

Low Noise Amplifier

1-40GHz/4.0dB NF/42dB Gain/18dBm P1dB

Model: TLLA1G40G-42-40

TLLA1G40G-42-40 is a low noise amplifier with a typical small signal gain of 42 dB and a nominal noise figure of 4.0 dB across the frequency range of 1 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/420 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 1-40GHz
- Gain: 42dB Typ
- Noise Figure: 4.0dB 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		40	42		dB
Gain Flatness			±3.5		dB
Noise Figure			4	5	dB
Output P1dB	@1~30GHz		18		dBm
	@30~40GHz		16		dBm
Input VSWR			1.8		:1
Output VSWR			1.8		:1
DC Voltage		+9	+12	+16	V DC
DC Supply Current			420		mA
Impedance			50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Shell Material	Aluminum	
Size	50*60*12	mm

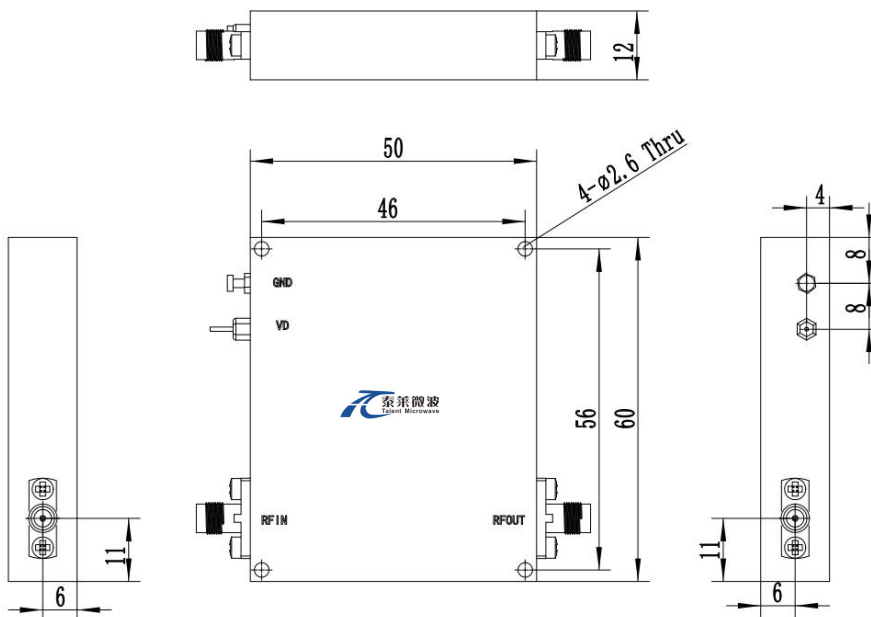
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16V
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	-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
TLLA1G40G-42-40	Low Noise Amplifier, 1-40GHz, Noise Figure:4.0dB, Gain:42 dB, P1dB:18dBm, +12V DC, Without Heatsink	Rev.1.1
TLLA1G40G-42-40-HS	Low Noise Amplifier, 1-40GHz, Noise Figure:4.0dB, Gain:42 dB, P1dB:18dBm, +12 DC, With Heatsink	Rev.1.1