

Low Noise Amplifier

24-44GHz/5.0dB NF/40dB Gain/21dBm P1dB

Model: TLLA24G44G-40-50-2

TLLA24G44G-40-50-2 is a low noise amplifier with a typical small signal gain of 40 dB and a nominal noise figure of 5.0 dB across the frequency range of 24 to 44 GHz. The DC power requirement for the amplifier is +12 V DC/750 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 24-44GHz
- Gain: 40dB 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	24		44	GHz
Small Signal Gain	38	40		dB
Gain Flatness		±3.0	±4.0	dB
Noise Figure		5	6	dB
Output P1dB	20	21		dBm
Output Psat		22		dBm
Spurious		-60		dBc
Output IP3		30		dBm
Input VSWR		1.8	2.5	:1
Output VSWR		1.8	2.5	:1
DC Voltage		+12		V DC
DC Supply Current		750		mA
Impedance		50		Ohms

Mechanical Specifications:

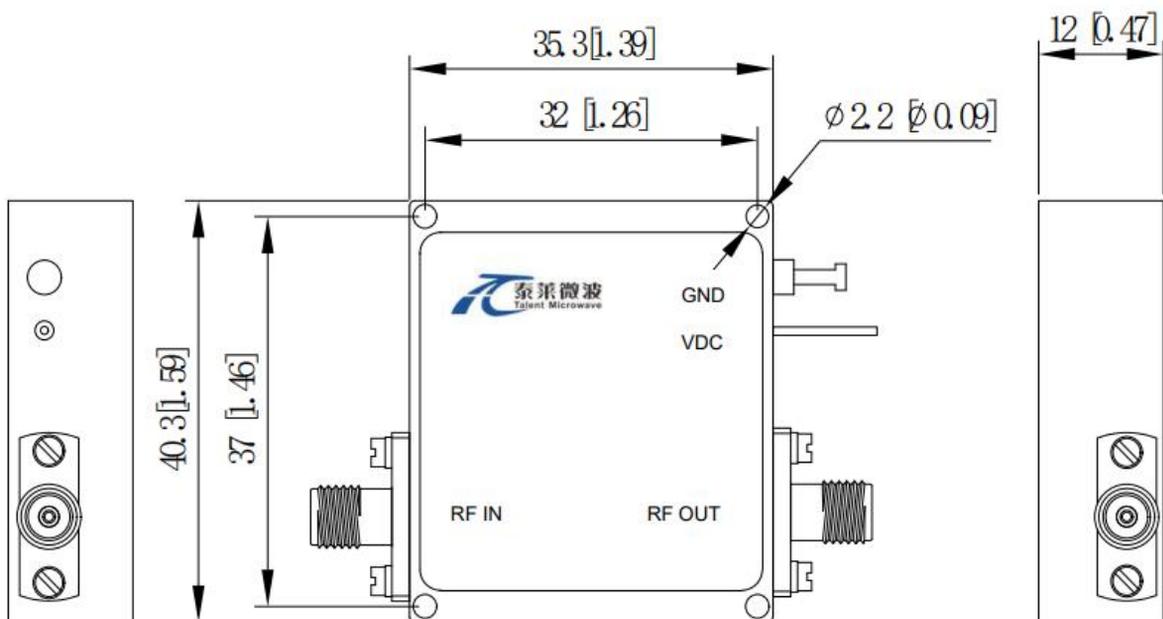
Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	35.3*40.3*12	mm
Weight	50	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
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	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
TLLA24G44G-40-50-2	Low Noise Amplifier, 24-44GHz, Noise Figure:5.0dB, Gain:40dB,P1dB:21dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA24G44G-40-50-2-HS	Low Noise Amplifier, 24-44GHz, Noise Figure:5.0dB, Gain:40dB,P1dB:21dBm,+12V DC,With Heatsink	Rev.1.1