

Power Amplifier

1.8-4GHz/45dB Gain/42dBm Psat

Model: TLPA1.8G4G-45-42

TLPA1.8G4G-45-42 is a power amplifier with a minimum small signal gain of 45 dB and a nominal Psat of 42 dBm across the frequency range of 1.8 to 4 GHz. The DC power requirement for the amplifier is +28 VDC/0.5 A. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1.8-4GHz
- Gain: 45dB Min
- Output Power Psat: 42dBm 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	1.8		4	GHz
Small Signal Gain	45	47		dB
Gain Flatness		±2	±3	dB
Output P1dB	37	38		dBm
Output Psat	41	42		dBm
Harmonic			-10	dBc
Input VSWR		1.5	2	:1
DC Voltage	26	28	30	V DC
DC Supply Current		0.5	2.5	A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	140*80*15	mm
Weight	250	g

Absolute Maximum Ratings:

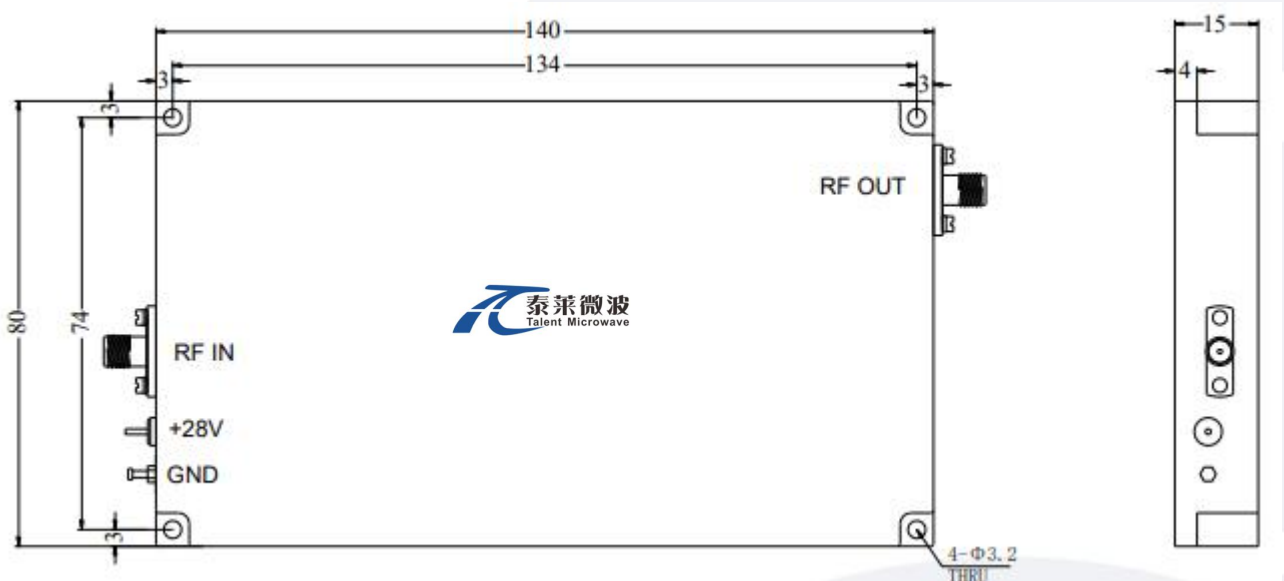
Parameter	Value
Supply Bias Voltage	+30 V
RF Input Power	+3 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Simple 220V System
Available SAC option

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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



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

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+50	°C
Non-operating Temperature*	-50		+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
TLPA1.8G4G-45-42	Power amplifier 1.8-4GHz, Gain:45dB,Psat:42dBm,+28V DC,Without Heatsink	Rev.1.1
TLPA1.8G4G-45-42-HS	Power amplifier 1.8-4GHz, Gain:45dB,Psat:42dBm,+28V DC,With Heatsink	Rev.1.1