

DS Keyfob Remote Control Transmitter

The DS Keyfob transmitter is ideal for general-purpose remote control and command applications requiring a small form factor transmitter. The small transmitter has a line of sight range of up to 750 feet (230 m) when combined with an LR Series receiver and DS Series decoder. As part of our DS family of wireless remote controls, it is available in 418 (standard) and 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.

Address: The transmitter's unique address is created using 10 cut trace lines, giving 1,024 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 cut trace addressing and don't require a large number of unique addresses.

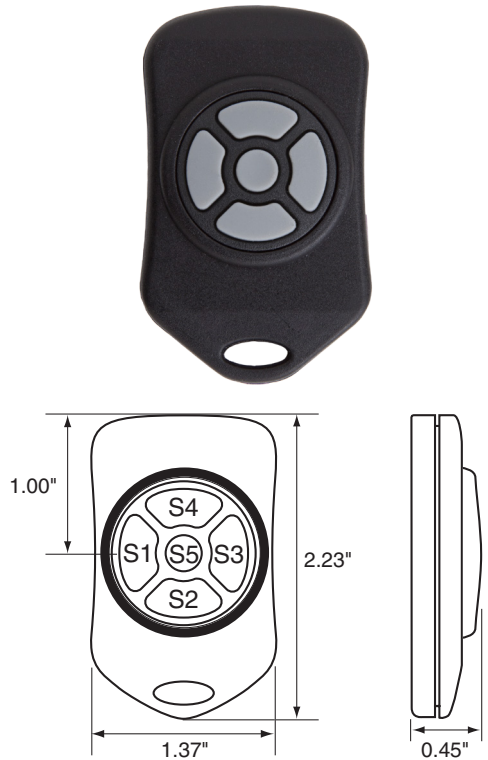
Protocol: The serial protocol used by the DS Series encoder is far superior to older pulse method protocols, so that the DS offers longer range and better performance within that range than older systems. It also results in fast response times.

Button Configurations: The DS Keyfob Transmitter is available in standard configurations of up to 5 buttons.



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

Customization: The DS Keyfob can be customized to suit a particular application. This includes logos or custom artwork applied to the case or the keypad buttons. NREs and minimum orders apply.



Specifications

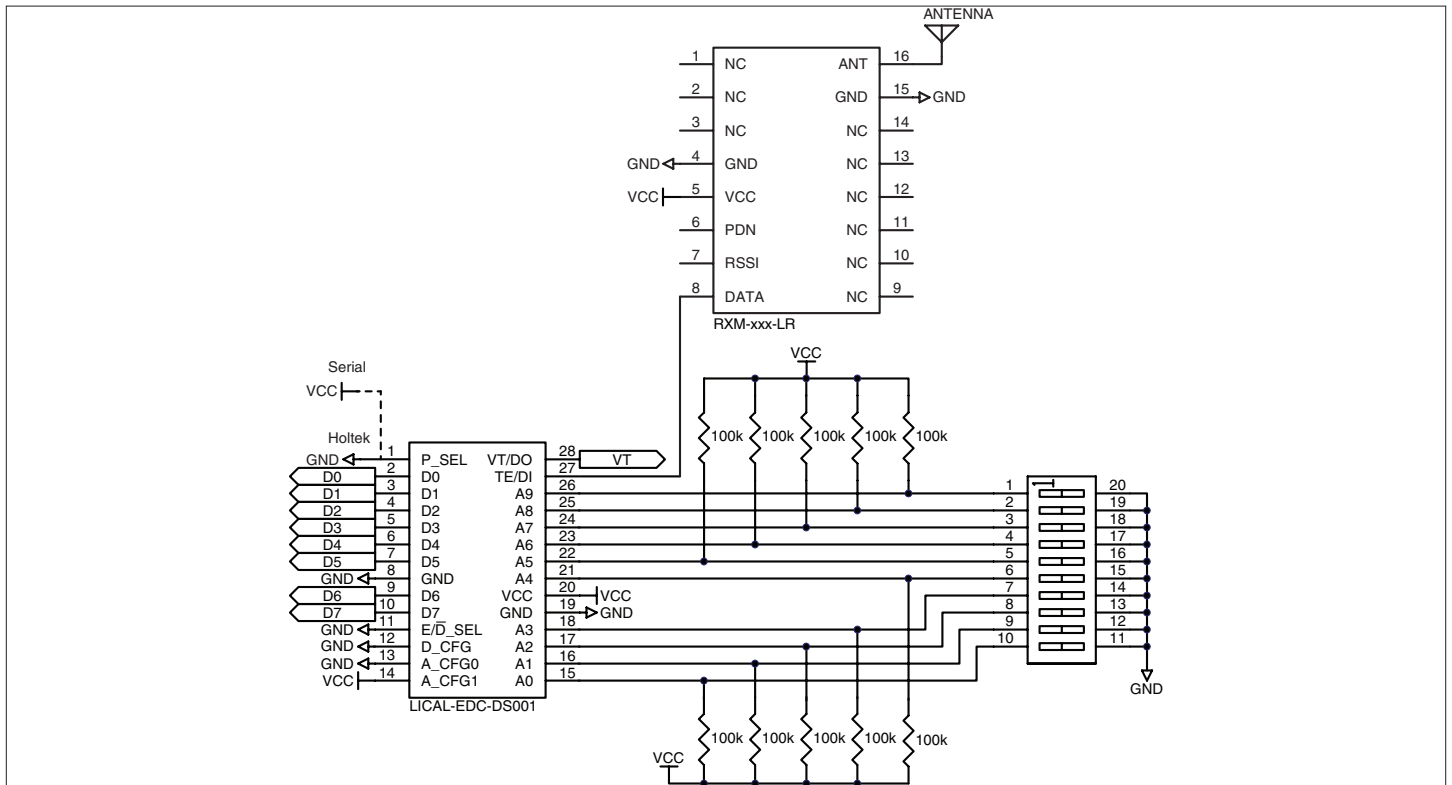
Operating Voltage	2.3 to 3.6VDC
TX Supply Current	12.6mA
Frequency	
OTX-418-HH-KF#-DS	418MHz
OTX-433-HH-KF#-DS	433.92MHz
Power Down current	1.5µA
Operating Temperature Range	0 to +70°C

Applications

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

Typical Receiver Application Circuit

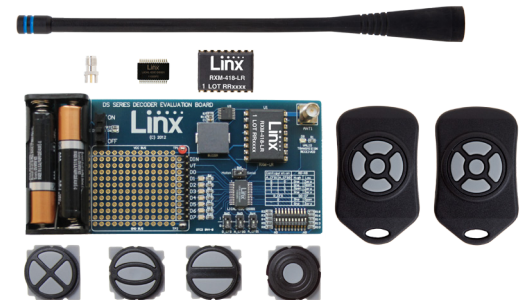
The DS Keyfob transmitter is a complete remote control transmitter solution in a very generic package. The receiver side of remote control applications tends to be much more specific to each product. The receiver should incorporate the LR Series receiver and DS Series decoder as shown in the schematic 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 DS Keyfob 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
OTX-***-HH-KF#-DS-xxx	DS Keyfob Transmitter
MDEV-***-HH-KF-DS	DS Keyfob Transmitter Master Development System

*** = 418 (Standard) or 433.92MHz

= Number of buttons; 1, 2, 3, 4 or 5

xxx = Custom color, leave blank for black