

Low Noise Amplifier

4-50GHz/6.0dB NF/25dB Gain/12dBm P1dB

Model: TLLA4G50G-25-60

TLLA4G50G-25-60 is a low noise amplifier with a typical small signal gain of 25 dB and a nominal noise figure of 6.0 dB across the frequency range of 4 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/300 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 4-50GHz
- Gain: 25dB Typ
- Noise Figure: 12dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	4		50	GHz
Small Signal Gain	23	25		dB
Gain Flatness			±2.0	dB
Noise Figure		6	8.5	dB
Output P1dB	10	12		dBm
Output IP3		22		dBm
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
DC Voltage	+7	+12		V DC
DC Supply Current		300		mA
Impedance		50		Ohms

Mechanical Specifications:

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

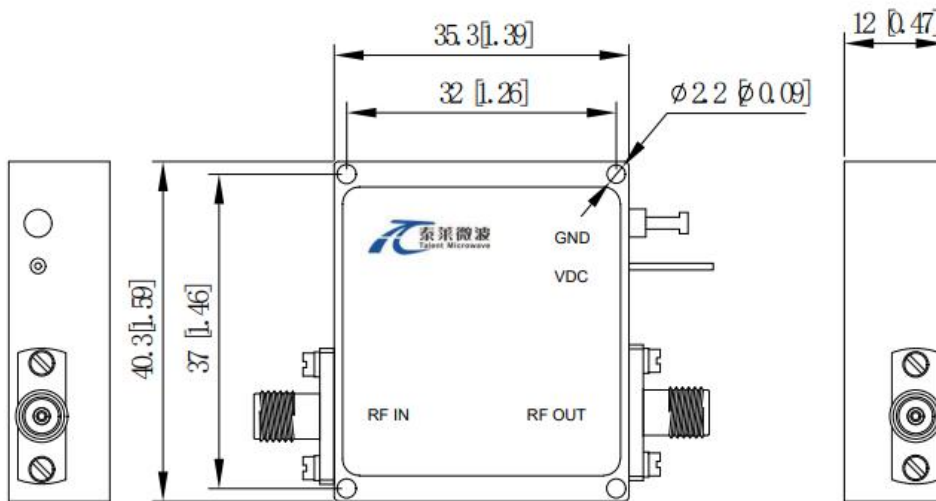
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	0 dBm
ESD sensitivity (HBM)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



***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	-25		+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
TLLA4G50G-25-60	Low Noise Amplifier, 4-50GHz, Noise Figure:6.0dB, Gain:25dB,P1dB:12dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA4G50G-25-60-HS	Low Noise Amplifier, 4-50GHz, Noise Figure:6.0dB, Gain:25dB,P1dB:12dBm,+12V DC,With Heatsink	Rev.1.1