

### ***Technical Description of the Circuit:***

The product can divide into two part, RF and Baseband, the RF circuit is a single conversion, super-heterodyne architecture receiver IC. The incoming RF signal received by the antenna is fed to the RF input terminal of the IC RX3310A, then the RF signal is then amplified by the LNA in the IC RX3310A. The amplified signal will feed to the mixer input, the LO for the mixer is generated by the external LC tank circuit, in the above circuit, the LO is 432.12MHz, the IF (  $F_{RF}-F_{LO}$  ) is then demodulated by the demodulator in the IC RX3310A and the IC RX 3310A provide the raw data. The data is then fed to the baseband MCU TM8712 for decoding and the MCU TM8712 will display the decoded temperature at the LCD. But the TM8712 does not incorporate the clock function, so we add a clock function only MCU - S1C60L01 into the unit, there is not interconnection between the two MCU and they just work individually.