

Power Amplifier

1-2GHz/54dB Gain/54dBm Psat

Model: TLPA1G2G-54-54

TLPA1G2G-54-54 is a power amplifier with a typical small signal gain of 54 dB and a minimum Psat of 54 dBm across the frequency range of 1 to 2 GHz. The DC power requirement for the amplifier is +36 VDC/30A. 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: 1-2GHz
- Gain: 54dB Typ
- Output Power Psat: 54dBm 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	1		2	GHz
Small Signal Gain	53	54		dB
Gain Flatness		±2	±3	dB
Output P1dB	52	53		dBm
Output Psat	53	54		dBm
Input VSWR		1.5	2	:1
DC Voltage	34	36	38	V DC
Static Current		3		A
Saturation current		30	35	A
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Power Supply Interface	Hybrid,D-Sub,7W2, Male	
Size	270*160*27(Without heatsink)	mm
Weight	2	Kg

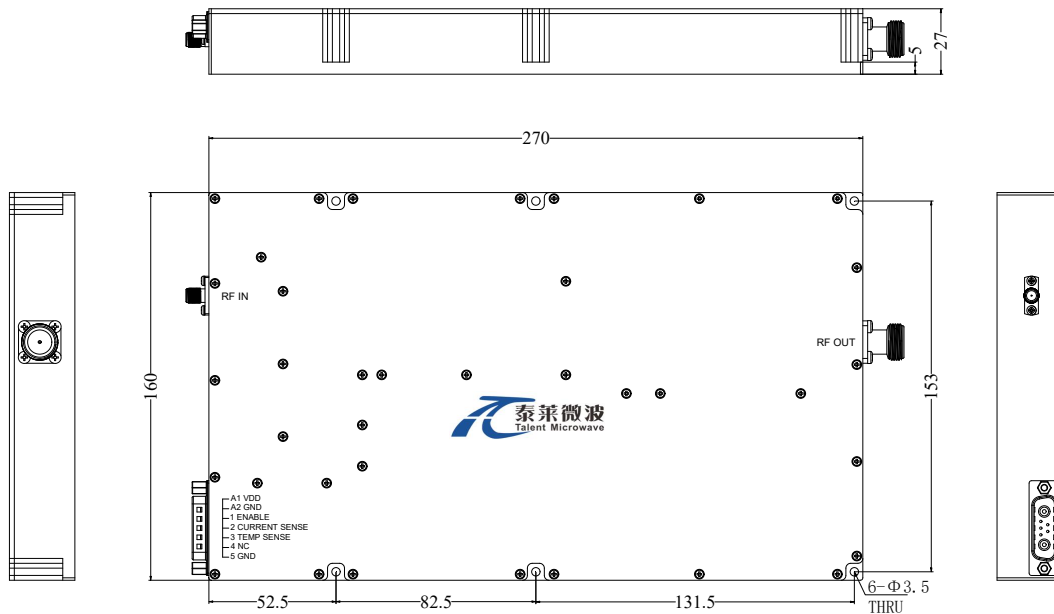
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+38 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



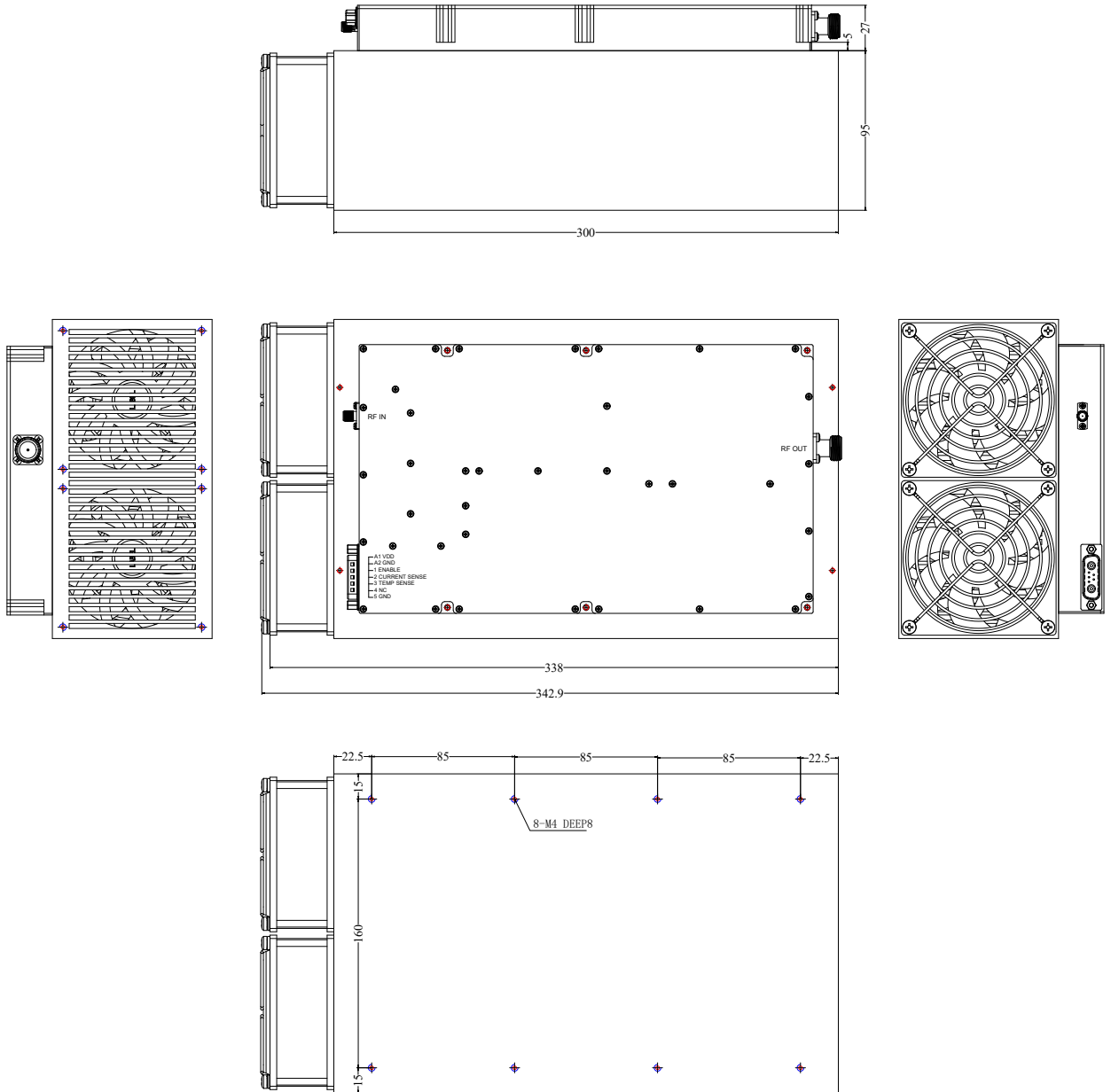
*****Heat Sink Required During Operation**



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

Outline Drawing:

Unit:mm



DC Supply Connector(DSUB-7W2 Male):

Pin	Name	Function
A1	VDD	Power supply positive,+34.0-38.0VDC
A2	GND	Ground
1	EN	Amplifier Enable: TTL Logic High (3.3V-5V) (Internally Pulled-Low)
2	Current sense	Analog voltage relative to IDD @ 100mV per Ampere
3	TEM sense	Analog voltage relative to Module's Temperature @ 0.5V+10 mV/°C
4	NC	Not connected
5	GND	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
TLPA1G2G-54-54	Power amplifier 1-2GHz, Gain:54dB,Psat:54dBm,+36V DC,Without Heatsink	Rev.1.0
TLPA1G2G-54-54-HS	Power amplifier 1-2GHz, Gain:54dB,Psat:54dBm,+36V DC,With Heatsink	Rev.1.0