.1.2
TLPA0.5G3G-50-50-HS	Power amplifier .5-3GHz, Gain:50dB,Psat:50dBm,+28V DC,With Heatsink	Rev.1.2