

# WT-EVK6ULX Summary

## 1. Introduction

WT-EVK6ULX is a develop board based on WT-SOM6ULX module, which adopts the NXP's I.MX6ULL SOC. The board can be used as an evaluation board for WT-SOM6ULX module, also a mainboard for general HMI product as well . The embedded Linux OS and Qt SDK are well supported on this board.

## 2. Technical Parameter

### 2.1 Hardware Parameter

HW Param	Remarks
CPU	NXP i.MX6ULL ARM 800MHZ, -40~105°C Working Temperature
DDR3	256MB/512MB Optional, default: 256MB
FLASH/EMMC	Support NAND FLASH from 128MB to 8GB。 Or EMMC 4GB~32GB Default: 256MB NAND FLASH
Ethernet	1x RJ45, 10M/100Mbps adaptive。
USB	2x USB 2.0 Host (1 with PH-4P connector), 1x Usb Device (MicroUSB)
RS485	1x RS485 with electronic protection。
RS232	2x RS232 with electronic protection, one is for Linux terminal
Audio	1x 3.5mm Headphone, supporting CTIA standard , supporting audio recording; 2x 8ohm 1W Speaker (PH2.0 2Pin)
SD Card	1x Micro SD Card。
LCD	Supporting from 4.3inch to 10.1 inch LCD for RGB interface, resolution up to 1366*768 @60HZ. 1x 40Pin 0.5mm FPC (upright) ,supporting general 4.3 and 5 inch LCD 1x 50Pin 0.5mm FPC, supporting general 7 and 10.1 inch LCD
Resistive Touch	4-wire resistive touch panel supported, with FPC-4P by 1mm pitch
Capacitive Touch	1x Capacitive Touch interface of IIC, with FPC-6P 0.5mm pitch
Reset Button	1x
Power Button	1x Supporting long press on/off
Buzzer	1x
WIFI&Bluetooth	Supporting RT8723BU WIFI/BT module, SMA-K antenna header on board.
Extend Header	2x, Extending up to 30 CPU pins by two 2.54mm pitch header
RTC	Independent RTC IC with rechargeable battery
LED Indicator	2x One power indicator and one system indicator controlled by I/O 。
Power Supply	9~12V @1A DC by 5.5*2.1 DC header

## 2.2 Electronic Parameter

Power supply	9V~12V @1A DC
Power assumption	<0.4W (without LCD)
Power protection	Over voltage protection
Interface protection (RS485,RS232)	EFT $\pm$ 1KV, ESD Air 8KV, Contact 4KV
Environmental protection	RoHS

## 2.3 Environment

Working Temperature	-10~70°C
Storage Temperature	-40~85°C
Working relative humidity	10~90%RH (non-condensing)

## 3. PCB and Interface

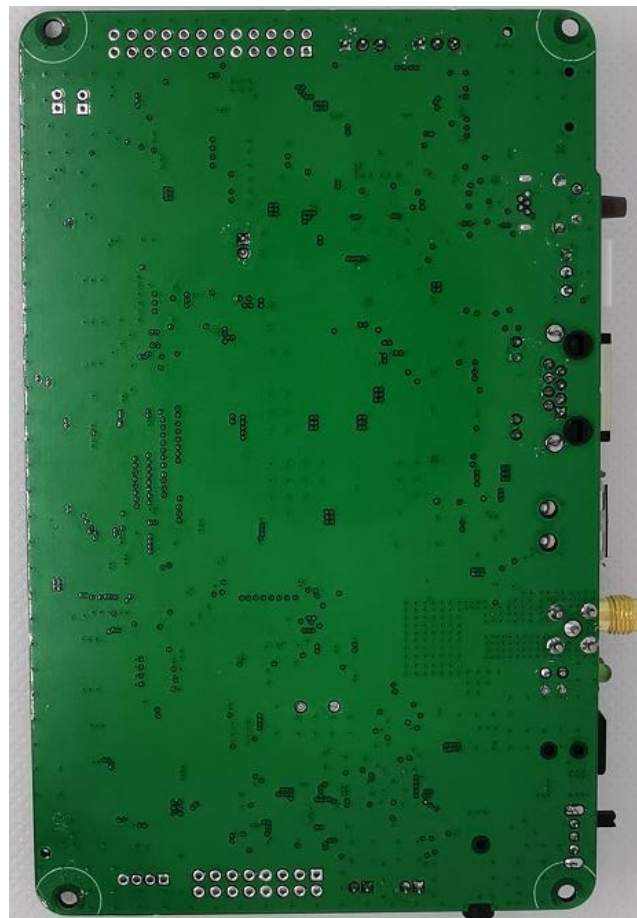


Fig1. Bottom Side of PCB

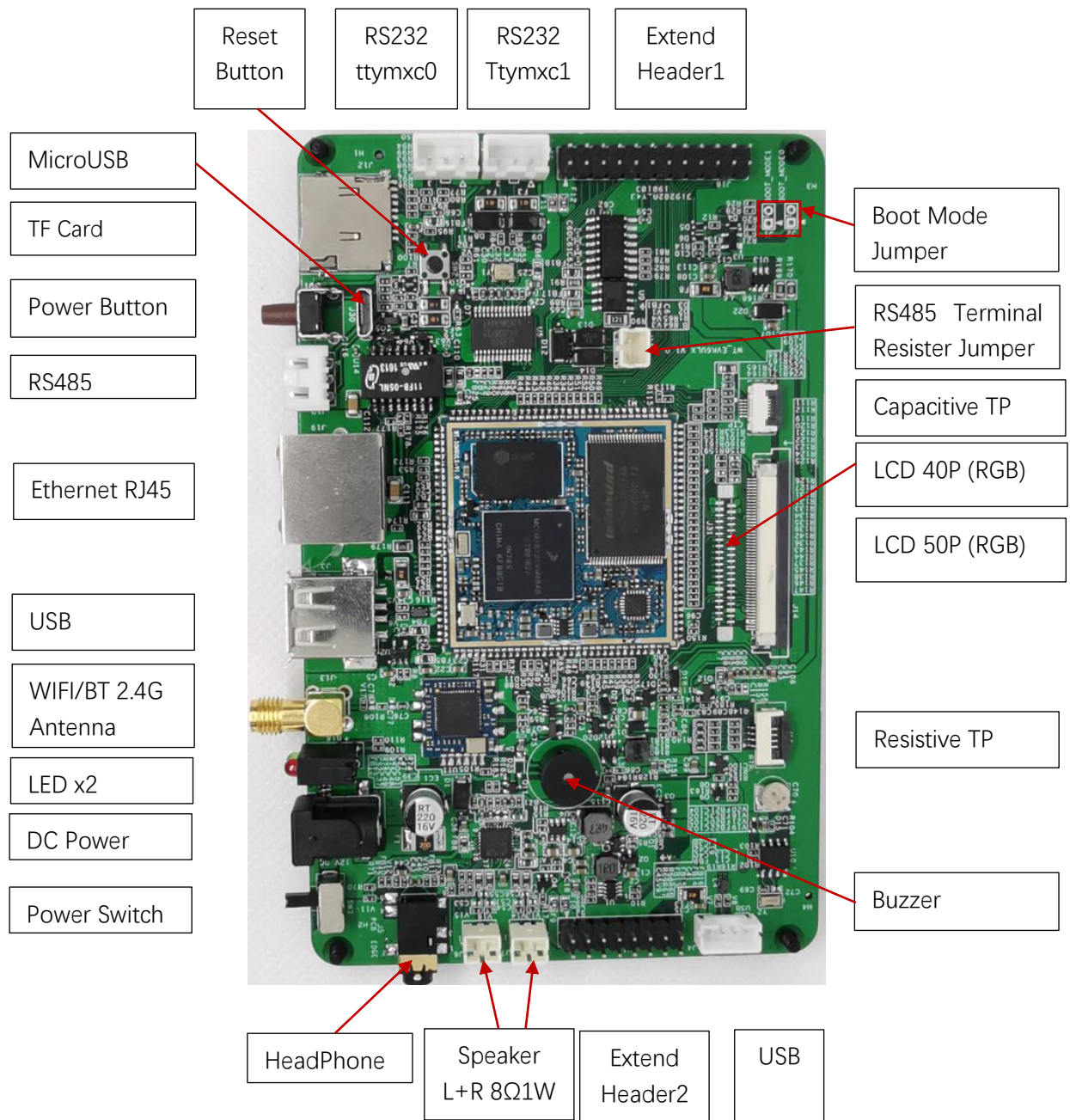


Fig2. PCB interface on top side

#### 4. Application Introduction

##### 4.1 Function Block

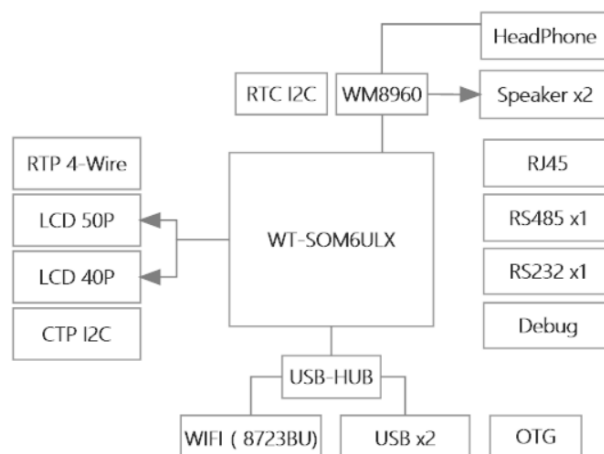


Fig3. Function block of WT-EVK6ULX

## 4.2 Applications example

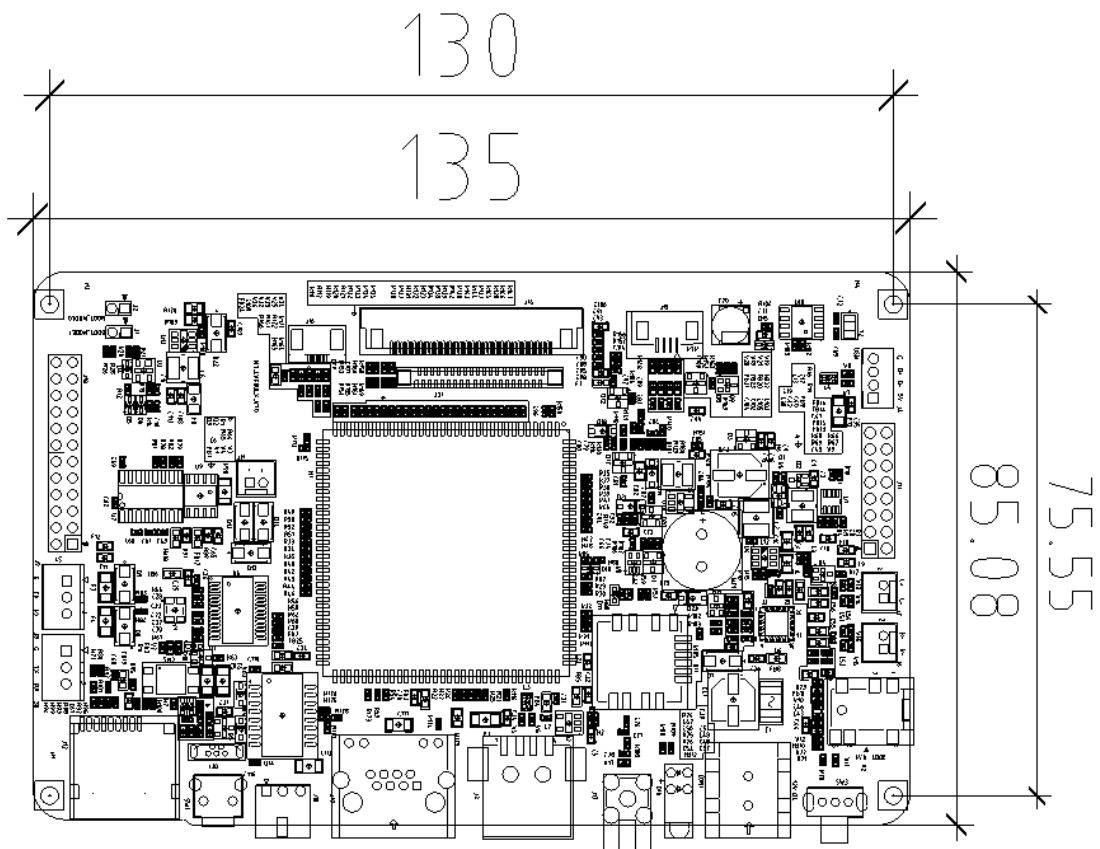


Fig4. Opinion Implement in Bank



Fig5. Queuing Machine

## 5. PCB Mechanical



## 6. Mating peripherals

The following peripherals can be provided together with WT-EVK6ULX .

### Supported LCD:

- 4.3 inch LCD 40Pin
- 5.0 inch LCD 40Pin
- 7.0 inch LCD 50Pin
- 10.1 inch LCD 50Pin

**7 inch CTP G+G**

**10.1 inch CTP G+G**

## 7. Software and Technical support

### 7.1 Software

U-boot	source available
Linux Kernel	source available
LCD driver	source available
CTP driver	source available
RTP driver	source available
Ethernet driver	source available
UART driver	source available
WIFI driver and tools	source available

Audio driver and ALSA tools	source available
Qt SDK	QT4.8 and QT5.6 supported
Rootfs	binary provided , build with BuildRoot
Cross Compiler	binary provided

## 7.2 Technical support

Linux OS driver porting

Hardware customization

Rootfs customization

Development question reply by sending email