

Low Noise Amplifier

1-18GHz/3.0dB NF/50dB Gain/15dBm P1dB

Model: TLLA1G18G-55-25

TLLA1G18G-55-25 is a low noise amplifier with a minimum small signal gain of 50 dB and a nominal noise figure of 3.0 dB across the frequency range of 1 to 18 GHz. The DC power requirement for the amplifier is +12 V DC. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range:1-18GHz
- Gain: 50dB Min
- Noise Figure: 3.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	1		18	GHz
Small Signal Gain	50			dB
Gain Flatness		±3.0		dB
Noise Figure		3.0		dB
Output P1dB		15		dBm
Spurious			-60	dBc
Harmonics			-10	dBc
VSWR		2.0		:1
DC Voltage		+12		V DC
Power Consumption		3		W
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	60*65*11	mm
Weight	200	g

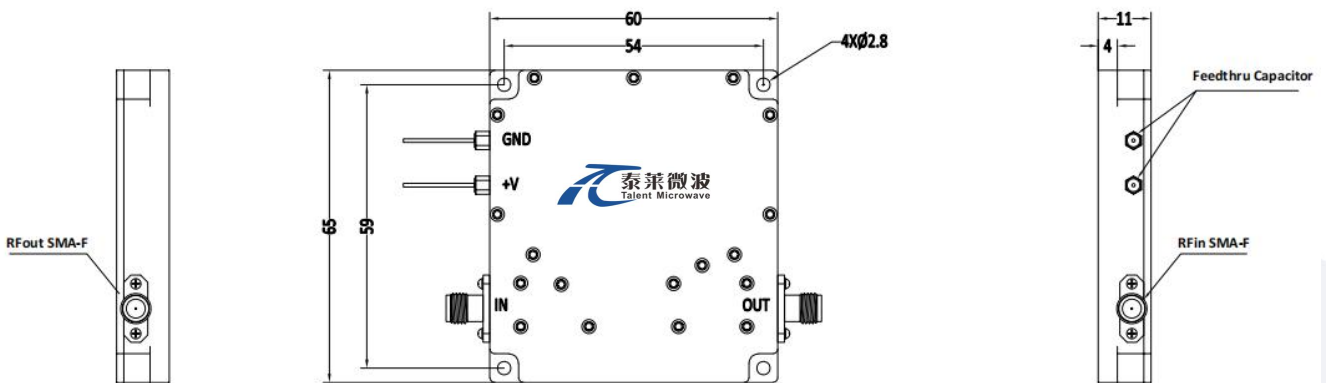
Absolute Maximum Ratings:

Parameter	Value
RF Input Power	-30 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
TLLA1G18G-55-25	Low Noise Amplifier, 1-18GHz, Noise Figure:3.0dB, Gain:50 dB,P1dB:15dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA1G18G-55-25-HS	Low Noise Amplifier, 1-18GHz, Noise Figure:3.0dB, Gain:50 dB,P1dB:15dBm,+12V DC,With Heatsink	Rev.1.1