Suzhou Talent Microwave,Inc
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Power Amplifier

3-30MHz/48dB Gain/45dBm Psat

Model: TLPA3M30M-45-45-HS

TLPA3M30M-45-45-HS is a power amplifier with a minimum gain of 48 dB and a minimum Psat of 45 dBm across the frequency range of 3 to 30 MHz. The DC power requirement for the amplifier is +28 VDC/5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 3-30MHz
- Gain: 48dB Min
- Output Power Psat: 45dBm 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	3		30	GHz
Gain	48	50		dB
Gain Flatness		±1	±2	dB
Gain Adjustment Range (7 bits, 0.25 dB step)			31.75	dB
Output P1dB	43	44		dBm
Output Psat	45	46		dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28		V DC
DC Suppply Current		5		A
Impedance		50		Ohms

泰莱微波
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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Feedthru Capacitor	
Control Interface	J30J-9	
Size	180*129*63.5	mm
Weight	2600	g

Absolute Maximum Ratings:

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

Simple 220V System
Available SAC option

Control Interface Connector(J30J-9 Female):

Pin	Name	Function
1	EN	High level (or high impedance) turns the amplifier on; low level turns it off.
2	Over VSWR	When the external VSWR of the power amplifier output is greater than 5, the power amplifier is turned off, and this pin will output a high level. When the external VSWR is less than 5, this pin outputs a low level.
3	Over TEM	When the temperature of the case exceeds 80 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.
4	Over Voltage	When the supply voltage exceeds 32V, the amplifier shuts down, and this pin outputs a high level. When the supply voltage is below 32V, this pin outputs a low level.
5	Over Load	When the input power exceeds 3 dBm, the amplifier shuts off, and this pin outputs a high level. When the input power is below 3 dBm, this pin outputs a low level.
6	Reset	When the power amplifier triggers VSWR protection, the power amplifier willshut down and enter a state lock. Giving this pin a low pulse of 10us will restart the power amplifier. Only VSWR protection can be reset.
7	RX	RS232 Data Receiver
8	TX	RS232 Data Sender
9	GND	GND

*Note: The control voltage is 3.3V.

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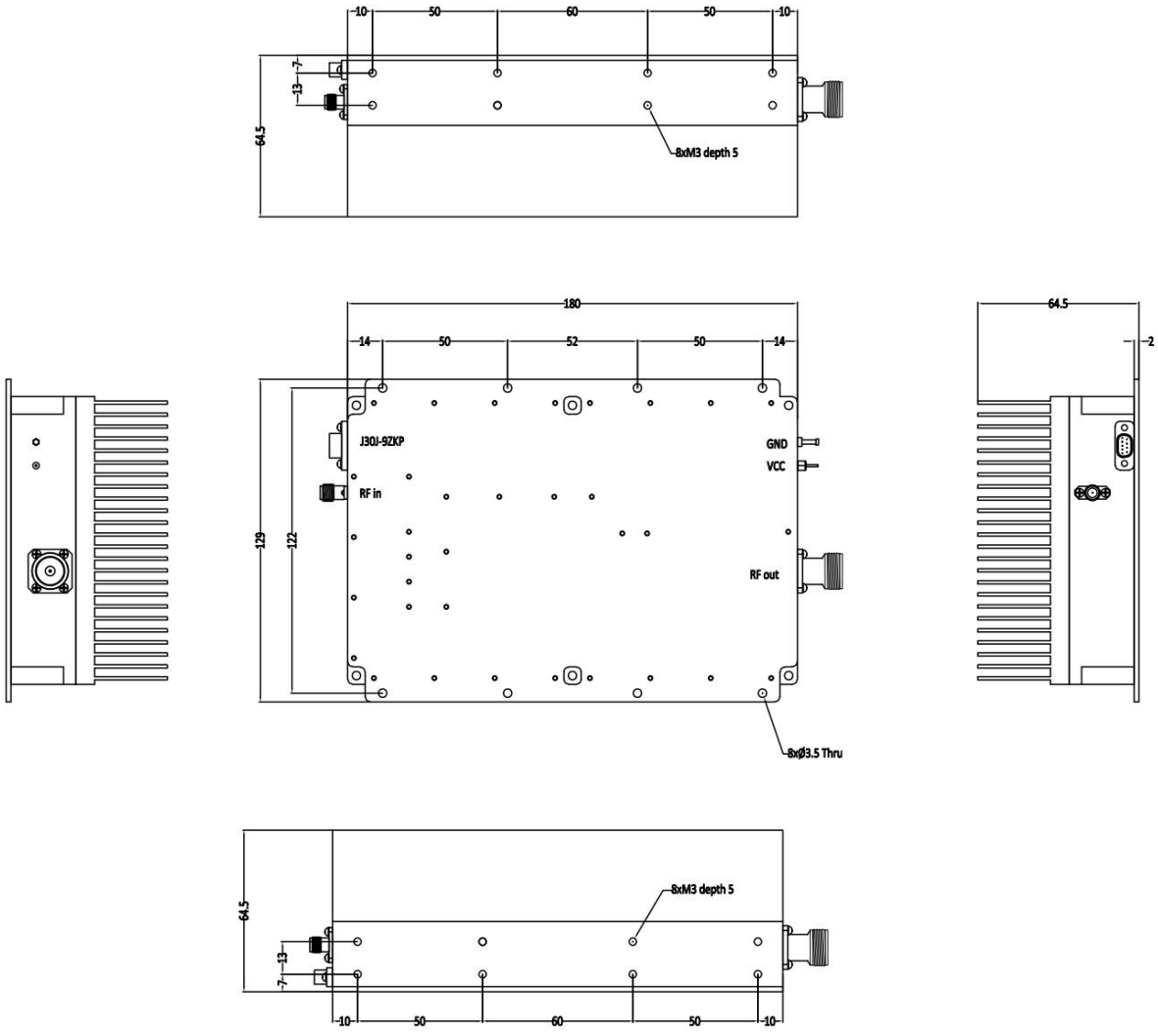
Outline Drawing:

Unit:mm



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

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

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	℃
Non-operating Temperature*	-50		+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.

Ordering Information:

Base Number	Description	Revision
TLPA3M30M-45-45-HS	Power amplifier 3-30MHz, Gain:48dB,Psat:45dBm,+28V DC,With Heatsink	Rev.1.1