

LOW NOISE AMPLIFIER, 50KHz-50GHz, Gain 38dB

Model: LF-LA3850-50K50G

FEATURES:

- Ultra Wide Band: 50KHz-50GHz
- Gain: 38dB Typ
- Noise Figure: 5.5dB Typ
- Good Power and Gain Flatness
- 50 Ohm Matched Input / Output

ELECTRICAL SPECIFICATIONS:

Parameter	Min	Typ	Max	Units
Frequency range	50KHz-50GHz			KHz/GHz
Gain	36	38		dB
Gain Flatness		± 2.5		dB
Noise Figure		5.5		dB
Output P1dB		14		dBm
Output IP3		9		dBm
Input VSWR		1.8		:1
Output VSWR		1.8		:1
DC Voltage		6	12	V DC
DC Supply Current		180		mA
Impedance	50			Ohms

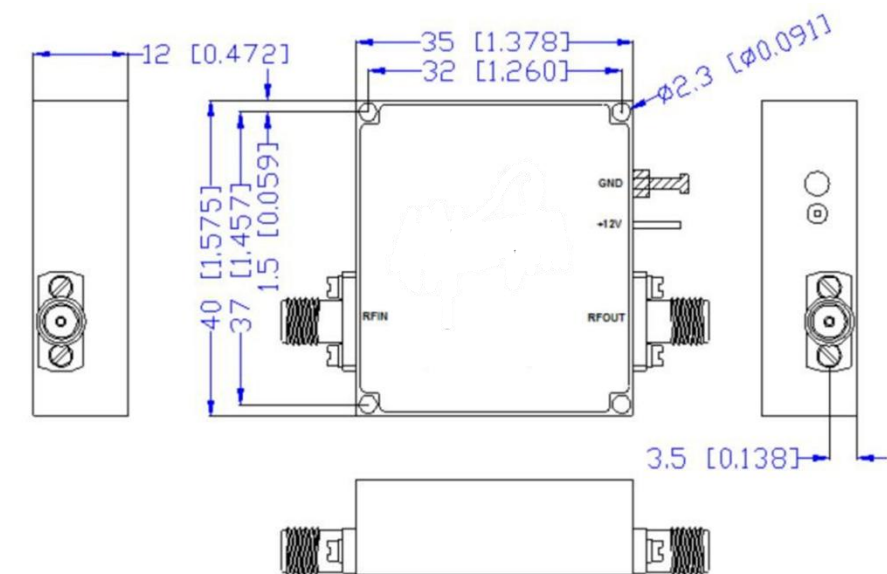
MECHANICAL SPECIFICATIONS:

Parameter	Value	Units
Input /Output Connector	2.4mm Female/2.4mm Female	
DC Bias	Solder Pin	
Size	35*40*12	mm
Weight	/	g

ABSOLUTE MAXIMUM RATINGS:

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

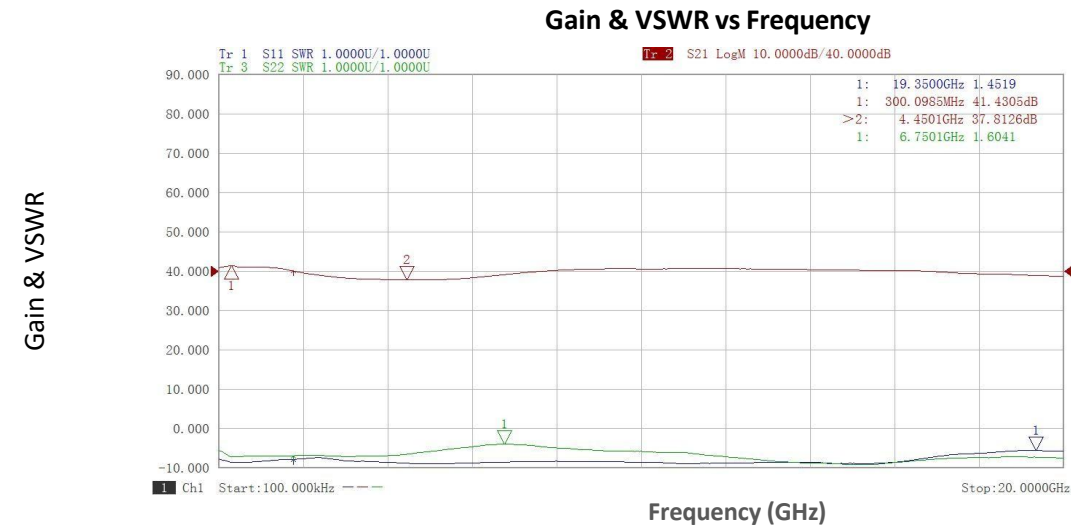
OUTLINE DRAWING: mm (inches). Heat Sink required during operation



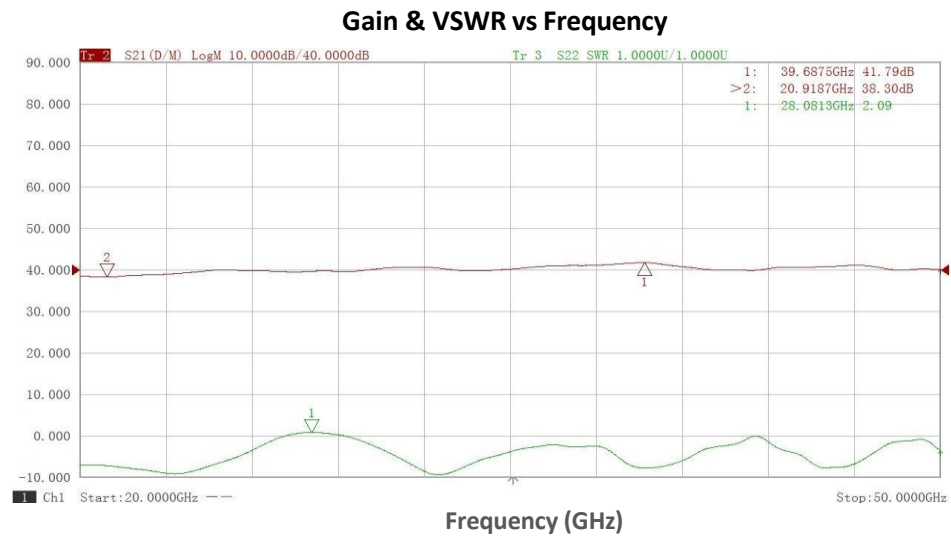
ENVIRONMENTAL CONDITIONS:

Parameter	Min	Typ	Max	Units
Operating Temperature	-45		+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			

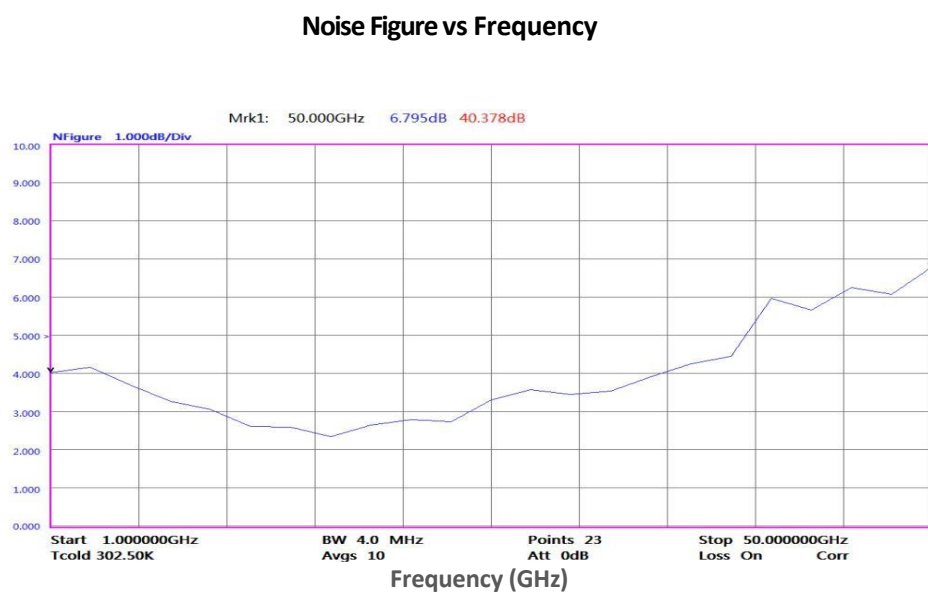
TYPICAL PERFORMANCE DATA:



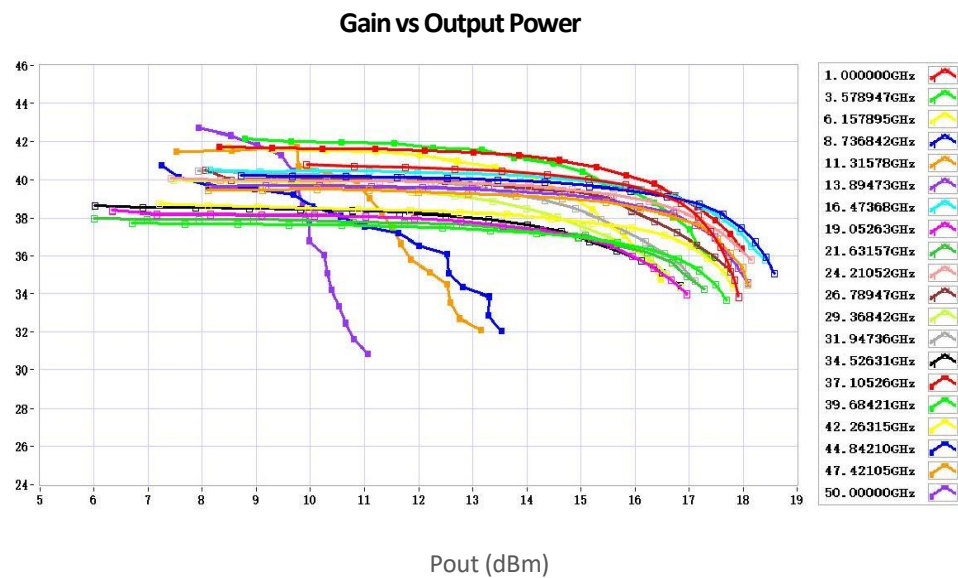
Gain & VSWR



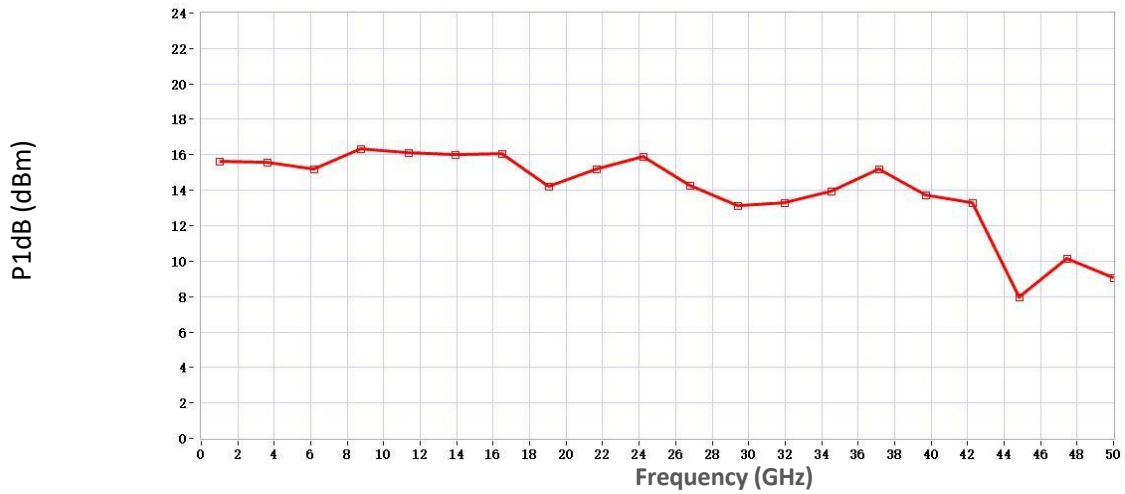
Noise Figure (dB)



Gain (dB)



P1dB vs Frequency



P3dB vs Frequency



ORDERING INFORMATION:

Part Number	Description
LF-LA3850-50K50G	Low Noise Amplifier,50KHz-50GHz, Noise Figure:5.5dB, Gain:38 dB,P1dB:14dBm,+6V DC, Without Heatsink
LF-LA3850-50K50G-HS	Low Noise Amplifier,50KHz-50GHz, Noise Figure:5.5dB, Gain:38 dB,P1dB:14dBm,+6V DC, With Heatsink