

Low Noise Amplifier

6-18GHz/2.0dB NF/38dB Gain/22dBm P1dB

Model: TLLA6G18G-38-25

TLLA6G18G-38-25 is a low noise amplifier with a typical small signal gain of 38 dB and a nominal noise figure of 2.0 dB across the frequency range of 6 to 18 GHz. The DC power requirement for the amplifier is +12 V DC/280 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 6-18GHz
- Gain: 38dB Typ
- Noise Figure: 2dB 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	35	38	41	dB
Gain Flatness		±2	±2.5	dB
Noise Figure		2	3	dB
Output P1dB	20	22		dBm
Output IP3	27	30		dBm
Spurious			-60	dBc
Revsrse Isolation	40	45		dB
Input VSWR		1.8	2.5	:1
Output VSWR		1.8	2.5	:1
DC Voltage	+10	+12	+15	V DC
DC Supply Current	250	280	320	mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	1.5*1*0.4	Inch

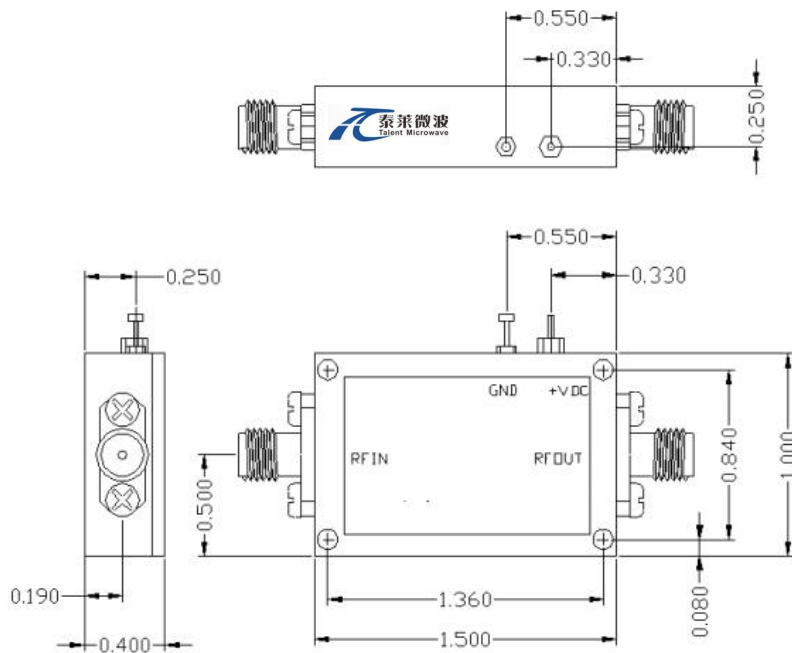
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+15V
RF Input Power	+10 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit: Inch



*****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	-40		+75	°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-38-25	Low Noise Amplifier, 6-18GHz, Noise Figure:2.5dB, Gain:38dB,P1dB:22dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA6G18G-38-25-HS	Low Noise Amplifier, 6-18GHz, Noise Figure:2.5dB, Gain:38dB,P1dB:22dBm,+12V DC,With Heatsink	Rev.1.1