



TRAINING LESSON



T&A A&C Hardware Basic-1

By Laimo

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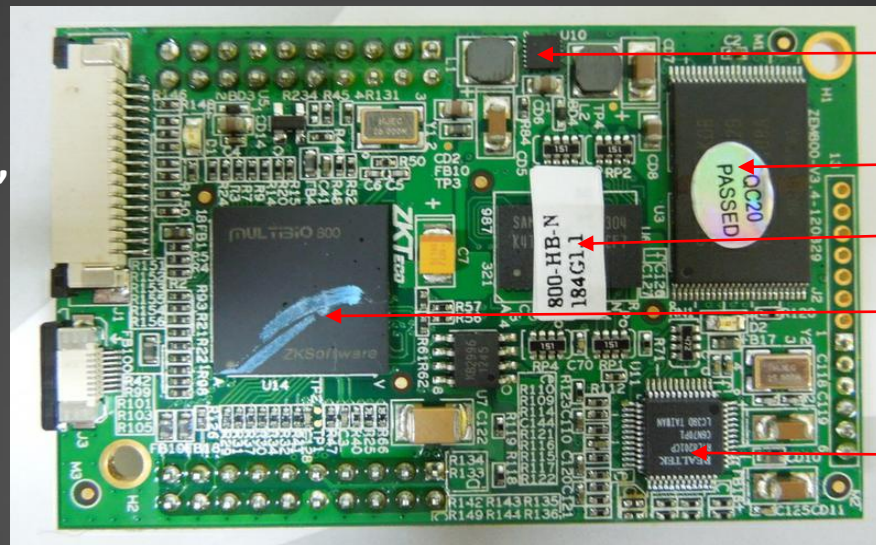
Hardware Components

- Coreboard
- Mainboard
- Fingerprint Sensor
- Screen
- Keyboard
- Camera
- Card Module

● Coreboard-[Funtion]

● Function:

---External Interface collect data and spread to coreboard, It calculates complicated data and output the result.



Power Chip

Flash

RAM

CPU

Network Chip

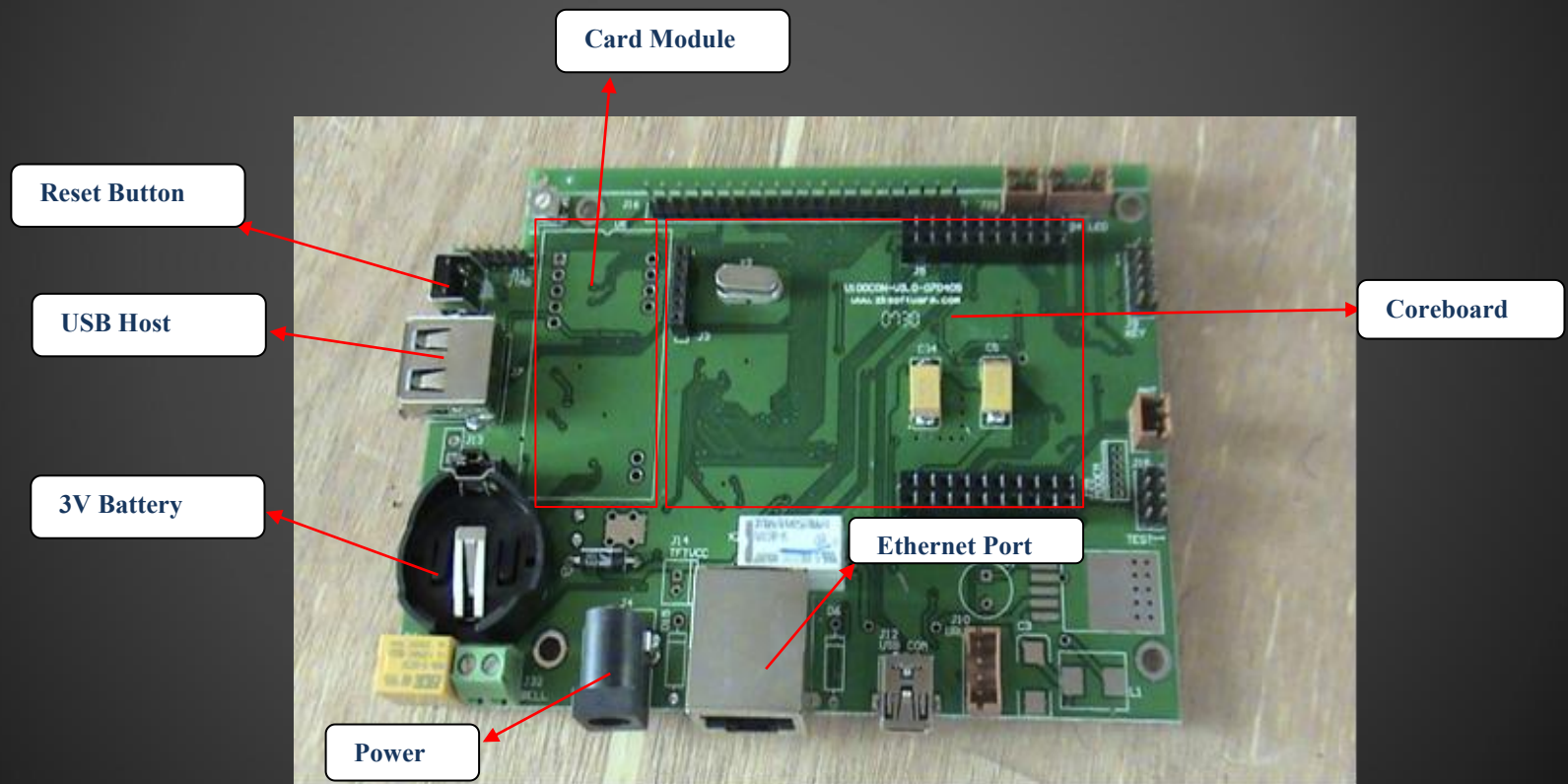


LAN Transformer

● Mainboard

● Function:

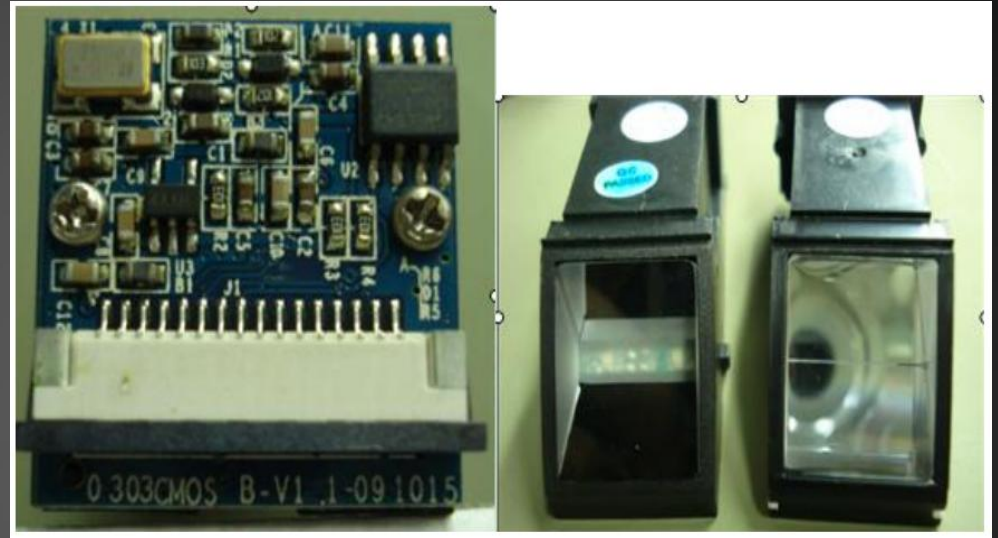
---Interface of all the input and send the data to the coreboard.



● Fingerprint Sensor

● Function:

---Register FP or verify with FP



● Screen

● Function:

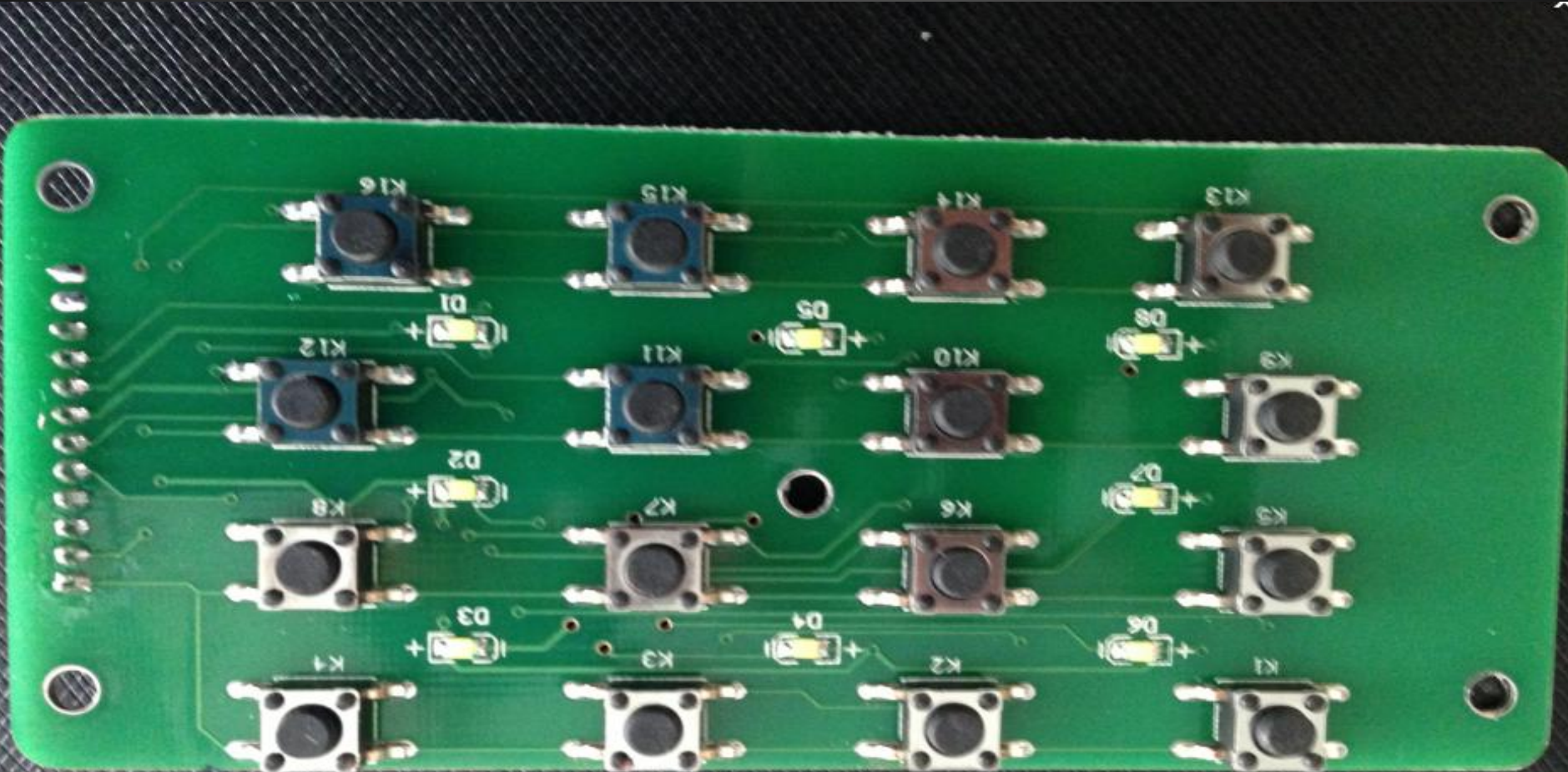
---Show the device information



● Keyboard

● Function:

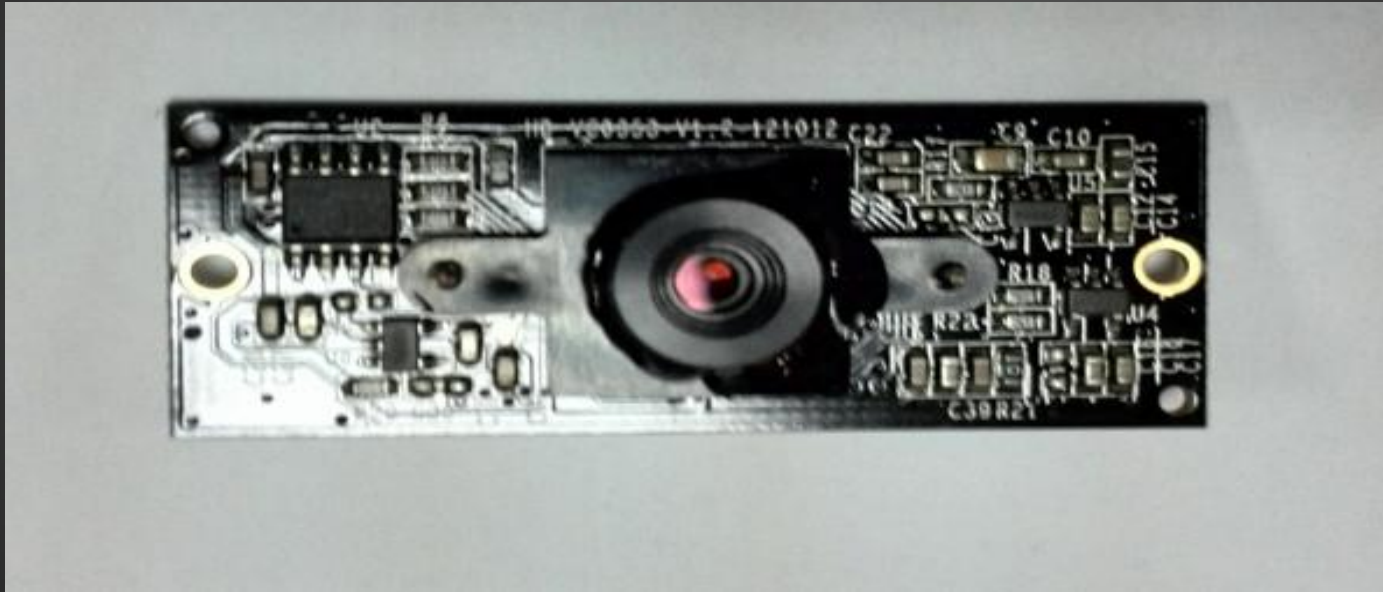
---Input the number like password



● Camera

● Function:

---Capture face when people punch card or FP.



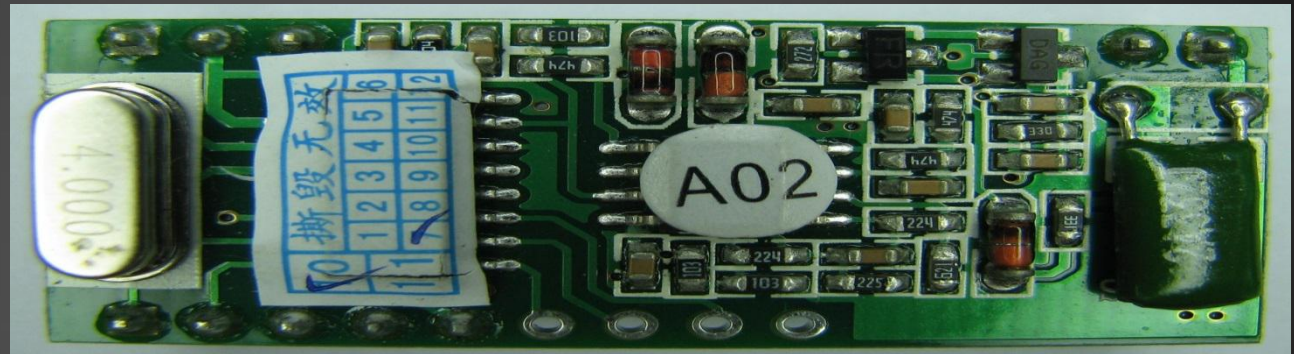
● Card Module

● Function:

---receive card number signal and send it to coreboard

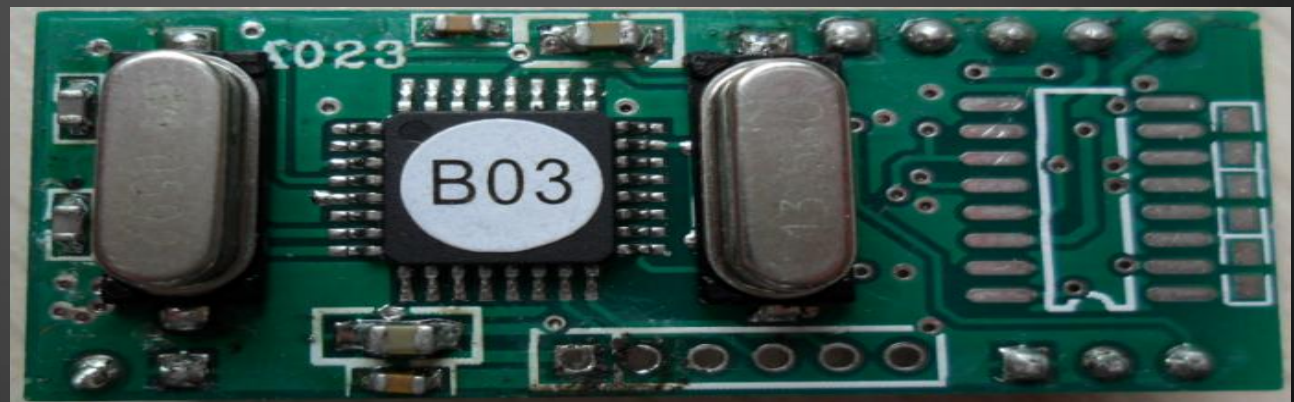
➤ A02

➤ ---For normal ID Card



➤ B03

➤ ---For normal MF Card

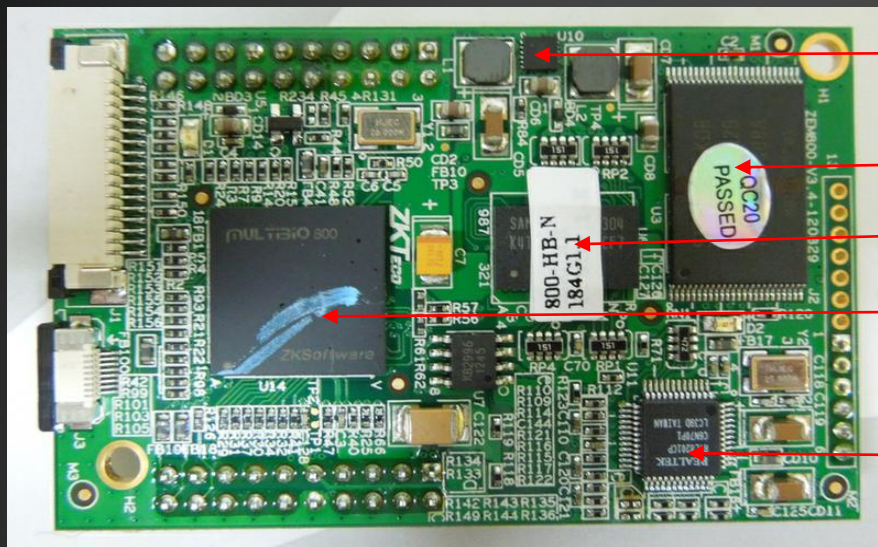


● Popular Device-IClock880



- 3.5TFT Screen
- U-Disk Download/Upload
- ID/MF/HID Card
- RS232,RS485,Wiegand
- TCP/IP,USB
- 12V DC/3A

Coreboard



Power Chip

Flash

RAM

CPU

Network Chip



LAN Transformer

Voice Chip

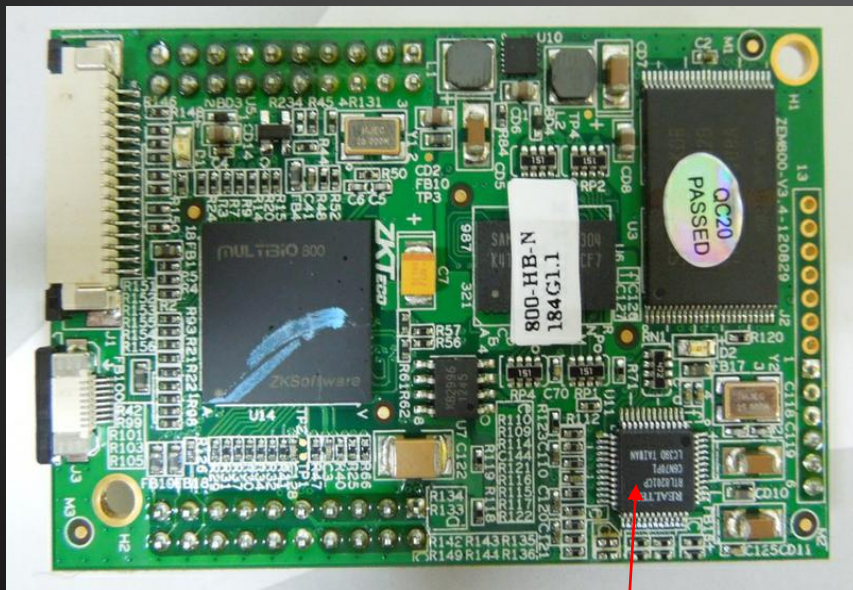
● Coreboard

- 1. The device TCP/IP function is not useful.

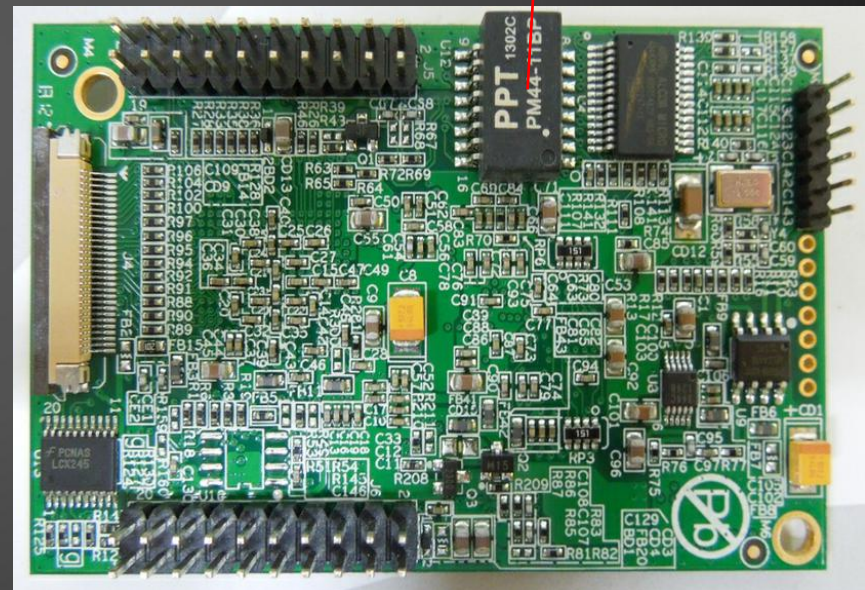
Such as you know the device IP address is 192.168.1.201 however Ping always failed.

---Confirm IP Address (Restore factory settings)

---Repalce coreboard



Network
Chip



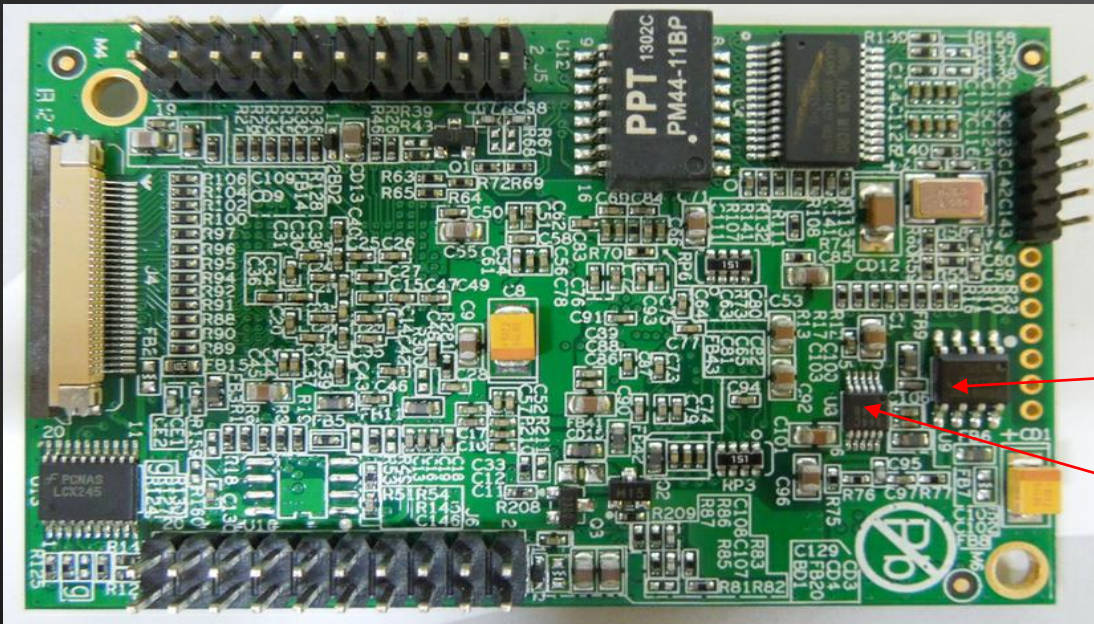
LAN
Transformer

● Coreboard

● 2. The device no voice or hoarse voice.

---Replace a good speaker

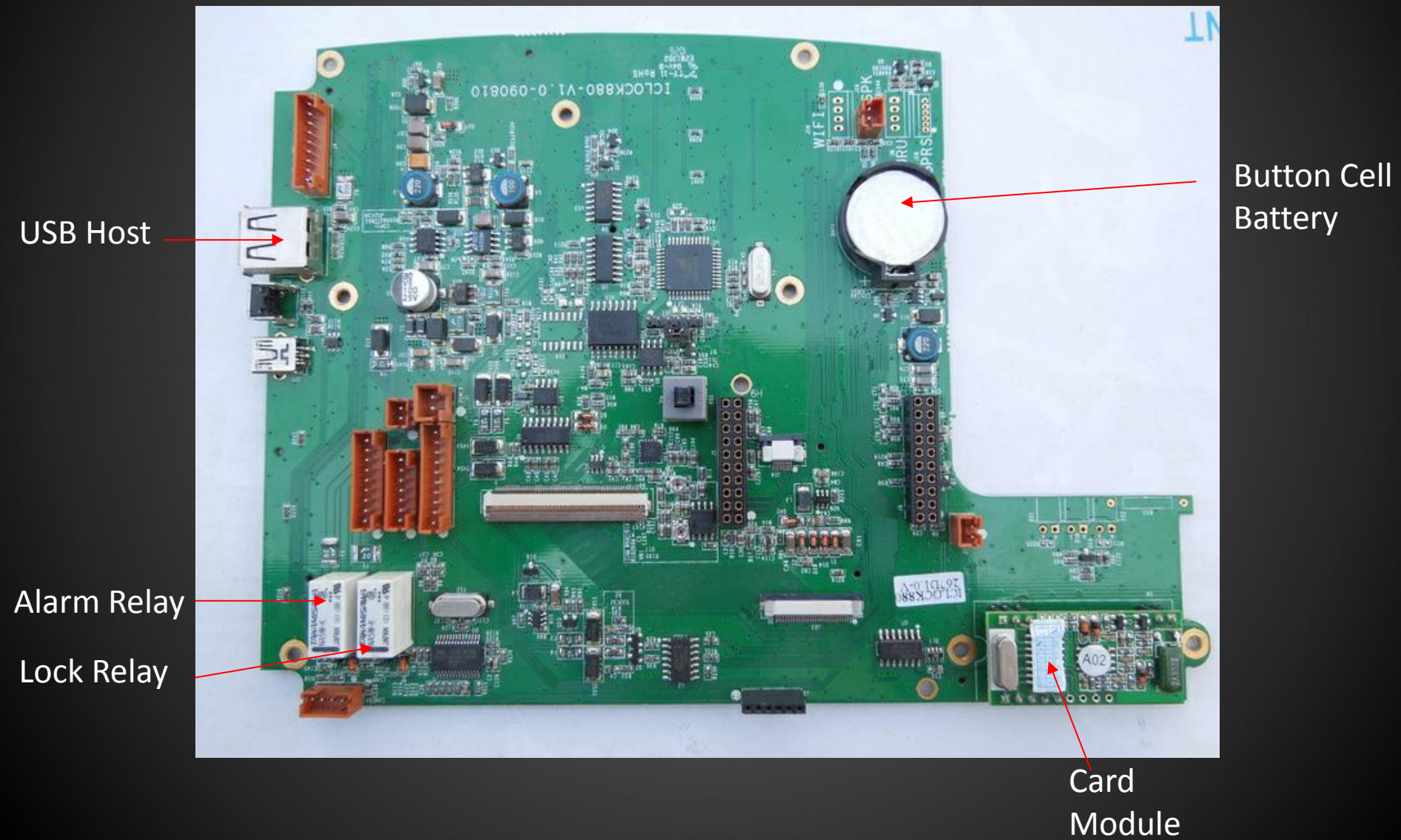
---Replace coreboard to test



Amplifier Chip

Voice Chip

● Mainboard

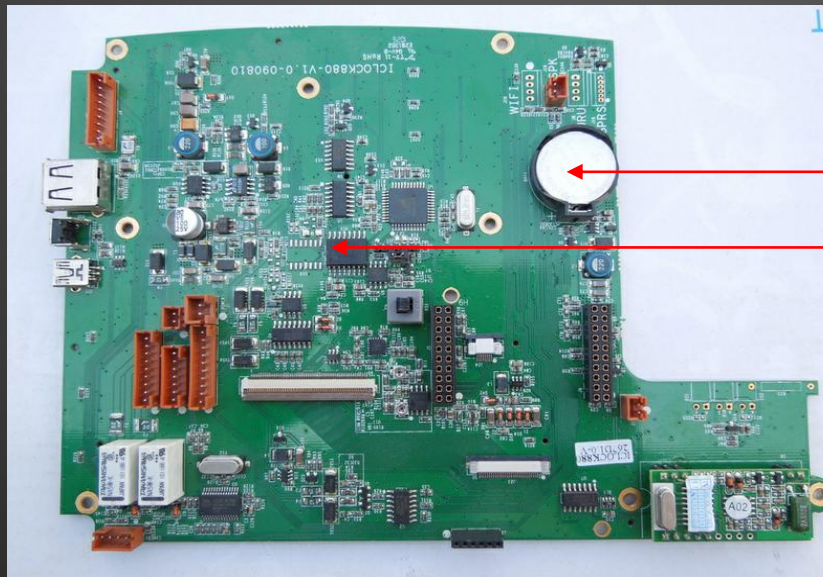


● Mainboard

● 1. Time show on the display screen is abnormal, it shows 00:00 after reset the device.

-----Change a battery

-----Change a mainboard to test

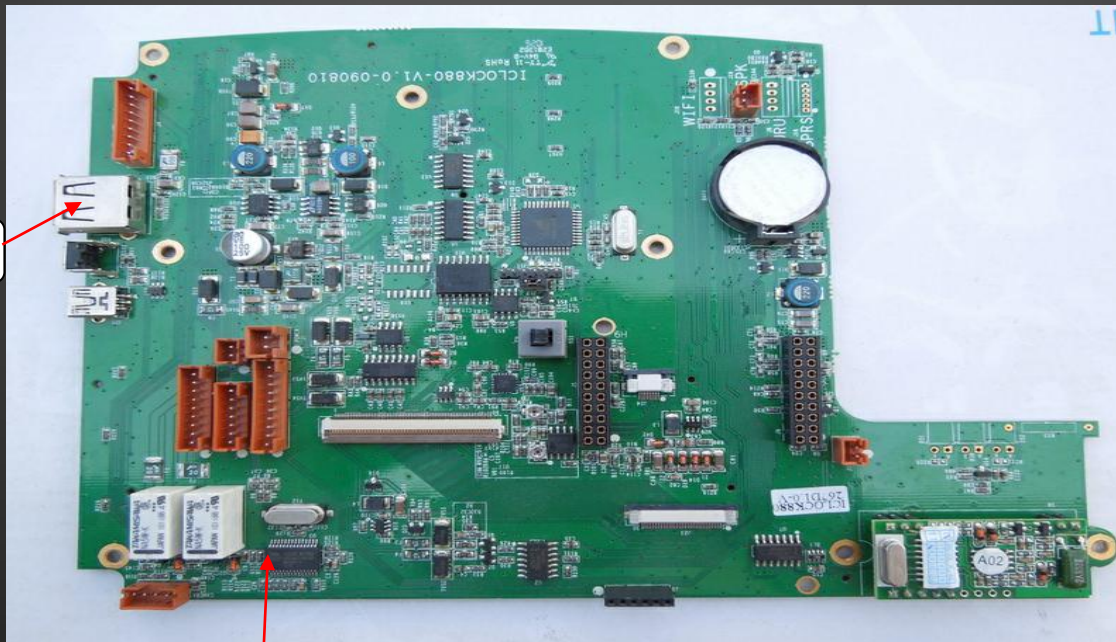


3.3V Battery

Timer Module

● Mainboard

- 2. Cannot recognize U-disk or download and upload failed
 - Replace a new coreboard to test.
 - Replace a USB Socket and USB Hub IC



USB Socket

USB Hub IC

● Mainboard

● 3. Cannot open the lock

---Check the Setting of your device, maybe there is no access authority

---Change a mainboard to test.



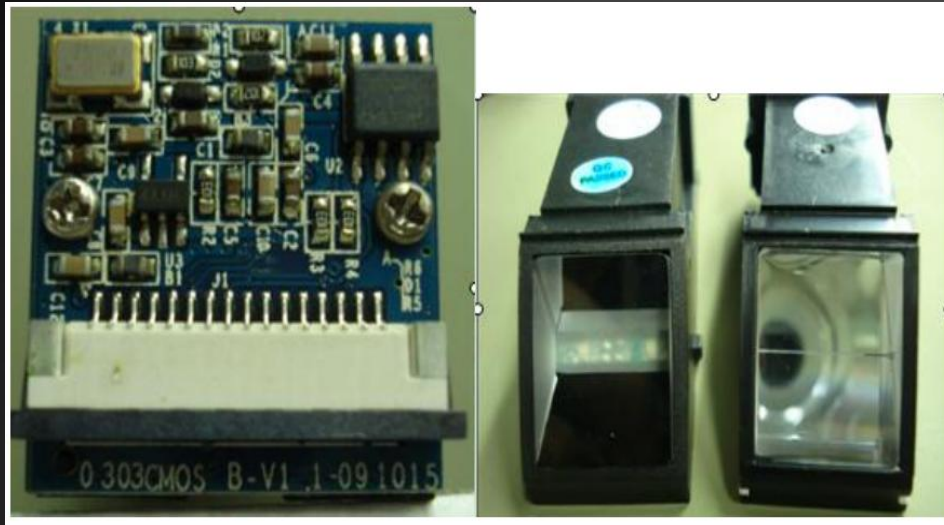
Lock Relay

● Display Screen



- 1. Device power on normally, But the display screen is no reaction or white screen or there are some bright colorful lines.
 - Check the Line between coreboard and display screen
 - Replace a good screen

● Fingerprint Sensor



- 1.No Reaction on fingerprint sensor When device powers on.
 - 1.Check the connection line
 - 2.Replace a coreboard.



● Keyboard

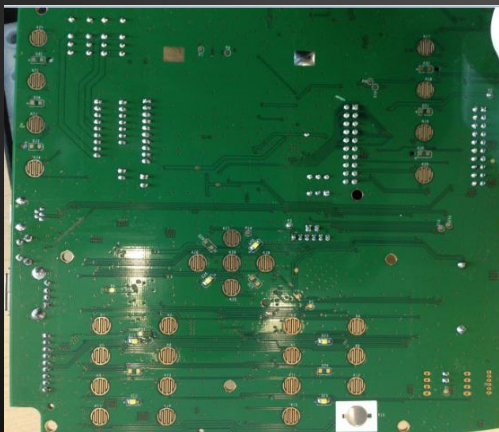
1. Press keyboard is no reaction or in mess value (press 1 shows 9 in the screen).

---replace a new coreboard to test, because mess value must be the result of unsuitable upgrade.

If test is no problem, then contact with our technical support do a correct upgrade.

2. Press keyboard is slow reaction or it's difficult to press.

---Please dismantle the device and find these two board, then clear it.



● Camera

Don't capture the face.

----Replace a good coreboard to test, because some driver file or parameter would influence that function.

----Replace a same camera to test.

Image is not clear.

----Change another new camera.



● Popular Device-F18

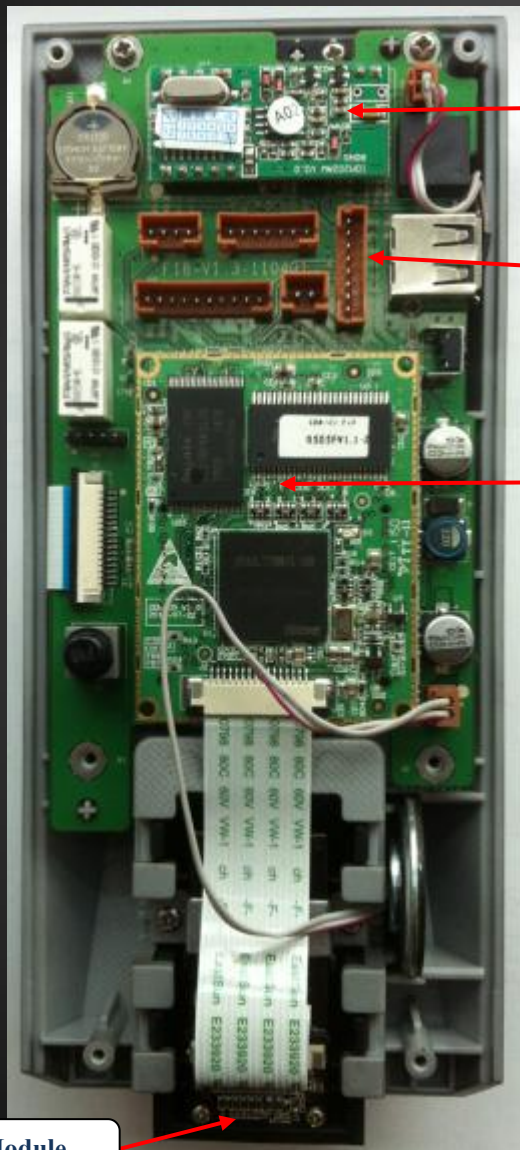


- ID Card(Standard)/MF Card(Optional)
- U-Disk: Upload UserInfo / Download Att-log
- RS232: Connect Printer
- RS485: Connect FR1200(FP Reader)
- Power: 12V DC/3A

● System Integration



General Structure

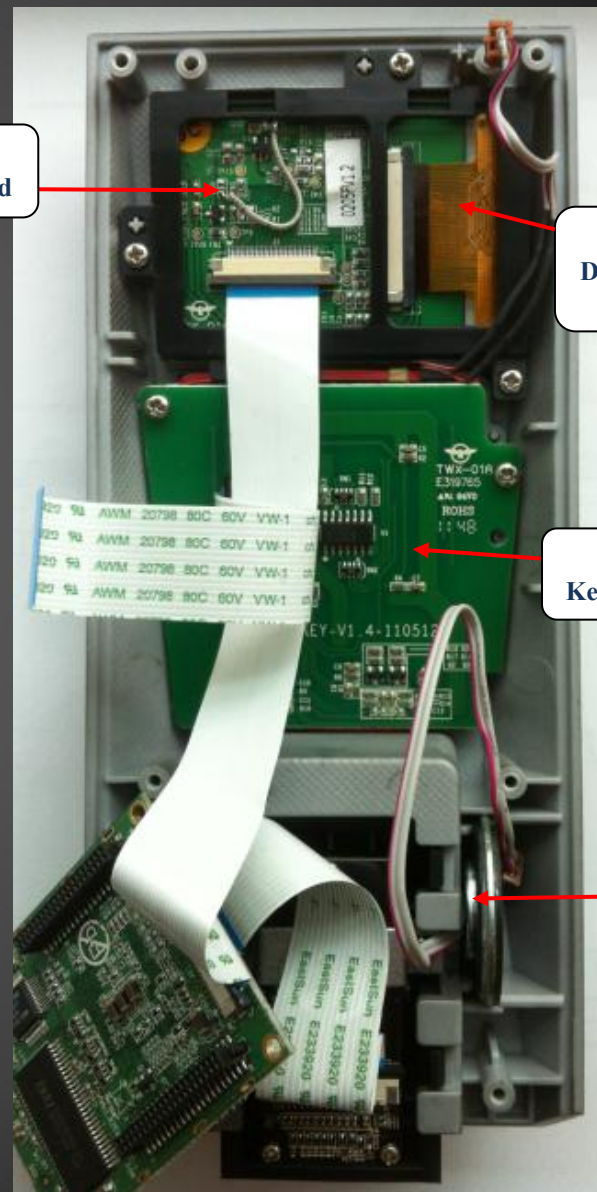


A02-ID Card Module

F18
MainBoard

ZEM720
Coreboard

ZK3300 FP Module



Screen
Switch Board

3_TFT
Display Screen

F18
Keyboard Board

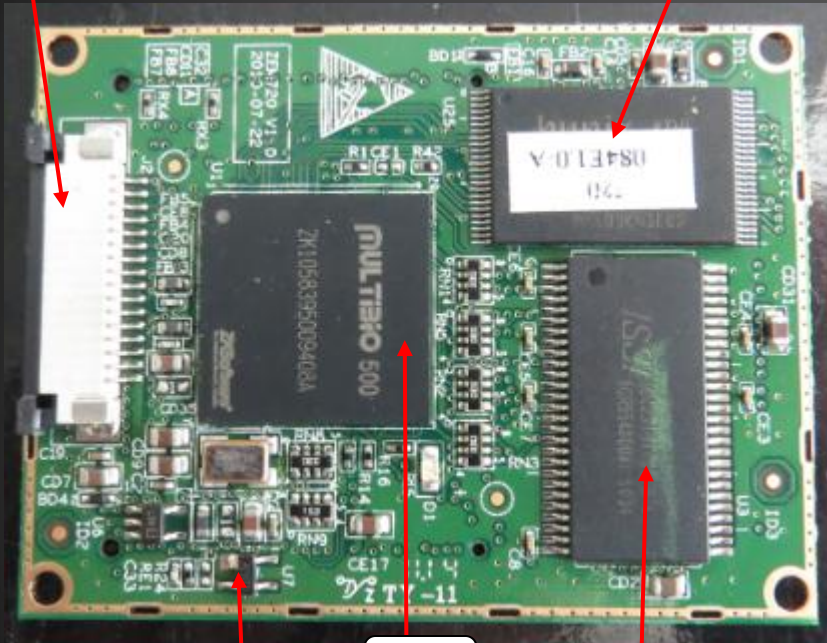
Speaker

● Coreboard-[ZEM720]

FP 16Pin

FLASH

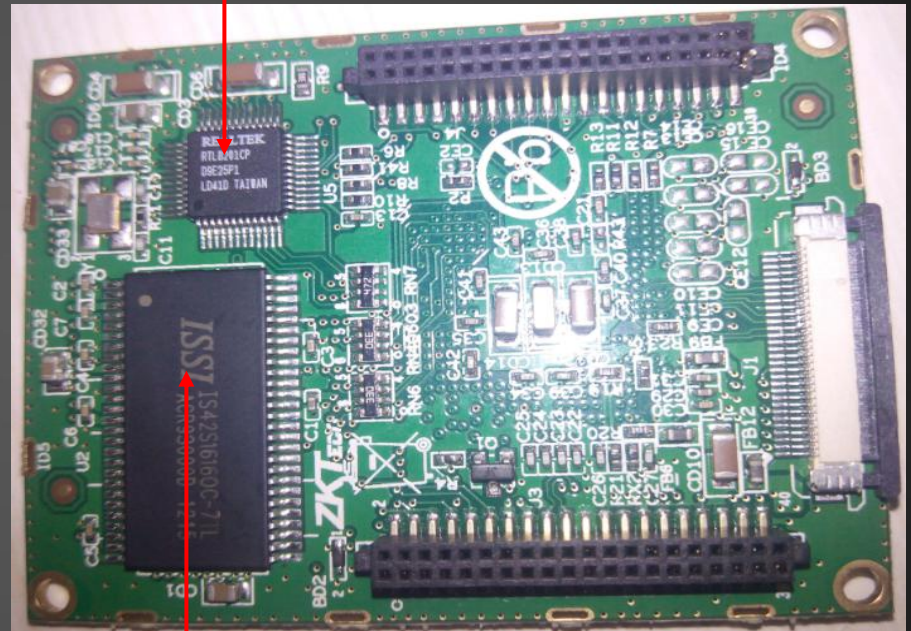
Network Chip



Reset Chip

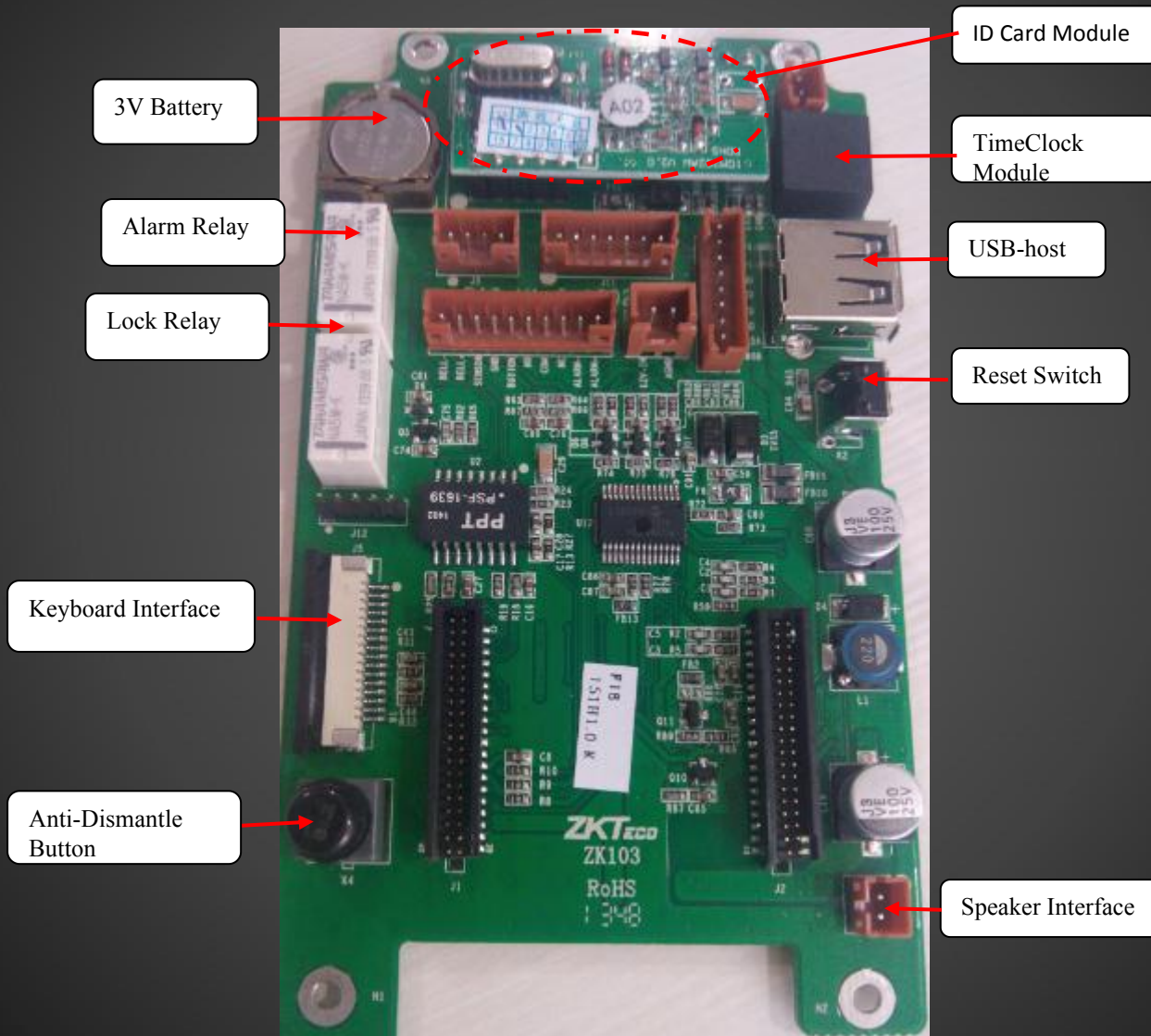
CPU

RAM



RAM Chip

● Mainboard-[F18]





● Mainboard-[F18]-Common Issues

1.The device is no reaction even though you give power.
Or fingerprint sensor is not bright, display screen is not bright.
---- Replace a new mainboard to test.

●Fingerprint Sensor-[ZK3300]



ZK3300 FP
Sensor

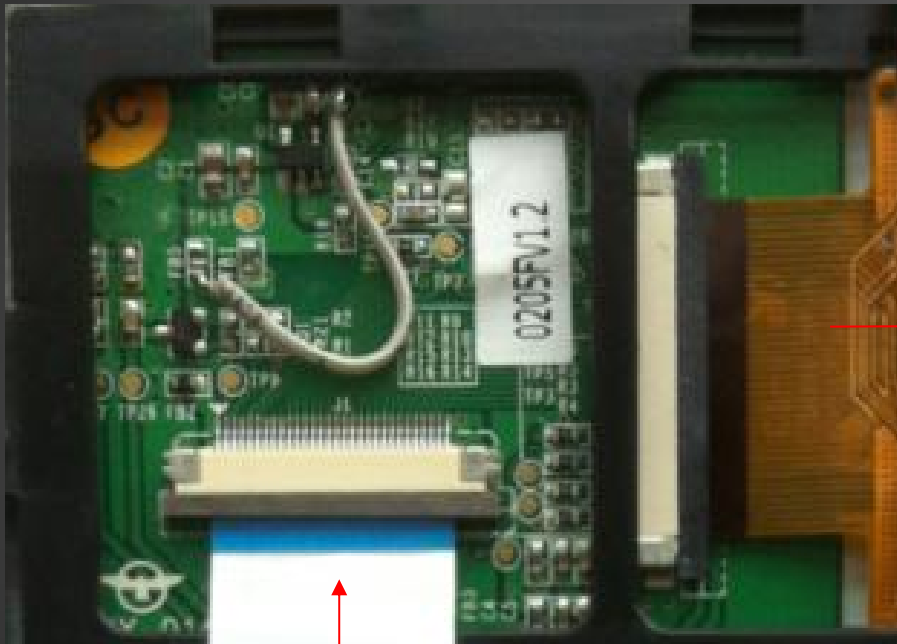
Connection Line

1.Can't recognize fingerprint or there is no reaction when you punch fingerprint.

-----Enter menu(Auto Test)

-----Change a line or FP Sensor

● DisplayScreen-[3.0_TFT]



Display Screen

Connection Line



● DisplayScreen-FAQ

1.After Power on of device, screen show inception(white display or black display or some white lines or colorful display). However the device runs well.

---1.Check the connection line between coreboard and screen.

---2.Replace a new screen to test.

---3.Replace a coreboard to test.



● Keyboard

1.Keyboard is not working.

---Please check the cable between keyboard and main board, reinsert it and replace it to try.

---Replace a coreboard from another good device to test.

---Change another keyboard.

● Card Module



A02 Card Module



Replace ID Antenna

1.No Reaction when punch card

---Almost possiblity is setting of coreboard files.

---Replace Card Module and Antenna



Question Time



Thanks



TRAINING LESSON

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