

Low Noise Amplifier

20-50GHz /5.5dB NF/30dB Gain/21dBm P1dB

Model: TLLA20G50G-30-55

TLLA20G50G-30-55 is a low noise amplifier with a typical small signal gain of 30 dB and a nominal noise figure of 5.5 dB across the frequency range of 20 to 50 GHz. The DC power requirement for the amplifier is +12 V DC/200 mA. The input and output port configuration offers coax adapter structure with 2.4mm female.

Features:

- Ultra Wide Band:20-50GHz
- Gain: 30dB 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	20		50	GHz
Gain	27	30		dB
Noise Figure		5.5		dB
Output P1dB		21		dBm
Output Psat		22		dBm
Input VSWR		1.6		:1
Output VSWR		1.8		:1
DC Voltage		12	16	V DC
DC Supply Current		200		mA
Impedance	50			Ohms

Mechanical Specifications:

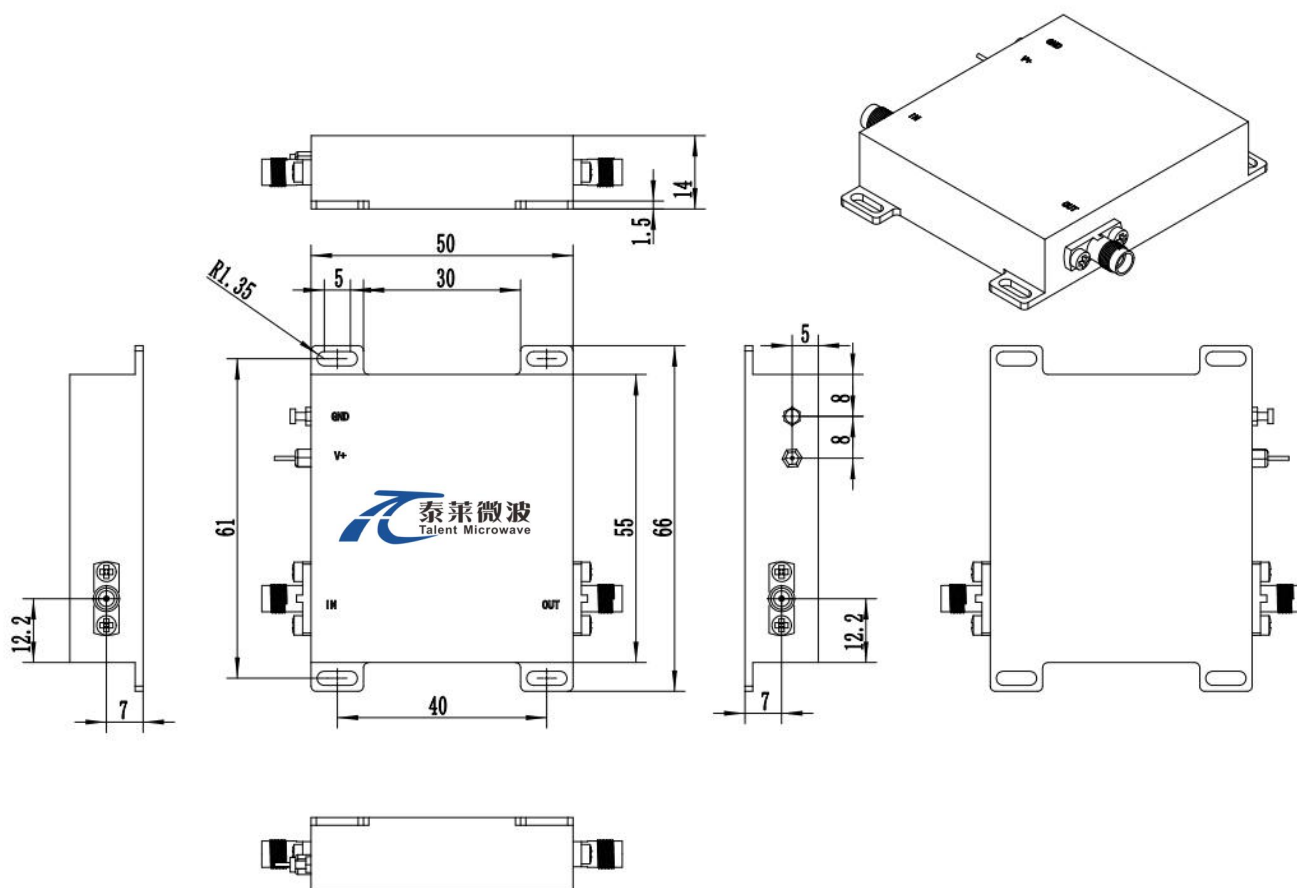
Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	50*55*14	mm

Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+16 V
RF Input Power	+5 dBm
ESD sensitivity (HBM)	Class 0, passed 150V

Outline Drawing:

Unit:mm



*****Heat Sink Required During Operation**



OBSERVE PRECAUTIONS
ELECTROSTATIC SENSITIVE
DEVICES

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
TLLA20G50G-30-55	Low Noise Amplifier, 20-50GHz, Noise Figure:5.5dB, Gain:30 dB,P1dB:21dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA20G50G-30-55-HS	Low Noise Amplifier, 20-50GHz, Noise Figure:5.5dB, Gain:30 dB,P1dB:21dBm,+12V DC,With Heatsink	Rev.1.1