

Low Noise Amplifier

4-8GHz/1dB NF/22dB Gain/-2dBm P1dB

Model: TLLA4G8G-22-10

TLLA4G8G-22-10 is a low noise amplifier with a typical small signal gain of 22 dB and a nominal noise figure of 1 dB across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +2 V DC/10 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 4-8GHz
- Gain: 22dB Typ
- Noise Figure: 1dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	4		8	GHz
Small Signal Gain		22		dB
Gain Flatness		±1		dB
Noise Figure		1		dB
Output P1dB		-2		dBm
Input VSWR		2.5		:1
Output VSWR		2		:1
DC Voltage		+2		V DC
DC Supply Current		10		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

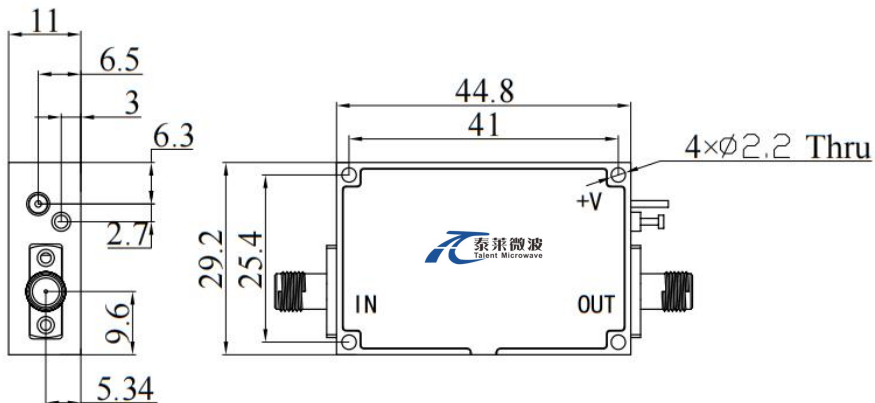
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+7 V
RF Input Power	+20 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



***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	-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
TLLA4G8G-22-10	Low Noise Amplifier, 4-8GHz, Noise Figure:1dB, Gain:22dB,P1dB: -2dBm,+2V DC,Without Heatsink	Rev.1.1
TLLA4G8G-22-10-HS	Low Noise Amplifier, 4-8GHz, Noise Figure:1dB, Gain:22dB,P1dB: -2dBm,+2V DC,With Heatsink	Rev.1.1