



Simpler Devices for a Connected World™

## Description of Operation

Centralite's 3 Series Life Tag is a presence tag in the form of a key fob. The Life Tag will be considered an end node designed to work in conjunction with a remotely located coordinator (some other product). The coordinator scans the available channels polling for any end nodes. When the 3 Series Life Tag is within range of the coordinator, the coordinator will detect its presence and update the status through some other means such as an App on your smart phone.

The 3 Series Life Tag contains a slider that will activate a button which can be used for pairing the 3 Series Life Tag with a coordinator. It also contains a buzzer which can be used to generate an audible signal under different scenarios.

Centralite's 3 Series Life Tag combines a high performance RF solution with the market's premier ZigBee stack. The Life Tag is based on Silicon Lab's EM357 transceiver platform which consists of an RF transceiver, a baseband modem, a hardwired MAC and an embedded 32-bit ARM® Cortex™-M3 microcontroller with internal RAM (12kB) and Flash (192kB) memory. The IC is a single-chip solution, compliant with ZigBee specifications and IEEE 802.15.4 to provide a complete wireless solution for all ZigBee applications. The device operates on the ISM frequency band (2405-2480)MHz.

The 3 Series Life Tag includes this transceiver IC with a crystal, RF filtering, an integrated 50Ω PCB trace antenna and a push button switch designed to operate as general purpose input/output (GPIO) with the EM357. Firmware controlling the operation of the Life Tag is factory installed. Specialized accessories are required to change the firmware which prevents unauthorized users from altering the radio control in the field.