

### ***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 fed 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 RX3310A 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 radio control clock function MCU-MSM64155 into the unit



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### **Model 7525 ( Receiver )**

This unit is powered by 2 AA size batteries, once you insert the batteries into the unit, it will start to operate.

You can find 7 push buttons and 3 slide switches on the unit, they are Month/Hour, Date/Minute, Year/12/24 hour, Re-Sync, C/F, wave and reset button, also Lock/Time set/ Calendar switch, PST/MST/CST/EST switch and DST ON/OFF switch.

When you slide the Lock/Time Set/ Calendar to Time set or Calendar, the Month/Hour, Date/Minute, Year/12/24 hour buttons are used to set the desired time and date, if the Lock/Time set/Calendar switch in Lock position, the Year/12/24 hour button used to toggle between 12HR or 24HR display format.

For the Re-Sync button, once you press the button, it will force the unit to start receive signal for 6 minutes, once it receive a correct signal and demodulate the signal correctly, the unit will turn off the receiver in order to save the power. The receiver will be turned on again after 3 minutes for last success reception.

You can reset the unit by pressing the reset key once you found that the unit does not working properly, once you press the reset key, all setup will be reset also, it include time and date.

Also you can switch between C/F reading by press the C/F switch to your desired unit.