

Low Noise Amplifier

0.1-18GHz/2.8dB NF/12dB Gain/12dBm P1dB

Model: TLLA0.1G18G-12-28

TLLA0.1G18G-12-28 is a low noise amplifier with a minimum small signal gain of 12 dB and a maximum noise figure of 2.8 dB across the frequency range of 0.1 to 18 GHz. The DC power requirement for the amplifier is +12 V DC/70 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-18GHz
- Gain: 12dB Min
- Noise Figure: 2.8dB Max
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		18	GHz
Small Signal Gain	12			dB
Gain Flatness		±2.0		dB
Noise Figure		2.5	2.8	dB
Output P1dB	12	13		dBm
Input VSWR		2.0		:1
Output VSWR		2.0		:1
DC Voltage	+8	+12	+15	V DC
DC Supply Current		70		mA
Impedance		50		Ohms

Mechanical Specifications:

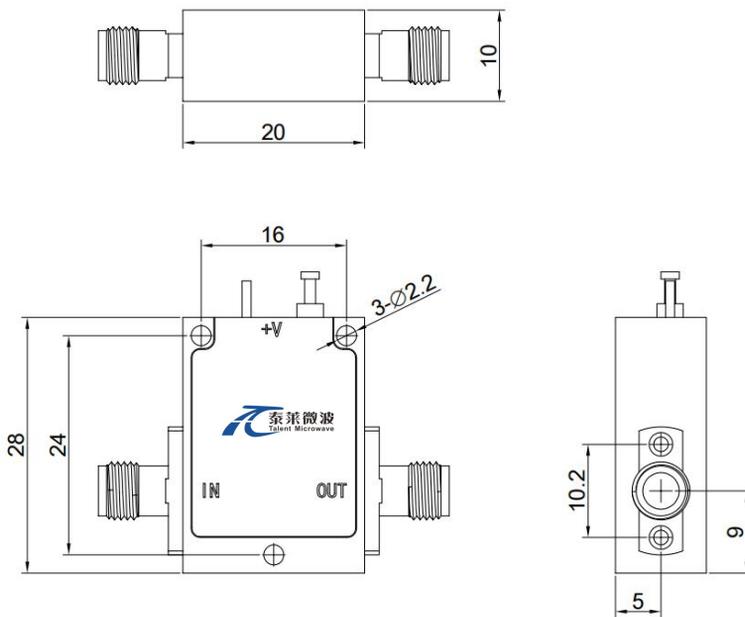
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	28*20*10	mm

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



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

*****Heat Sink Required During Operation**

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
TLLA0.1G18G-12-28	Low Noise Amplifier, 0.1-18GHz, Noise Figure:2.8dB, Gain:12 dB,P1dB:12dBm,+12V DC,Without Heatsink	Rev.1.0
TLLA0.1G18G-12-28-HS	Low Noise Amplifier, 0.1-18GHz, Noise Figure:2.8dB, Gain:12 dB,P1dB:12dBm,+12V DC,With Heatsink	Rev.1.0