Operation Description

The whole system circuit is mainly composed of the motherboard, camera module, LED light supplementing module, fingerprint head module, RFID module, LCD display screen, TP touch screen and speaker.

The working principle is as follows:

DC 12V is used to supply power to the motherboard, and the voltage is adjusted by DC to DC module to supply power to various functional modules.The motherboard is integrated with MCU (HI3516), EMMC, DDR, WIFI module (RTL8723BS) and other functional modules, USB HUB extension connection fingerprint module and RFID module (IC01). The main unit and the NFC part can not function separately.

The camera communicates with the CPU through a serial port, fingerprint module through the USB interface communication with CPU, WIFI module communicates with the CPU through the SDIO interface, RFID module and fingerprint module communicate with the CPU through the USB interface, and the LCD display screen communicates with the CPU through the IIC interface. Each module of the product interacts with the CPU according to the custom protocol to achieve all functions of the product.

The EUT is working base on the MCU HI3516(Crystal: 24MHz, 32.768KHz).
The EUT equipped with two GL852G (USB HUB) (Crystal: 12MHz).
The EUT equipped with RTL8201F (RJ45) (Crystal: 25MHz).
The EUT equipped with RF module RTL8723BS (WIFI) (Crystal: 26MHz).
The EUT equipped with chip STM8S003F3P6 (Crystal:11.0592MHz)
The EUT equipped with RFID Module IC01 (Crystal:32.768KHz, 25MHz)

Wifi Antenna Type PIFA Antenna, 1.78dBi
NFC Antenna Type LOOP Anetnna