

Low Noise Amplifier

8-40GHz/4.5dB NF/27dB Gain/16dBm P1dB

Model: TLLA8G40G-27-45

TLLA8G40G-27-45 is a low noise amplifier with a typical small signal gain of 27 dB and a nominal noise figure of 4.5 dB across the frequency range of 8 to 40 GHz. The DC power requirement for the amplifier is +12 V DC/270 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 8-40GHz
- Gain: 27dB Typ
- Noise Figure: 4.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	8		40	GHz
Small Signal Gain	25	27		dB
Noise Figure		4.5		dB
Output P1dB	15.5	16		dBm
Output Psat		18		dBm
Spurious		-40		dBc
Input VSWR		2	2.4	:1
Output VSWR		2	2.4	:1
DC Voltage	+11	+12	+13	V DC
DC Supply Current		270		mA
Impedance	50			Ohms

Mechanical Specifications:

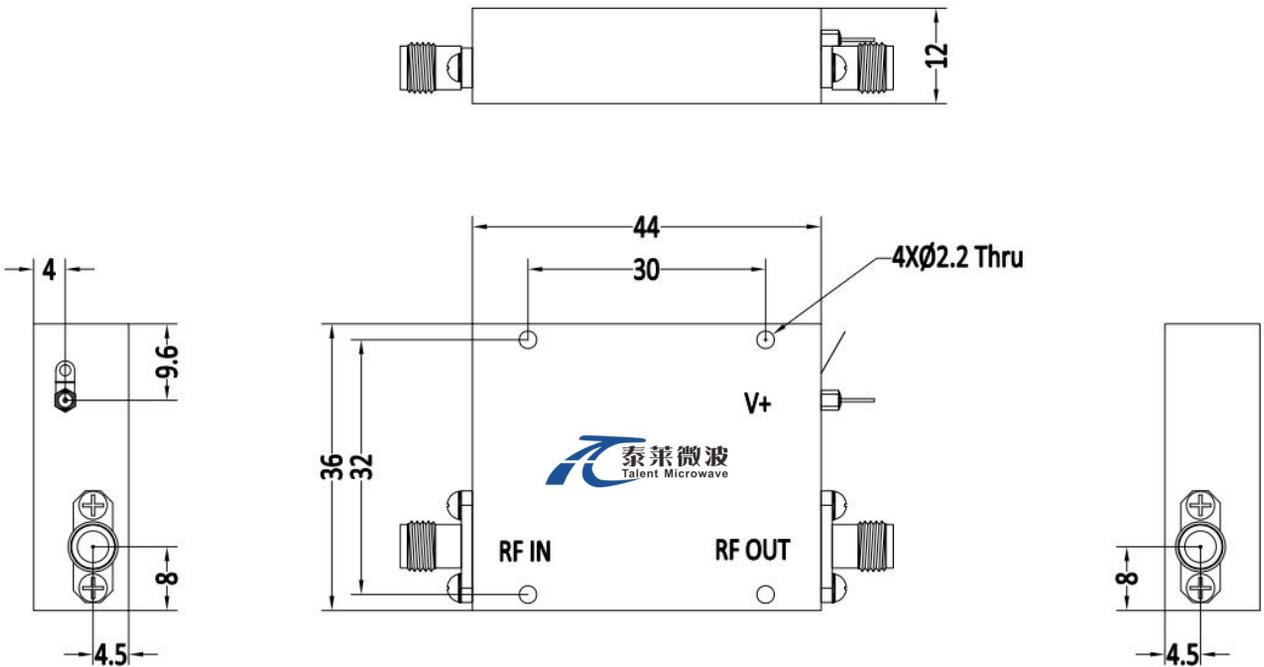
Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44*36*12	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13 V
RF Input Power	+10 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
TLLA8G40G-27-45	Low Noise Amplifier, 8-40GHz, Noise Figure:4.5dB, Gain:27dB,P1dB:16dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA8G40G-27-45-HS	Low Noise Amplifier, 8-40GHz, Noise Figure:4.5dB, Gain:27dB,P1dB:16dBm,+12V DC,With Heatsink	Rev.1.1