Suzhou Talent Microwave,Inc
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Low Noise Amplifier

0.01-50GHz/5dB NF/50dB Gain/13dBm P1dB Model: TLLA10M50G-50-65

TLLA10M50G-50-65 is a low noise amplifier with a typical small signal gain of 50 dB and a nominal noise figure of 5 dB across the frequency range of 0.01 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/500 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Frequency range: 0.01-50GHz
- Gain: 50dB Typ
- Noise Figure: 5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.01		50	GHz
Small Signal Gain	46	50		dB
Gain Flatness		±3		dB
Noise Figure		5	6.5	dB
Output P1dB	13			dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage	+8	+12		V DC
DC Supply Current		500		mA
Impedance		50		Ohms

Parameters degrade below 100MHz and above 40GHz.

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	76.2*50.8*12.7	mm

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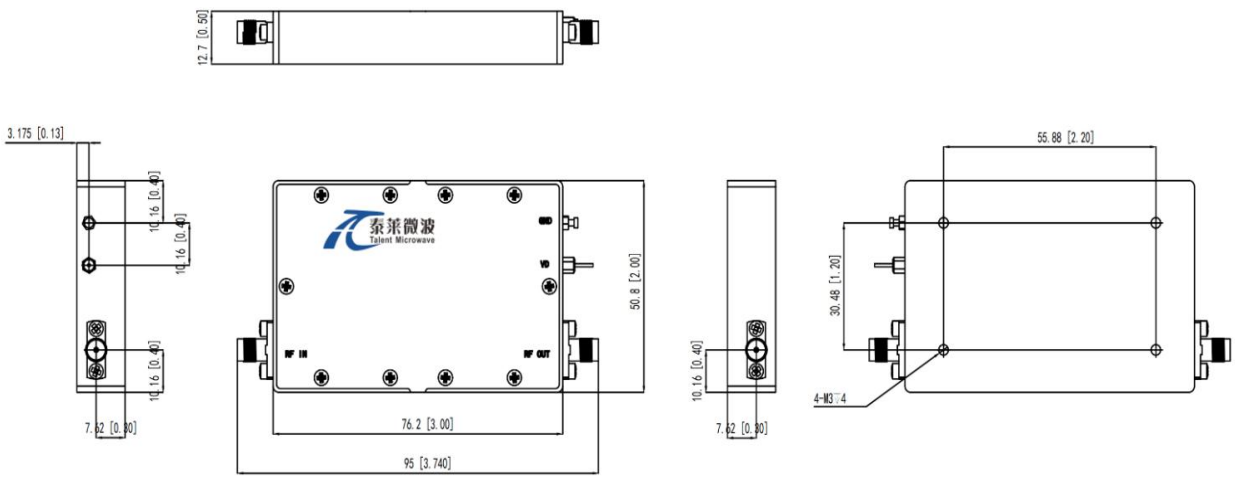
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+13V
RF Input Power	0 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	℃
Non-operating Temperature	-55		+125	℃
Relative humidity		95		%
Altitude	50,000			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			

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Ordering Information:

Base Number	Description	Revision
TLLA10M50G-50-65	Low Noise Amplifier, 0.01-50GHz, Noise Figure:5.0dB, Gain:50 dB,P1dB:13dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA10M50G-50-65-HS	Low Noise Amplifier, 0.01-50GHz, Noise Figure:5.0dB, Gain:50 dB,P1dB:13dBm,+12V DC,With Heatsink	Rev.1.1