

Applicant : La Crosse Technology

Model No. : TX62UTH-IT

### Operation Description

The user need to press the reset button for the first time operation. After the reset button is pressed, the MCU will initialize the single-chip RF transmitter IC through a SPI interface. The transmitting parameters is as follows :

- a) FSK deviation : 20kHz
- b) Datarate : 9.6K bit per second
- c) Transmitting frequency : hoping between 903MHz, 915MHz and 927MHz.

There are three operation modes in the transmitter. Normal, Idle and Stop modes.

- Normal operation mode.
  - This is the default mode whenever battery voltage is higher than 2.5V
  - Measures and transmits the temperature every 8 seconds.
  - If battery voltage is dropped lower than 2.4V, will go into Idle mode
  - If the solar transmitter is placed into a dark environment for 72 hour, will goes into Stop mode
  - If the battery voltage is below 2.8V or two successive detection of the dark environment, the transmitter will transmit data every 16 seconds
  - If the battery voltage is above 2.9V and two successive detection of the bright environment, the transmitter will transmit data in 8 seconds
- Idle operation mode
  - This mode is occurred when the battery voltage is dropped lower than 2.4V

- Does not perform temperature measurement and transmission
- If battery voltage is higher than 2.5V by solar cell recharging, will go into Normal mode
- If the solar transmitter is placed into a dark environment for 72 hour, will goes into Stop mode

#### Stop operation mode

- This mode is occurred when the solar transmitter is placed into a dark environment for 72 hours
- The transmitter is in a standby state. Without perform any operation
- Press the reset button to wake up the transmitter into normal operation mode
- This mode is mainly for saving power during transportation

#### Antenna and Power Source:

Antenna is formed by a copper wire inside the plaste (in a folded dipole shape). This device is powered by the solar power cell with rechargeable alkaline battery. The battery is recharged by the solar cell. The battery voltage is rated at 3.0Vdc.