

**NEW! DEM LMICROLNA Low Noise Amplifier Series NEW!**

**Generic Specifications:**

P1dB:	>+17dBm output
Input VSWR:	>10dB @ 400 – 2000MHz
Output VSWR:	>17dB 400 - 2000 MHz.
Voltage:	+7 - +22 VDC
Current Drain	65 mA nominal



**Description:**

The LMICROLNA series of LNA's shares a common design that may be utilized on any frequency between 400 and 2000 MHz This new design is based on the latest PHEMT MMIC technology to produce a low noise wide bandwidth amplifier with exceptional immunity to strong signal overload. This topology allows a universal type LNA to cover a wide range of frequencies and the kit builder many options. The generic wide bandwidth form of the LNA is the LWBLNA.

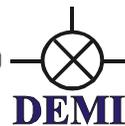


For frequency specific LNA's, low loss filters on the input and/or output circuits are implemented to develop the standard or custom frequency LNA's. All frequency specific LNA's are delivered with optimized gain and noise figures.

The LMICROLNA series design does not offer any RF bypass switching for transceiver operation and therefore may only be utilized in receive only applications. It is offered with various types of RF connectors and connector combinations, Kit or Assembled, to allow any LNA to be "dropped in" to any pre-existing system or ready to be a component in a newly developed receive system.

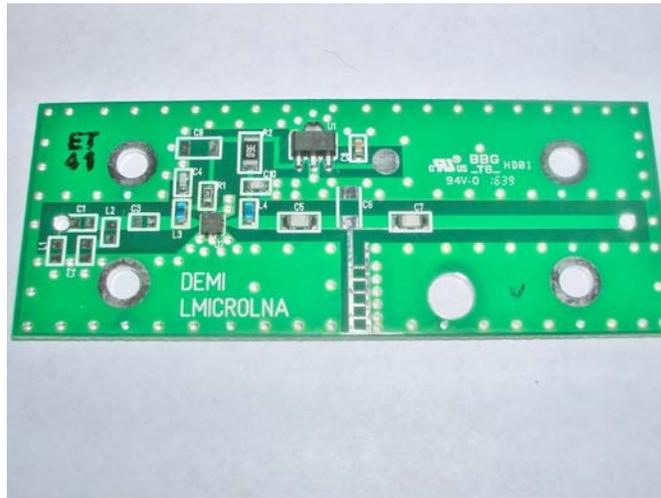
**Minimum Gain and Maximum Noise Figure per Model**

Model	432	902	1296	1420	1575	1691	2000
LWBLNA	22 @ 0.5	18 @ 0.5	15 @ 0.6	14 @ 0.6	13 @ 0.7	13 @ 0.8	12 @ 0.9
L915LNA	-8 @ --	17 @ 0.5	9 @ 0.8	7 @ 1.0	7 @ 1.8	7 @ 2.0	5 @ 2.5
L1296LNA	---	-3 @ 6.0	14 @ 0.7	12 @ 0.8	11 @ 0.9	10 @ 1.0	8 @ 1.5
Custom	?	?	?	?	?	?	?



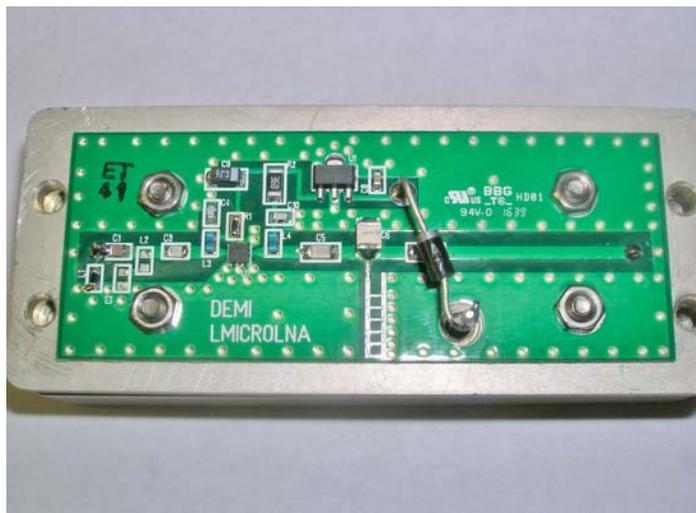
**Kit builders:**

Building any model of this LNA is a simple task. The majority of the components are already placed including the PMA2-33LN MMIC. To build a Wide band LNA it requires 5 SMD components to be installed and the board placed in the enclosure with the connector for completion. But yes, 4 of them re 0603 size so some experience is required. Higher skill is required for the frequency selective models. Pictured to the right is the supplied circuit board ready for various options to be installed or assembled as a generic Wide Band LNA. All of this is covered in the Kit Documents. Simply order the kit of choice with the desired connector style.



**Installation and Operation:**

Depending on your application, a LMICROLNA series LNA may be installed anywhere in your system to increase gain. To maintain or improve the systems noise figure requires the LNA to be installed as close to the systems antenna as possible. If you plan to utilize this LNA in a transceiver system with transmit bypass relays, be sure of their isolation characteristics and transmit power handling capabilities before transmitting. Use only interconnecting cables and/or adapters that are rated for use at or above the intended frequency of use. Inadequate cabling or cables with poor shielding may cause system instabilities, signal loss, or undesirable intermittent operation. Test any sequenced scheme before applying transmit power avoiding mishaps.



This LNA designed based on PHEMPT MMIC technology is unconditional stable. Adding an external filter to the input or output of the wide bandwidth LNA version will not upset its performance except for the insertion loss of the added filter and interconnect cables. It is a way of utilizing one LNA for multiple bands. Then, the newly designed machined enclosure aids in the LNA's strong signal immunity performance. The conductive Chem-Film used to finish the enclosure prevents oxidation and provides a long lasting RF and DC resistance free connection. To the left is the L915LNA with its internal filtering Installed.