

Power Amplifier

0.01-20GHz/46dB Gain/30.5dBm Psat

Model: TLPA0.01G20G-46-30.5

TLPA0.01G20G-46-30.5 is a power amplifier with a typical gain of 46 dB and a nominal Psat of 30.5 dBm across the frequency range of 0.01 to 20 GHz. The DC power requirement for the amplifier is +24 VDC/600 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.01-20GHz
- Gain: 46dB Typ
- Output Power Psat: 30.5dBm 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	0.01		20	GHz
Gain	45	46		dB
Gain Flatness		±3		dB
Output P1dB		29.5		dBm
Output Psat		30.5		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		+24		V DC
DC Supply Current		600		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	50*65*14(Without heatsink) 100*50*64(With heatsink)	mm

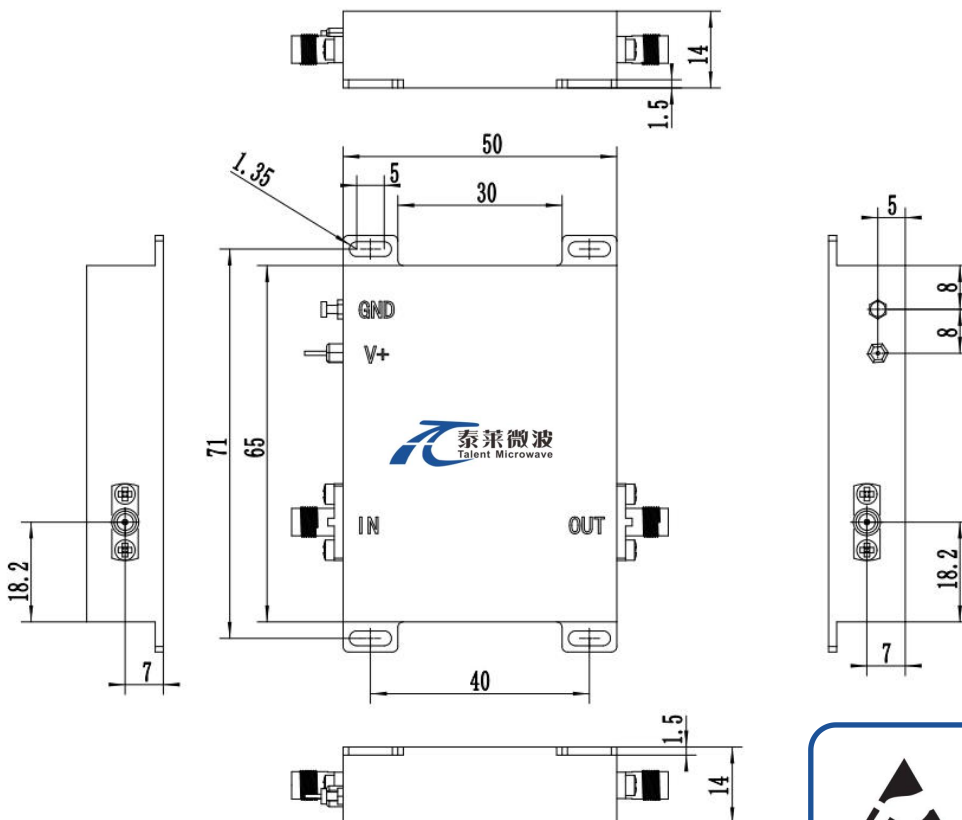

Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm

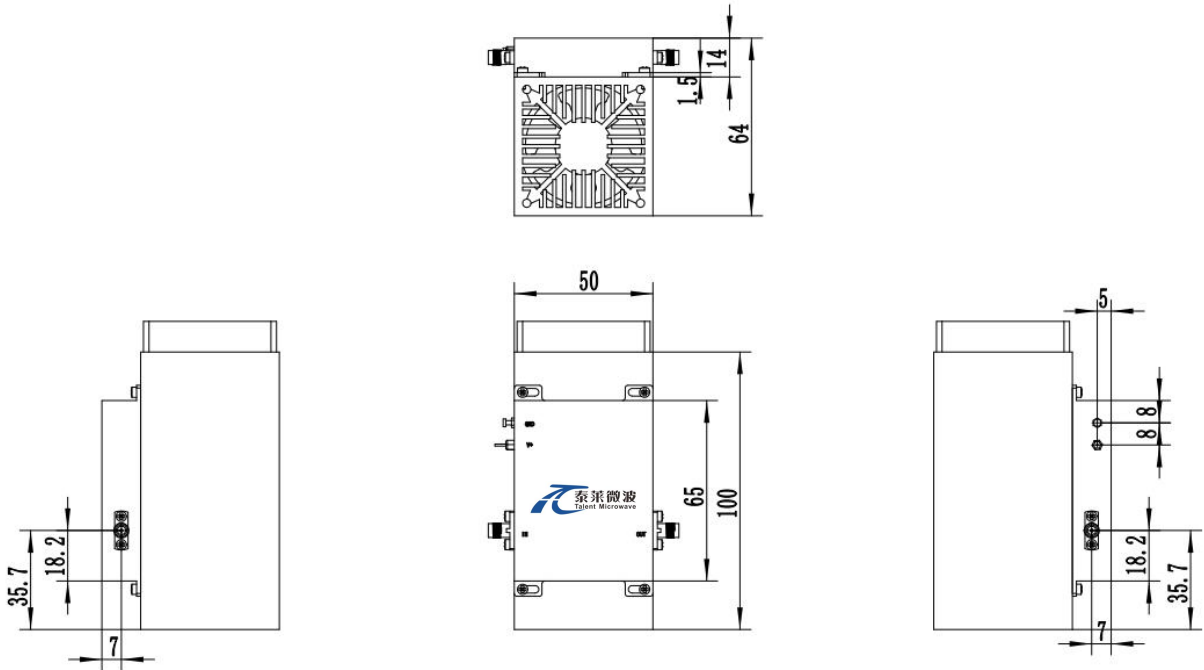



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

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

Outline Drawing:

Unit:mm



Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature*	-40		+60	°C
Non-operating Temperature*	-50		+70	°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
TLPA0.01G20G-46-30.5	Power amplifier 0.01-20GHz, Gain:46dB,Psat:30.5dBm,+24V DC,Without Heatsink	Rev.1.1
TLPA0.01G20G-46-30.5-HS	Power amplifier 0.01-20GHz, Gain:46dB,Psat:30.5dBm,+24V DC,With Heatsink	Rev.1.1