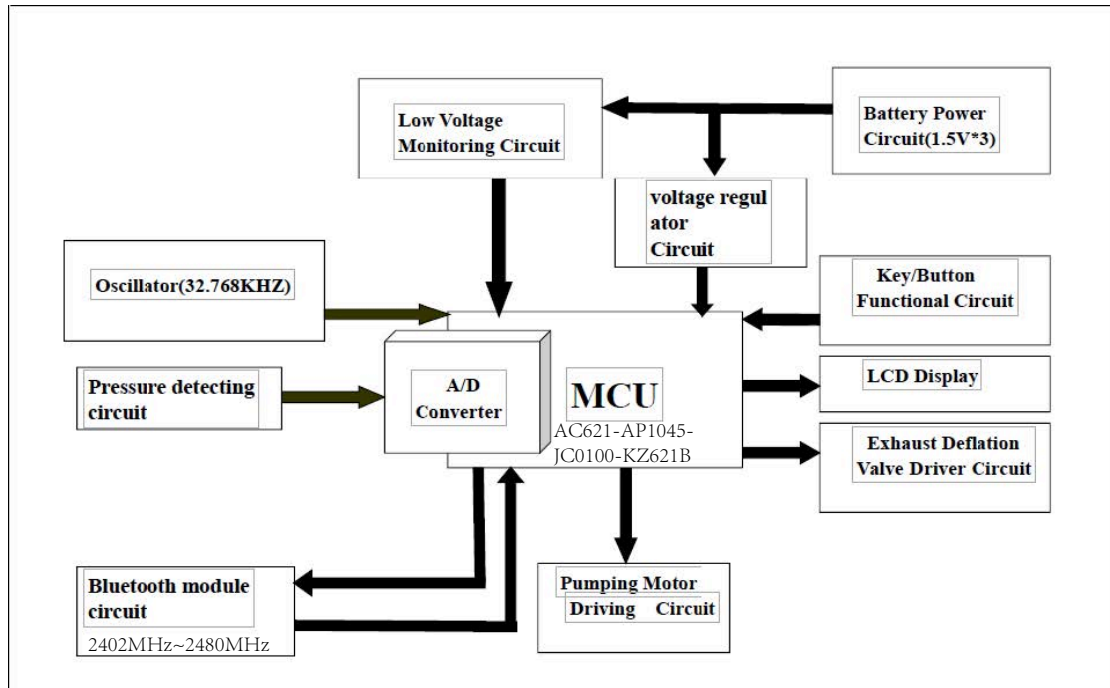


F1701T for Hot Functional Description



F1701T series product working principle description:

The sphygmomanometer uses an air pump to inflate and pressurize the cuff, and compresses the arterial vessels by using the inflatable cuff. With the pressure of the cuff rising, the arterial vessels show a change process from fully open to half-closed to completely blocked. In the process of pressure boost, the variation trend of intraarterial pressure amplitude is shown in the figure below:

The pressure sensor collects the pressure amplitude changes in the cuff and converts them into digital signals and sends them to THE CPU. The embedded software is used to analyze and identify the corresponding pressure points in the process of blocked arterial blood flow to determine the diastolic blood pressure, systolic blood pressure and average blood pressure of human body.

Electronic sphygmomanometer consists of host (including air pump, pressure sensor, air valve, power supply circuit, key control circuit, display module, CPU control module, embedded software, etc.) and sleeve (or wrist).

Overview of working principle, parameters and antenna types and their values:

1. Bluetooth APP name is BM-188.
2. Use the serial port to communicate. 1bit start bit, 8bit data bit, 1bit end bit, no parity check, baud rate: 9600bps.
3. Wake up bluetooth before sending data. The Bluetooth chip is AC6963A. When the power pin 7 is connected to 3.3V, the chip starts to initialize, and after Y2(24Mhz) oscillation, the chip starts to work. The chip receives bluetooth signals through 10 pins with the frequency of

2402MHz-2480MHz. The received bluetooth related commands are transmitted and received to other chips through the serial communication interface of pin 15 and 16.

4. The length of each consecutive data packet cannot exceed 20 bytes; otherwise, the subsequent data packets will be lost. More than 1ms between bytes indicates discontinuous data. In addition, BLE communication speed is limited. Therefore, the data transmission frequency cannot be too fast. Insurance time is 500ms to send a packet. This time needs to be tested according to the actual situation.

5. Device DevServices uuid000018f0-0000-1000-8000-00805f9b34Fb. Obtain uuid00002AF0-0000-1000-8000-00805f9b34Fb, which has the read permission to read the latest data. Provides notify permission. When the switch is turned on. Serial port data is automatically sent to mobile phones. Send data characteristic value UUID 00002AF1-0000-1000-8000-00805f9b34Fb. Write permission is granted. The data written by the mobile phone is transmitted through UART, and the data transmitted is the maximum working current of 20 bytes module at a time. Around 10ma at the time of transmission.

Modulation:GFSK

Operation frequency:2402MHz~2480MHz

Channel number:40

Channel separation:2MHz

Antenna type:PCB Antenna

Antenna gain:-0.58 dBi

MCU:AC621-AP1045-JC0100-KZ621B

Y1:32.768KHz