

## Low Noise Amplifier

7.9-8.5GHz/0.9dB NF/52dB Gain/11dBm P1dB

Model: TLLA7.9G8.5G-52-09

TLLA7.9G8.5G-52-09 is a low noise amplifier with a typical small signal gain of 52 dB and a nominal noise figure of 0.9 dB across the frequency range of 7.9 to 8.5 GHz. The DC power requirement for the amplifier is +12 V DC/40 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 7.9-8.5 GHz
- Gain: 52dB Typ
- Noise Figure: 0.9dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	7.9		8.5	GHz
Small Signal Gain		52		dB
Gain Flatness		±1		dB
Rejection@ < 7.7GHz	35			dB
Rejection@ > 8.7GHz	35			dB
Noise Figure		0.9		dB
Output P1dB		11		dBm
Input VSWR		1.5		:1
Output VSWR		1.5		:1
DC Voltage		+12		V DC
DC Supply Current		40		mA
Impedance		50		Ohms

### Mechanical Specifications:

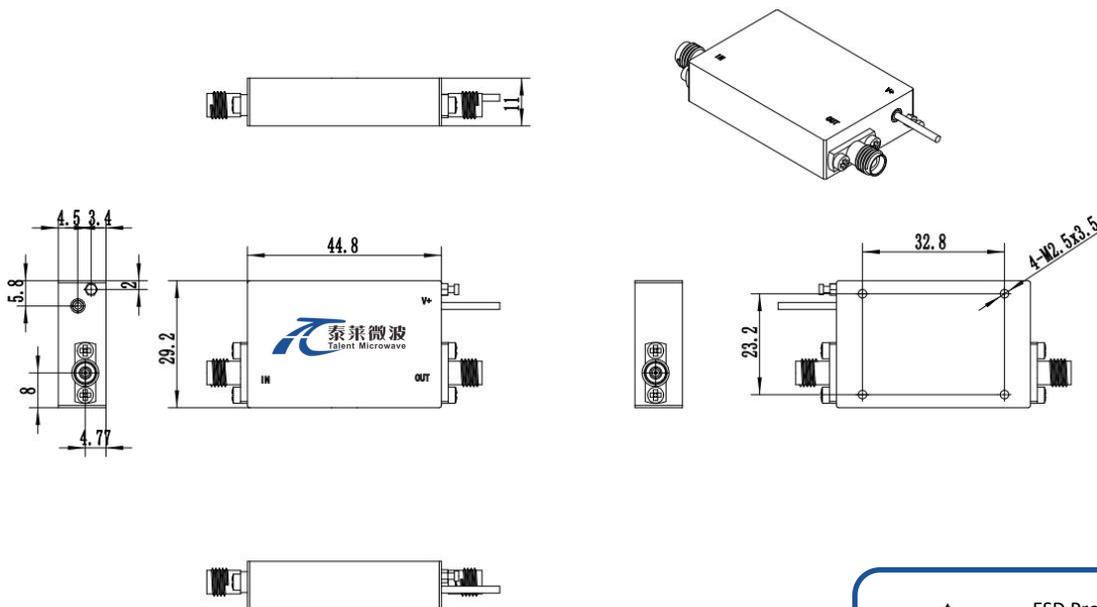
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	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		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
TLLA7.9G8.5G-52-09	Low Noise Amplifier, 7.9-8.5GHz, Noise Figure:0.9dB, Gain:52 dB,P1dB:11dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA7.9G8.5G-52-09-HS	Low Noise Amplifier, 7.9-8.5GHz, Noise Figure:0.9dB, Gain:52 dB,P1dB:11dBm,+12V DC,With Heatsink	Rev.1.1