

4/19/2005

Compatible Electronics,

This document contains information for the CMD-HHLR-xxx Long-Range Handheld transmitter that is required for you to complete testing and filing for FCC, Industry Canada, and CE certification. We are requesting certification on three frequencies for FCC and Industry Canada (315MHz, 418MHz, and 433.92MHz) and one frequency for CE (433.92MHz).

A brief description of the unit and its operation follows:

The CMD-HHLR-xxx Long-Range Handheld transmitter combines a synthesized architecture OOK transmitter with an on-board encoder IC to form a simple yet effective RF remote-control transmitter. When a button is pressed on the remote unit, power is applied to the internal circuitry and the encoder IC is enabled. The encoder then detects the logic states of the address lines and button data lines. These states are formatted into a 3-word transmission cycle that continues until the button is released. The encoder data is used to modulate the transmitter that, through the antenna, conveys the data into free space. Once data is received, a decoder IC is used to check the transmitter's address bits against the address settings of the receiving device. If a match is confirmed, the decoder's outputs are set to replicate the transmitter's button states. These outputs can then be used to activate whatever external circuitry is required by the application.

The transmitters may need a modification of a level adjust resistor (R3) to tune the output power to the maximum legal limit. A map of the board showing the resistor location, schematic, and graph of output power vs. resistor value are included in this document and a kit of various value resistors has been included in the box with the units to be tested. Please inform us of what value will give us the maximum legal output so that we may use that value in production.

All of the transmitters are wired for continuous modulated transmission upon inserting the battery by shorting one of the buttons. This has been done to make your testing easier and is not done in production. The worst-case duty cycle is **43%**. The battery holder is marked with a "+" on it to indicate polarity.

Should you have any questions about the units, please do not hesitate to call Ammon Gomez (ammongo@linxtechnologies.com) or Justin Hopper (justinho@linxtechnologies.com) at 1-800-736-6677 or (541)-471-6256.

Below is the board map for the transmitter showing the part locations. Note that R3 is the level adjust resistor, whose value will determine the output power of the transmitter.

