

Low Noise Amplifier

18-42GHz/4.0dB NF/28dB Gain/15dBm P1dB

Model: TLLA18G42G-22-40

TLLA18G42G-22-40 is a low noise amplifier with a typical small signal gain of 28 dB and a nominal noise figure of 4.0 dB across the frequency range of 18 to 42 GHz. The DC power requirement for the amplifier is +5 V DC/240 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 18-42GHz
- Gain: 28dB Typ
- Noise Figure: 4.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	18		42	GHz
Small Signal Gain	22	28		dB
Gain Flatness		±2.0	±2.5	dB
Noise Figure		4	5.5	dB
Output P1dB	13	15		dBm
Output IP3		25		dBm
Input VSWR		2	2.5	:1
Output VSWR		2	2.5	:1
DC Voltage		+5		V DC
DC Supply Current		240		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	10.92*18.8*8.9	mm

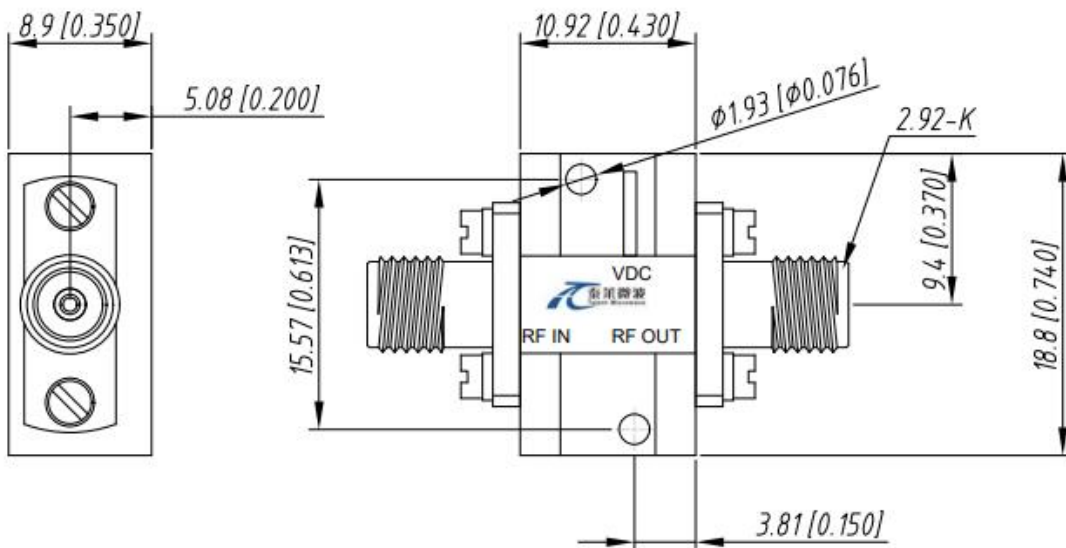
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
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	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
TLLA18G42G-22-40	Low Noise Amplifier, 18-42GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:15dBm,+5V DC,Without Heatsink	Rev.1.1
TLLA18G42G-22-40-HS	Low Noise Amplifier, 18-42GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:15dBm,+5V DC,With Heatsink	Rev.1.1