

Low Noise Amplifier

0.03-6GHz /3.0dB NF/25dB Gain/15 dBm P1dB**Model: TLLA0.03G6G-25-30**

TLLA0.03G6G-25-30 is a low noise amplifier with a typical small signal gain of 27 dB and a max noise figure of 3.0 dB across the frequency range of 0.03 to 6 GHz. The DC power requirement for the amplifier is +12 V DC/130 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Ultra Wide Band:0.03-6 GHz
- Gain: 27dB Typ
- Noise Figure: 3.0dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.03		6	GHz
Small Signal Gain	25	27	30	dB
Gain Flatness		±1.5		dB
Noise Figure			3	dB
Output P1dB	15			dBm
Input VSWR			2	:1
Output VSWR		2	2.5	:1
DC Voltage		12		V DC
DC Supply Current		130		mA
Impedance	50			Ohms

Mechanical Specifications:

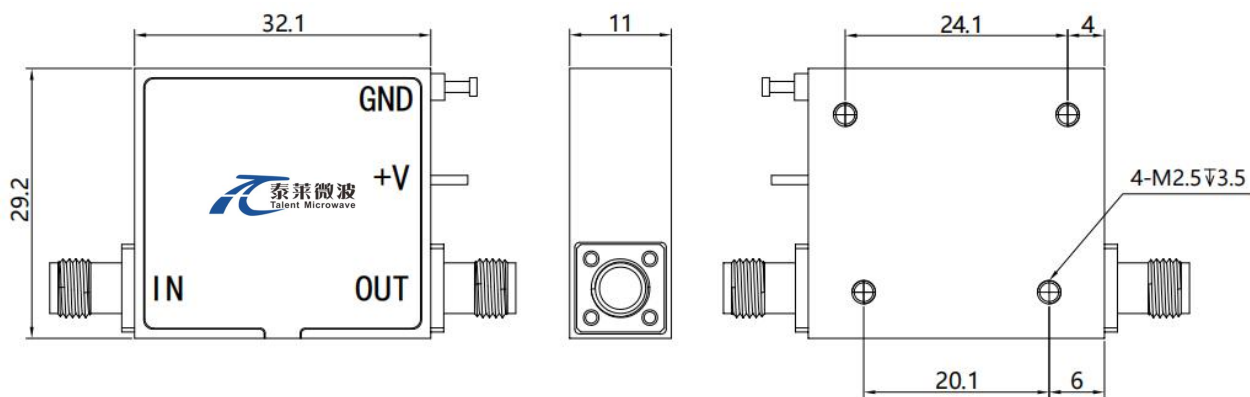
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	32.1*29.2*11	mm
Weight	≤45	g

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15 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
TLLA0.03G6G-25-30	Low Noise Amplifier, 0.03-6GHz, Noise Figure:3.0dB, Gain:27dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.03G6G-25-30-HS	Low Noise Amplifier, 0.03-6GHz, Noise Figure:3.0dB, Gain:27dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1