

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 SMA 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	SMA Female/SMA Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	50	g

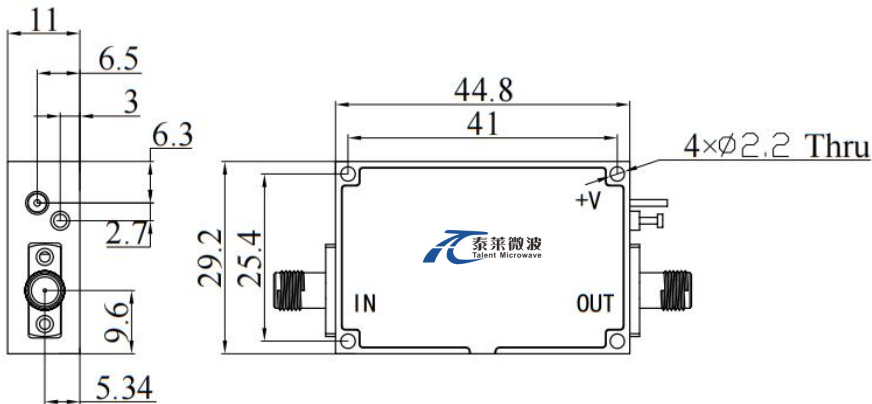
Absolute Maximum Ratings:

Parameter	Value
Supply Bias Voltage	+14 V
RF Input Power	+15 dBm
ESD sensitivity (HBm)	Class 0, passed 150V

Outline Drawing:

Unit:mm

Regulatory Compliance:



***Heat Sink Required During Operation



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

Environmental Conditions:

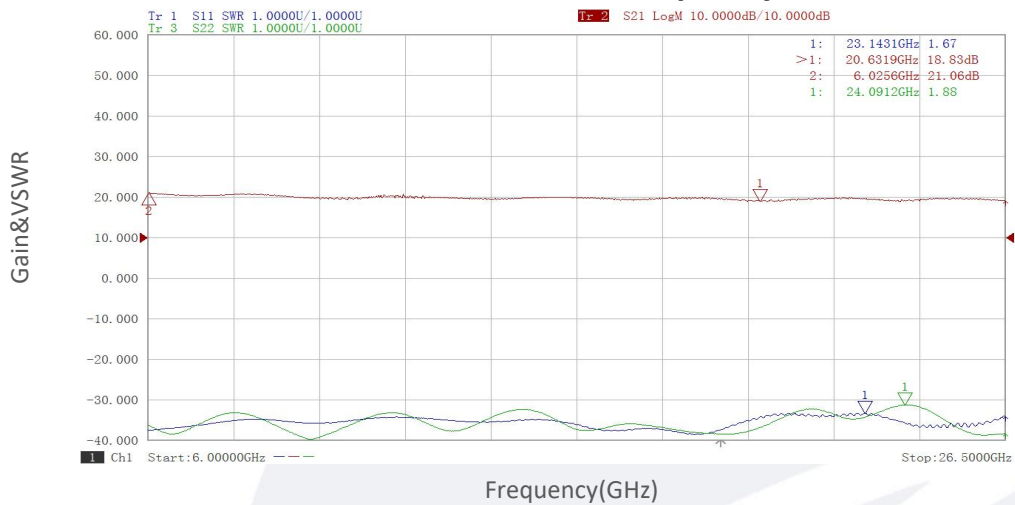
Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	10,000			feet
Shock / Vibration(MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock(non operating)	20G for 11msc half sin wave,3 axis both directions			

Ordering Information:

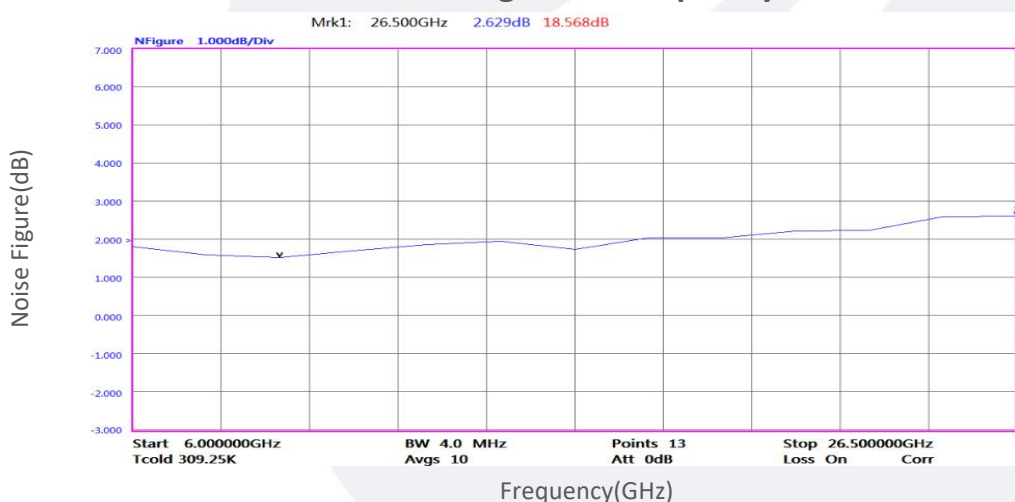
Base Number	Description	Revision
TLLA6G26.5G-18-20	Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,Without Heatsink	Rev.1.1
TLLA6G26.5G-18-20-HS	Low Noise Amplifier, 6-26.5GHz, Noise Figure:2.0dB, Gain:18 dB,P1dB:13dBm,+8V DC,With Heatsink	Rev.1.1

Typical Performance Data:

Gain&VSWR vs Frequency

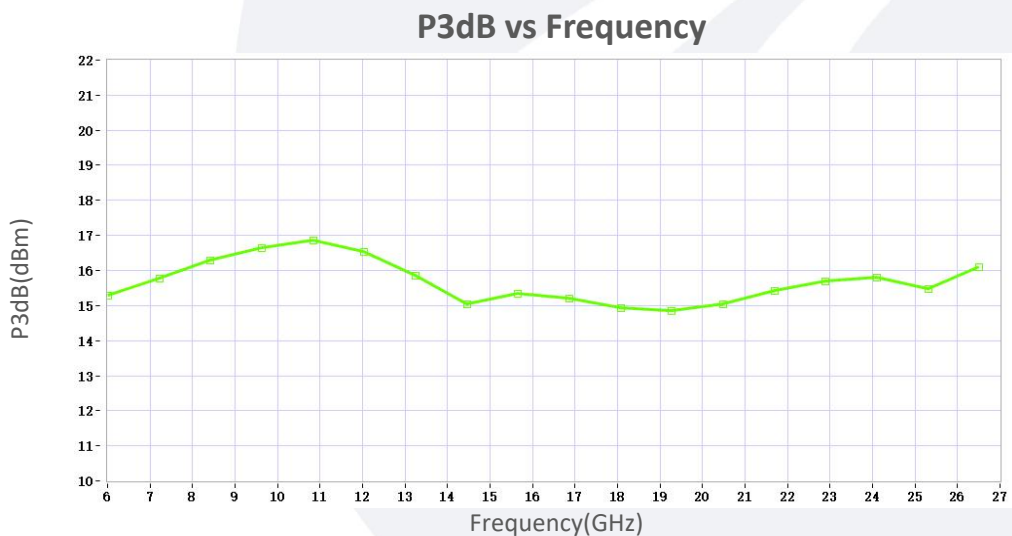
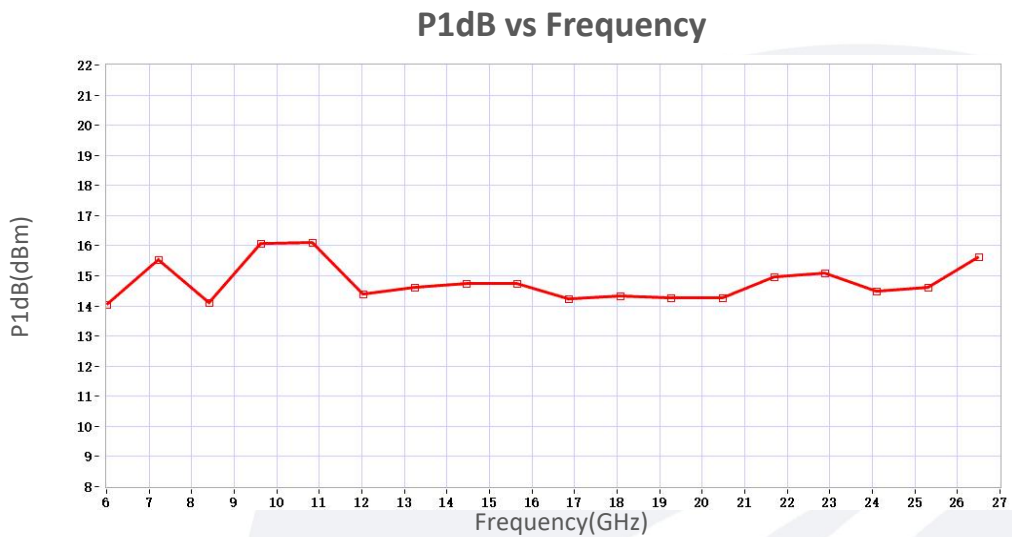
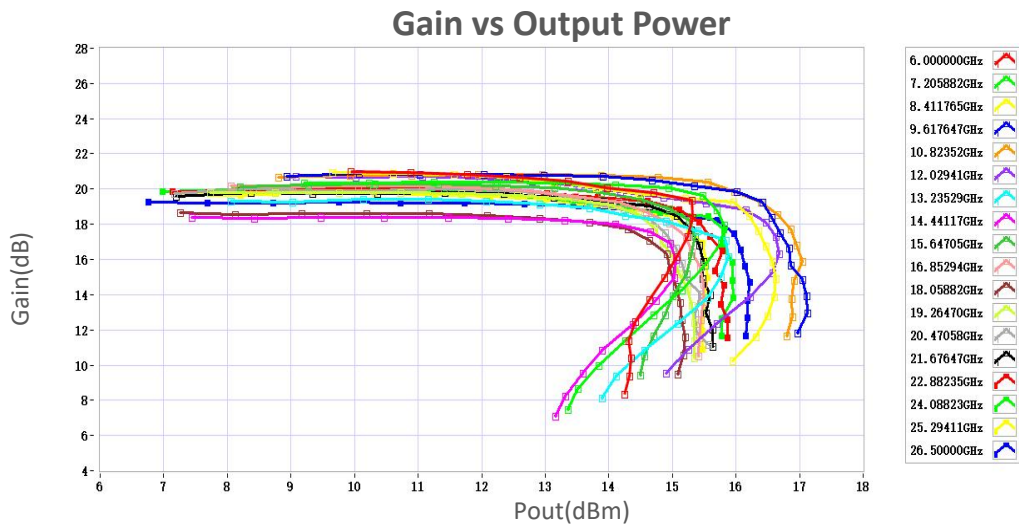


Noise Figure vs Frequency



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.

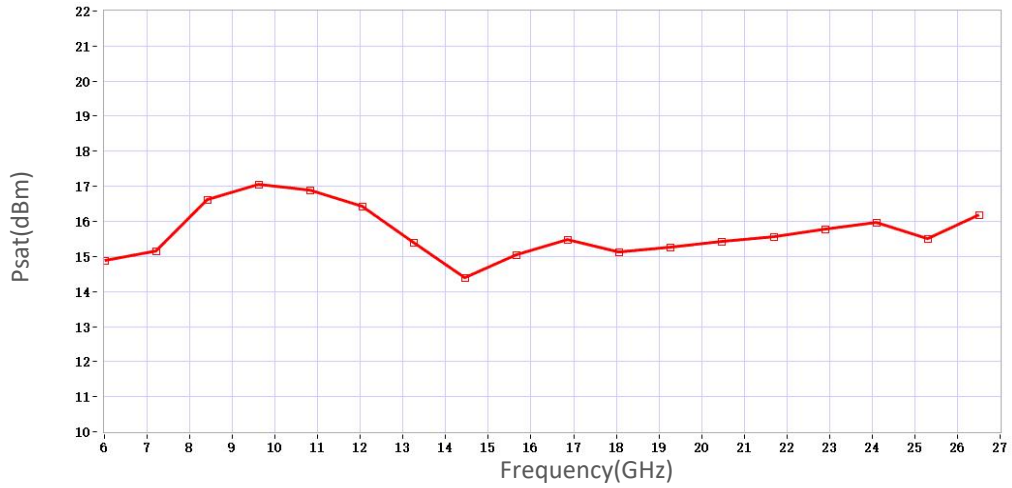
Typical Performance Data:



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Typical Performance Data:

Psat vs Frequency



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