

## Baby Monitor Circuit Description

### 1. Product Description

2M19 is 900MHZ digital baby monitor.

#### Operating frequency band:

Channel 0 – 907.001 MHz	Channel 3 – 919.001 MHz
Channel 1 - 908.997 MHz	Channel 4 - 920.988 MHz
Channel 2 - 912.994 MHz	Channel 5 – 927.001MHz

### 2. Design/development

- Temperature test :-5°C to 50°C
- Humidity test: Leave the equipment in the environment of 85%,38°C for 4 hours
- Shock test: Drop the equipment three times on the hardwood floor from the height of 1M
- Voltage change test:+/-10%

### 3. Circuit Description

The operations of each part are described below, based on the schematics:

#### 3.1 Transmit unit

##### a) Oscillator

Y2 is a crystal oscillator . It forms a oscillator circuit with the RF A7328

##### b) Transmission part

The microphone picks up the baby's sound .The audio signal then pass through U7,U7 is *Wireless baseband OTP MCU with CODEC*

##### c) Power supply

The nursery unit is powered by adaptor with 6VDC 200mA output .

U3 supply MCU,RF voltage form a regulator circuit. It provides 3.3V power to the circuit.

#### 3.2 Receiver unit

##### a) Oscillator

Y2 is a crystal oscillator . It forms a oscillator circuit with the RF A7128

##### b) Receiver

The RF signal is received from the antenna and pass through a LC circuit for Rejecting the unwanted signal .U7 is *Wireless baseband OTP MCU with CODEC*

##### c) Sound LED

D7-10 is a led meter driver . It drives a group of LEDs which indicate the Sound Level Vibration Function: SW1 is vibraton swith, if SW1 set to ON, the device will turn on The motor by enough sound level.

##### d) Speaker amplifier

U5 YD8602 is low voltage audio power amplifier . It amplifies the audio signal and drives the speaker, Can select the volume level high or low by adjusting the Volume+ or volume-.

##### e) Power supply

The parent unit is powered by adaptor with 6VDC 200mA output .

U3 supply MCU,RF voltage form a regulator circuit. It provides 3.3V power to the circuit. The parent unit is use 3.7V REC battery or an adaptor with 6VDC.

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