

Low Noise Amplifier

4-8GHz/0.6dB NF/40dB Gain/10dBm P1dB

Model: TLLA4G8G-40-06

TLLA4G8G-40-06 is a low noise amplifier with a minimum small signal gain of 40 dB and a maximum noise figure of 0.6 dB across the frequency range of 4 to 8 GHz. The DC power requirement for the amplifier is +12 V DC/200 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 4-8GHz
- Gain: 40dB Min
- Noise Figure: 0.6dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	4		8	GHz
Small Signal Gain	40	43		dB
Noise Figure			0.6	dB
Output P1dB	10	13		dBm
Output IP3		15		dBc
Input VSWR			2	:1
Output VSWR		1.8	2	:1
DC Voltage	8	12	16	V DC
DC Supply Current		200		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

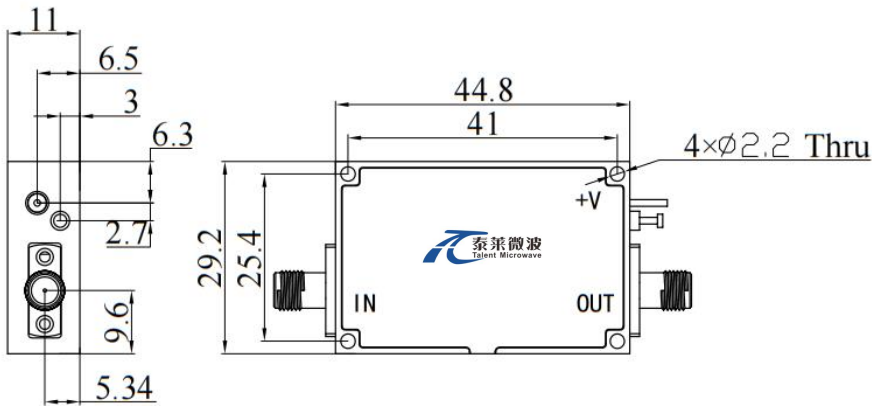
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16 V
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	-40		+60	°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
TLLA4G8G-40-06	Low Noise Amplifier, 4-8GHz, Noise Figure:0.6dB, Gain:40 dB,P1dB:10dBm,+12V DC,Without Heatsink	Rev.1.0
TLLA4G8G-40-06-HS	Low Noise Amplifier, 4-8GHz, Noise Figure:0.6dB, Gain:40 dB,P1dB:10dBm,+12V DC,With Heatsink	Rev.1.0