

Low Noise Amplifier

0.1-20GHz/5.5dB NF/27dB Gain/30dBm P1dB

Model: TLLA0.1G20G-27-55

TLLA0.1G20G-27-55 is a low noise amplifier with a typical small signal gain of 27 dB and a nominal noise figure of 5.5 dB across the frequency range of 0.1 to 20 GHz. The DC power requirement for the amplifier is +16 V DC/700 mA. The input and output port configuration offers coax adapter structure with SMA female.

Features:

- Frequency range: 0.1-20GHz
- Gain: 27dB Typ
- Noise Figure: 5.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

Applications:

- Communication systems

Electrical Characteristics:

Parameter	Min	Typ	Max	Units
Frequency range	0.1		20	GHz
Small Signal Gain	25	27		dB
Noise Figure		5.5		dB
Output P1dB	29	30		dBm
Output Psat		31		dBm
Input VSWR		1.6		:1
Output VSWR		1.8		:1
DC Voltage		+16	+18	V DC
DC Supply Current		700		mA
Impedance		50		Ohms

Mechanical Specifications:

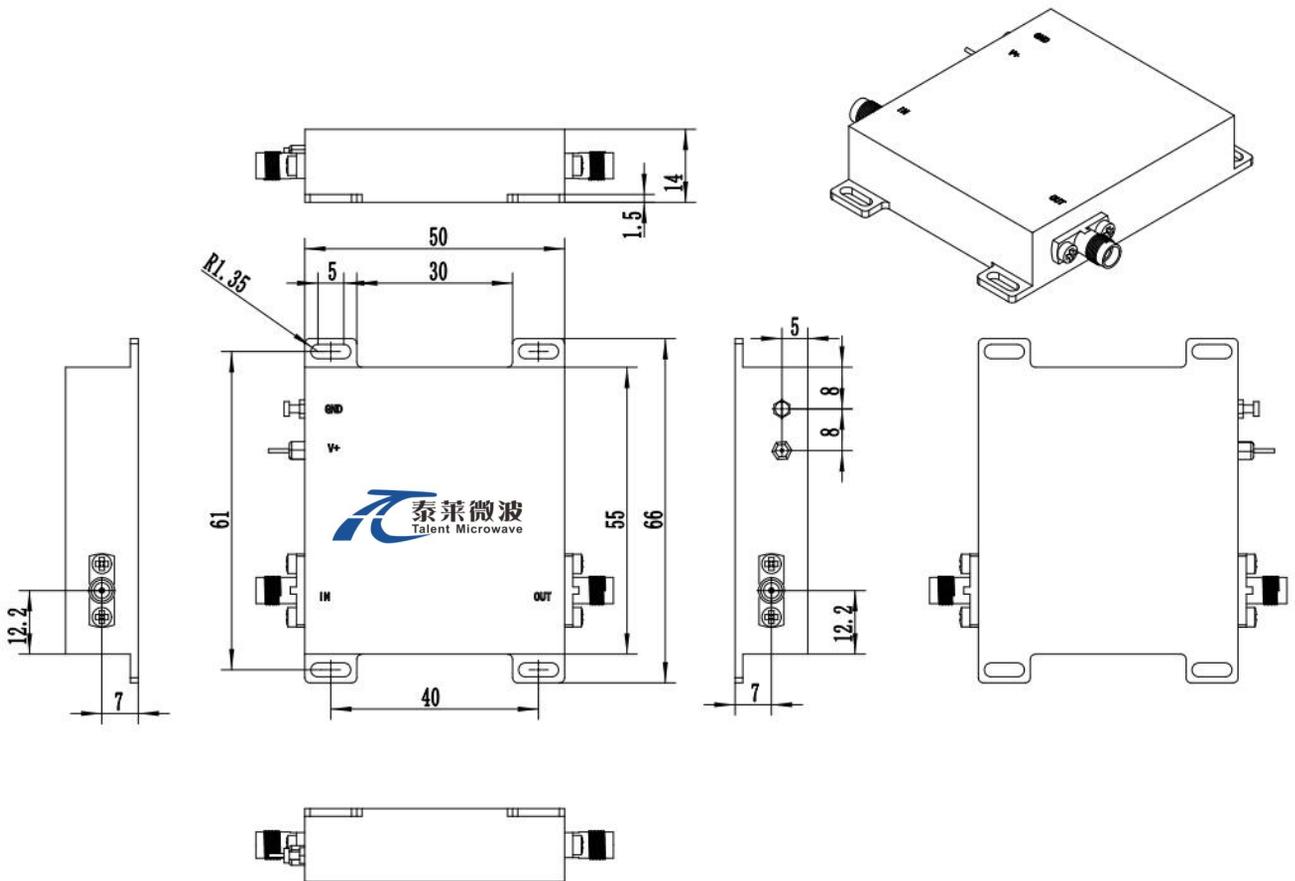
Parameter	Value	Units
Input /Output Connector	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	50*66*14	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+18 V
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	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
TLLA0.1G20G-27-55	Low Noise Amplifier, 0.1-20GHz, Noise Figure: 5.5dB, Gain: 27 dB, P1dB: 30dBm, +16V DC, Without Heatsink	Rev.1.1
TLLA0.1G20G-27-55-HS	Low Noise Amplifier, 0.1-20GHz, Noise Figure: 5.5dB, Gain: 27 dB, P1dB: 30dBm, +16V DC, With Heatsink	Rev.1.1