

Low Noise Amplifier

1.7-2.4GHz/1.2dB NF/23dB Gain/13dBm P1dB

Model: TLLA1.7G2.4G-20-15

TLLA1.7G2.4G-20-15 is a low noise amplifier with a typical small signal gain of 23 dB and a nominal noise figure of 1.2 dB across the frequency range of 1.7 to 2.4 GHz. The DC power requirement for the amplifier is +15 V DC/30 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 1.7-2.4GHz
- Gain: 23dB Typ
- Noise Figure: 1.2dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1.7		2.4	GHz
Small Signal Gain	22	23		dB
Noise Figure		1.2	1.5	dB
Output P1dB	10	13		dBm
Output Psat		14		dBm
Input VSWR		2		:1
Output VSWR		2		:1
DC Voltage	+12	+15	+18	V DC
DC Supply Current		30		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44*36*12	mm

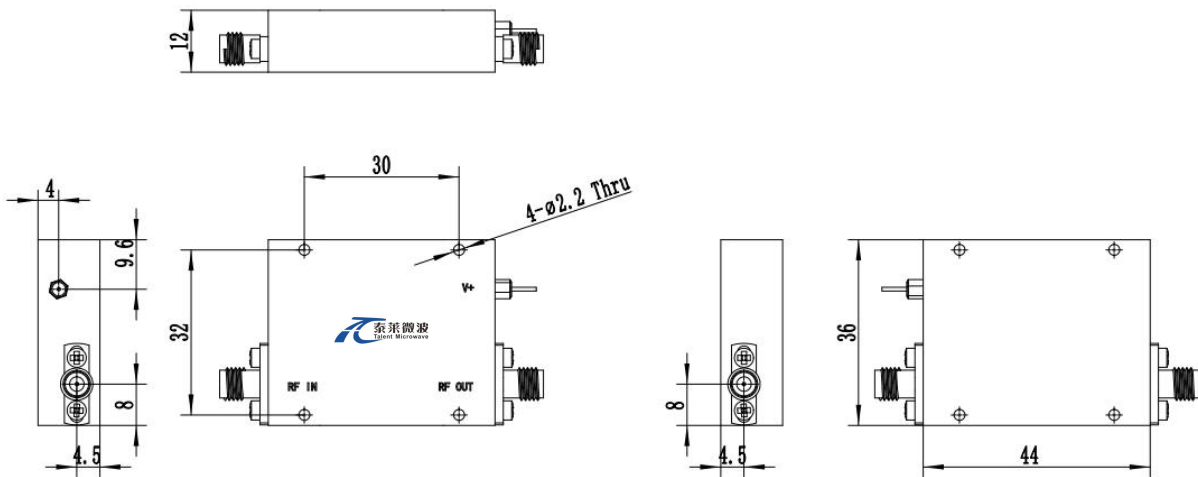
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
RF Input Power	+10 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
TLLA1.7G2.4G-20-15	Low Noise Amplifier, 1.7-2.4GHz, Noise Figure:1.2dB, Gain: 23dB,P1dB:13dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA1.7G2.4G-20-15-HS	Low Noise Amplifier, 1.7-2.4GHz, Noise Figure:1.2dB, Gain: 23dB,P1dB:13dBm,+15V DC,With Heatsink	Rev.1.1