

Low Noise Amplifier

0.5-8GHz/2.5dB NF/35dB Gain/29dBm P1dB

Model: TLLA0.5G8G-35-20

TLLA0.5G8G-35-20 is a low noise amplifier with a typical small signal gain of 35 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 +15 V DC/480 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.5-8GHz
- Gain: 35dB 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	30	35		dB
Gain Flatness		±1.5		dB
Noise Figure		1.5	2.5	dB
Output P1dB	26	29		dBm
Spurious		-60		dBc
Input VSWR		2.5	3.5	:1
Output VSWR		1.5	1.8	:1
DC Voltage		+15		V DC
DC Supply Current		480		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	40.3*30.3*12.3	mm

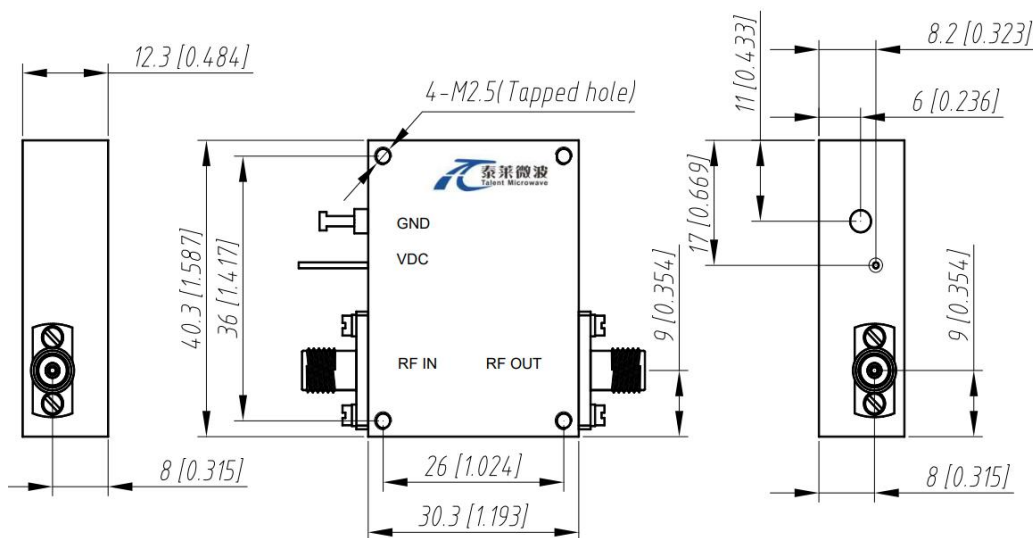
Absolute Maximum Ratings:

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



Outline Drawing:

Unit:mm



*****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
TLLA0.5G8G-35-20	Low Noise Amplifier, 0.5-8GHz, Noise Figure:2.5dB, Gain: 35dB,P1dB:29dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA0.5G8G-35-20-HS	Low Noise Amplifier, 0.5-8GHz, Noise Figure:2.5dB, Gain: 35dB,P1dB:29dBm,+15V DC,With Heatsink	Rev.1.1