



Blue Tops RF Modules > Low Noise Filter Amplifier

Features:

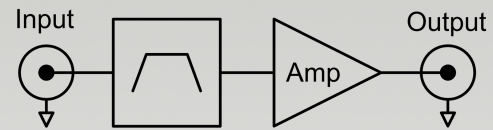
- Frequencies to 2 GHz
- Integral Bandpass Filter
- Characterized Phase Noise
- Integral Attenuators

Applications:

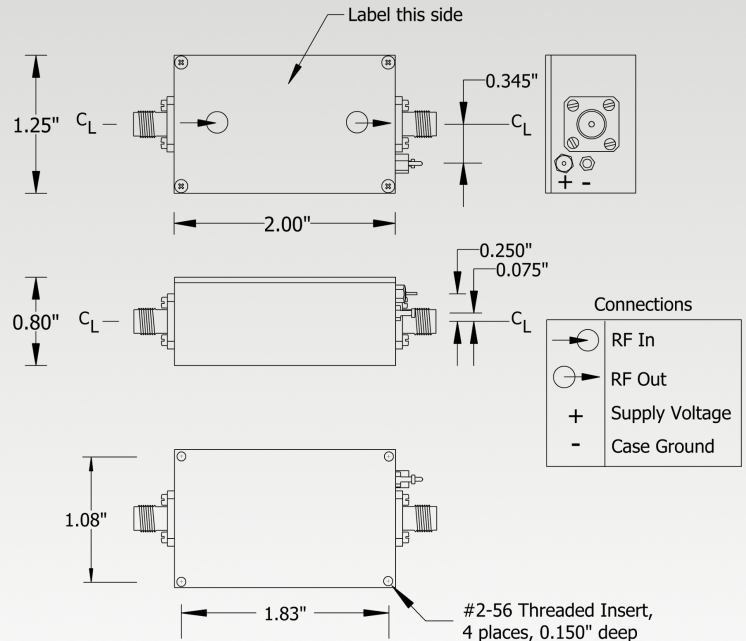
- Low Phase Noise Amplification
- Broadband Amplification

Description:

The LNFA is a broadband amplifier that is characterized to a specific customer specified frequency within the operating band and includes an integrated bandpass filter. The LNFA's integral 2-section BPF attenuates unwanted mixer products, harmonics and other undesired signals at the output before amplification. A 3 dB bandwidth, typically 5 - 10% of the center frequency, is standard. A wide selection of common amplifiers and input/output attenuators provide flexibility in configuring gain and input/output signal levels (see amplifier selection table for options). Residual phase noise is verified at the design frequency when suitable low noise sources are available. Please consult our technical staff for assistance in configuring an amplifier to suit your input and output requirements.



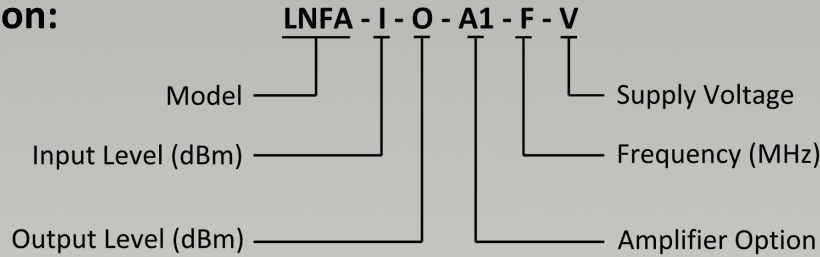
Electrical Specifications	
Input Frequency Range	to 1 GHz
Gain	to 22 dB
Output Power (P1dB)	to +26 dBm (±1 dB)
Input/Output Impedance	50 ohms
VSWR	≤ 2.0:1
Phase Noise Floor (Intrinsic, Input Referred)	As low as -178 dBc/Hz
Harmonics	≤ -25 dBc
Spurious (Excluding Supply Line Related Spurs)	≤ -80 dBc
Supply Voltage	+ 8, +10, +12 or +15 VDC (±2%)
Current Draw (Amplifier Dependent)	30 to 205 mA
Operating Temperature	0 to +50°C
Storage Temperature	-40 to +85°C
Mechanical	
Dimensions	2" x 1.25" x 0.8"
DC Supply	Feed Thru Capacitors
Ground	Turret Terminal
RF Input / Output	SMA female *
NOTE: See amplifier selection table for your preferred amplifier specifications.	
* SMA female connectors are used unless otherwise specified. Other options include SMA male, right angle SMAs, BNC male or female and others. Contact factory for custom configurations.	





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Ordering Information:



Standard P/N **	Input Level	Output Level (±1 dB)	Specified Frequency of Operation	Residual Phase Noise Floor	Supply Voltage
LNFA-10-16-AA-100-15	+10 dBm	+16 dBm	100 MHz	≤ -170 dBc/Hz	+15 VDC
LNFA-4-18-BT-100-15	+4 dBm	+18 dBm	100 MHz	≤ -170 dBc/Hz	+15 VDC
LNFA-12-21-AU-500-15	+12 dBm	+21 dBm	500 MHz	≤ -175 dBc/Hz	+15 VDC
LNFA-17-26-AE-100-15	+17 dBm	+26 dBm	100 MHz	≤ -173 dBc/Hz	+15 VDC
LNFA-10-15-CT-1000-8	+10 dBm	+15 dBm	1 GHz	≤ -170 dBc/Hz	+8 VDC
LNFA-(-1)-18-CZ-1000-8	-1 dBm	+18 dBm	1 GHz	≤ -170 dBc/Hz	+8 VDC
LNFA-16-20-BP-100-15	+16 dBm	+20 dBm	100 MHz	≤ -178 dBc/Hz	+15 VDC
LNFA-16-20-DB-100-12	+16 dBm	+20 dBm	100 MHz	≤ -178 dBc/Hz	+12 VDC

** These part numbers are a few common configurations. Use the Ordering Information guide and the [Amplifier Selection Table](#) for additional amplifier options or consult the factory for assistance.

Standard Amplifier Options:

Amplifier ***	Frequency Range		Gain (dB)		P1dB (dBm)		Input Referred Residual Phase Noise (dBc/Hz), typical				Supply Voltage (VDC)	Current Draw (mA)
	Min.	Max.	Min.	Max.	Min.	Max.	100 Hz	1 kHz	10 kHz	100 kHz		
AA	50 MHz	1.3 GHz	10	12	15	17	-155	-165	-170	-170	+8, +10, +12 or +15	60
AB	DC	4 GHz	16	20	16	18	-155	-165	-170	-170	+5, +8, +10, +12 or +15	65
AC	5 MHz	500 MHz	12	14	19	21	-158	-168	-175	-175	+15	90
AD	5 MHz	1 GHz	10	12	18	20	-158	-168	-175	-175	+15	90
AE	10 MHz	1 GHz	11	13	23	26	-156	-166	-173	-173	+15	205
AU	5 MHz	500 MHz	12	14	20	22	-158	-168	-175	-175	+15	88
AV	5 MHz	300 MHz	12	14	19	21	-158	-168	-175	-175	+15	85
BA	100 MHz	2 GHz	9	11	24	26	-156	-166	-172	-172	+15	175
BP	10 MHz	200 MHz	7	8	18	20	-158	-168	-178	-178	+15	30
BT	DC	4 GHz	13	18	16	18	-155	-165	-170	-170	+5, +8, +10, +12 or +15	65
CK	10 MHz	1.5 GHz	12	13	21	23	-156	-166	-172	-172	+15 VDC	195
CT	DC	4 GHz	9	10	14	16	-155	-165	-170	-170	+5, +8, +10, +12 or +15	70
CZ	DC	6 GHz	23	25	17	19	-155	-165	-170	-170	+8, +10, +12 or +15	80
DB	30 MHz	200 MHz	7	8	18	20	-158	-168	-178	-178	+12	30

*** See the complete [Amplifier Selection Table](#) for additional amplifier options.