

Power Amplifier

0.5-2GHz/53dB Gain/53dBm Psat

Model: TLPA0.5G2G-53-53

TLPA0.5G2G-53-53 is a power amplifier with a minimum gain of 53 dB and a minimum Psat of 53 dBm across the frequency range of 0.5 to 2 GHz. The DC power requirement for the amplifier is +28 VDC/22A. 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: 0.5-2GHz
- Gain: 53dB Min
- Output Power Psat: 53dBm 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	0.5		2	GHz
Gain	53	55		dB
Gain Flatness		±2	±3	dB
Output P1dB	49	50		dBm
Output Psat	53	53.5		dBm
Input VSWR		1.5	2	:1
DC Voltage	26	28	30	V DC
Static Current		5		A
Saturation current		22	25	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Power Supply Connector	D-SUB-15Pin	
Size	260*160*24	mm
Weight	1000	g

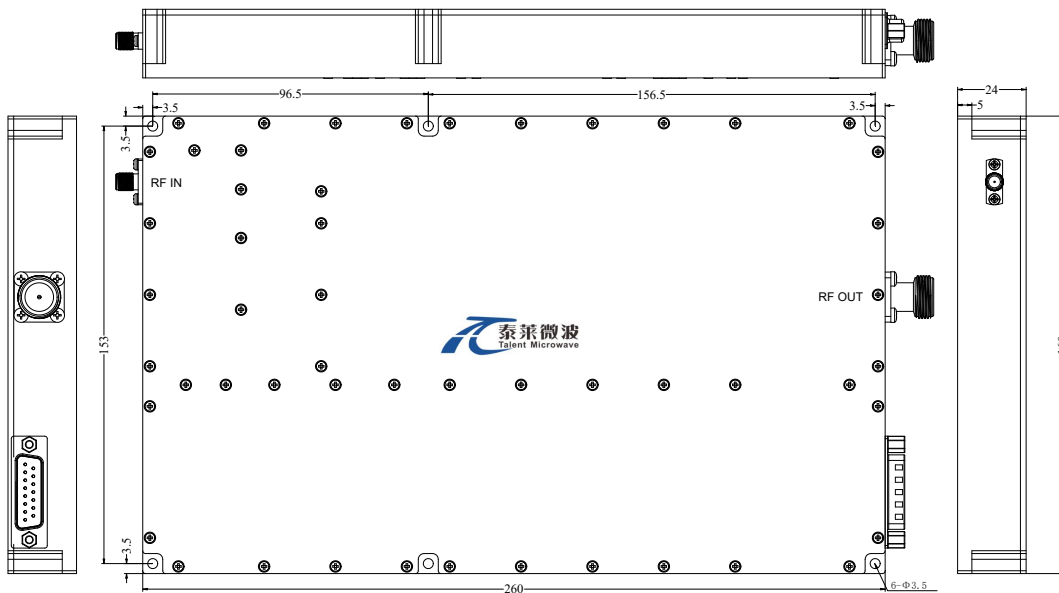
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



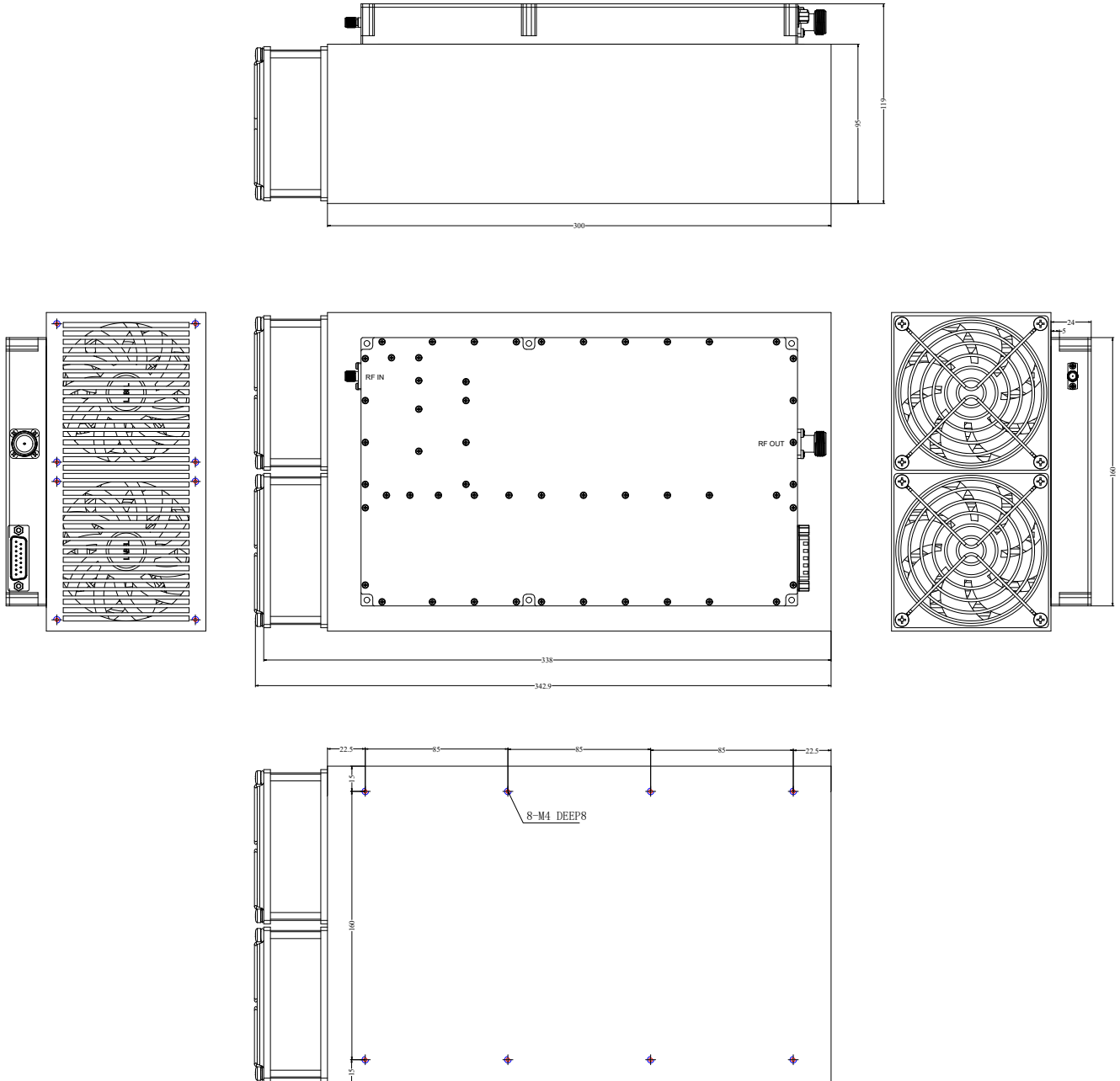
*****Heat Sink Required During Operation**



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

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



风扇供电 Fan power supply

Red line	Power supply positive, +24.0-28.0VDC DC current: 0.6A
Black line	Ground

DC Supply Connector(DSUB-15 Female):

Pin	Name	Function
1~3	VCC	Power supply positive,+26.0-30.0VDC.
4	GND	Ground
5	GND	Ground
6	EN	Amplifier Enable: TTL High (5V) (Internally Pulled-High)
7	NC	Not connected
8	Over TEM	When the temperature of the case exceeds 70 °C, the power amplifier will turn off and this pin will be pulled high. If the temperature of case drops to 60 °C, the power amplifier will return to normal operation, and this pin will be pulled low.
9~10	VCC	Power supply positive,+26.0-30.0VDC.
11~13	GND	Ground
14~15	NC	Not connected

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
TLPA0.5G2G-53-53	Power amplifier 0.5-2GHz, Gain:53dB,Psat:53dBm,+28V DC,Without Heatsink	Rev.1.0
TLPA0.5G2G-53-53-HS	Power amplifier 0.5-2GHz, Gain:53dB,Psat:53dBm,+28V DC,With Heatsink	Rev.1.0