

Low Noise Amplifier

2-40GHz/4.0dB NF/43dB Gain/18dBm P1dB

Model: TLLA2G40G-40-40

TLLA2G40G-40-40 is a low noise amplifier with a typical small signal gain of 43 dB and a nominal noise figure of 4.0 dB across the frequency range of 2 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/350 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 2-40GHz
- Gain: 43dB 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	2		40	GHz
Small Signal Gain	38	43		dB
Gain Flatness		±1.5	±2.0	dB
Noise Figure		4.0	6.5	dB
Output P1dB	15	18		dBm
Output Psat	20	21		dBm
Spurious		-60		dBc
VSWR		1.8	2.0	:1
DC Voltage	8	12		V DC
DC Supply Current		350		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	35.3*40.3*12	mm
Weight	30	g

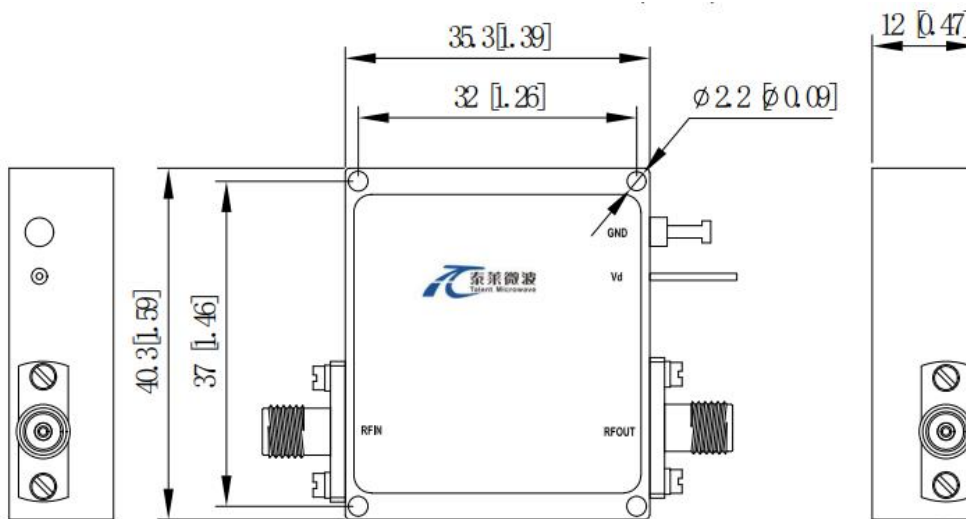
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	-15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**

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
TLLA2G40G-40-40	Low Noise Amplifier, 2-40GHz, Noise Figure:4.0dB, Gain:43 dB,P1dB:18dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA2G40G-40-40-HS	Low Noise Amplifier, 2-40GHz, Noise Figure:4.0dB, Gain:43 dB,P1dB:18dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

Gain&Return Loss

Gain(dB)

Frequency(GHz)

Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.