

Low Noise Amplifier

37-42GHz/5.0dB NF/20dB Gain/15dBm P1dB

Model: TLLA37G42G-20-50

TLLA37G42G-20-50 is a low noise amplifier with a minimum small signal gain of 20 dB and a maximum noise figure of 5.0 dB across the frequency range of 37 to 42 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: 37-42GHz
- Gain: 20dB 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	37		42	GHz
Small Signal Gain	20			dB
Noise Figure			5	dB
Output P1dB	15			dBm
Spurious			-50	dBc
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
DC Voltage		+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	60*65*11	mm
Weight	200	g

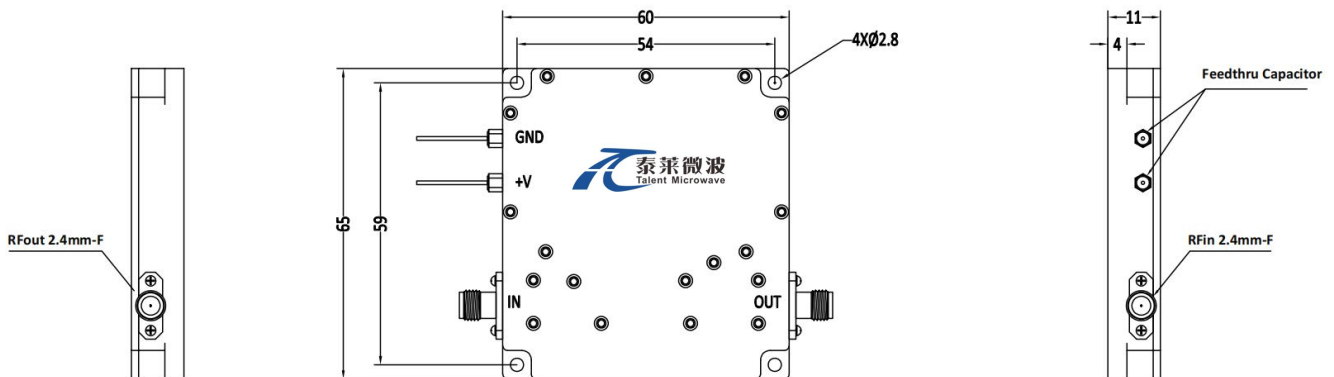
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 V
RF Input Power	0 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
TLLA37G42G-20-50	Low Noise Amplifier, 37-42GHz, Noise Figure:5.0dB, Gain:20 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA37G42G-20-50-HS	Low Noise Amplifier, 37-42GHz, Noise Figure:5.0dB, Gain:20 dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1