

## Ordering Information

SKU	Description	UPC
100812	LNA Module	0616469146564

## Description

Nooelec LaNA is a very high performance, wideband LNA module designed for general purpose SDR applications.



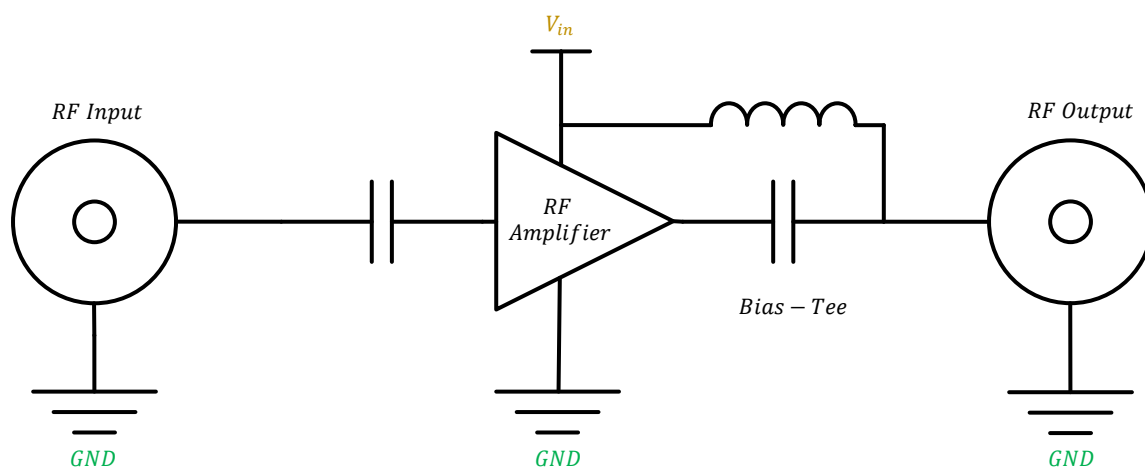
## Features

- High linearity
- +20dB of RF gain at 1000MHz
- 0.9dB noise figure at 1000MHz
- 50Ω low noise gain block
- +3.3V-5V single supply
- 85mA Current Draw

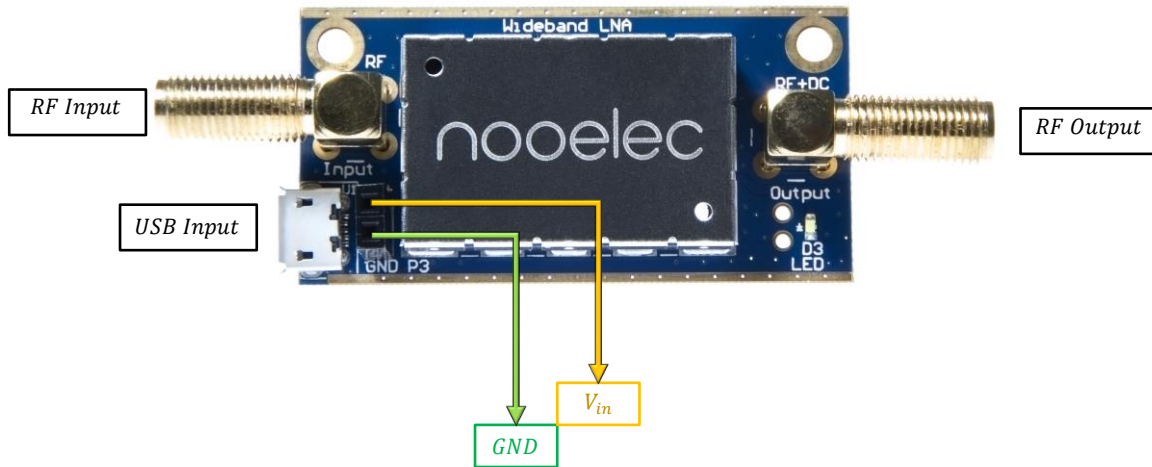
## Applications

- General purpose amplification
- Software defined radio
- Wideband reception
- Noise-sensitive applications

## Simplified Schematic



## Pin Configuration and Functions



Pin	Function	Type	Description
$V_{in}$	Voltage Input	Input	Volts input pin to power the device*
$GND$	Common Ground	-	RF and DC reference voltage

\* LaNA allows for 3 different power options (USB, bias tee, and pin header). Only 1 power option should be used at any given time

## Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
<b>Input Voltage</b>	$V_{in}$	3.3	5	5.5	Volts
<b>Input Power</b>	$P_{in}$	-	-	0	dBm

## Electrical Specifications

Test Conditions unless otherwise specified:  $V_{in} = +5$  Vdc, 50 Ohm system.

Parameter	Symbol	Min	Typical	Max	Unit
Frequency Range	$f_L - f_H$	20	-	4000	MHz
Center Frequency	$f_o$	-	1990	-	MHz
Gain	S21	-	-	26	dB
Input Return Loss @ 1GHz	S11	-11	-10	-	dB
Output Return Loss @ 1GHz	S22	-12	-11	-	dB
Output P1dB	OP1dB	13	18	20	dBm
Total Noise Figure @ 1 GHz	NF	0.8	0.9	1	dB
Noise Temperature	$T_n$	59	67	75	K
Supply Current	$I_{supply}$	70	85	100	mA

## Electrical Characteristics Plots (1 MHz to 4000 MHz)

