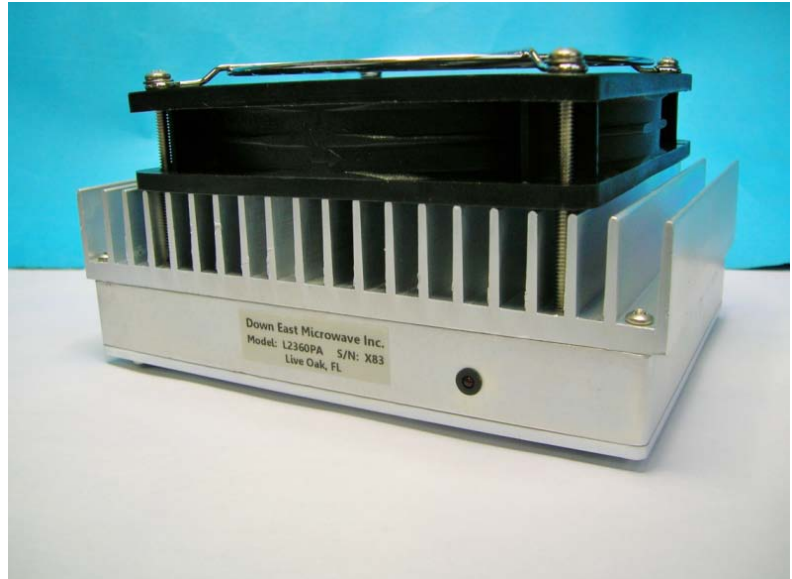


## DEM L3370PA, L3370PAS, L33120PA

### Description:

The L33XXXPA series of 33 CM power amplifiers is a new design utilizing Mitsubishi MosFET power modules that are combined with Zinger hybrids. There are new features included in this design that surpass previous amplifier designs of this frequency range. This design includes options full transceive operation, an LNA module, remote power sensing, and an option to purchase the amplifier without the Heat Sink and Fan for easier installation in a tower top environment. It is shipped with an assembled DC power and control cable included and can will be configured with any of the standard options below. Please review the Specifications and standard options listed below but understand some custom configurations may be enabled to satisfy you requirements. Just ask!



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<b>Frequency Range:</b>	902-928 MHz
<b>Power Output :</b>	60 Watts linear, 70W + Saturated (L3370 model) 100 Watts linear, 120W + Saturated (L33120 model)
<b>Input Drive Level maximums:</b>	200 mw 1 watt 3 watt 10 watt
<b>DC Power Requirement:</b>	13.8 VDC @ 20 amps.(L3370) 30amps (L33120)
<b>Connectors:</b>	N Female, SMA Female , BNC on input only
<b>Options:</b>	LNA RF Sense T/R Mast Mount

## **Review of Specifications and Options:**

### **Frequency Range:**

The amplifier will operate between 902 and 928 MHz

### **Power Output and Input Drive Levels:**

Power output is rated maximized with the input drive level required. Head room is allowed to enable full linearity of the amplifier. If FM mode operation is the only requirement, the amplifier will be optimized for a compressed output power.



**Connectors:** Standard type N, SMA and BNC connectors are utilized and mixed types may be ordered to eliminate the use of adapters. Note: BNC type connectors can only be utilized on the input of the amplifier. The output connector for the L33120PA can only be type N connector.

### **Included Standard:**

**RF Power Monitor:** A standard reference voltage output is provided to monitor the output power of the amplifier. It is user calibrated and can be connected to any LED display circuit or voltmeter.

**DC Power Monitor:** A sampled voltage on receive is available to determine if the DC voltage is correct on the amplifier. It can be connected to a "Ready" light or can be inverted to a transmit indicator if the amplifier is remotely mounted. This toggled voltage is also supplied in the event of the utilization of the LNA option. It is the supplied voltage to the LNA module and may be connected via a switch to the LNA ON line

### **Options:**

**LNA :** An internal output filtered LNA that is switch in/out of line during Transmit/Receive and may be bypassed with connections through the DC connector. This LNA may also be connected to any sequencer and operated separately in timing of the transmit/receive function of the power amplifier. **NOTE:** The LNA option is only offered in the L3370PAS version.

**RF SENSE:** This option can only be provided for FM or ATV operation in the L3370PAS versions. The RF sense circuit activates the T/R function of the amplifier and can be utilized with the LNA option in the L3370PAS version.



**MAST MOUNT:** This option is the L3370PA, L3370PAS or L33120PA amplifier without the Heat Sink and cooling fan. As provided, it is intended to be mounted in a separate metal enclosure that may be mast mounted or in a remote enclosed environment providing conduction cooling. The L3370PAX will dissipate up to 200 watts of heat and if cooling is not adequate, damage may occur. If this option is ordered there will be an additional Installation document provided and will contain a template to aid attachment to any type of conduction cooling device. There are 8

attachment holes within the L33XXPA enclosure and are tapped to 4-40 size. Further clearing or adjustment may be required to ensure that the amplifier enclosure fits flush with the assembly it is attached to. This attachment will be required to sink 200 watts of heat.



**Mast Mount Option Ordering Recommendations:** If your transceiver side cable length has more than 3dB of loss, the LNA option should be utilized. You may extend any of the control cables to any required length and would be most important to understand their functions and importance with a remote mounted amplifier. The ability to toggle the LNA on and off to verify receive performance and having the RX ON voltage to ensure that the DC voltage to the amplifier is a plus. The RF Monitor will verify that the amplifier is operating and varying the RF drive level will ensure the linearity of the amplifier if required.

If for whatever reason you decide to utilize the amplifier back in the shack or in your mobile as additional power for a rover, the Heat Sink and Fan kit can be ordered and installed by any user.