Universal Global Scientific Industrial Co., Ltd.

eMoBo Payment Tablet

TPA-8800

User Manual

V0.5

October 15, 2024

542007 No. 141, Lane 351, Sec. 1, Taiping Road,
Tsaotuen, Nantou County, Taiwan

Contents Index

Introduction and Hardware Overview

This manual is for the following USI Payment Tablet eMoBo TPA-8800:

- **TPA-8800**. Payment Tablet for the North America and Europe region.

Introduction

The eMoBo Payment Tablet TPA-8800 models, in this manual referred to as the Android Tablet with payment device, can provide NFC Contactless reader, IC card reader and MSR reader functions.

General safety information

- Do not use if visibly damaged.
- Do not apply power/operate below 0 ˚C and above 40 ˚C.
- Do not store in an unpowered state below – 20 ˚C and above 60 ˚C.
- Do not expose to moisture and do not store or operate in high-humidity environments.
- Do not attempt to disassemble, service or repair any part.
- Do not use if damaged or with signs of tampering.
- Do not incinerate or crush.
- To avoid the potential hazard of electrical shock do not use in wet environments or during an electrical storm.
- Do not use in the proximity of potentially flammable gases or substances.
- This product is not suitable for use in hazardous environments such as petrol stations, chemical depots, etc.
- Keep out of reach of children and pets.
- Recharge the battery only with the supplied power adapter or charging cradle.
- Do not short-circuit or damage USBC Type C port contacts by placing metal objects across the connections.
- Do not short-circuit golden pads of battery charging port contacts by placing metal objects across the connections.
- Ensure cables used do not cause a trip hazard or risk the device being dropped on to a hard surface.
- Before cleaning disconnect from electrical outlet. Use soft cloth is recommend for cleaning.
- Do not immerse, use liquids, sprays or aerosol cleaners. Clean all spillages quickly.
- Dispose any part in an environmentally sound manner and in accordance with local laws.

  It will not be held liable for any damage resulting from user operation that does not comply with the guidance stated.

How to Clean Your Terminal
WARNING: DO NOT USE UNDILUTED AMMONIA OR ABRASIVE CLEANERS
Switch off and unplug the mains power supply units from the terminal where applicable.
Carefully note how all the cables are connected and disconnect all cables before cleaning.
Apply denatured alcohol (methylated spirits) to a clean, soft, non-abrasive, low-lint cloth.
Wipe carefully.

PCI-PTS

PCI SSC’ s approval only applies to PEDs that are identical to the PED tested by a PCI Security Standards Council recognized laboratory. If any aspect of the PED is different from that which was tested by the laboratory – even if the PED conforms to the basic product description contained in the letter — the PED model should not be considered approved, nor promoted as approved. For example, if a PED contains firmware, software, or physical construction that has the same name or model number as those tested by the laboratory, but in fact are not identical to those PED samples tested by the laboratory, then the PED should not be considered or promoted as approved.
No vendor or other third party may refer to a PED as “PCI Approved,” nor otherwise state or imply that PCI SSC has, in whole or part, approved any aspect of a vendor or its PEDs, except to the extent and subject to the terms and restrictions expressly set forth in a written agreement with PCI SSC, or in an approval letter. All other references to PCI SSC’ s approval are strictly and actively prohibited by PCI SSC. When granted, an approval is provided by PCI SSC to ensure certain security and operational characteristics important to the achievement of PCI SSC’ s goals, but the approval does not under any circumstances include any endorsement or warranty regarding the functionality, quality, or performance of any particular product or service. PCI SSC does not warrant any products or services provided by third parties. Approval does not, under any circumstances, include or imply any product warranties from PCI SSC, including, without limitation, any implied warranties of merchantability, fitness for purpose or non-infringement, all of which are expressly disclaimed by PCI SSC. All rights and remedies regarding products and services, which have received an approval, shall be provided by the party providing such products or services, and not by PCI SSC or the payment brand participants.
EU Compliance Statement: Castles Technology hereby declares that this device is in compliance with the essential requirements and other relevant provisions of the R&TTE Directive.
A copy of the EU Declaration of Conformity is available online.

Card types accepted

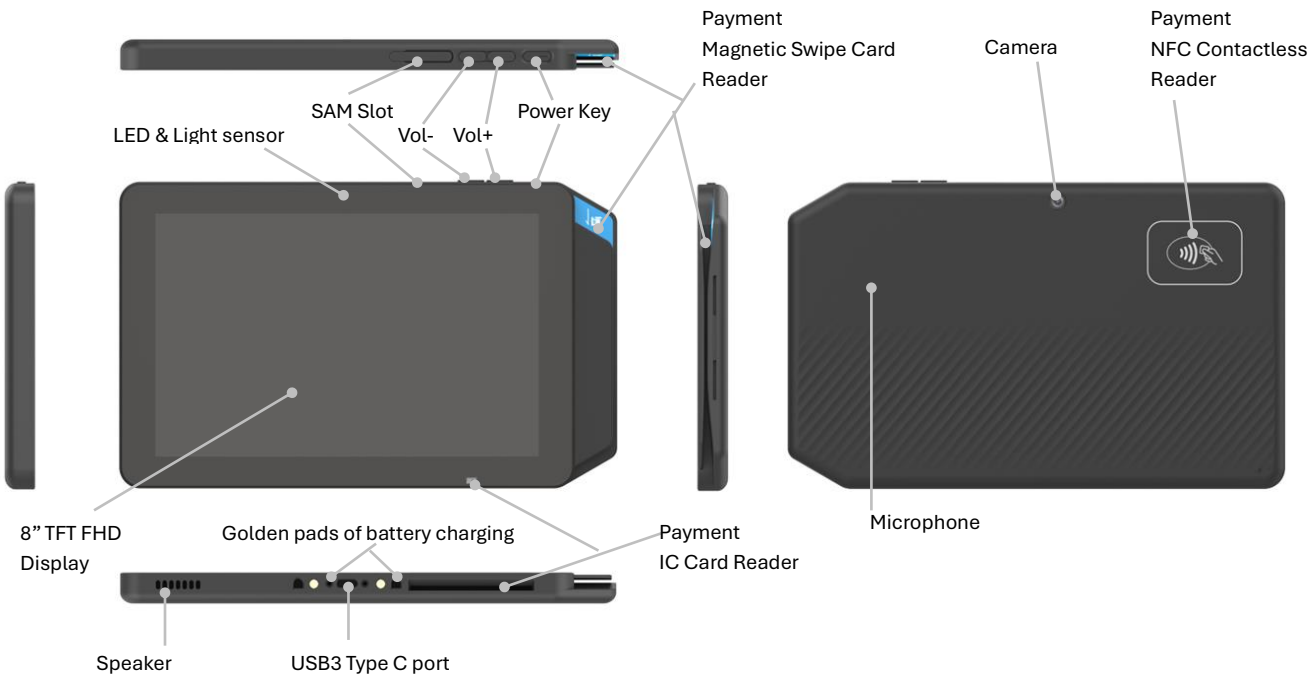
The terminal is configured as standard to support Visa and Mastercard scheme credit and debit cards. For some merchant categories, credit card support may not be allowable. The terminal can support American Express, Discover scheme cards depending upon your bank agreements with these schemes.

Please contact your terminal leasing company if you require any of the above additional services. The above configuration options are only available if permitted by your bank.

Understanding your eMoBo Payment Tablet TPA-880

Portable Terminal eMoBo Payment Tablet TPA-8800 Overview.

Device Six Views



First Boot Device

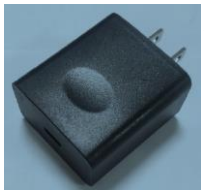
Please follow below step to boot device.
Step 1. Plug eMoBo USBC power adapter into USB3 Type C port to active and charge device battery.
Step 2. Press and hold Power key 1 second then release key to turn on device.

Package Contents

Your package contains the eMoBo Payment Tablet, an USB Type C cable, and a USBC power adapter.

eMoBo Payment Tablet

USBC Power Adapter



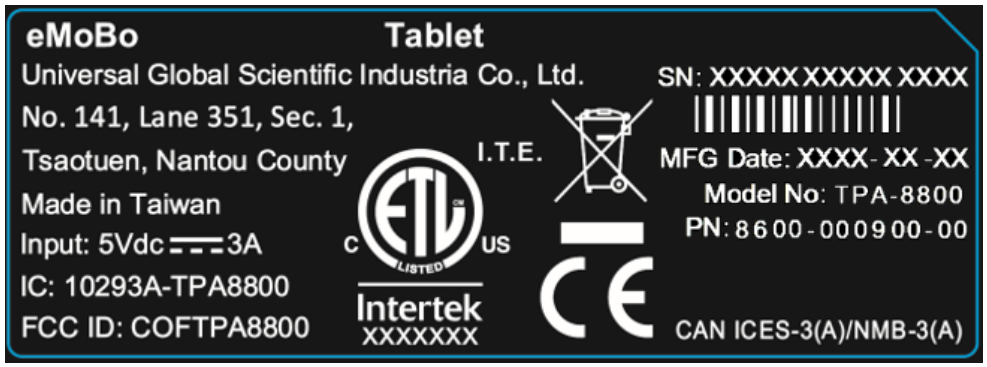
Specification:
Input: 100-240V
Output: 5V/3A

USBC Cable

Specification Overview

- **Processor:** ARM Cortex-A73 4 x Gold @ 2.0GHz + 4 x Silver @ 1.8GHz
- **Operation System:** Android 13
- **Memory/Storage:** 4GB / 64GB
- **LCD/TP:** 8” Full HD Typical 350nits backlight / Passive Capacitive Touch Panel
- **Camera:** Rear 8M pixels / Auto Focus
- **Wi-Fi:** 802.11a/b/g/n/ac
- **Bluetooth:** 2.1 + EDR/ 3.0/ 4.1 LE/ 4.2 BLE/ 5.0 LE
- **Battery:** 7000mAH , non-removable
- **Audio:** Speaker, Microphone
- **Sensor:** Ambient Light Sensor, Acceleration/Gyro sensors

eMoBo Label



eMoBo Certification

- **IC :** 10293A-TPA8800

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes : 1) L’appareil ne doit pas produire de brouillage; 2) L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

Les dispositifs fonctionnant dans la bande de 5 150 à 5 250 MHz sont réservés uniquement pour une utilisation à l’intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

CAN ICES-3(A) / NMB-3(A)

- **FCC ID:** COFTPA8800

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

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

  This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- **CE**

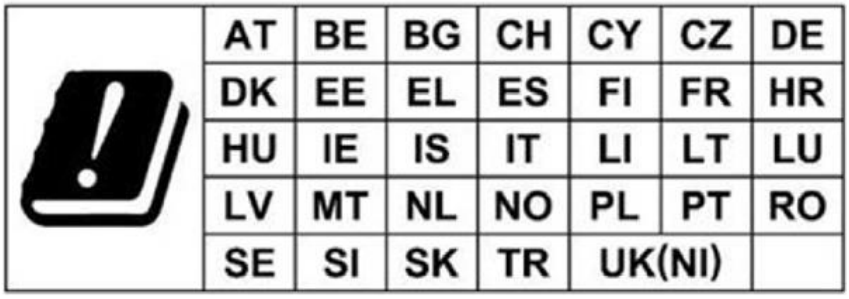
  Declaration of Conformity
  Hereby, *UGSI* declares that this radio equipment is in compliance with Directive 2014/53/EU.
  The full text of the EU declaration of conformity is available at the following internet address:
  www.usi.com.tw

WEEE STATEMENT

Waste Electrical and Electronic Equipment (WEEE)
This symbol means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Proper recycling of your product will protect human health and the environment.

Radio Technology	Transmit Frequency	Transmit Power	Receive Frequency
WiFi 2.4G	2412-2472MHz	20dBm EIRP	2412-2472MHz
WiFi 5G	5180-5320MHz	23dBm EIRP	5180-5320MHz
BT	2402-2480MHz	20dBm EIRP	2402-2480MHz
BLE	2402-2480MHz	20dBm EIRP	2402-2480MHz
NFC	13.56MHz	84dBuV/m (30m)	13.56MHz

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.



- **ETL**
- **Energy: CEC**

Introduction and Software Overview

Application Development

You can utilize tools such as Android Studio to develop your own application. The device supports standard Android APIs and proprietary payment APIs for you to call from your application.

Application Signing

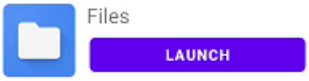
You must generate your own application key and use the application key to sign your application. You can follow below guidance on the Android Studio website to generate your own key and sign your application.

- **https://developer.android.com/studio/publish/app-signing#generate-key**
- **https://developer.android.com/studio/publish/app-signing#sign_release**

You must enforce dual control in their application signing procedure for security requirement. You need to provide an application signed by your application key to USI. USI will base on the signature embedded in your application to generate specific firmware for you. This firmware ensures that only the applications signed by your application key can be installed on the device.

Application Installation and Update

The device supports installing applications from the USB storage device. You should copy your application to an USB storage device and plug in the USB storage device to the USB port of TPA-8800. Then launch the "Files" application on the home screen as shown in the picture below.



After launching it, search for the application file in the USB storage device and click the file to install it. If the application is successfully installed, it will show on the home screen. The procedure for updating application is the same.

Android Firmware Update

The device supports updating Android firmware from the USB storage device. If there is new firmware released by USI, USI will take the initiative to inform you by email. You and USI should establish a secure file exchange method such as exchanging the PGP key first. Then USI can securely send the new firmware to you. You should copy the new firmware to an USB storage device and plug in the USB storage device to the USB port of TPA-8800. Then launch the "OSUpdater" application on the home screen as shown in the picture below.

After launching it, click "Select File" and select the firmware file in the USB storage device. Then click "Update" to start updating firmware. The firmware update procedure will take several minutes. Once firmware update is completed, the application will inform you to reboot the device. Press and hold the power key for 1 second and a menu will pop up. Click "Restart" on the menu and then the device will boot up with the new firmware.

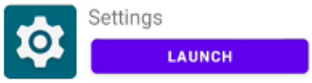
Secure Module Firmware Update

The device supports updating secure module firmware from the USB storage device. If there is new firmware released by USI, USI will take the initiative to inform you by email. You and USI should establish a secure file exchange method such as exchanging the PGP key first. Then USI can securely send the new firmware to you. You should copy the new firmware to an USB storage device and plug in the USB storage device to the USB port of TPA-8800. Then launch the "SpfwUpdater" application on the home screen as shown in the picture below.

After launching it, click “Select Spfw File” and select the firmware file in the USB storage device. Then click “Start Update” to start updating firmware. The firmware update procedure will take several minutes. Once firmware update is completed, the application will inform you the update result.

System Setting

The device supports standard Android system settings. To setup your system, you can launch the “Settings” application on the home screen as shown in the picture below.



The application lets you to configure WiFi, Bluetooth, sound, display … settings on your device. It also lets you do factory reset to your device if necessary.

Others

RF Exposure Information (SAR)
This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.
The local Specific Absorption Rate (SAR) quantifies the user's exposure to the electromagnetic waves of the equipment concerned. The maximum permitted SAR is 2 W/kg for the head and trunk and 4 W/kg for the limbs.
The highest SAR value are as follows:
Head SAR: x.xx W/kg; Trunk SAR: x.xx W/kg; Limbs SAR: x.xx W/kg.
Carry this device at least 5 mm away from your body to ensure exposure levels remain at or below the as-tested levels. Choose the belt clips, holsters, or other similar body-worn accessories which do not contain metallic components to support operation in this manner. Cases with metal parts may change the RF performance of the device, including its compliance with RF exposure guidelines, in a manner that has not been tested or certified, and use such accessories should be avoided.

Informations sur l'exposition aux RF (DAS)
Cet appareil a été testé et respecte les limites applicables pour l'exposition aux radiofréquences (RF).
Le Débit d'Absorption Spécifique (DAS) local quantifie l'exposition de l'utilisateur aux ondes électromagnétiques de l'équipement concerné. Le DAS maximum autorisé est de 2 W / kg pour la tête et le tronc et de 4 W / kg pour les membres.
Les valeurs DAS les plus élevées sont les suivantes:
Tronc DAS: 0.896 W/kg; Membres DAS: 0.896 W/kg.
Transportez cet appareil à au moins 5 mm de votre corps pour vous assurer que les niveaux d'exposition restent égaux ou inférieurs aux niveaux testés. Choisissez les clips de ceinture, les étuis ou autres accessoires similaires portés sur le corps qui ne contiennent pas de composants métalliques pour soutenir le fonctionnement de cette manière. Les boîtiers avec des pièces métalliques peuvent modifier les performances RF de l'appareil, y compris sa conformité aux directives d'exposition aux RF, d'une manière qui n'a pas été testée ou certifiée, et l'utilisation de tels accessoires doit être évitée.

Informations relatives à la sécurité des personnes utilisatrices ou non
Respect des restrictions d'usage spécifiques à certains lieux (hôpitaux, avions, stations-service, établissements scolaires…).
Pour les téléphones mobiles, rappel de l'interdiction de l'usage d'un téléphone tenu en main par le conducteur d'un véhicule en circulation.
Précautions à prendre par les porteurs d'implants électroniques (stimulateurs cardiaques, pompes à insuline, neurostimulateurs…) concernant notamment la distance entre l'équipement radioélectrique et l'implant (15 centimètres dans le cas des sources d'exposition les plus fortes comme les téléphones mobiles).

Informations sur les comportements à adopter pour réduire l'exposition aux rayonnements émis par les équipements radioélectriques
Utiliser l'équipement radioélectrique dans de bonnes conditions de réception pour diminuer la quantité de rayonnements reçus.
Utiliser un kit mains-libres ou un haut-parleur, si adapté à l'équipement radioélectrique.
Faire un usage raisonné des équipements radioélectriques comme le téléphone mobile, par les enfants et les adolescents, par exemple en évitant les communications nocturnes et en limitant la fréquence et la durée des appels.
Eloigner les équipements radioélectriques du ventre des femmes enceintes.
Eloigner les équipements radioélectriques du bas-ventre des adolescents.