

**A. CIRCUIT OPERATION**

1. Temperature sensor.

Provide temperature data for (MCU) micro controller unit.

2. Humidity sensor .(for C-8153 only)

Provide Humidity data for (MCU) micro controller unit.

3. Pressure sensor & A/D IC

Provide air pressure data for A/D IC ,and then input MCU 1.

4. MCU1+MCU2

The micro controller unit (MCU) are encoding and manipulating temperature Humidity and pressure data and RC clock and 433 received and driver LCD.

5. RF Receiver

Receive Convert RF modulated information into digital for (MCU).

6. Voltage regulator

Stable RF receiver and (MCU) and (RC) Radio controlled receiver voltage .

7. LCD Display option

Display indoor outdoor temperature and Humidity ,pressure ,pressure bar ,moon phase, time, date and other .

**B. COMPONENT DESCRIPTION**

| CATEGORY    | NUMBER                | NAME                  | DESCRIPTION                                                                                                                 |
|-------------|-----------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Regulator   | Xc62fp3002pr          | 3V Regulator          | Stable RF receiver, RCC, pressure board and MCU                                                                             |
| Transistor  | 2SC1623               | L6                    | Buzzer driver(Q1), black light(Q2)                                                                                          |
| Transistor  | 2SC1623               | L6                    | RF receiver switch(Q3)                                                                                                      |
| Transistor  | M6                    | M6                    | RF receiver switch and reset circuit                                                                                        |
| Transistor  | 2D                    | RF transistor         | 433.92MHz RF receiver                                                                                                       |
|             |                       |                       |                                                                                                                             |
| IC          | SSC32210              | Pressure A/D          | Pressure A/D                                                                                                                |
|             |                       |                       |                                                                                                                             |
| MCU1 + MCU2 | S1C63658<br>MSM64162A | Micro controller unit | decoding and manipulating temperature Humidity data from transmitter ,radio controlled ,pressure and drive LCD display .    |
| Crystal     | 32.768KHz             | 3*8 32k Quartz        | Stable MCU master clock                                                                                                     |
| Crystal     | 60KHz                 | 2*6 60k Quartz        | For RCC receiver                                                                                                            |
| Display     | LCD312                | C8123LCD              | Display time ,indoor outdoor temperature ,Humidity, 433 channel, alarm time, Pressure ,pressure bar ,weather and moon phase |
| IC          | TL062CD               | SMD 062               | 433 MHz receiver Low pass amplifier and comparator                                                                          |
| IC          | UE6011                | RCC receiver IC       | RCC receiver                                                                                                                |
| Transducer  | 8.5mm                 | Transducer            | Alarm sound output                                                                                                          |
| Sensor      | HS-12P                | Humidity sensor       | Provide Humidity data for MCU                                                                                               |
| Sensor      | 103AT                 | Temperature sensor    | Provide temperature data for MCU                                                                                            |
| Sensor      | DMP015A               | Pressure sensor       | Provide pressure data for MCU                                                                                               |

|                             |                       |
|-----------------------------|-----------------------|
| CHUNG' S ELECTRONIC CO.,LTD |                       |
| Name                        | TECHNICAL DESCRIPTION |
| Model                       | C8123                 |
| File No                     | RF8123-T              |
| Date                        | 20/7/04               |

