Circuit descriptions

ECS RMS is a device with the capability of connecting with CR2500 using Bluetooth.

It consists an RF amplifier to amplify the signals for the antenna. A oscillator of 26MHz as base clock signal of the MCU, and the carrier frequency range is from 2402 to 2480MHz, the bluetooth version 2.1 with EDR, support GFSK, (Π/4)DQPSK, 8DPSK modulation.

Power is taken from the usb and regulators are used to regulate to 3.3V which is need by the MCU.

Charging mode

The red/green LED control block is used for indication of whether the battery on CR2500 is fully charged or not when it is inserted. When CR2500 is not inserted, no led will be lighted up. For a weak battery on CR2500, the red led should be lighted up, for a strong battery on CR2500, the green led should be lighted up.

RX mode

When CR2500 and ECS-RMS is being linked up with Bluetooth using the quick connect code, it is able to receive barcode scanned at a remote location.

This usage model is being tested using the receiving mode.

TX mode

The page button when pressed will cause CR2500 to “beep” when it is linked up by Bluetooth with ECS-RMS.

The Tx mode test is used to test out this usage scenario.

The blue LED indicates Bluetooth connection and also whether usb power is being applied to the MCU. However when the MCU is in boot-mode, the LED is off. (TX mode of test).