

DEM HPLNA- XXX MHz. Legal Limit Switching LNA

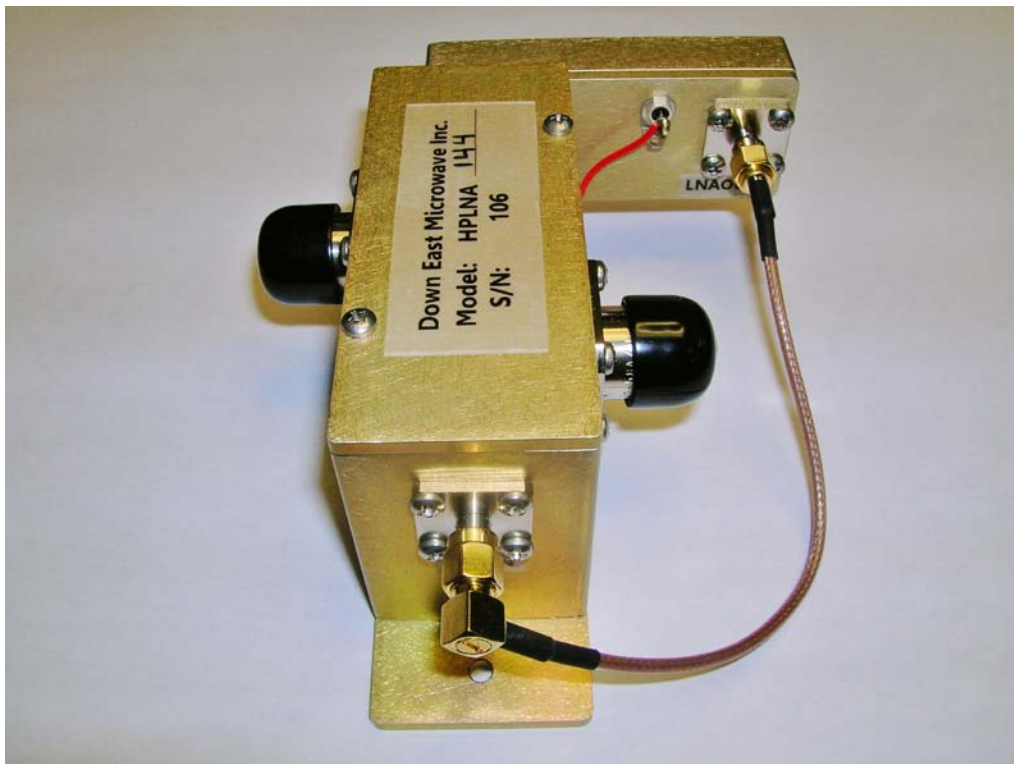
The DEM HPLNA is legal limit switching LNA. It was derived from our Dual relay and our standard VHF LNAs. It utilizes mil-spec type "N" connectors for the Antenna and Transceiver ports which is the Transmit path. The LNA input is directly connected to the high Isolation Antenna port. The output of the LNA is then reconnected either through a short SMA or BNC cable to the high isolation Transceiver port. The Relay and the LNA have separate +DC connections but both require voltage to be enabled during receive therefore should be connected together for correct operation. +DC power is removed for transmit or to bypass the LNA on receive. The HPLNA switches 50 ohm terminations to both ports of the LNA when in the bypass or transmit position further protecting the LNA.

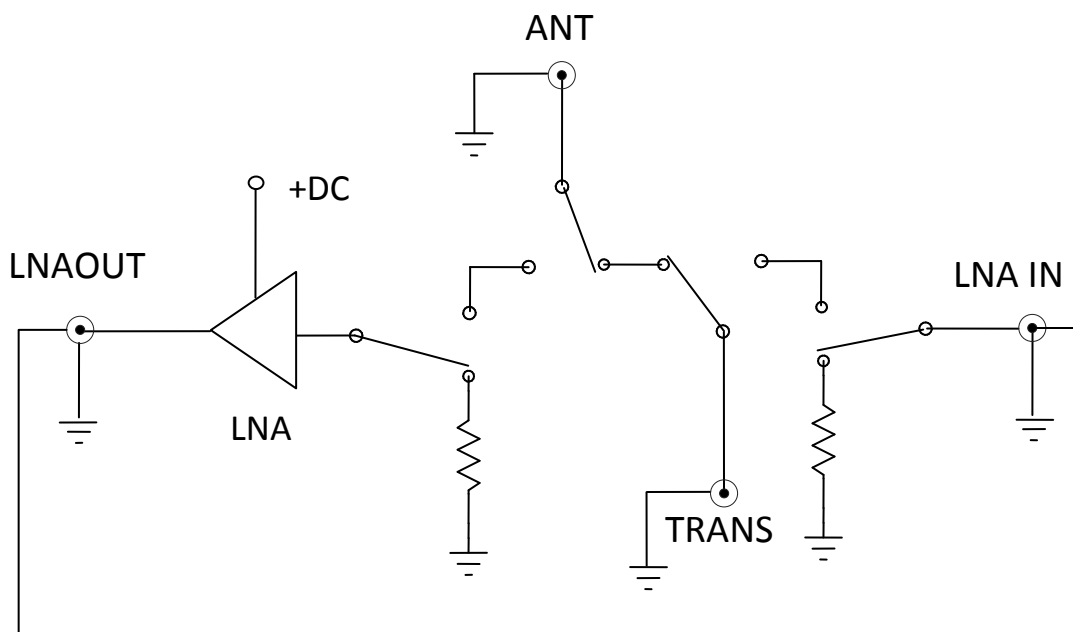


The HPLNA is designed as a single band device and is only available on the Amateur Radio bands of 6M, 2M, 1.25M and the 70 CM bands. Performance of the LNA is similar to our standard VHF LNA product line producing >17 dB Gain and under a .6 dB Noise Figure. It contains various mounting holes (Tapped and Clearance) to be attached into a weather proof enclosure for mast mounting or custom installation. An weather proof mast mountable version will be available in the future.

Instructions and Cautions

1. No voltage is required for transmit or to bypass the LNA. DC is applied for receive only and simplifies sequencing. To bypass the LNA, remove DC power and you can still operate at full TX power. This also provides a bypass of the LNA when the station DC power is shut down.
2. The relay is rated for continuous "Power On" service. Total current during receive is 450 ma. Transmit is 0 ma
3. Use good quality RF cable for the desired frequency to maintain HPLNA specifications.
4. Normal 12 VDC (11- 17 VDC) operating voltage is standard but custom 24 VDC units are available. They would be marked as 24VDC. By the DC input connections.
5. The internal LNA isolation relays will protect the LNA from a bad antenna VSWR.
6. Vacuum relays will resist contact arcing from lightning and high improper keying during transmit but repeated instances will result in contact pitting and/or welding. Be sure to prevent lightning and be sure to sequence the relay with your high power amplifier.
7. Bottom plate mounting holes are 4.30" center to center





Schematic shows relay in TX position, DC removed. All 4 relays fire at once during RX.



Secondary mounting holes are tapped for 4-40 x 5/16" and are spaced 1.50". They are located on the ANT side of the relay.