

LOW NOISE AMPLIFIER, 50KHz - 20GHz, Gain 35dB

Model: LF-LA3530-50K20G

FEATURES:

- Ultra Wide Band: 50KHz-20GHz
- Gain: 35dB Typ
- Noise Figure: 3.0dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

ELECTRICAL SPECIFICATIONS:

Parameter	Min	Typ	Max	Units
Frequency range	50KHz - 20GHZ			KHz/GHz
Gain	35	37		dB
Gain Flatness		± 1.5		dB
Noise Figure		3		dB
Output P1dB		15		dBm
Output IP3			2	dBm
Input VSWR			2	:1
Output VSWR	+10	+12	+15	:1
DC Voltage		150		V DC
DC Supply Current		160		mA
Impedance	50			Ohms

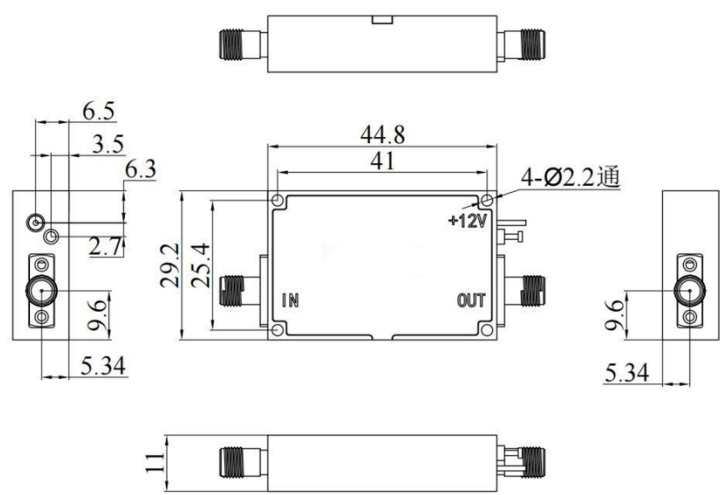
MECHANICAL SPECIFICATIONS:

Parameter	Value	Units
Input /Output Connector	2.92mm Female/2.92mm Female	
DC Bias	Solder Pin	
Size	44.8*29.2*11	mm
Weight	55	g

ABSOLUTE MAXIMUM RATINGS:

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

OUTLINE DRAWING: mm (inches). Heat Sink required during operation

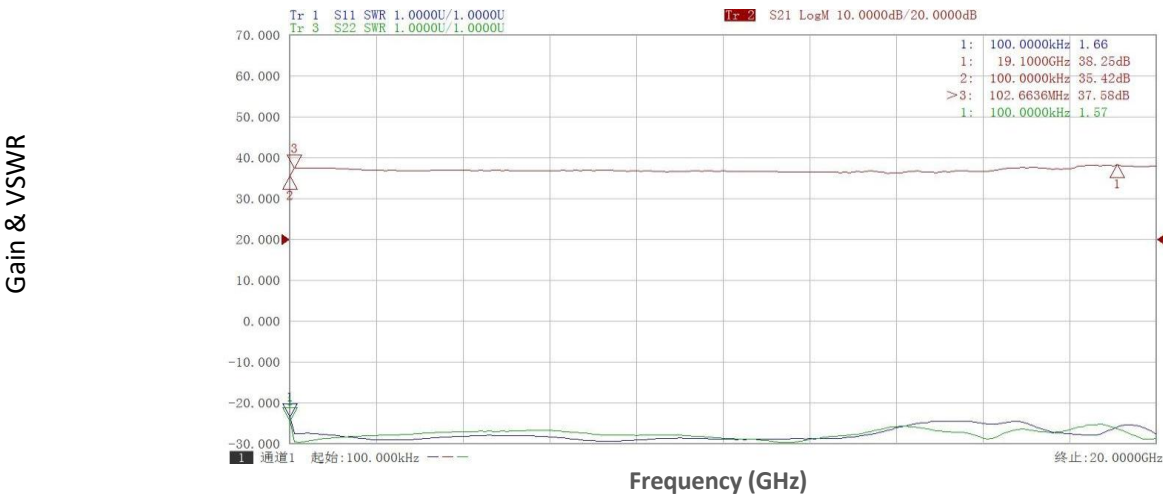


ENVIRONMENTAL CONDITIONS:

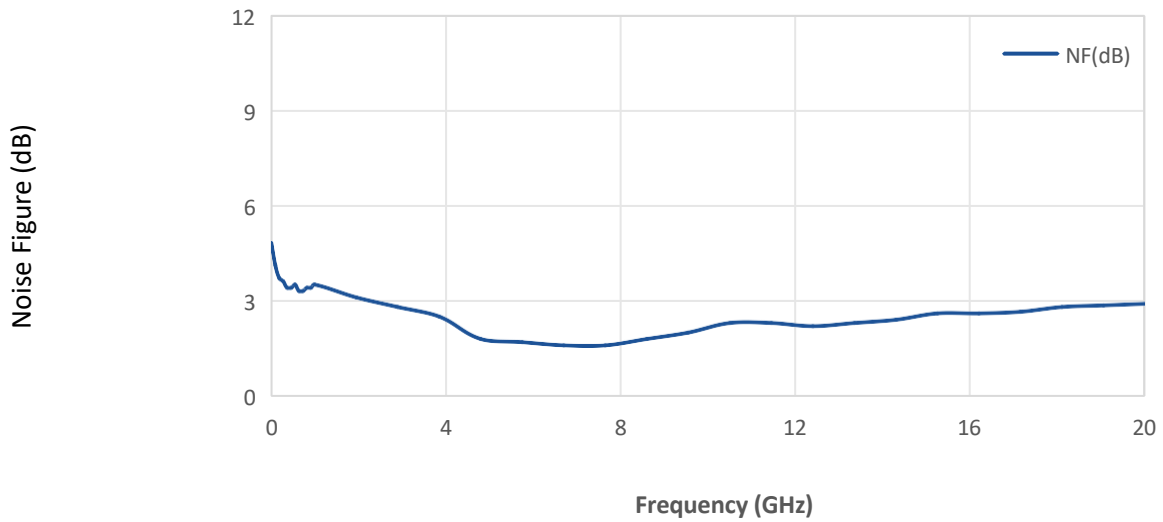
Parameter	Min	Typ	Max	Units
Operating Temperature	-40		+85	°C
Non-operating Temperature	-55		+125	°C
Relative humidity		95		%
Altitude	50,000			feet
Shock / Vibration (MIL-STD-810F)	25g rms (15 degree 2KHz) endurance, 1 hour per axis			
Shock (non operating)	20G for 11msc half sin wave,3 axis both directions			

TYPICAL PERFORMANCE DATA:

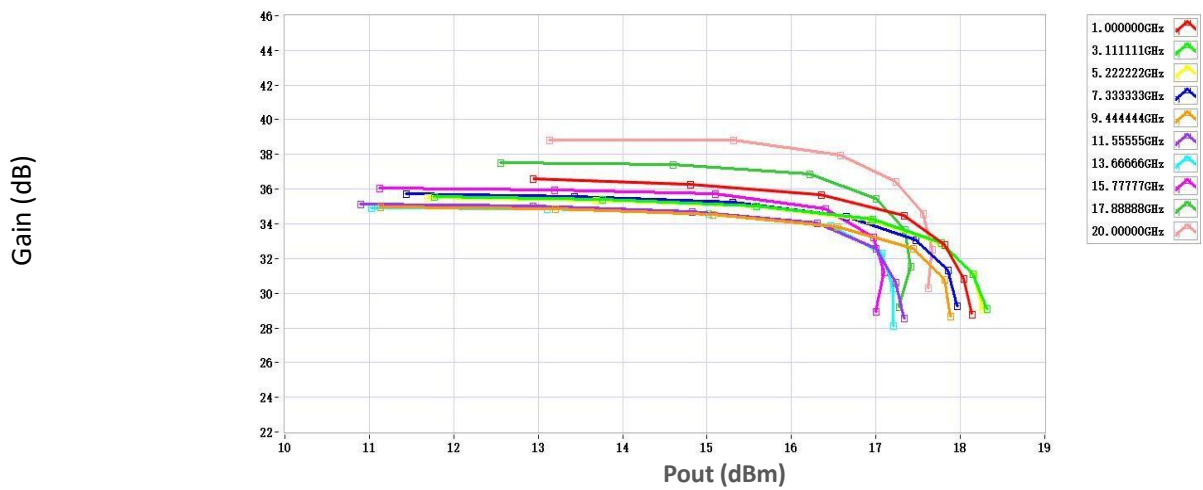
Gain & VSWR vs Frequency



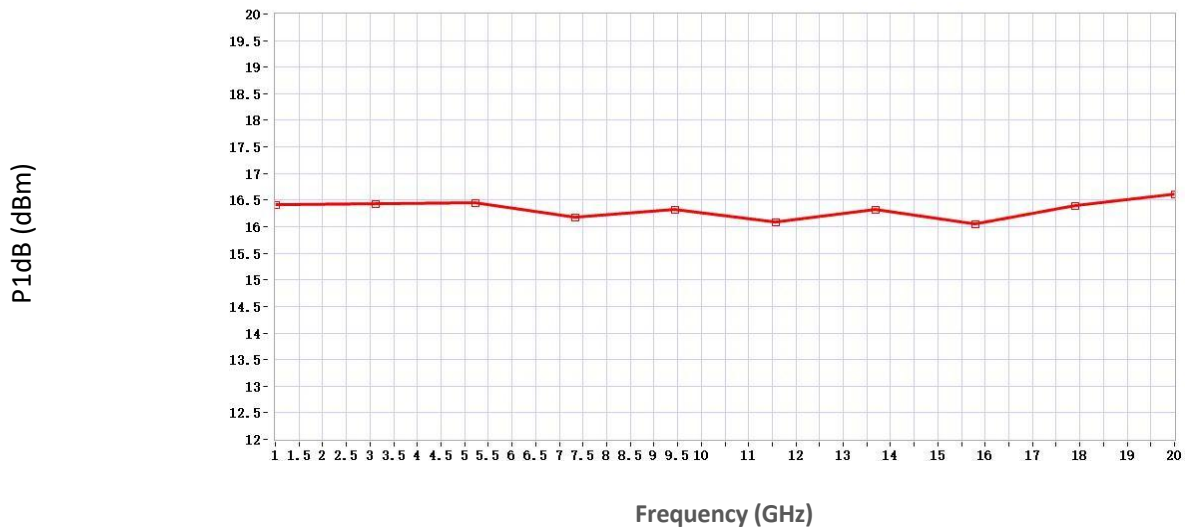
Noise Figure vs Frequency



Gain vs Output Power



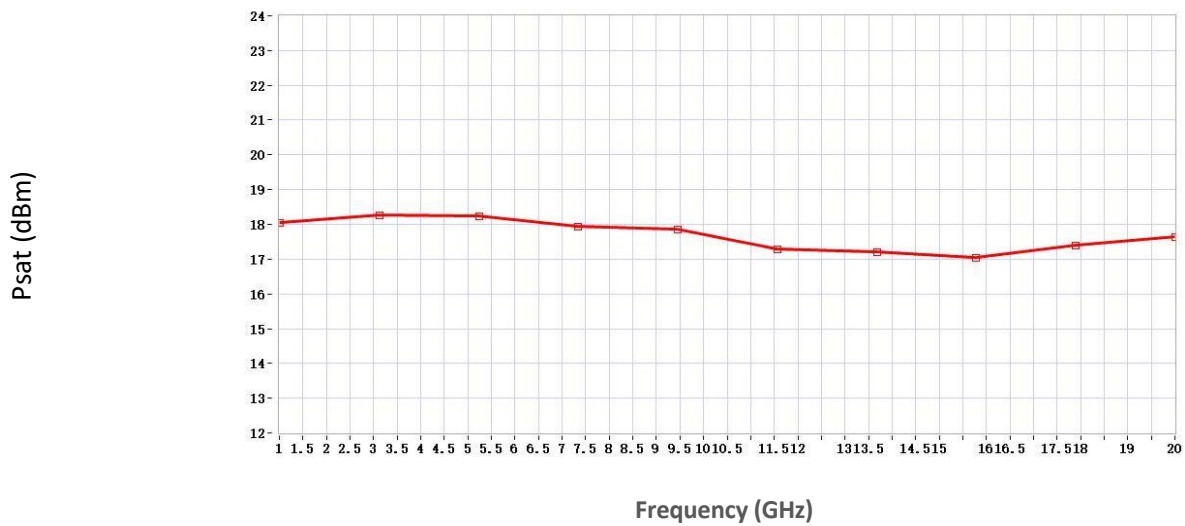
P1dB vs Frequency



P3dB vs Frequency



PSAT vs Frequency



ORDERING INFORMATION:

Part Number	Description
LF-LA3530-50K20G	Low Noise Amplifier, 50K-20GHz, Noise Figure:3.0dB, Gain:35 dB,P1dB:15dBm,+12V DC, Without Heatsink
LF-LA3530-50K20G-HS	Low Noise Amplifier, 50K-20GHz, Noise Figure:3.0dB, Gain:35 dB,P1dB:15dBm,+12V DC, With Heatsink