泰莱微波
Talent Microwave

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

Low Noise Amplifier

17-40GHz/4.5dB NF/37dB Gain/28dBm P1dB Model: TLLA17G40G-37-45

TLLA17G40G-37-45 is a low noise amplifier with a typical small signal gain of 37 dB and a nominal noise figure of 4.5 dB across the frequency range of 17 to 40 GHz. The DC power requirement for the amplifier is +6 V DC/0.8 A. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 17-40 GHz
- Gain: 37dB Typ
- Noise Figure: 4.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	17		40	GHz
Small Signal Gain	35	37		dB
Gain Flatness		±3.5		dB
Noise Figure		4.5	6	dB
Output P1dB	26.5	28		dBm
Output Psat		29		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage		+6	+8	V DC
DC Supply Current		0.8		A
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44*52*13(Without Heatsink) 50*63*120(With Heatsink)	mm

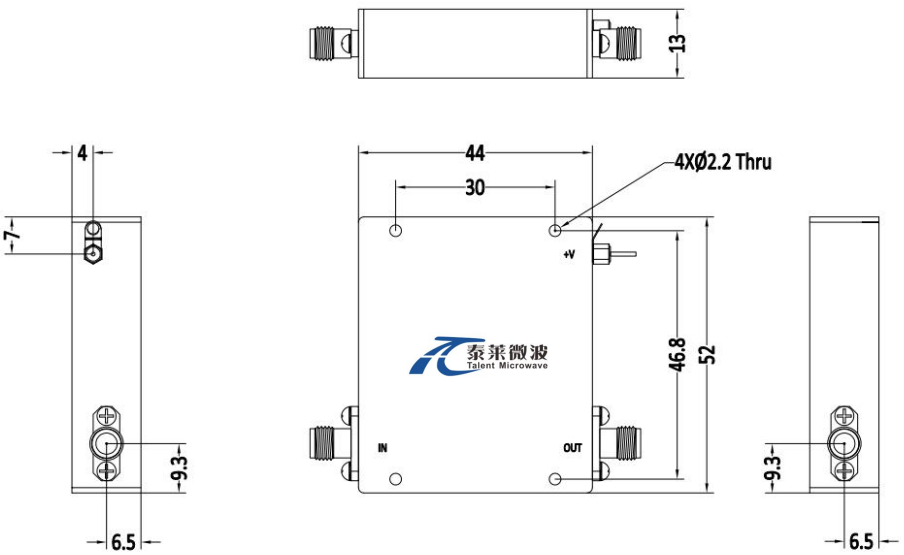
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

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	℃
Non-operating Temperature	-55		+125	℃
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			

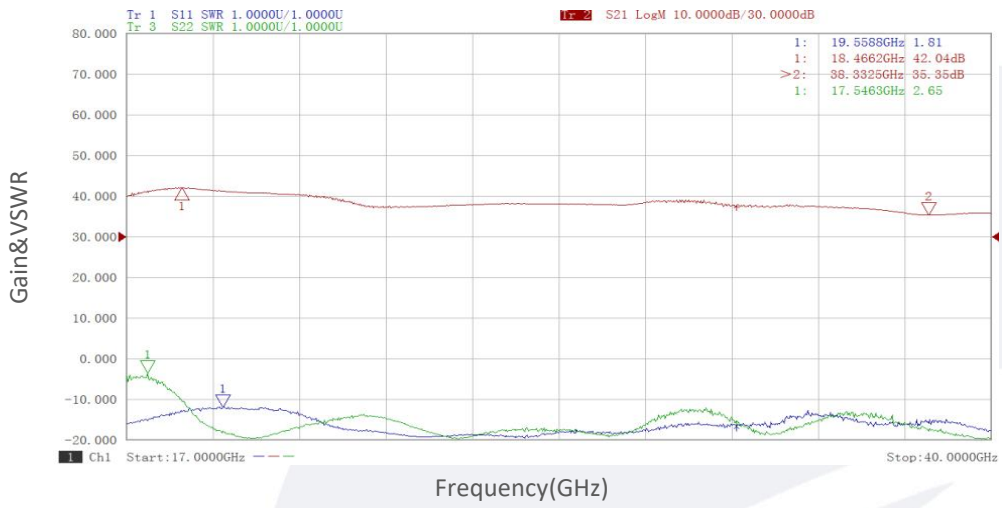
Suzhou Talent Microwave,Inc
sales@talentmw.com
www.talentmw.com

Ordering Information:

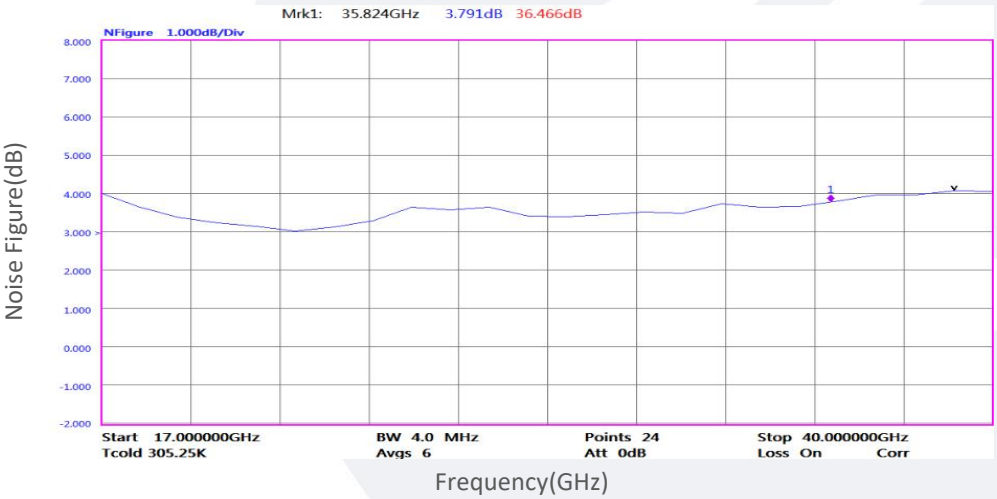
Base Number	Description	Revision
TLLA17G40G-37-45	Low Noise Amplifier, 17-40GHz, Noise Figure:4.5dB, Gain:37 dB,P1dB:28dBm,+6V DC,Without Heatsink	Rev.1.1
TLLA17G40G-37-45-HS	Low Noise Amplifier, 17-40GHz, Noise Figure:4.5dB, Gain:37 dB,P1dB:28dBm,+6V DC,With Heatsink	Rev.1.1

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.