

Low Noise Amplifier

0.1-26GHz/4.0dB NF/28dB Gain/21dBm P1dB

Model: TLLA0.1G26G-28-50

TLLA0.1G26G-28-50 is a low noise amplifier with a typical small signal gain of 28 dB and a nominal noise figure of 4.0dB across the frequency range of 0.1 to 26 GHz. The DC power requirement for the amplifier is +12 V DC/360 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 0.1-26 GHz
- Gain: 28dB 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	0.1		26	GHz
Small Signal Gain	27	28		dB
Gain Flatness		±2.5	±3.0	dB
Noise Figure		4.0	6.0	dB
Output P1dB	18	21		dBm
Output IP3		30		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		+12		V DC
DC Supply Current		360		mA
Impedance	50			Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	35*40*12	mm
Weight	60	g

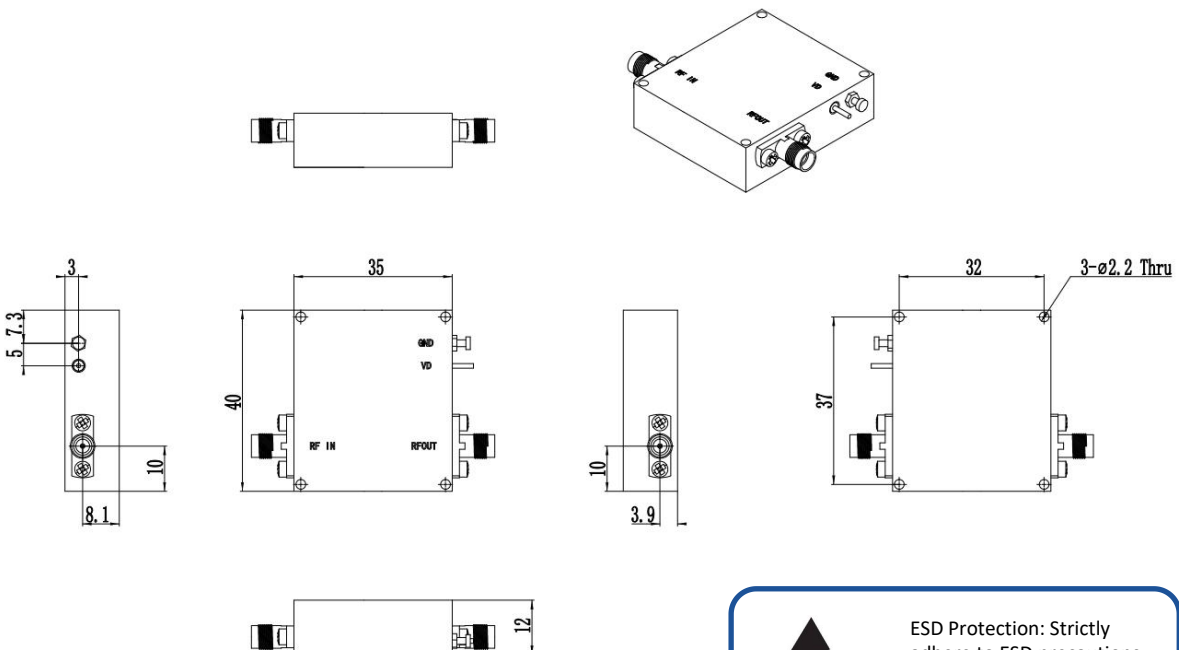
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	TBD
RF Input Power	-5 dBm
ESD sensitivity (HBm)	Class 0, passed 150V



Outline Drawing:

Unit:mm; Tolerance:±0.1mm



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



ESD Protection: Strictly adhere to ESD precautions to prevent electrostatic damage.

Environmental Conditions:

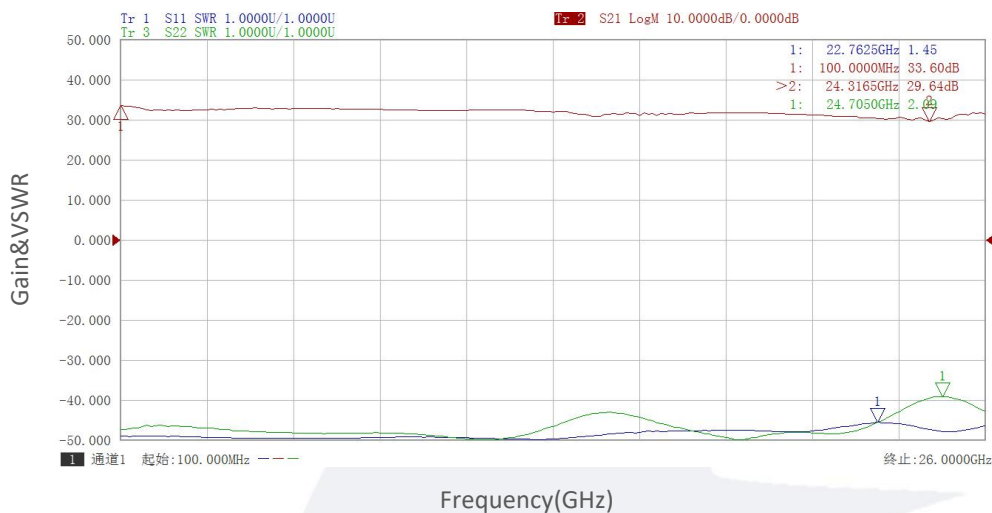
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+70	°C
Non-operating Temperature	-55		+85	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

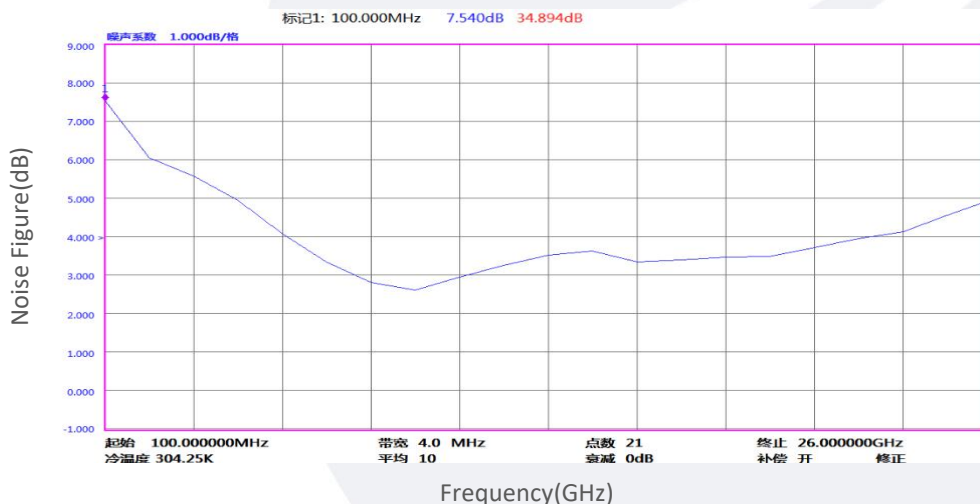
Base Number	Description	Revision
TLLA0.1G26G-28-50	Low Noise Amplifier, 0.1-26GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:21dBm,+12V DC,Without Heatsink	Rev.1.1
TLLA0.1G26G-28-50-HS	Low Noise Amplifier, 0.1-26GHz, Noise Figure:4.0dB, Gain:28 dB,P1dB:21dBm,+12V DC,With Heatsink	Rev.1.1

Typical Performance Data:

Gain&VSWR vs Frequency



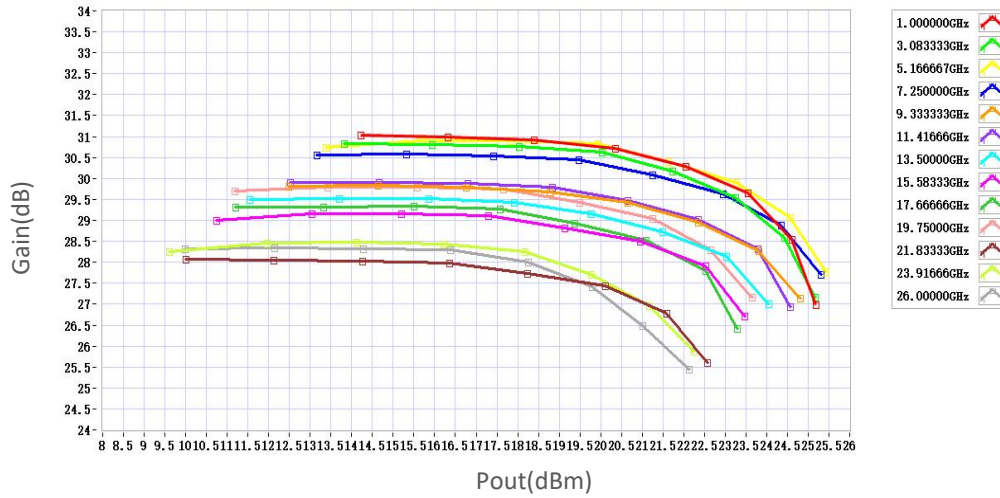
Noise Figure vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.

Typical Performance Data:

Gain vs Output Power



P1dB vs Frequency



Note: Above data is for ref only, actual data may vary from unit to unit depending on operating environment and other factors like material lots etc.