Suzhou Talent Microwave,Inc
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Power Amplifier

2-8GHz/40dB Gain/40dBm Psat

Model: TLPA2G8G-40-40

TLPA2G8G-40-40 is a power amplifier with a minimum small signal gain of 40 dB and a minimum Psat of 40 dBm across the frequency range of 2 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/2.5A. The input port and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 2-8GHz
- Gain: 40dB Min
- Output Power Psat: 40dBm 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	2		8	GHz
Small Signal Gain	40	42		dB
Gain Flatness		±3	±4	dB
Output P1dB	35	36		dBm
Output Psat	40			dBm
Harmonic		-15	-8	dBc
Input VSWR		1.5	2	:1
DC Voltage		28	30	V DC
Static Current		1.5		A
Saturation current		2.5	3	A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	J30J-9TJSL	
Size	60*85*15(Without heatsink) 140*180*77(With heatsink)	mm
Weight	500(Without heatsink) 3500(With heatsink)	g

Absolute Maximum Ratings:

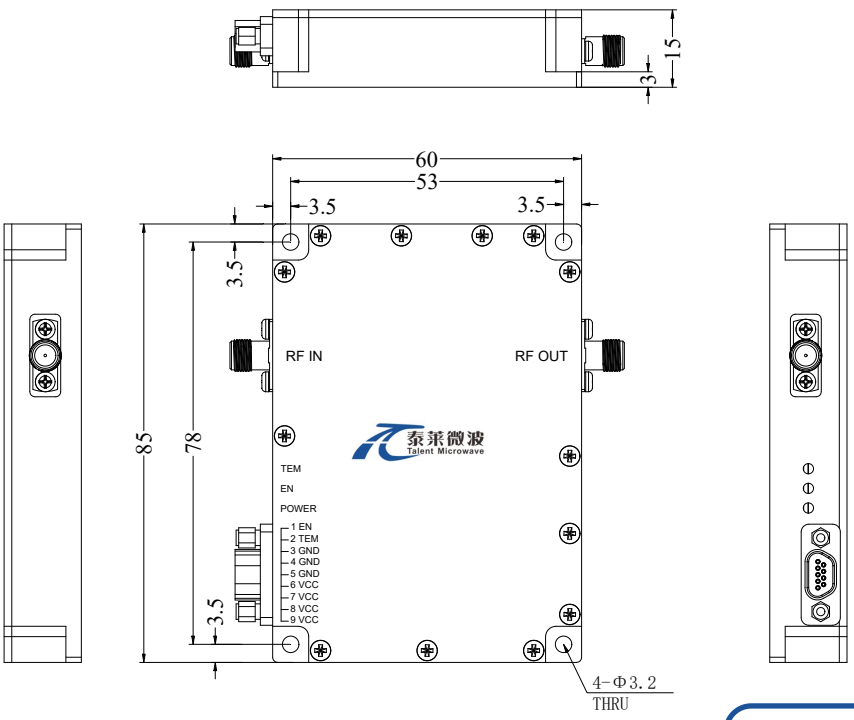
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



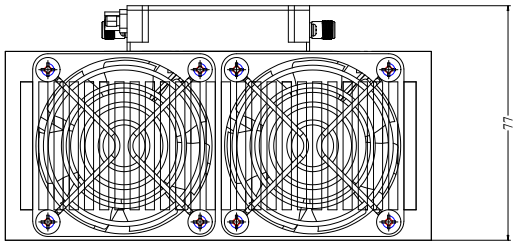
***Heat Sink Required During Operation

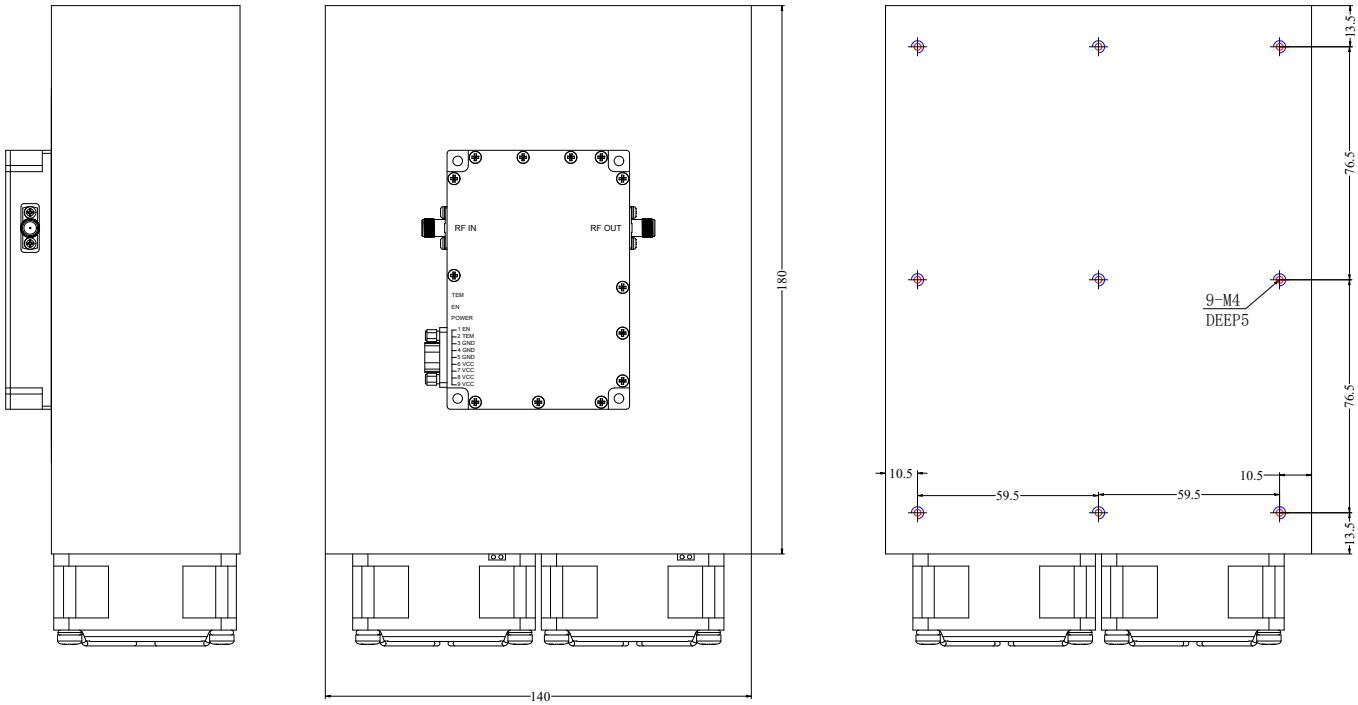
ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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Outline Drawing:

Unit:mm; Tolerance:±0.1mm





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

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DC Supply Connector(J30J-9TJSL):

Pin	Name	Function
1	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground.
2	Over TEM	When the temperature of the case exceeds 75 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.
3~5	GND	Ground
6~9	VCC	Power supply positive,+26.0-30.0VDC.

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.

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-30		+60	℃
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.

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Ordering Information:

Base Number	Description	Revision
TLPA2G8G-40-40	Power amplifier 2-8GHz, Gain:40dB,Psat:40dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA2G8G-40-40-HS	Power amplifier 2-8GHz, Gain:40dB,Psat:40dBm,+28V DC,With Heatsink	Rev.1.0