

## Low Noise Amplifier

6-18GHz/4.0dB NF/24dB Gain/21dBm P1dB

Model: TLLA6G18G-20-40

TLLA6G18G-20-40 is a low noise amplifier with a typical small signal gain of 24 dB and a nominal noise figure of 4.0 dB across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +12 V DC/120 mA. The input and output port configuration offers coax adapter structure with SMA female.

### Features:

- Frequency range: 6-18GHz
- Gain: 24dB Typ
- Noise Figure: 4.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

### Applications:

- Communication systems

### Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	6		18	GHz
Small Signal Gain	20	24		dB
Gain Flatness		±0.5	±1	dB
Noise Figure		4		dB
Output P1dB	20	21		dBm
Output IP3		30		dBm
Input VSWR		1.4	2	:1
Output VSWR		1.3	2	:1
DC Voltage		+12		V DC
DC Supply Current		120		mA
Impedance		50		Ohms

### Mechanical Specifications:

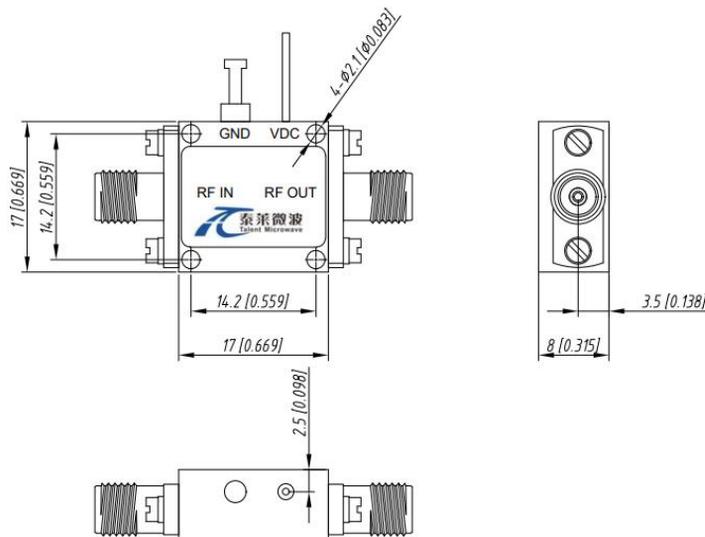
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	17*17*8	mm

### 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



**\*\*\*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		50,000		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
TLLA6G18G-20-40	Low Noise Amplifier, 6-18GHz, Noise Figure:4.0dB, Gain:24dB,P1dB:21dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA6G18G-20-40-HS	Low Noise Amplifier, 6-18GHz, Noise Figure:4.0dB, Gain:24dB,P1dB:21dBm,+12V DC,With Heatsink	Rev.1.1