

## Low Noise Amplifier

33-67GHz/5.0dB NF/47dB Gain/20dBm P1dB

Model: TLLA33G67G-47-50

TLLA33G67G-47-50 is a low noise amplifier with a typical small signal gain of 47 dB and a nominal noise figure of 5.0dB@33-50GHz across the frequency range of 33 to 67 GHz. The DC power requirement for the amplifier is +5 V DC/750 mA. The input and output port configuration offers coax adapter structure with 1.85mm female.

### Features:

- Frequency range: 33-67GHz
- Gain: 47dB Typ
- Noise Figure: 5.0dB Typ@33-50GHz
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter		Min	Typ	Max	Units
Frequency range		33		67	GHz
Small Signal Gain		45	47		dB
Noise Figure	@33-50GHz		5		dB
	@50-67GHz		7		dB
Output P1dB	@33-50GHz		20		dBm
	@50-67GHz		18		dBm
Input VSWR			1.8		:1
Output VSWR			1.8		:1
DC Voltage			+5	+8	V DC
DC Supply Current			750		mA
Impedance			50		Ohms

### Mechanical Specifications:

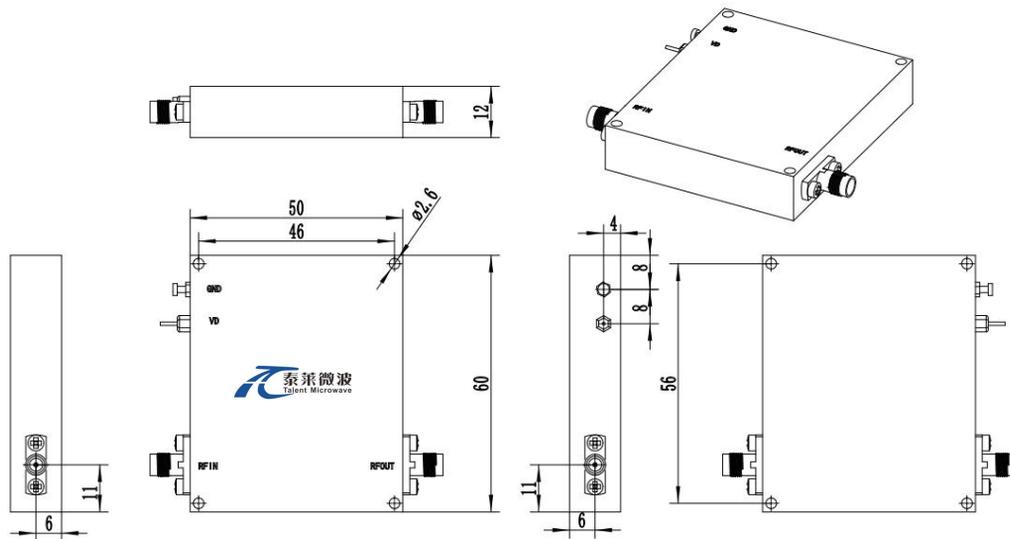
Parameter	Value	Units
Input /Output Connector	1.85mm Female/1.85mm Female	
DC Bias	Solder Pin	
Size	50*60*12	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 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	10,000			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
TLLA33G67G-47-50	Low Noise Amplifier, 33-67GHz, Noise Figure:5.0dB@33-50GHz, Gain:47 dB,P1dB:20dBm@33-50GHz,+5V DC,Without Heatsink	Rev.1.1
TLLA33G67G-47-50-HS	Low Noise Amplifier, 33-67GHz, Noise Figure:5.0dB@33-50GHz, Gain:47 dB,P1dB:20dBm@33-50GHz,+5V DC,With Heatsink	Rev.1.1