

Low Noise Amplifier

25.5-27GHz/2.7dB NF/48dB Gain/13dBm P1dB

Model: TLLA25.5G27G-48-27

TLLA25.5G27G-48-27 is a low noise amplifier with a typical small signal gain of 48 dB and a nominal noise figure of 2.7 dB across the frequency range of 25.5 to 27 GHz. The DC power requirement for the amplifier is +12 V DC/60 mA. The input port configuration offers coax adapter structure with WR-34 and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 25.5-27GHz
- Gain: 48dB Typ
- Noise Figure: 2.7dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	25.5		27	GHz
Small Signal Gain		48		dB
Gain Flatness		±1		dB
Noise Figure		2.7		dB
Output P1dB		13		dBm
Rejection@ < 25GHz	35			dB
Rejection@ > 27.5GHz	35			dB
Input VSWR		1.6		:1
Output VSWR		1.6		:1
DC Voltage		+12		V DC
DC Supply Current		60		mA
Impedance		50		Ohms

Mechanical Specifications:

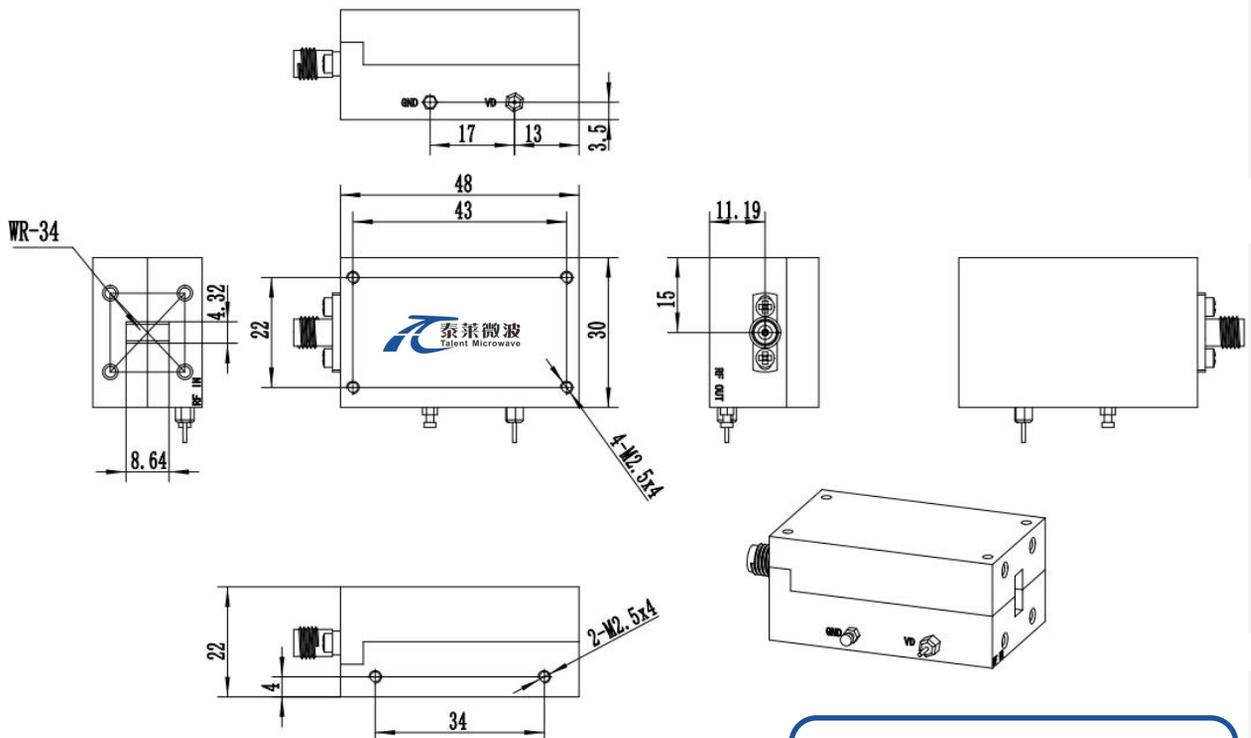
Parameter	Value	Units
Input /Output Connector	WR34/SMA Female	
DC Bias	Solder Pin	
Size	48*30*22	mm

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
TLLA25.5G27G-48-27	Low Noise Amplifier, 25.5-27GHz, Noise Figure:2.7dB, Gain:48dB,P1dB:13dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA25.5G27G-48-27-HS	Low Noise Amplifier, 25.5-27GHz, Noise Figure:2.7dB, Gain:48dB,P1dB:13dBm,+12V DC,With Heatsink	Rev.1.1