

## Low Noise Amplifier

18-40GHz/5.0dB NF/40dB Gain/20dBm P1dB

Model: TLLA18G40G-40-50

TLLA18G40G-40-50 is a low noise amplifier with a minimum small signal gain of 40 dB and a maximum noise figure of 5.0 dB across the frequency range of 18 to 40 GHz. The DC power requirement for the amplifier is +12 V DC. The input and output port configuration offers coax adapter structure with 2.92mm female.

### Features:

- Frequency range: 18-40GHz
- Gain: 40dB Min
- Noise Figure: 5.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	18		40	GHz
Small Signal Gain	40			dB
Gain Flatness		±4		dB
Noise Figure		3	5	dB
Output P1dB	20			dBm
Spurious			-60	dBc
Harmonic			-15	dBc
Input VSWR		2		:1
DC Voltage		+12		V DC
Power Consumption			1.5	W
Impedance	50			Ohms

### Mechanical Specifications:

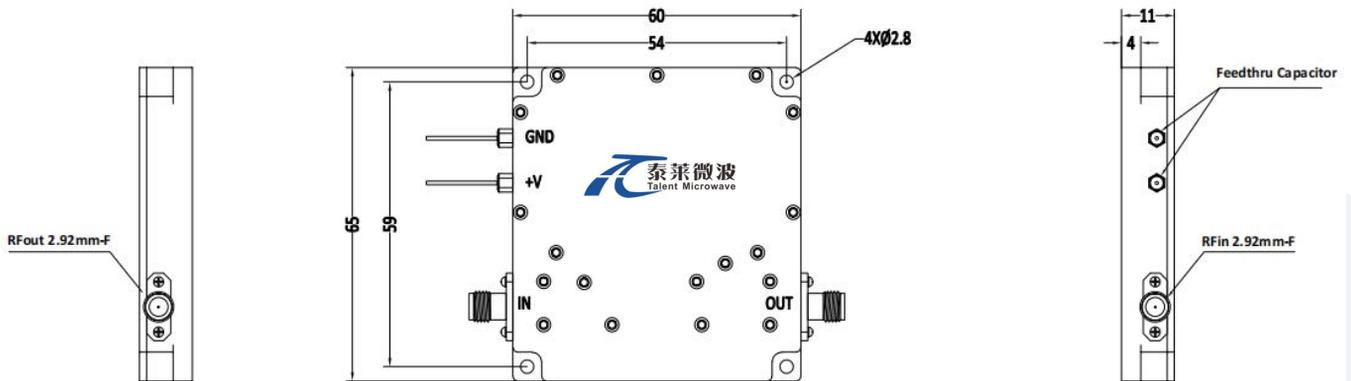
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	60*65*11	mm
Weight	≤200	g

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 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	-40		+60	°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
TLLA18G40G-40-50	Low Noise Amplifier, 18-40GHz, Noise Figure:5.0dB, Gain:40 dB,P1dB:20dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA18G40G-40-50-HS	Low Noise Amplifier, 18-40GHz, Noise Figure:5.0dB, Gain:40 dB,P1dB:20dBm,+12V DC,With Heatsink	Rev.1.1