

Long-Range Handheld Remote Control Transmitter



The Long-Range Handheld transmitter is ideal for general-purpose remote control and command applications requiring extended transmission distances. The stylish Long-Range Handheld transmitter features a small external antenna which allows up to 1,000-foot (300m) transmission ranges line of sight. As a part of our DS Series OEM family, it is available in 315, 418 (standard), or 433.92MHz. It has been pre-certified for FCC Part 15, Industry Canada, and European CE (433MHz only) compliance, reducing costs and time to market.

Addressing: A DIP switch is used to set 10 address lines, giving 1,022 unique addresses. The address lines should be set the same on the receiver to enable communication. This helps prevent accidental activation by another system, but does not provide a high degree of security. This makes it suitable for applications that benefit from the simplicity of DIP switch addressing and don't require a large number of unique addresses.

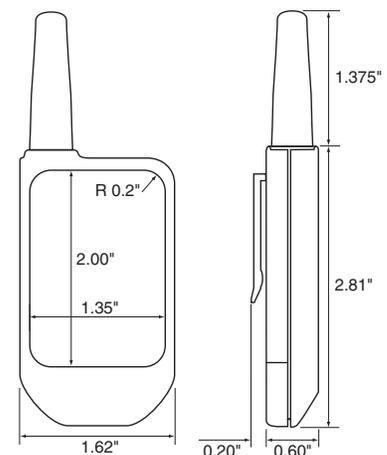
Protocol: The DS Series encoder inside the Compact Handheld transmitter supports two protocols. The first protocol is based on the Holtek HT640 encoder. It is completely backwards compatible with older generation Linx transmitters and receiver systems based on the HT658 decoder that were designed to operate with the Linx transmitters. The second is a serial protocol that offers more noise immunity and faster response time while keeping the simple DIP switch addressing.

Tactile Buttons: The membrane switch uses metal snap domes for a sharp click and tactile response.

Pre-certified: All units have FCC and Industry Canada certifications, the 433MHz version also has European CE certification.

Accessories: Optional accessories include retractor reel, lanyard and a rubber boot to protect the transmitter from damage.

Customization: The membrane switch can be customized to suite a particular application. This includes rearranging the buttons, different numbers of buttons (up to 8) and custom artwork. Logos or artwork can also be applied to the case. NREs and minimum orders apply.



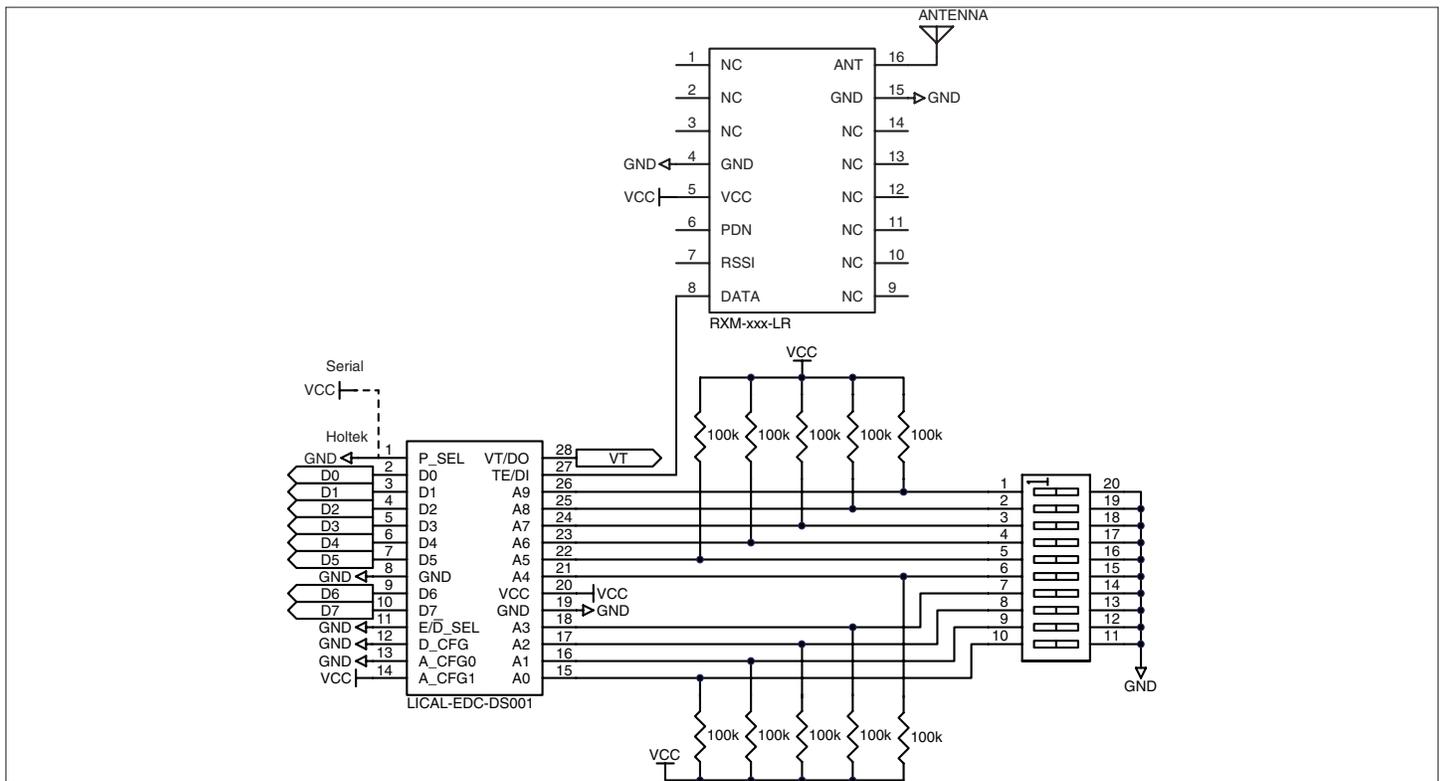
Specifications	
Operating Voltage	2.1 to 3.6VDC
TX Supply Current	3.4mA
Frequency	
CMD-HHLR-315	315MHz
CMD-HHLR-418	418MHz
CMD-HHLR-433	433.92MHz
Power Down current	5nA
Operating Temperature Range	-40 to +85°C

Applications

- General remote control
- Keyless entry
- Garage / gate openers
- Lighting control
- Call systems
- Home / industrial automation

Typical Receiver Application Circuit

The Long-Range Handheld transmitter is a complete remote control transmitter solution in a very generic package. The receiver side of remote control applications tends to be much more specific to each product. The receiver should incorporate the LR Series receiver and DS Series decoder as shown in the schematic below. The LR Series RF receiver outputs the data received from the transmitter to the decoder. The decoder decodes and verifies the data and, if everything is correct, replicates the transmitter's inputs on its outputs. These outputs activate whatever circuits are required by the application.



LR Receiver and DS Decoder Schematic

Basic Evaluation Kit

The Basic Evaluation Kit gives a designer all the tools necessary to incorporate the Long-Range Handheld transmitter, LR Series receiver, and DS Series decoder into a product. The Kit serves several important functions. It allows the performance and features of the transmitter, LR Series and DS Series to be quickly evaluated. It shows how to design with the receiver and decoder and how to interface with other components. It also demonstrates the overall system function, making it easy to develop the initial system design. It allows for additional circuitry to be placed directly on the board so that it can act as the first prototype of the product. All of the signals are available on a wire-wrap header for easy connection to external circuitry.



Ordering Information

Part Number	Description
CMD-HHLR-***-xxx-MD	Long-Range Handheld Transmitter

*** = 315, 418 (Standard) or 433.92MHz
 xxx = Custom color, leave blank for black