

Low Noise Amplifier

8-12GHz/2.0dB NF/35dB Gain/27dBm P1dB

Model: TLLA8G12G-35-20

TLLA8G12G-35-20 is a low noise amplifier with a typical small signal gain of 35 dB and a nominal noise figure of 2.0 dB across the frequency range of 8 to 12 GHz. The DC power requirement for the amplifier is +15 V DC/320 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 8-12GHz
- Gain: 35dB Typ
- Noise Figure: 2.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	8		12	GHz
Small Signal Gain	34	35		dB
Noise Figure		2	2.5	dB
Output P1dB	25.5	27		dBm
Output Psat	26.5	28		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
Monitor Power Threshold(Control NC)		20		dBm
Monitor Output TTL		0/+3.3		V
DC Voltage	+12	+15	+16	V DC
DC Supply Current		320		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	35*45*9.5	mm

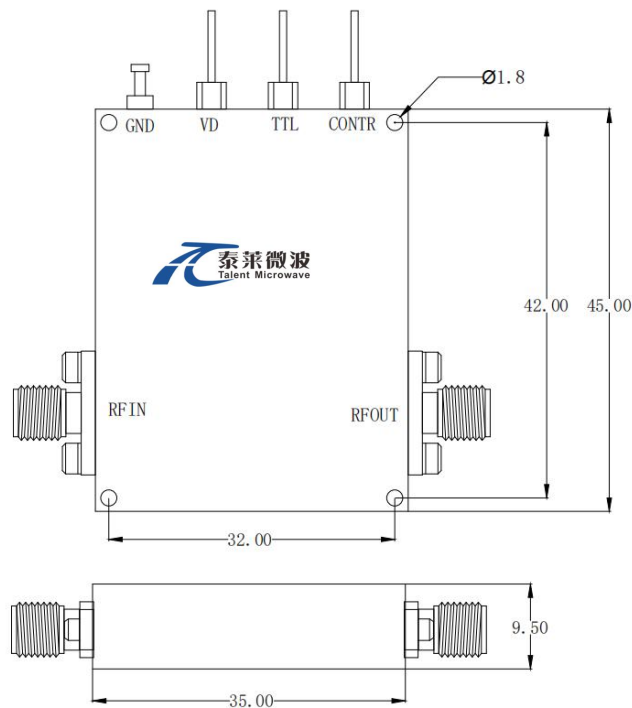
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16 V
RF Input Power	+10 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
TLLA8G12G-35-20	Low Noise Amplifier, 8-12GHz, Noise Figure:2.0dB, Gain:35dB,P1dB:27dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA8G12G-35-20-HS	Low Noise Amplifier, 8-12GHz, Noise Figure:2.0dB, Gain:35dB,P1dB:27dBm,+15V DC,With Heatsink	Rev.1.1