

Low Noise Amplifier

35-50GHz/2.5dB NF/43dB Gain/15dBm P1dB

Model: TLLA35G50G-43-25-GA

TLLA35G50G-43-25-GA is a low noise amplifier with a typical small signal gain of 43 dB and a nominal noise figure of 2.5 dB across the frequency range of 35 to 50 GHz. The DC power requirement for the amplifier is +6 V DC/320 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 35-50GHz
- Gain: 43dB Typ
- Noise Figure: 2.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	35		50	GHz
Small Signal Gain	40	43		dB
Gain Flatness		±3.0		dB
Noise Figure		2.5	3.0	dB
Output P1dB	13	15		dBm
Output Psat		16		dBm
Gain Adjustment Range	40	42		dB
Input VSWR		4		:1
Output VSWR		2		:1
Attenuator Control Voltage	-5		0	V DC
DC Voltage	+5.5	+6	+8	V DC
DC Supply Current		320		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	50*60*12	mm

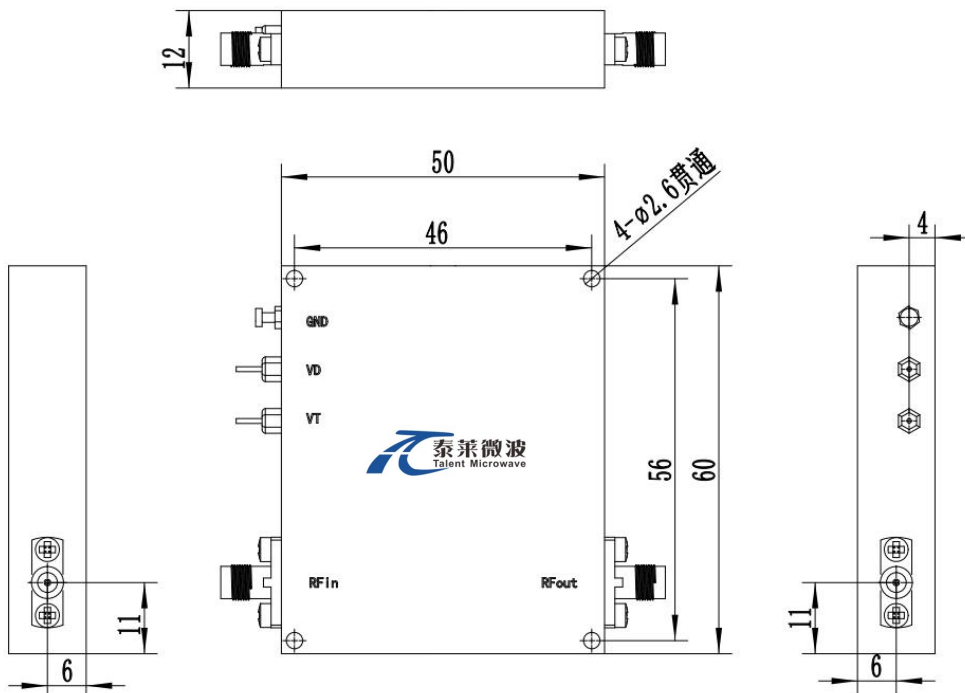
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+8 V
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
TLLA35G50G-43-25-GA	Low Noise Amplifier, 35-50GHz, Noise Figure:2.5dB, Gain:43 dB,P1dB:15dBm,+6V DC,Without Heatsink	Rev.1.1
TLLA35G50G-43-25-GA-HS	Low Noise Amplifier, 35-50GHz, Noise Figure:2.5dB, Gain:43 dB,P1dB:15dBm,+6V DC,With Heatsink	Rev.1.1