

Power Amplifier

0.4-6GHz /45dB Gain/45 dBm Psat

Model: TLPA0.4G6G-45-45-WATERPROOF

TLPA0.4G6G-45-45-WATERPROOF is a power amplifier with power gain of 45 dB and a nominal Psat of 45 dBm across the frequency range of 0.4 to 6 GHz. The DC power requirement for the amplifier is +36 VDC/350 W. The input port configuration offers coax adapter structure with SMA female and output port configuration offers coax adapter structure with N female.

Features:

- Ultra Wide Band: 0.4-6 GHz
- Gain: 45dB Min
- Output Power Psat: 45dBm Min
- Protection: Over TEM, over current, over voltage, load VSWR protection
- 50 Ohm Matched Input / Output

Applications:

- Cellular
- PCN
- GSM
- ISM
- Lab Test

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.4-6			GHz
Linear Gain		55		dB
Linear Gain flatness@full band		±3		dB
Power Gain	45			dB
Output Psat	45			dBm
Output Psat flatness			±1.5	dB
Gain stability@24h			±0.25	dB
Spurious@Pout=45dBm			-60	dBc
Harmonics@Pout=45dBm		-10		dBc
Input VSWR		1.5	2	:1
Load VSWR			3	:1

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
DC Voltage		36	38	V DC
DC Current		5		A
Power Consumption		180		W
Ingress Protection Grade	IP-65			
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/N Female	
DC Bias	DSUB-2W2	
Size	200*140*90	mm
Weight	≤5	Kg

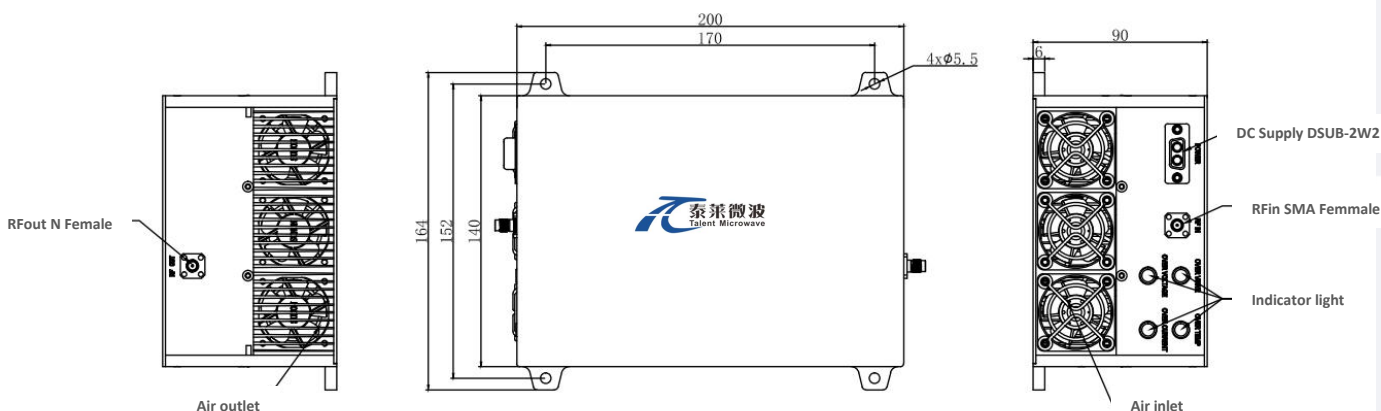
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



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

Key Features:

Parameter	Advantages
Protection functions	1,Over TEM:≥+55℃ shutdown 2,Over DC voltage:≥38V shutdown 3,Over current:≤20A shutdown 4,Load VSWR protection:The unit disables RF when reverse power exceeds the safe level of 3:1 VSWR or reduces power by 6dB
Cooling system	Built in Cooling system,forced air cooling

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-20		+50	℃
Non-operating Temperature*	-50		+70	℃
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
TLPA0.4G6G-45-45-WATERPROOF	Power amplifier 0.4-6 GHz,Gain:45dB,Psat:45dBm, +36V DC,Without Heatsink	Rev.1.1