

## Low Noise Amplifier

0.1-18GHz/3.0dB NF/12dB Gain/8dBm P1dB

Model: TLLA0.1G18G-12-30

TLLA0.1G18G-12-30 is a low noise amplifier with a minimum small signal gain of 12 dB and a maximum noise figure of 3.0 dB across the frequency range of 0.1 to 18 GHz. The DC power requirement for the amplifier is +15 V DC/125 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: 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	0.1		18	GHz
Small Signal Gain	12			dB
Gain Flatness			±2.0	dB
Noise Figure			3.0	dB
Output P1dB	8			dBm
Input VSWR		2.0	2.5	:1
Output VSWR		2.0	2.5	:1
DC Voltage		+15		V DC
DC Supply Current		125		mA
Impedance		50		Ohms

### Mechanical Specifications:

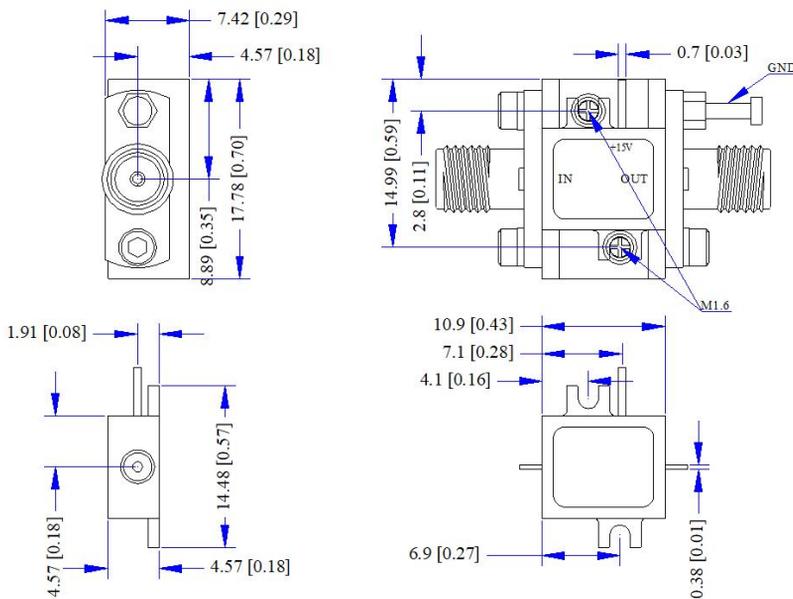
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	17.78*10.9*4.57	mm

### Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	+5 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	-30		+75	°C
Non-operating Temperature	-45		+85	°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-12-30	Low Noise Amplifier, 0.1-18GHz, Noise Figure:3.0dB, Gain: 12dB,P1dB:8dBm,+15V DC,Without Heatsink	Rev.1.1
TLLA0.1G18G-12-30-HS	Low Noise Amplifier, 0.1-18GHz, Noise Figure:3.0dB, Gain: 12dB,P1dB:8dBm,+15V DC,With Heatsink	Rev.1.1