

## Low Noise Amplifier

18-50GHz /4.5dB NF/35dB Gain/14dBm P1dB

Model: TLLA18G50G-35-45

TLLA18G50G-35-45 is a low noise amplifier with a small signal gain of 35 dB and a nominal noise figure of 4.5 dB across the frequency range of 18 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/300 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

### Features:

- Output Frequency:18-50GHz
- Gain: 35dB Min
- Noise Figure: 4.5dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	18		50	GHz
Gain	35			dB
Gain Flatness		±3.0		dB
Noise Figure		4	4.5	dB
Output P1dB		14		dBm
Output Psat		15		dBm
Input VSWR		2.5		:1
Output VSWR		2		:1
DC Voltage	10	12	15	V DC
DC Supply Current		300		mA
Impedance	50			Ohms

### Mechanical Specifications:

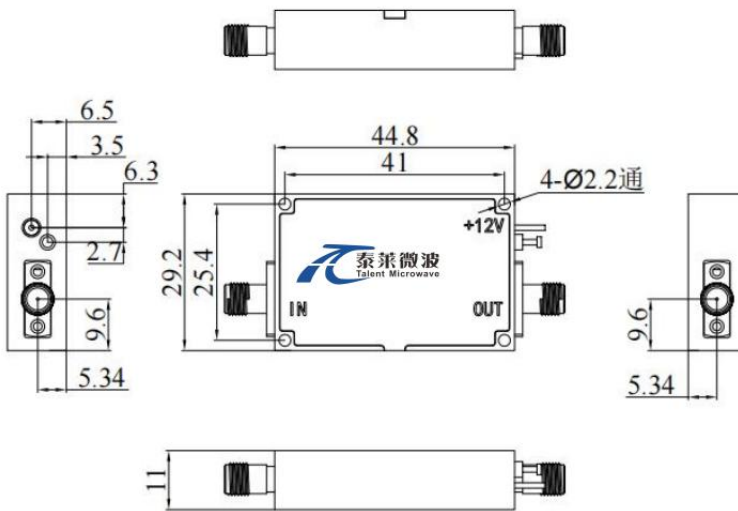
Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	50	g

### Absolute Maximum Ratings:

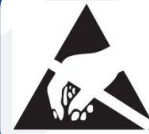
Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

### Outline Drawing:

Unit:mm



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



OBSERVE PRECAUTIONS  
ELECTROSTATIC SENSITIVE  
DEVICES

### Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°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			

### Ordering Information:

Base Number	Description	Revision
TLLA18G50G-35-45	Low Noise Amplifier, 18-50GHz, Noise Figure:4.5dB, Gain:35 dB,P1dB:14dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA18G50G-35-45-HS	Low Noise Amplifier, 18-50GHz, Noise Figure:4.5dB, Gain:35 dB,P1dB:14dBm,+12V DC,With Heatsink	