

Low Noise Amplifier

6-12GHz/2.0dB NF/50dB Gain/10dBm P1dB

Model: TLLA6G12G-50-20

TLLA6G12G-50-20 is a low noise amplifier with a minimum small signal gain of 50 dB and a maximum noise figure of 2.0 dB across the frequency range of 6 to 12 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: 6-12GHz
- Gain: 50dB Min
- Noise Figure: 2.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	6		12	GHz
Small Signal Gain	50			dB
Gain Flatness		±2.0		dB
Noise Figure			2	dB
Output P1dB	10			dBm
Input VSWR			2	:1
Output VSWR			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*23.2*11	mm

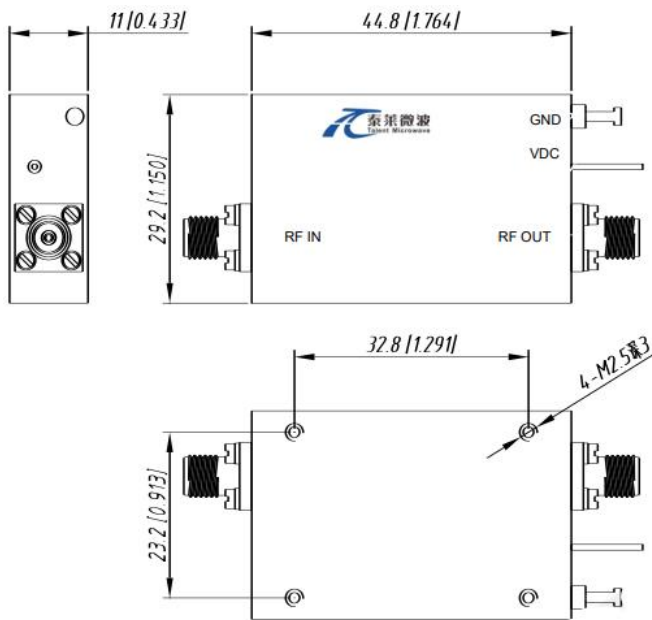
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



*****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	-55		+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
TLLA6G12G-50-20	Low Noise Amplifier, 6-12GHz, Noise Figure:2.0dB, Gain:50dB,P1dB:10dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA6G12G-50-20-HS	Low Noise Amplifier, 6-12GHz, Noise Figure:2.0dB, Gain:50dB,P1dB:10dBm,+12V DC,With Heatsink	Rev.1.1