

## Low Noise Amplifier

2.2-2.3GHz/0.6dB NF/46dB Gain/7dBm P1dB

Model: TLLA2.2G2.3G-46-6

TLLA2.2G2.3G-46-6 is a low noise amplifier with a typical small signal gain of 46 dB and a nominal noise figure of 0.6 dB across the frequency range of 2.2 to 2.3 GHz. The DC power requirement for the amplifier is +12 V DC/95 mA. The input and output port configuration offers coax adapter structure with N female.

### Features:

- Frequency range: 2.2-2.3GHz
- Gain: 46dB Typ
- Noise Figure: 0.6dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	2.2		2.3	GHz
Small Signal Gain	45.5	46		dB
Noise Figure		0.6		dB
Output P1dB	5	7		dBm
Output Psat		8		dBm
Gain Rejection	@DC~2.12GHz	15		dBc
	@2.4~2.5GHz	15		dBc
Input VSWR		1.4		:1
Output VSWR		1.4		:1
DC Voltage	+11	+12	+24	V DC
DC Supply Current		95		mA
Impedance	50			Ohms

### Mechanical Specifications:

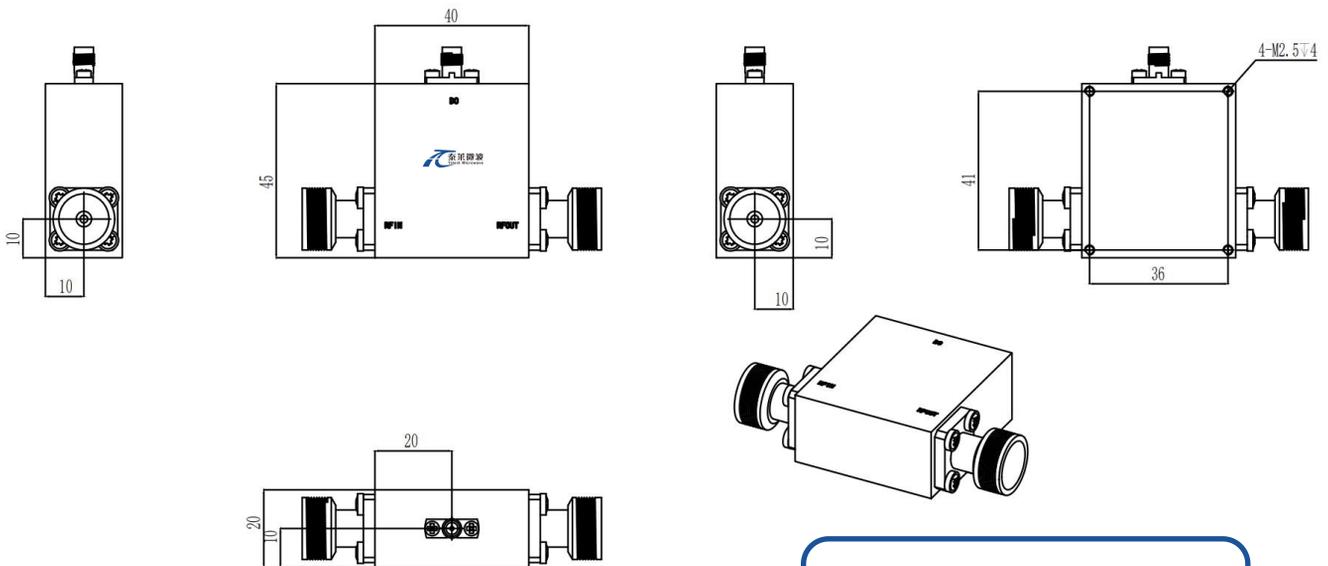
Parameter	Value	Units
Input /Output Connector	N Female/N Female	
DC Bias	SMA Female	
Size	40*45*20	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+24 V
RF Input Power	TBD
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
TLLA2.2G2.3G-46-6	Low Noise Amplifier, 2.2-2.3GHz, Noise Figure:0.6dB, Gain:46 dB,P1dB:7dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA2.2G2.3G-46-6-HS	Low Noise Amplifier, 2.2-2.3GHz, Noise Figure:0.6dB, Gain:46 dB,P1dB:7dBm,+12V DC,With Heatsink	Rev.1.1