

# F310 Introduction

V1.0



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# Chapter 1. F310 Product Introduction

## 1.1 Product Introduction

Feitian F310 is a smart mobile POS product with PCI certification. It has a stylish and smart design. Connect with smart phone or tablet via Bluetooth interface, you can easily and quickly complete the payment process. It can achieve payment progress anytime anywhere which provides end users with a new experience of payment.

This product is developed based on Android 10 operating system, software including android system and secure system, the function is simple and easy to use.

Both android system and secure system can be upgraded remotely or upgraded by TF card/OTG+U disk, lower the following cost of development and maintenance.

### The features of this product:

#### ■ Portable

The appearance is portable, suitable for mobile use.

#### ■ Powerful

Support magnetic stripe card, contact card and contactless card. Support WiFi and Bluetooth.

Support 1\* type C Port, support USB2.0 and OTG.

#### ■ Certified

CE, PCI, EMV L1&L2, EMV CL L1, Amex, payWave, Paypass, Discover, JCB, Pure, qUICS, TQM(TBD) certified.

#### ■ Remote upgrading

Firmware can be upgraded remotely, reducing the cost of late development and maintenance.

## 1.2 Product Appearance

The F310 product appearance is shown as follows:



Figure 1 F310 appearance figure

## 1.3 Specifications

### 1.3.1 Dimensions

Size:155.2 x 76.7 x 16.5(mm)

### 1.3.2 Screen

Use a 5.5-inch screen with a resolution of 720\*1440 and multi Touch Panel.

### 1.3.3 Communication Interface

- RF Band

4G: FDD-LTE:B1/2/3/4/5/7/12/17/19/25/26/28/66

TDD-LTE:B38/41

3G: WCDMA B1/2/4/5/8;

2G: GSM B2/3/5/8;

- Type-C USB port

When the device is connected to the host (for example, PC) through this interface, this interface provides functions such as charging.

- WiFi

This device can be connected to 2.4G network, support 802.11 b/g/n.

- Bluetooth 4.2

This device can be connected to smart phone or bluetooth headset through this interface.

- GPS

This device supports GPS, as well as GLONASS、Beidou.

- NFC

NFC is a POS function, which supports 13.56MHz, ISO/IEC 14443, ISO18092, Type A&B、Felica, Mifare card.

### 1.3.4 Battery and Power Source

Removable polymer lithium battery, 3.8V/3000mAh, with charge protection and RTC battery.

### 1.3.5 Audio

- Speaker

This device can play audio through this interface.

- Mic

This device can record through this interface.

- Buzzer

Notify the user by beeping when needed.

### 1.3.6 Camera

- Front Camera

A front camera: 2M, FF

- Rear Camera

A Rear camera: 8M, FF

### 1.3.7 SIM card

This device can insert into two sim card.

### 1.3.8 PSAM card

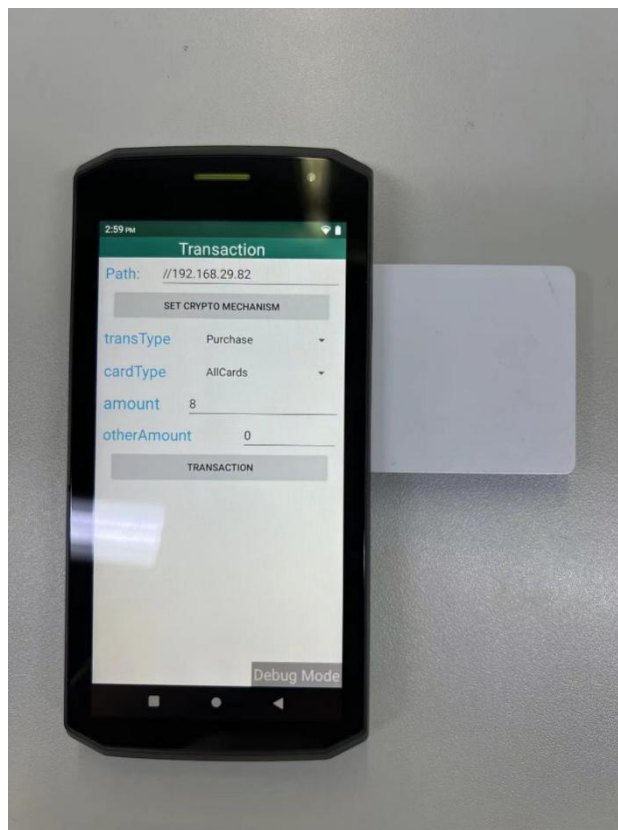
This device can insert into PSAM card.

### 1.3.9 TF-card

Support 1\*TF, max support 32 GB TF-card.

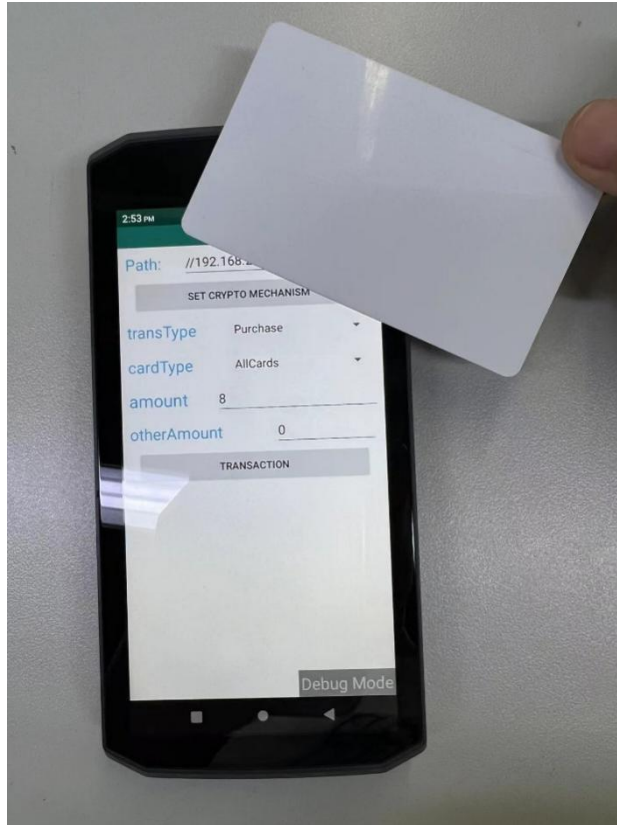
### 1.3.10 Contact IC card Reader

Support contact IC card (ISO/IEC 7816-1/2/3/4 Chip Card), Type A/B/C. When inserting the IC card, please let the chip side toward the side of the screen.



### 1.3.11 Contactless IC Card Reader

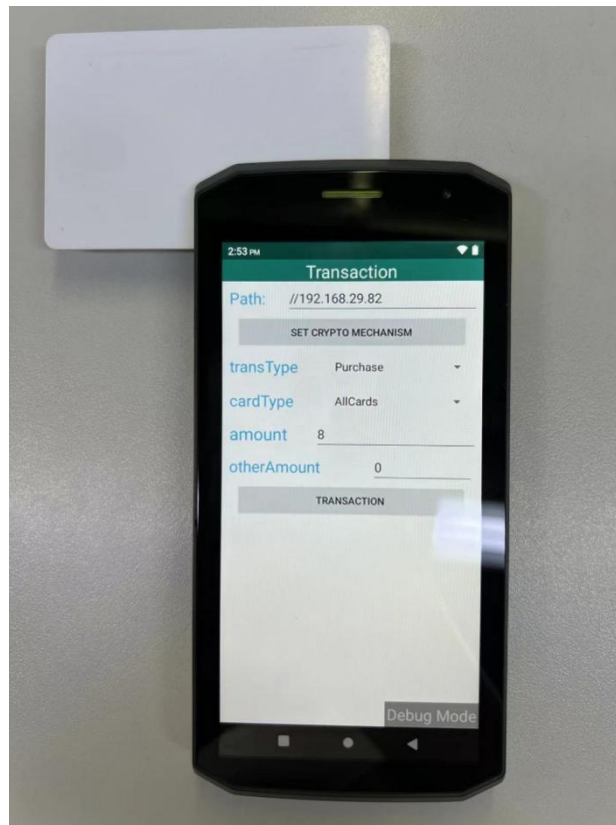
Support contactless IC card (ISO/IEC 14443 Type A, ISO/IEC 14443 Type B, working frequency 13.56MHz)





### 1.3.12 Magnetic Stripe Card Reader

The magnetic stripe card must be compliant with ISO7812 standard. The magnetic strip card reader can read data from magnetic track 1, 2, 3 at the same time, support bi-directional swipe, swipe speed ranges from 10mm/s to 100mm/s. The life cycle is over 300,000 times. The magnetic stripe must be backward when swiping card.



### 1.3.13 Features

- Tamper-proof and anti-power-down protection
- Support DUKPT key systems
- RSA、AES、3DES、SHA-1、SHA-256; Support RSA, AES, 3DES, SHA-1, SHA-256
- Support SM2, SM3, SM4
- Physical tamper-proof has self-destruction function
- Support redevelopment

## 1.4 Certifications

- PCI PTS 5.1 certified
- EMV L1/L2
- EMV Contactless L1
- PBOC3.0 L1/L2
- MasterCard PayPass
- Visa PayWave
- CE
- DSM
- UN38.3
- UL RoHS
- Telec&JATE
- Amex
- Discover
- PURE

## 1.5 Installation

### Step 1. Charging the device

- Insert the USB charging cable into the Type-C port on the down side of the device.
- Connect the other end of the USB charging cable into a powered USB socket.
- A charging symbol will appear over the battery symbol in the top right corner of the device during charging.
- Charging of the battery will typically take between 1 and 3 hours, whilst not in use.
- Battery condition is indicated in the display when the device is switched on.
- The terminal is fitted with an internal rechargeable battery which can be removed or replaced. This battery should be charged for at least 1 hours when using the terminal for the first time. It is recommended that the battery is charged to at least 40% of its capacity every 4 months.

### Step 2. Turning on the device

- Hold down the power button 2 seconds, the system will start.
- If required, remove the protective film from the display.

### **Step 3. Mobile payment application**

Please follow the instructions provided by your bank or service provider to download the mobile application onto this device.

### **Step 4. Performing a chip card sale transaction with PIN**

- When prompted, insert the customer's chip card into the slot at the right hand side of the device with the chip facing upwards.
- Follow the instructions provided by your bank or service provider to complete the transaction.

### **Step 5. Performing a magnetic stripe transaction**

- During device operation you may be prompted to read a presented card by means of the magnetic stripe.
- The magnetic stripe reader is a slot positioned on the top of the device. Swipe the card in a single smooth motion from left to right.
- Follow the instructions provided by your bank or service provider to complete the transaction.

### **Step 6. Performing a contactless transaction**

- Transactions may be completed using a contactless card or enabled product. The contactless symbol is printed on the back of the device.
- To read a contactless card it must be positioned in close proximity to the device over the contactless symbol.
- Follow the instructions provided by your bank or service provider to complete the transaction.

### **Troubleshooting**

In the unlikely event you experience issues with this product, please follow the guidelines below. If this does not resolve the issue, please contact your solution provider for further assistance.

### **No display**

- Charge the device with the supplied USB cable.
- Ensure the USB socket being used is powered.

### **Poor battery life**

- Ensure the power is being supplied during charging.
- Check battery charge indicator is at maximum
- Charge for 3 hours to ensure a full charge whilst not in use.

### **Cannot read Cards**

- Ensure the magnetic stripe card has been swiped in the correct orientation.
- Ensure the chip card has been inserted in the correct orientation.
- Ensure the contactless card has been placed at a distance of 0 to 4 cm from the device.
- Test with another card of the same type.

### **Caution and Safety Instructions**

- Do not attempt to disassemble, modify, service or repair any part.
- Do not use if damaged or with signs of tampering.
- Only use the device with supplied or manufacturer-certified accessories.
- To avoid the potential hazard of electrical shock do not use in wet environments or during an electrical storm.
- Do not use in proximity of potentially flammable gases or substances.
- Ensure cables used do not cause a trip hazard or risk the device being dropped on to a hard surface.
- Do not expose to excessive heat or cold. Only operate between -10 °C and 50 °C.
- Before cleaning, disconnect from the electrical outlet. Use only a dry or dampened soft cloth.
- Do not immerse, use liquids, sprays or aerosol cleaners. Clean all spillages quickly.
- This device is intended for handheld use only or in an approved cradle/stand.

- Dispose any part in an environmentally sound manner and in accordance with local laws.
- F310 product will not be held liable for any damage resulting from user operation that does not comply with the above-stated guidance.
- If the device will be stored/unused for extended periods of time, then it is imperative that the battery be recharged every six months or sooner to at least 30–40% of maximum charge while the terminal is in 'OFF' position.

### Frequency bands and power

- Maximum radio frequency power transmitted in the frequency bands in which this equipment operates is below the limit values specified in the corresponding Harmonized Standards.
- The frequency bands and power limits applicable to this equipment are: Bluetooth: 2.4 GHz - 2.4835 GHz, BT3.0/BLE4.2; NFC: 13.56 MHz, Type-A/B, Felica.

## 1.6 FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received, including interference that may cause undesired operation.

(3) The highest SAR value for this model device when tested is 1.42 W/Kg when used at 10 mm away from the body

## 1.7 CE Statement

This product was tested and recorded the maximum SAR value was 1.69 W / kg for the body . The device complies with RF specifications when the device used at a distance of 5mm from your body .

## 1.8 Warning:

If replace the battery pack with an incorrect model, it may cause explosion.