Suzhou Talent Microwave,Inc
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Power Amplifier

2.5-6GHz/66dB Gain/54dBm Psat

Model: TLPA2.5G6G-66-54

TLPA2.5G6G-66-54 is a power amplifier with a minimum gain of 66 dB and a minimum Psat of 54 dBm across the frequency range of 2.5 to 6 GHz. The DC power requirement for the amplifier is +28 VDC/50 A. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Features:

- Frequency range: 2.5-6GHz
- Gain: 66dB Min
- Output Power Psat: 54dBm 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	2.5		6	GHz
Gain	66	68		dB
Gain Flatness		±1.5	±3	dB
Output Psat	54	55		dBm
Harmonic@Pout=54dBm		-15	-10	dBc
Switching Time			50	us
Input VSWR		1.5	2.0	:1
DC Voltage		+28	+30	V DC
DC Supply Current		50	60	A
Impedance		50		Ohms

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Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Power Supply Connector	D-SUB-5W5	
Size	330*210*30	mm
Weight	2500	g

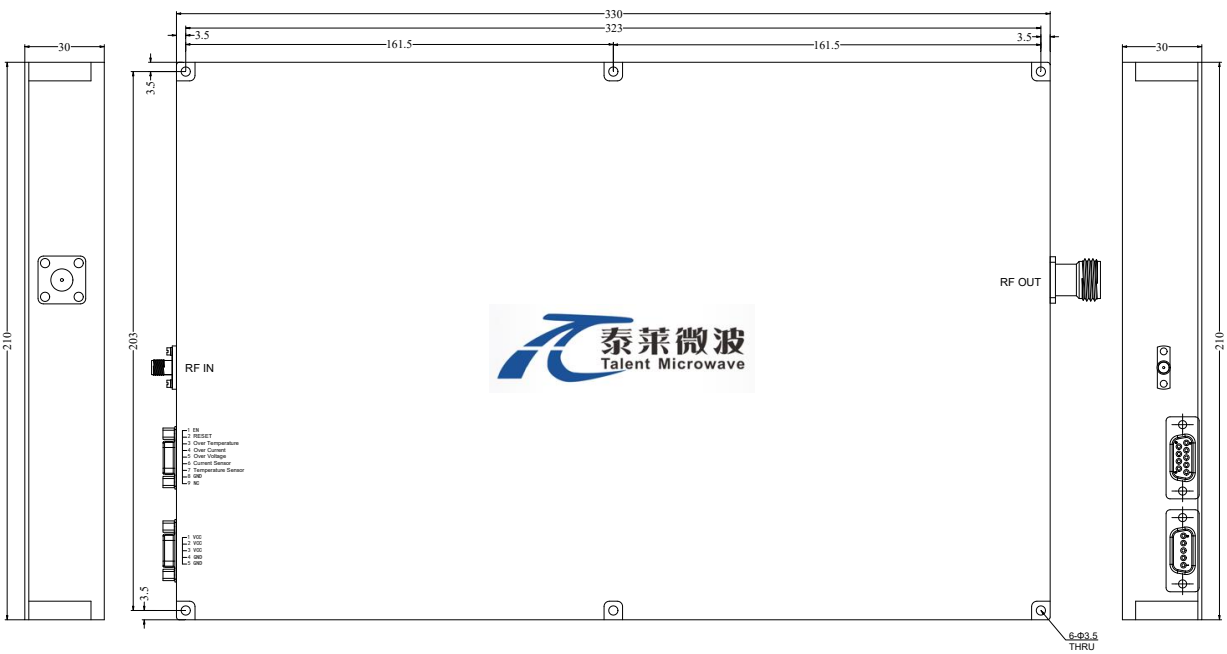
Absolute Maximum Ratings:

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



***Heat Sink Required During Operation

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

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DC Supply Connector(DSUB-5W5 Female):

Pin	Name	Function
1	VCC	Power supply positive ,+26.0-30.0VDC
2	VCC	Power supply positive ,+26.0-30.0VDC
3	VCC	Power supply positive ,+26.0-30.0VDC
4	GND	Power supply negative
5	GND	Power supply negative

Monitor and Control Interface(DSUB-9 Female):

Pin	Name	Function
1	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
2	RESET	Resets PA when logic LOW is applied and released (Internally Pulled-High)
3	Over Temperature	When the temperature of the case exceeds 60 ℃, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 55 ℃, the power amplifier will return to normal operation, and this pin will be pulled low.
4	Over Current	Current FAULT: (TTL High= Fault, TTL Low =Normal)
5	Over Voltage	Voltage FAULT: (TTL High= Fault, TTL Low =Normal)
6	Current Sensor	0.1V/A
7	Temperature Sensor	VO = 10 mV/°C × T°C + 600 mV
8	GND	Ground
9	NC	Not connection

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Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-30		+60	℃
Relative humidity		95		%
Altitude	30,000			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
TLPA2.5G6G-66-54	Power amplifier 2.5-6GHz, Gain:66dB,Psat:54dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA2.5G6G-66-54-HS	Power amplifier 2.5-6GHz, Gain:66dB,Psat:54dBm,+28V DC,With Heatsink	Rev.1.1