

Low Noise Amplifier

1-40GHz/5.0dB NF/15dB Gain/19dBm P1dB

Model: TLLA1G40G-15-50

TLLA1G40G-15-50 is a low noise amplifier with a typical small signal gain of 15 dB and a nominal noise figure of 5 dB across the frequency range of 1 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/280 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 1-40GHz
- Gain: 15dB Typ
- Noise Figure: 5.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1		40	GHz
Small Signal Gain	14	15		dB
Gain Flatness		±1.5		dB
Noise Figure		5	6	dB
Output P1dB	18	19		dBm
Output IP3		30		dBm
Input VSWR		1.4	1.9	:1
Output VSWR		1.4	1.9	:1
DC Voltage		+12		V DC
DC Supply Current		280		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	30*30*8	mm

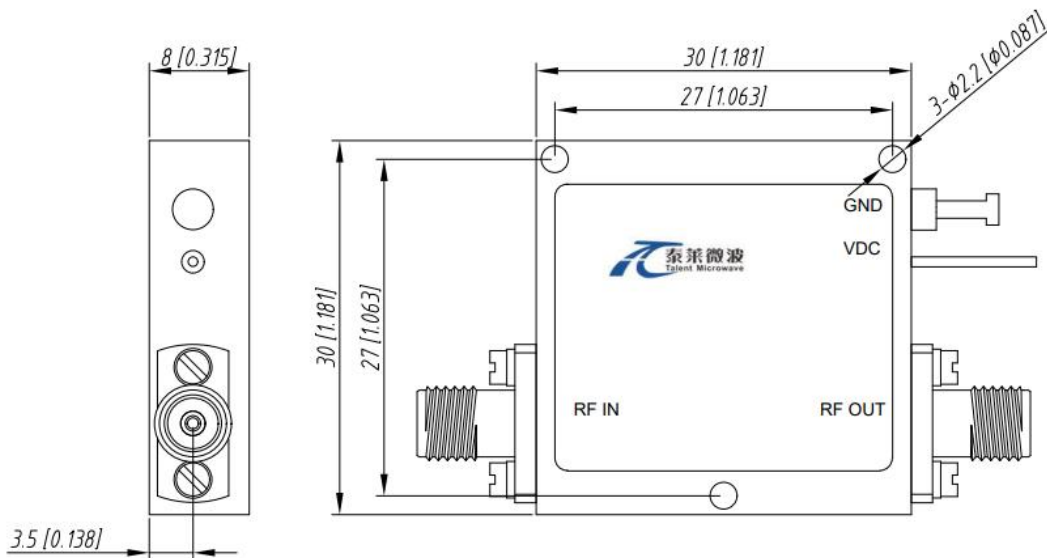
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+5 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	-48		+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
TLLA1G40G-15-50	Low Noise Amplifier, 1-40GHz, Noise Figure:5.0dB, Gain:15 dB,P1dB:19dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA1G40G-15-50-HS	Low Noise Amplifier, 1-40GHz, Noise Figure:5.0dB, Gain:15 dB,P1dB:19dBm,+12V DC,With Heatsink	Rev.1.1