

Low Noise Amplifier

6-26.5GHz/2dB NF/18dB Gain/13dBm P1dB

Model: TLLA6G26.5G-18-20

TLLA6G26.5G-18-20 is a low noise amplifier with a typical small signal gain of 18dB and a nominal noise figure of 2dB across the frequency range of 6 to 26.5GHz. The DC power requirement for the amplifier is +8 V DC/64 mA. The input and output port configuration offers coax adapter structure with 2.92mm female.

Features:

- Frequency range: 6-26.5GHz
- Gain: 18dB 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		26.5	GHz
Small Signal Gain		18		dB
Gain Flatness		±2.0		dB
Noise Figure		2	3	dB
Output P1dB		13		dBm
Output Psat		15		dBm
Input VSWR		2.2		:1
Output VSWR		2.2		:1
DC Voltage	+6	+8	+14	V DC
DC Supply Current		64		mA
Impedance		50		Ohms

Mechanical Specifications:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	50	g

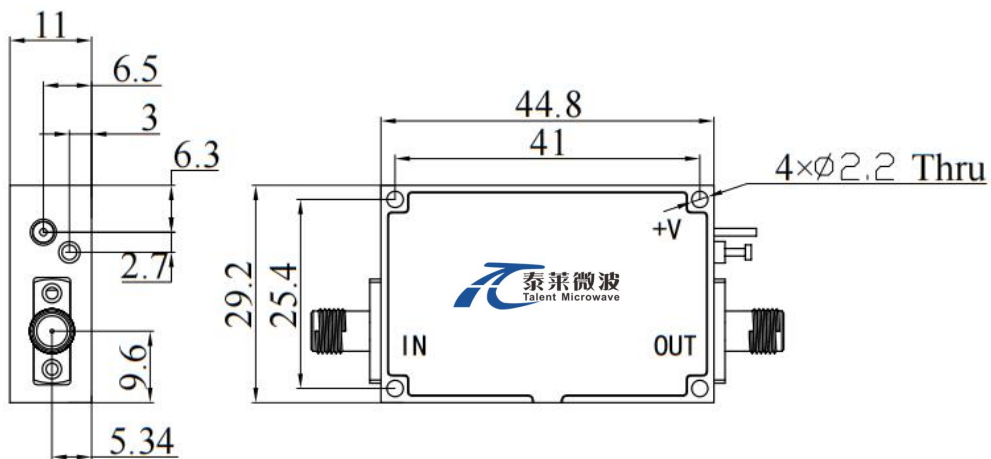
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+14 V
RF Input Power	+15 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.

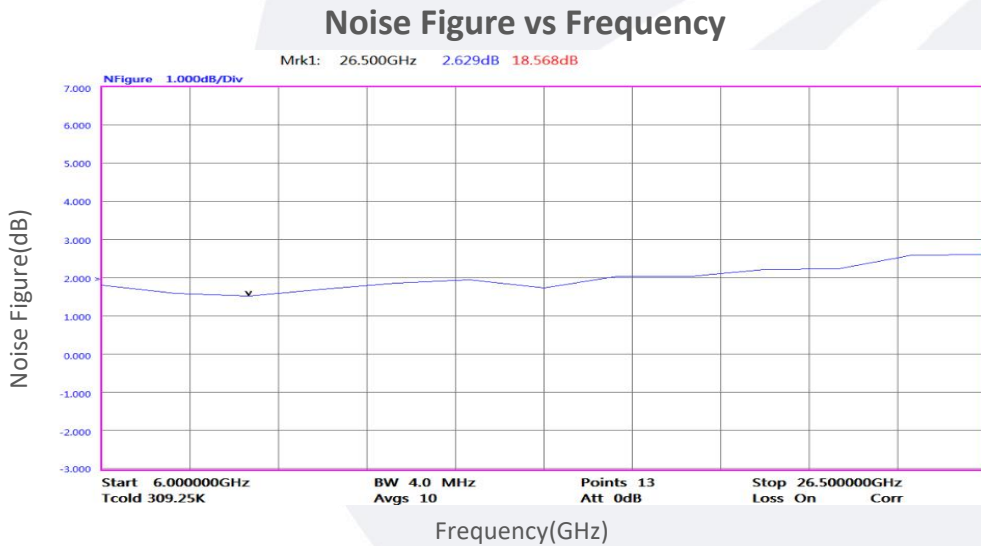
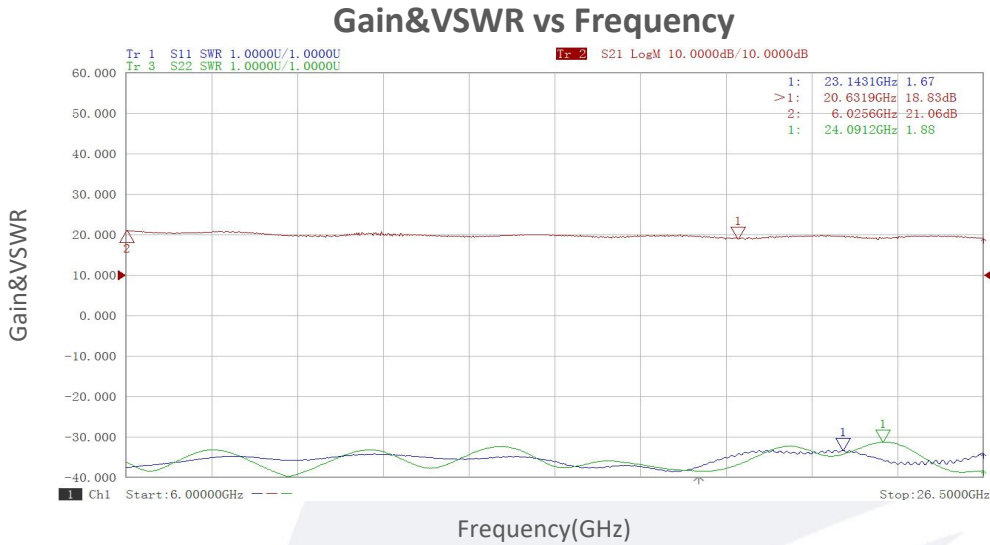
Environmental Conditions:

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
TLLA6G26.5G-18-20	Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,Without Heatsink	Rev.1.1
TLLA6G26.5G-18-20-HS	Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,With Heatsink	Rev.1.1

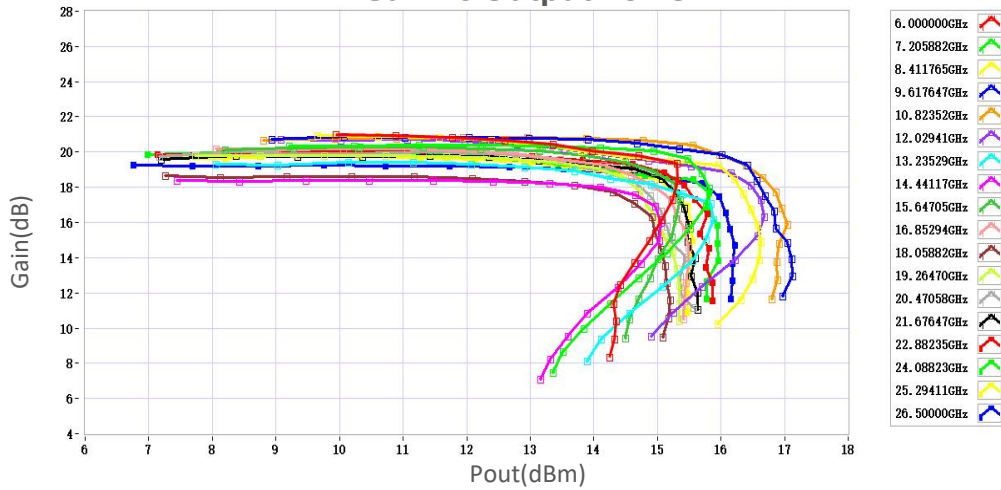
Typical Performance Data:



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.

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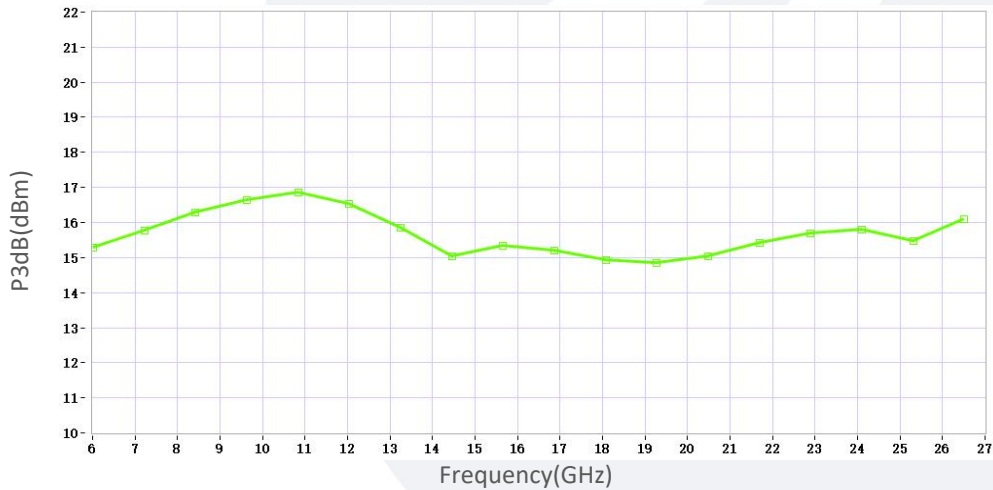
Gain vs Output Power



P1dB vs Frequency



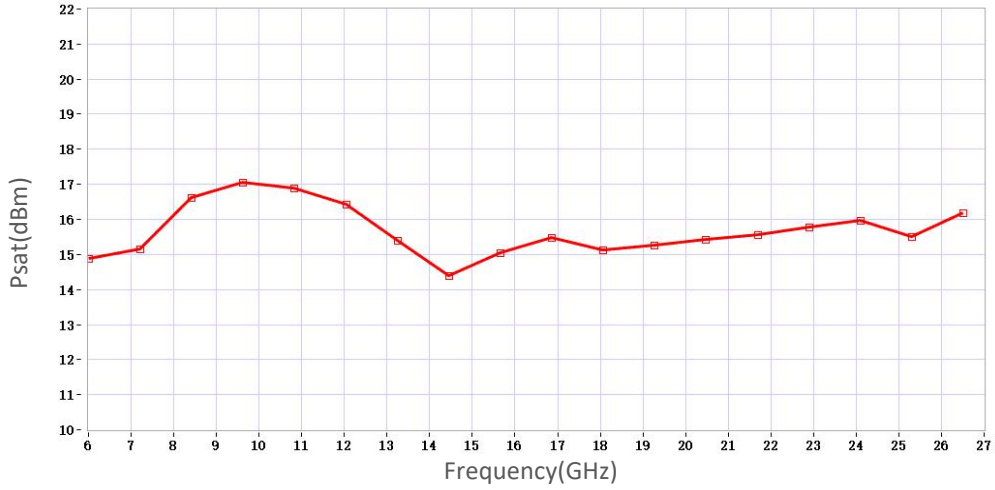
P3dB vs Frequency



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Typical Performance Data:

Psat vs Frequency



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