

Power Amplifier

4-8GHz/52dB Gain/52dBm Psat

Model: TLPA4G8G-52-52

TLPA4G8G-52-52 is a power amplifier with a typical small signal gain of 52 dB and a normal Psat of 52 dBm across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +28 VDC/3 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: 4-8GHz
- Gain: 52dB Typ
- Output Power Psat: 52dBm Typ
- 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	4		8	GHz
Small Signal Gain	50	52		dB
Gain Flatness		±2	±3	dB
Output P1dB	50	50.5		dBm
Output Psat	51	52		dBm
Input VSWR		1.5	2.0	:1
DC Voltage		+28	+30	V DC
Static Current		3		A
Saturation current		20	22	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Supply Connector	D-SUB-15Pin	
Size	270*160*40	mm
Weight	1500	g

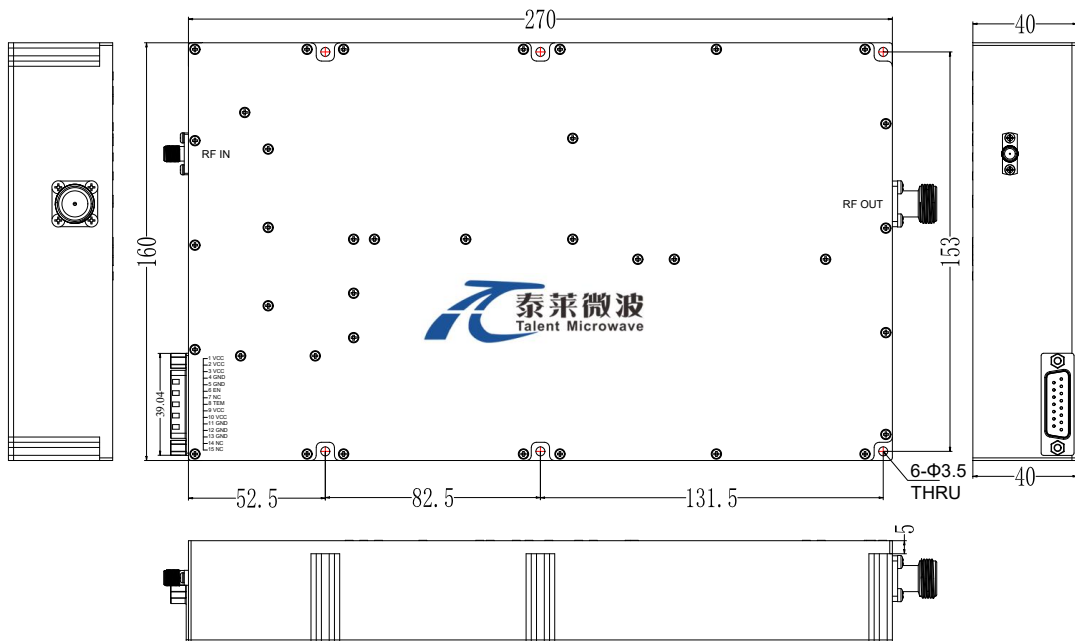
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



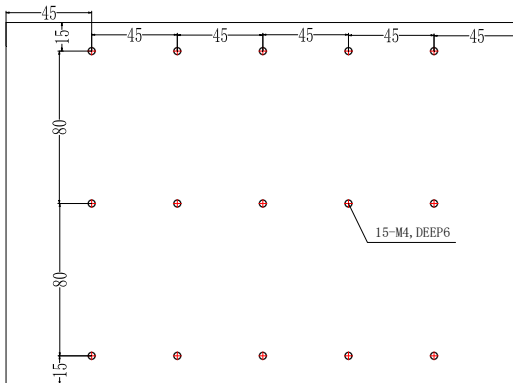
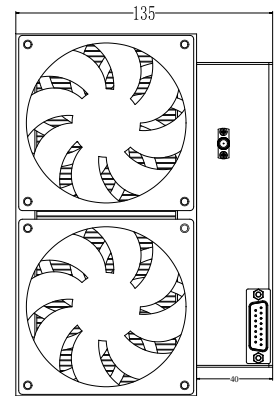
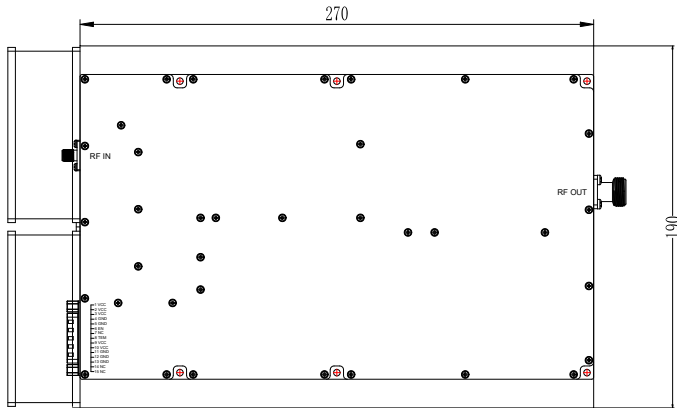
*****Heat Sink Required During Operation**



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

Outline Drawing:

Unit:mm



DC Supply Connector(DSUB-15 Female):

Pin	Name	Function
1~3、9、10	VCC	Power supply positive,+26.0-30.0VDC
4~5、11~13	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High) Amplifier Disable: Short to ground
7、14、15	NC	Not Connected
8	TEM	When the temperature of the case exceeds 75 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 70 °C, the power amplifier will return to normal operation, and this pin will be pulled low.

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
TLPA4G8G-52-52	Power amplifier 4-8GHz, Gain:52dB,Psat:52dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA4G8G-52-52-HS	Power amplifier 4-8GHz, Gain:52dB,Psat:52dBm,+28V DC,With Heatsink	Rev.1.0