泰莱微波
Talent Microwave

Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Low Noise Amplifier

0.01-3GHz/2.0dB NF/44dB Gain/20dBm P1dB Model: TLLA10M3G-44-20

TLLA10M3G-44-20 is a low noise amplifier with a typical small signal gain of 44 dB and a nominal noise figure of 2.0 dB across the frequency range of 0.01 to 3 GHz. The DC power requirement for the amplifier is +12 V DC/80 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.01-3GHz
- Gain: 44dB Typ
- Noise Figure: 2.0dB 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		3	GHz
Small Signal Gain	42	44		dB
Gain Flatness		±2.0		dB
Noise Figure	1.5	2.0		dB
Output P1dB		20		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		+12		V DC
DC Supply Current		80		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
Weight	55	g

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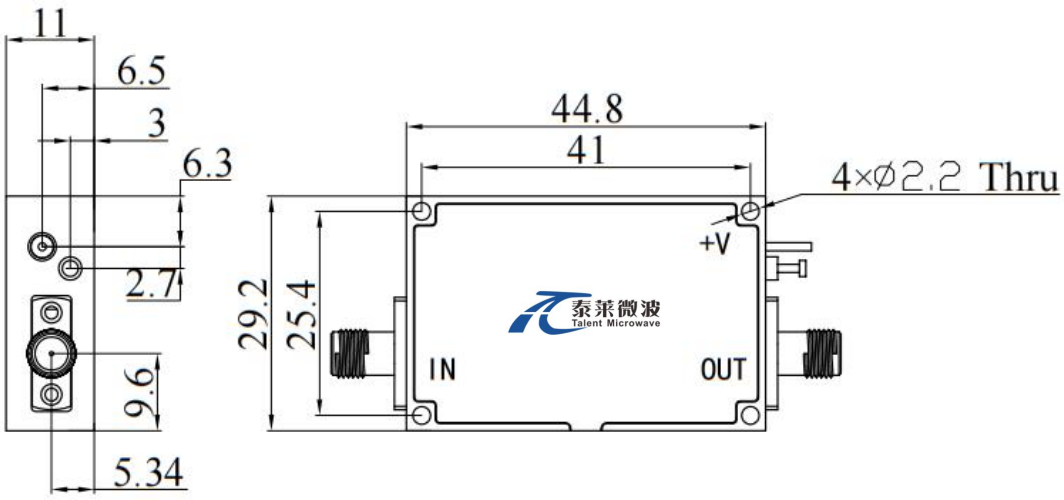
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+12 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Simple 220V System
Available SAC option

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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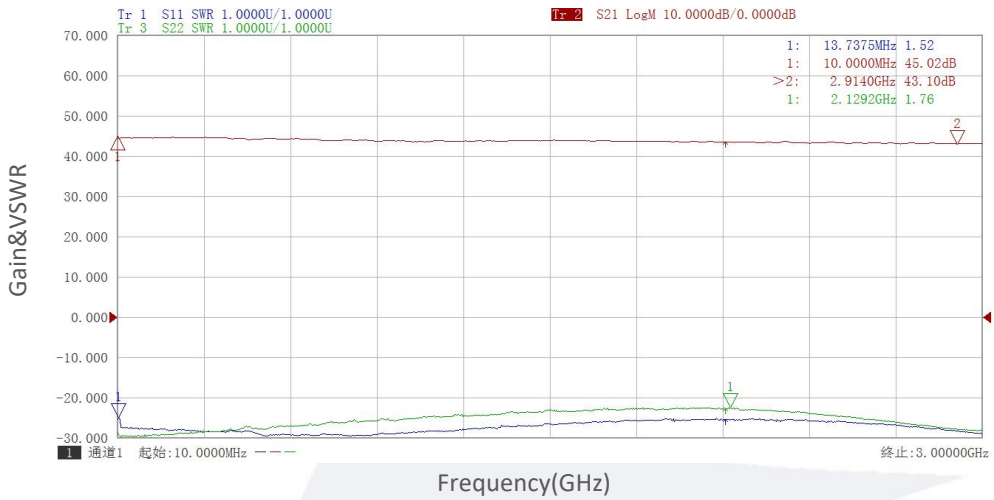
Ordering Information:

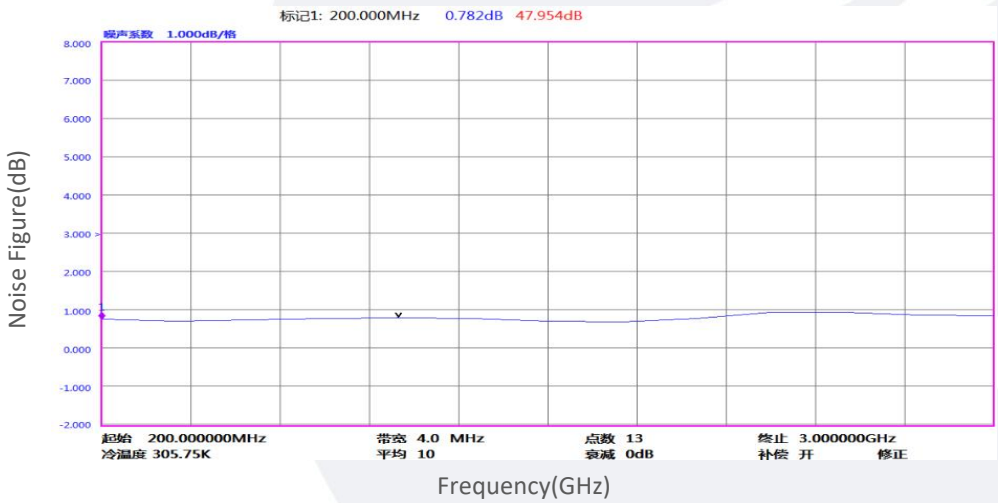
Base Number	Description	Revision
TLLA10M3G-44-20	Low Noise Amplifier, 0.01-3GHz, Noise Figure:2.0dB, Gain:44 dB,P1dB:20dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA10M3G-44-20-HS	Low Noise Amplifier, 0.01-3GHz, Noise Figure:2.0dB, Gain:44 dB,P1dB:20dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

Gain&VSWR vs Frequency



Noise Figure vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.