WT-EVK6ULX Quick Start Guide

Revision history:

Version	Date	Log
V1.0	2019/03/07	Create
V1.1	2019/07/05	Add header, footer, revision history

1. WT-EVK6ULX interface description

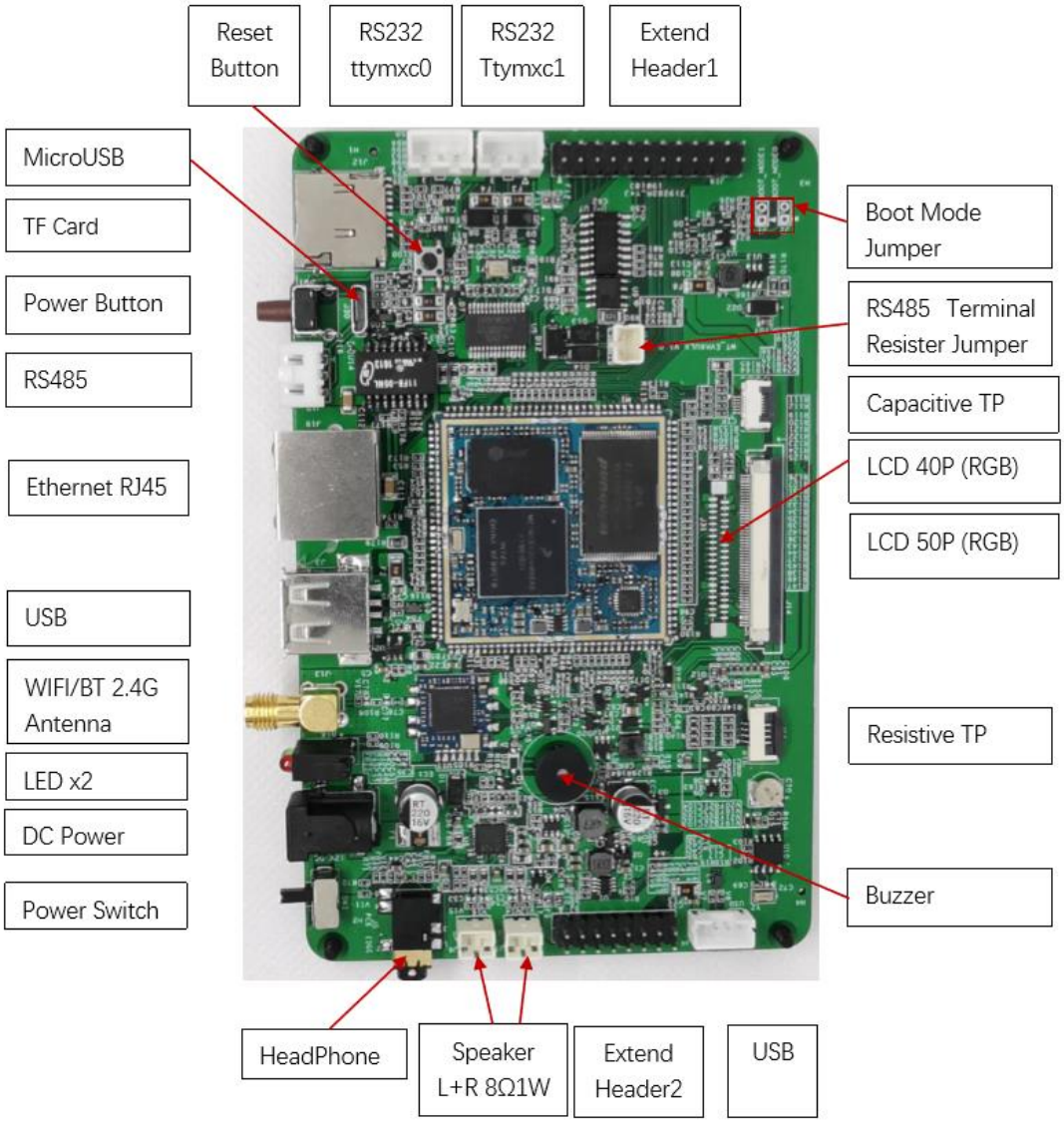

Figure 1.PCB Front interface diagram

2. Quick start system

Firstly, please check the development board and related accessories;

WT-EVK6ULX development boar	X1	development board one set
7” capacitive screen TP	X1	
7” LCD screen	X1	Resolution 1024*600
USB to serial debugging	X1	USB to serial debugging

board		tool

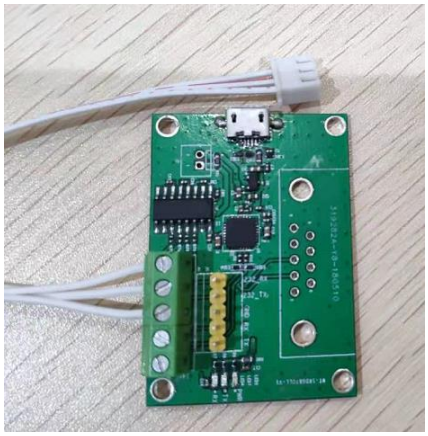

Figure 2. USB to serial debugging board

Figure 3. 7” capacitive screen TP

Figure 4. 7” LCD screen

Connect the development board and accessories as shown in Figure 6, operate method:

1) Connect the debug UART to PC

The EVK development board uses serial port 1 (J8, RS232) as debugging serial port, and connects to PC through the USB switch serial debugging board

in Figure 2. The connection method is as follow figure: RS232 adopts cross connection mode, TX connects RX, RX connects TX, GND connects directly. The microUSB terminal of Usb serial debugging board is connected to the USB interface of PC through the microUSB data line.

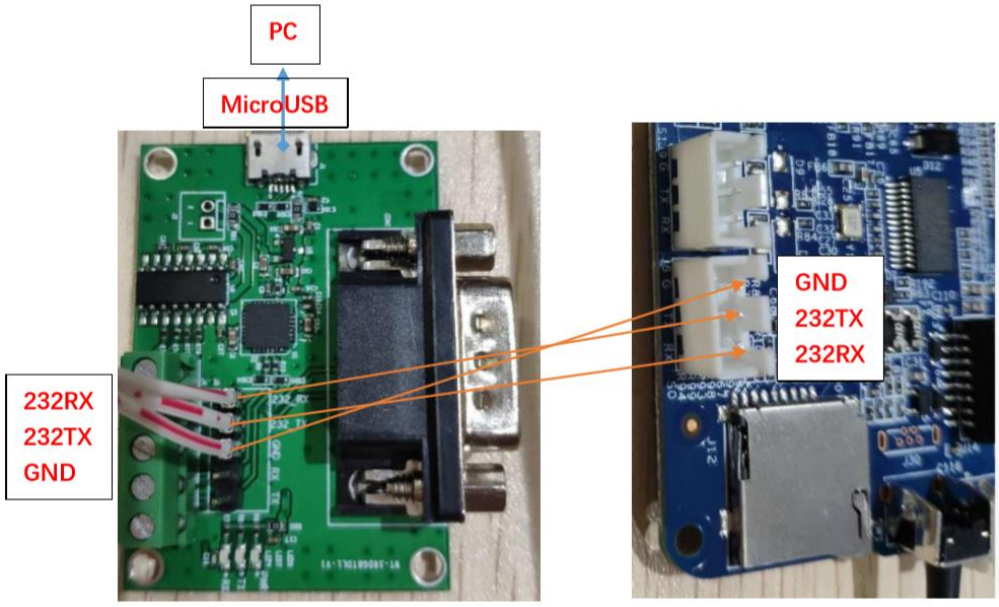

Figure 5. debug UART connection method

Note: Firstly, you need to install the driver CP2101 of the USB to serial debugging board on the PC. For the installation method, please refer to the following link:

https://www.silabs.com/products/development-tools/software/usb-to-uart-bridge-vcp-drivers

2) On the PC side, you can use serial debugging tools such as Xshell or PuTTy. Here, Xshell (Xshell 6) is used as an example. Open Xshell, click the "+" button, create a new session, fill in "WT-EVK6ULX" in the "Name" column, and select "SERIAL" in the "Protocol" section.

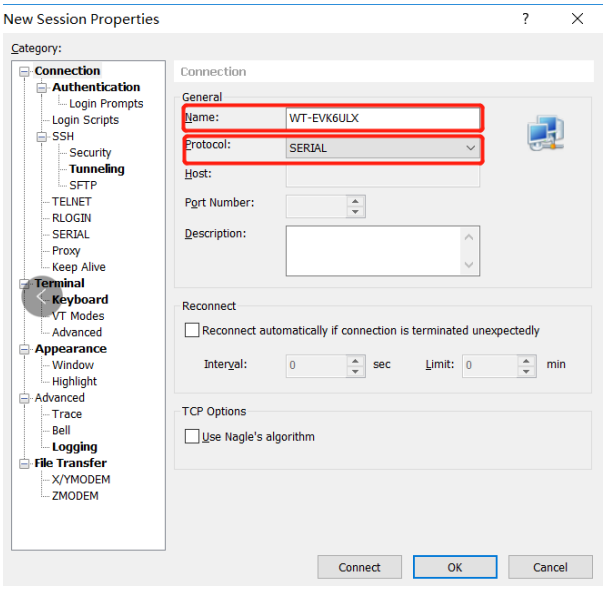

Figure 6. Create a new connection

Configuring serial port parameters: Click "SERIAL" on the left and select the corresponding port number on the PC at "Port". The parameter is configured as "115200, 8, 1, None, None".

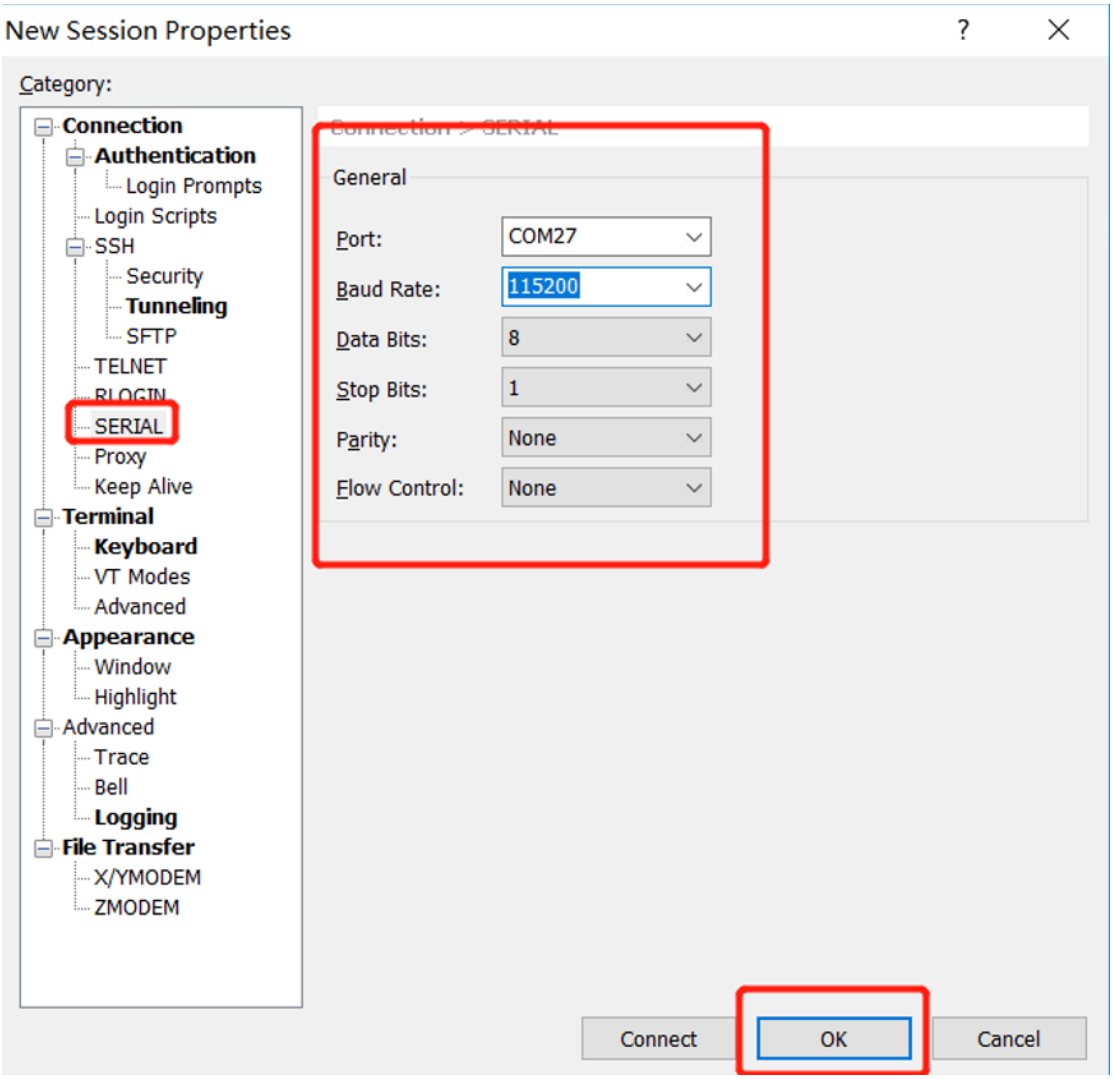

Figure 7.Configure serial parameters

3) Connect the 7-inch LCD screen to J14, and pay attention to the fpc cable with the gold finger facing down.

4) Connect the 7-inch capacitor tp to J16, pay attention to the fpc cable with the gold finger facing down.

5) Finally, connect 12V DC power supply, and toggle switch SW3 to DC seat direction (to the left).

After the system starts normally, the LED light will flash continuously, open the serial port debugging tool (such as SecureCRT, or XShell, PuTTy, etc.) on the PC, and the serial port will have the system print information output.

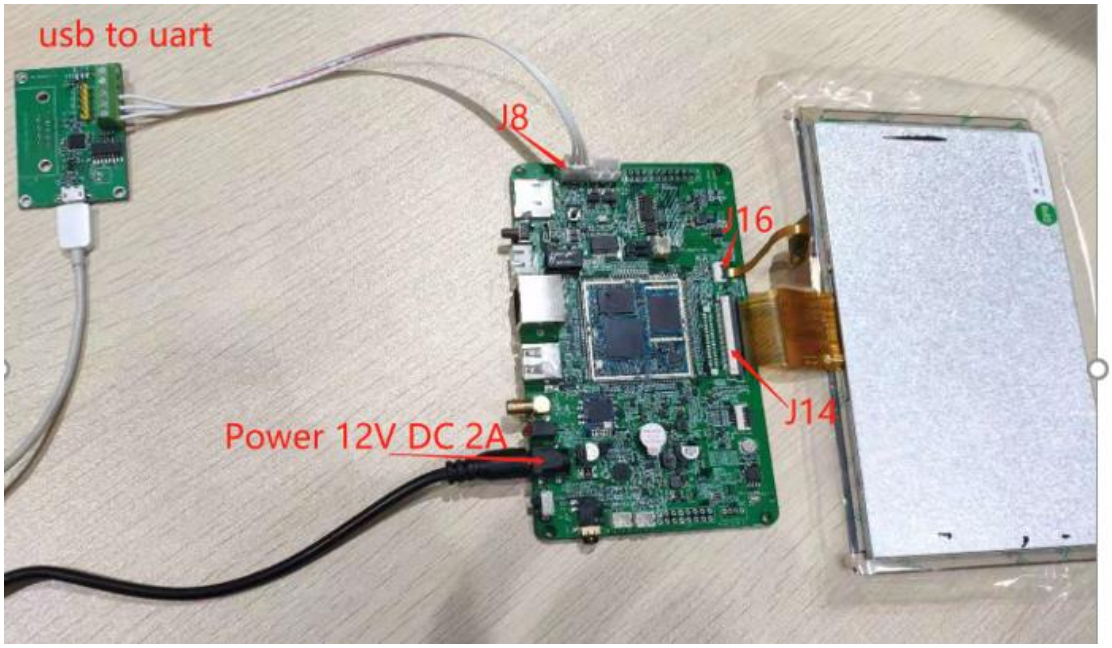

Figure 8. Development board startup connection

3. Log in the system and test the hardware interfaces

After the system is started, enter the username:root and password:wise-kit to enter the system. The startup message on the xshell terminal is shown as follows.The default system version number is V4.1.15. For testing the hardware interface of the development board, refer to the "WT-EVK6ULX Development Board Hardware Interface Test Manual".

```
Starting app/invokeExe daemon.
Starting SMB services: Could not read calibration: "/etc/pointercal"
OK
Starting NMB services: OK

Welcome to industio rootfs
industio login: root
Password:
numid=47,iface=MIXER,name='Left Output Mixer PCM Playback Switch'
  ; type=BOOLEAN,access=rw------,values=1
  : values=on
numid=44,iface=MIXER,name='Right Output Mixer PCM Playback Switch'
  ; type=BOOLEAN,access=rw------,values=1
  : values=on
numid=10,iface=MIXER,name='Playback Volume'
  ; type=INTEGER,access=rw---R--,values=2,min=0,max=255,step=0
  : values=210,210
  | dBscale-min=-127.50dB,step=0.50dB,mute=1
numid=13,iface=MIXER,name='Speaker Playback Volume'
  ; type=INTEGER,access=rw---R--,values=2,min=0,max=127,step=0
  : values=127,127
  | dBscale-min=-121.00dB,step=1.00dB,mute=1
numid=11,iface=MIXER,name='Headphone Playback Volume'
  ; type=INTEGER,access=rw---R--,values=2,min=0,max=127,step=0
  : values=127,127
  | dBscale-min=-121.00dB,step=1.00dB,mute=1
# 
```

Figure 9. System Startup Message on Serial Port Terminal

4. Technical support

Technical support, please send email to: chenwei@industio.com