

Low Noise Amplifier

0.4-50GHz/6.0dB NF/40dB Gain/18dBm P1dB

Model: TLLA0.4G50G-40-60

TLLA0.4G50G-40-60 is a low noise amplifier with a typical small signal gain of 40 dB and a nominal noise figure of 6.0 dB across the frequency range of 0.4 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/500 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 0.4-50GHz
- Gain: 40dB Typ
- Noise Figure: 6.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.4		50	GHz
Small Signal Gain		40		dB
Gain Flatness		±2.5	±4	dB
Noise Figure		6.0		dB
Output P1dB		18		dBm
Output IP3		21		dBm
Spurious		-60		dBc
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
直流DC Voltage	+8	+12		V DC
DC Supply Current		500		mA
Impedance		50		Ohms

Mechanical Specifications:

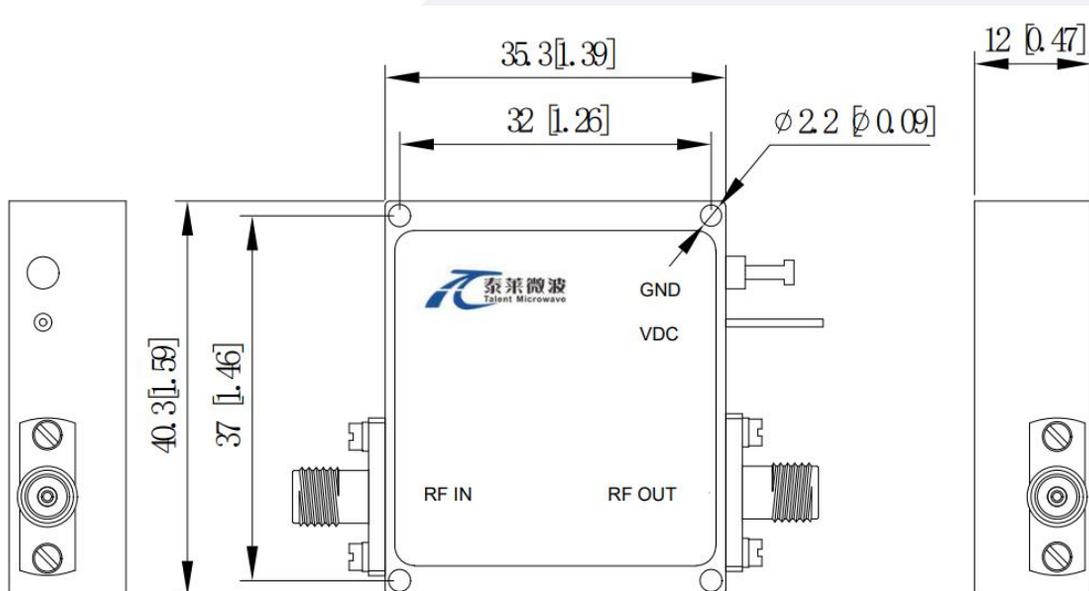
Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	35.3*40.3*12	mm
Weight	48	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	-15 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
TLLA0.4G50G-40-60	Low Noise Amplifier, 0.4-50GHz, Noise Figure:6.0dB, Gain: 40dB,P1dB:18dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.4G50G-40-60-HS	Low Noise Amplifier, 0.4-50GHz, Noise Figure:6.0dB, Gain: 40dB,P1dB:18dBm,+12V DC,With Heatsink	Rev.1.1