XCB80-FA First Alert Bridge

The hardware architecture is shown in Figure 1.

1   The unit includes two RF module, one is 418MHz RX module, and the other is 900MHz TX module. The 418 MHz RF module is comprised of two chip, the transceiver chip CC1000, and the baseband chip PIC16LF628 which osc is 26.00MHz. The baseband chip is firmware the protocol, drive CC1000 to receive data from antenna. And the 900MHz TX module transmits the data from 418MHz RX module.

2   The MCU (PIC18F6722) deal with kinds of operation,the osc is 4.00MHz including scanning the discovery switch to initialize communication, monitoring the battery voltage, detecting contact event, flashing the LED to indicate the unit status, and so on.