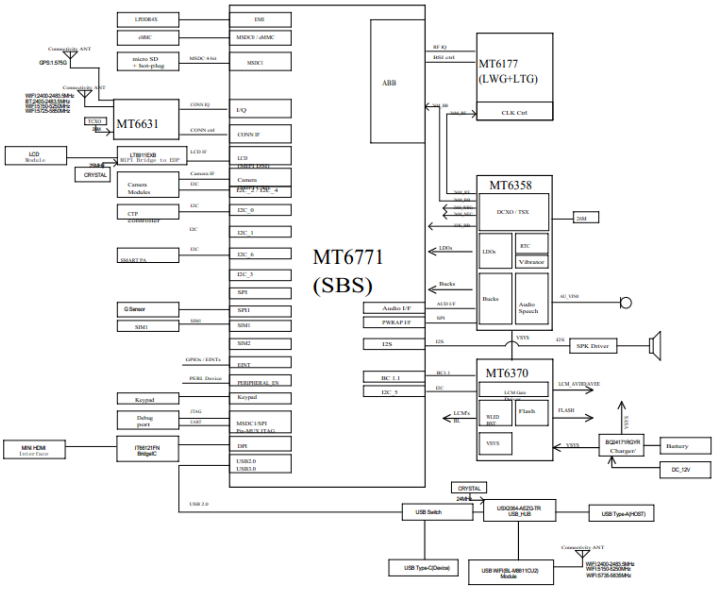
Operation description

A. BLOCK



B. Working principle

1. Power

The external power supply is connected to the main through the DC interface. Enter the power management module of MT6370&MT6358 by the charging management of BQ24171 and BQ24171 charge the battery. Meanwhile, the battery also supplies power to the system parts through MT6370&MT6358 power management module. It can also supply power to the external devices connected to the USB HOST (Type A) interface.

2. CPU

MT6771 is the CPU and GPU of the main. It handles all calculation, control and processing work for the main.

3. Codec

   MT6358 module contains audio codec, which converts the sound signal received by the MIC to digital signal, and further converts the digital signal to analog signal and outputs to the speaker through the power amplifier (PA).

4. uMCP

   uMCP integrates 256GB of UFS2.1 and 8GB of LPDDR4X to store system and other app data and perform high-speed data exchange.

5. TF card holder

   The TF card holder is used to expand the memory capacity. It supplements the memory capacity of the uMCP that may occur during the use.

6. LCD

   It uses 1920*1080 HD resolution display module as the main output interface.

7. Camera

   Cameras, front 8 Megapixels and rear 13 Megapixels, are used to take pictures, record videos, and scan QR code, etc.

8. Touch panel (TP)

It uses 5-point touch screen as the major input interface.

9. MIC

   The main is equipped with two MICs: The main MIC is used for recording, and the sub MIC is used to eliminate the ambient noise through the system's de-noising algorithm.

10. Speaker

    Two 1.5W speakers are used to play the sound.

11. Keys

    There are 3 physical keys:

    Power: Power on/off, sleep and wake up

    Volume+: Increase the volume

    Volume-: Decrease the volume

12. Bluetooth/WIFI

    There are one BT+WIFI module and one USB WIFI module with this equipment.

    The Bluetooth module with the BT+WIFI module is used to connect the Bluetooth diagnostic connector and other Bluetooth devices. The WIFI module BT+WIFI module is used to connect the WIFI diagnostic connector and other WIFI devices. This WIFI module supports two frequency bands of 2.4Ghz & 5Ghz, with 802.11B\G\N\AC protocols.

    The WIFI module with the USB WIFI module is used to

connect VCI devices. This WIFI module only supports one frequency bands of 5Ghz, with 802.11A protocol

13. GNSS

Obtain the GPS, GLONASS and other GNSS signal related information through peripheral circuits such as MT6631 and antenna.

14. Sensor

The device contains acceleration sensor (for scrolling function) and ambient light sensor (for automatic screen brightness).

15. External interface

USB type A: Expand USB external devices.

USB type C: Connect to the computer.

TF: Expand memory capacity.

RF specification:

Bluetooth Specification:

BT Version: Bluetooth 4.2: 2402MHz~2480MHz
Modulation: GFSK(BLE), π/4 - DQPSK, 8 - DPSK
Antenna type: FPC Antenna

Antenna gain: 4.98dBi

2.4GWiFi Specification:

WIFI Version: 802.11b/g/n(HT20): 2412MHz~2462MHz

802.11n(HT40): 2422MHz~2452MHz Modulation:

802.11b:DSSS(CCK, DQPSK, DBPSK)

802.11g/n: OFDM(BPSK,QPSK,16QAM,64QAM)

Antenna type: FPC Antenna

Main Antenna gain: 4.98dBi, Aux Antenna gain: 5.25dBi,

5GWiFi Specification:

Operation Frequency Range:	U-NII-1:	5180MHz~5240MHz			
	U-NII-3:	5745MHz~5825MHz			
Support bandwidth:	802.11a	☒ 20MHz			
	802.11n	☒ 20MHz	☒ 40MHz		
	802.11ac	☒ 20MHz	☒ 40MHz	☒ 80MHz	☐ 160MHz
Modulation:	802.11a: OFDM (BIT/SK, QPSK, BPSK, 16QAM) 802.11n: OFDM (BIT/SK, QPSK, BPSK, 16QAM, 64QAM) 802.11ac: OFDM (BIT/SK, QPSK, BPSK, 16QAM, 64QAM, 256QAM)				

Antenna type: FPC Antenna

Main Antenna gain: U-NII-1: 2.76dBi, U-NII-3: 5.56dBi

Aux Antenna gain: U-NII-1: 2.22dBi ,U-NII-3: 5.02dBi