

Low Noise Amplifier

0.5-8GHz/2.5dB NF/32dB Gain/15dBm P1dB

Model: TLLA0.5G8G-32-25

TLLA0.5G8G-32-25 is a low noise amplifier with a typical small signal gain of 32 dB and a maximum noise figure of 2.5 dB across the frequency range of 0.5 to 8 GHz. The DC power requirement for the amplifier is +12 V DC/200 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.5-8GHz
- Gain: 32dB Typ
- Noise Figure: 2.5dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.5		8	GHz
Small Signal Gain	26	32		dB
Gain Flatness		±1.0		dB
Noise Figure			2.5	dB
Output P1dB	15			dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		+12		V DC
DC Supply Current			200	mA
Impedance	50			Ohms

Mechanical Specifications:

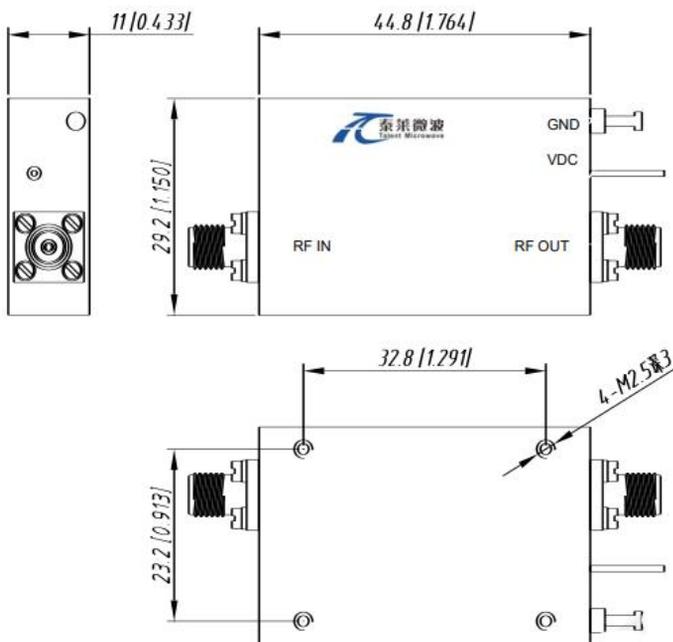
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	100	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+15 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**

Environmental Conditions:

Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+75	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			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
TLLA0.5G8G-32-25	Low Noise Amplifier, 0.5-8GHz, Noise Figure:2.5dB, Gain: 32dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.5G8G-32-25-HS	Low Noise Amplifier, 0.5-8GHz, Noise Figure:2.5dB, Gain: 32dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1