

Low Noise Amplifier

11.75-12.75GHz/1.3dB NF/35dB Gain/15dBm P1dB Model: TLLA11.75G12.75G-35-13

TLLA11.75G12.75G-35-13 is a low noise amplifier with a minimum small signal gain of 35 dB and a maximum noise figure of 1.3 dB across the frequency range of 11.75 to 12.75 GHz. The DC power requirement for the amplifier is +12 V DC/100 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 11.75-12.75GHz
- Gain: 35dB Min
- Noise Figure: 1.3dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	11.75		12.75	GHz
Small Signal Gain	35	36		dB
Gain Flatness		±1		dB
Noise Figure		1	1.3	dB
Output P1dB	15			dBm
Input VSWR		1.8	2	:1
Output VSWR		1.8	2	:1
DC Voltage		+12		V DC
DC Supply Current		100		mA
Impedance		50		Ohms

Mechanical Specifications:

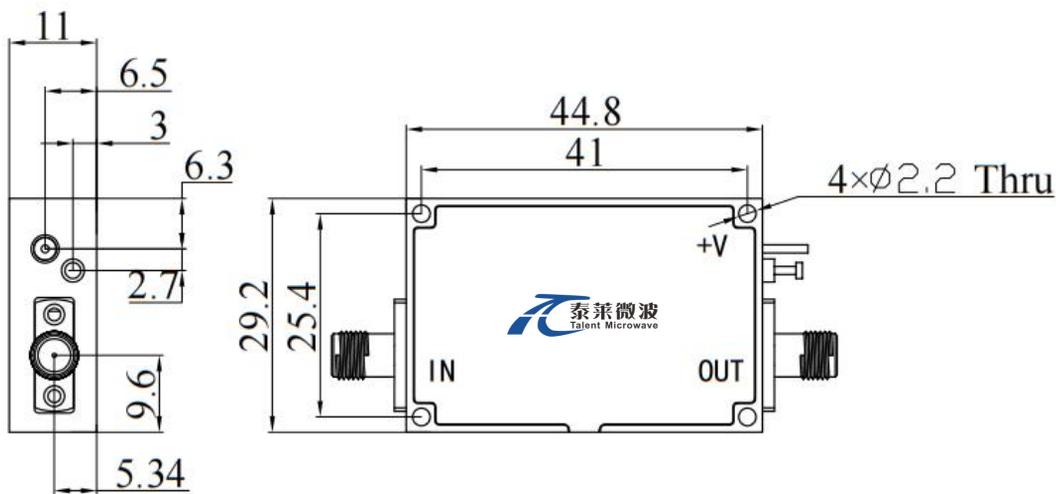
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	55	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	+15 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	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
TLLA11.75G12.75G-35-13	Low Noise Amplifier, 11.75-12.75GHz, Noise Figure:1.3dB, Gain:35dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA11.75G12.75G-35-13-HS	Low Noise Amplifier, 11.75-12.75GHz, Noise Figure:1.3dB, Gain:35dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1