



Industrial PC

# HPC-MT6877-080



PN: HPC-MT6877-080

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# HPC-MT6877-080

## Front View



## Rear View



# Side View 1



## Side View 2



## Overview

The HPC-MT6877-080 Handheld Tablet PC is an 8.0 inch rugged tablet PC, it's waterproof, dustproof, suitable for outdoor operation scenarios, especially in warehousing, supermarkets, medicare, retail and other fields.

The device supports 2D barcode scanner and RFID, it takes advantage of GPRS, 4G, 5G, WiFi, Bluetooth and other wireless communication channels to transmit data at a high speed efficiently. This portable handheld tablet complies with IP-65 protection level, it can be used in harsh environments.

This tablet PC adopts a 1200 x 1920 capacitive 10 point touch screen, it supports Android 15 operating system. It is easy to use, meets various needs, responsive and efficient.

## Ordering Options

Chipsee products can be customized during the ordering process. The product will be shipped with the pre-installed factory defaults if no extra requirements are specified. The table in the [Hardware Specification](#) section provides information about the default options bundled with the product.

### Note

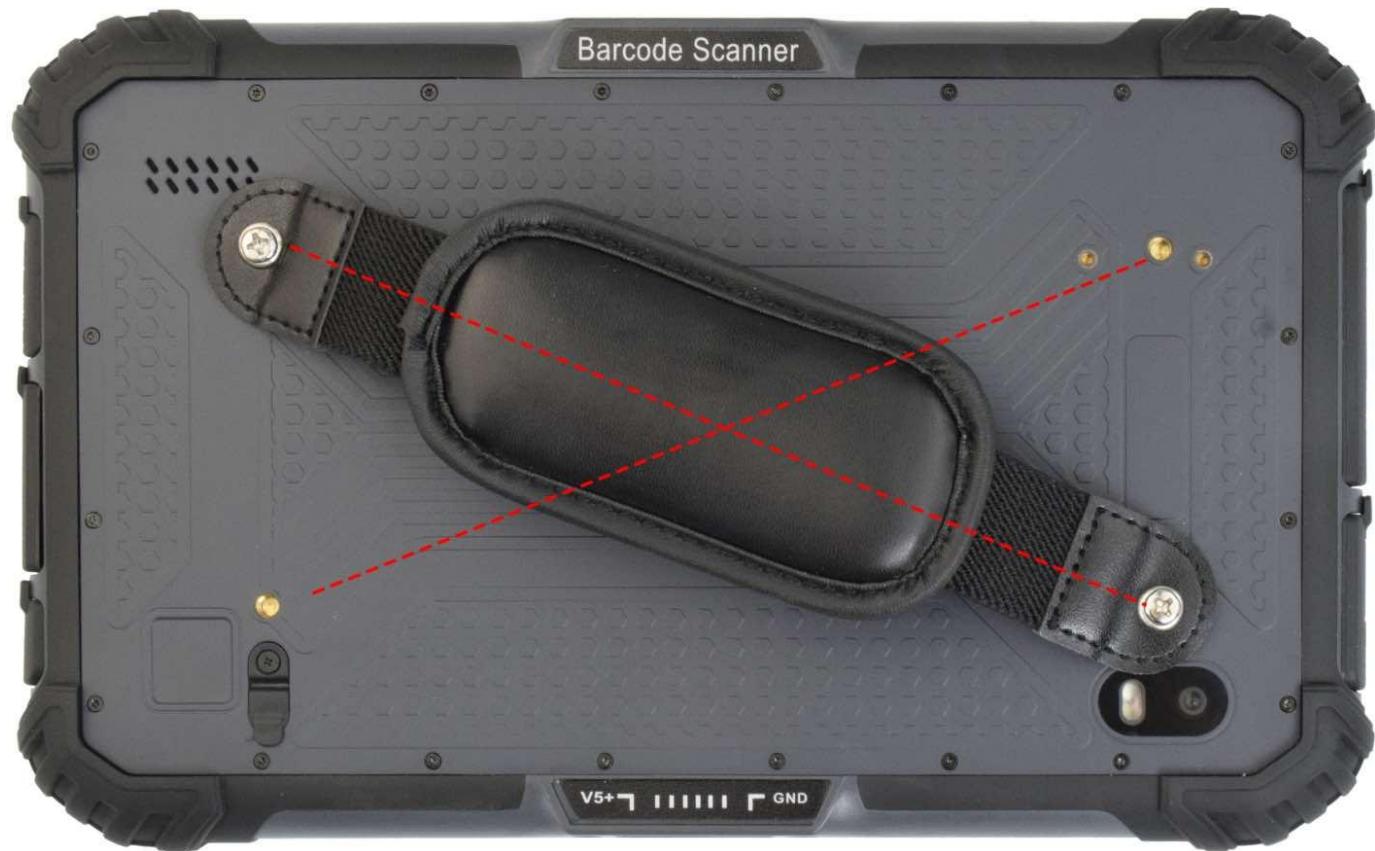
You can order the [HPC-MT6877-080](#) from the official [Chipsee Store](#) or from your nearest distributor.

## Standard Accessories

- 1 x 5V/3A Charger.
- 1 x Hand strap.
- 1 x Screen Protector



The standard accessories include a hand strap. When you use the strap, notice the installation directions, please connect either of the diagonals as shown in the image below.



## Optional Modules

The HPC-MT6877-080 **does not** include the following modules by default.

1. **Fingerprint module.**
2. **Ultra high frequency (UHF) RFID.**

# Hardware Specification

<b>Product</b>	HPC-MT6877-080
<b>CPU</b>	MediaTek Dimensity 900, MT6877, Octa(8)-Core, 6 x Cortex-A55 @ 2.0GHz + 2 x Cortex-A78 @ 2.4 GHz(Max)
<b>GPU</b>	Mali-G68 MC4
<b>RAM/Storage</b>	8GB+256GB Embedded Multi Chip Package(eMCP)
<b>Display</b>	8.0-inch(diagonal), 1200x1920, 400 NIT
<b>Touch</b>	Capacitive, 10-point Multi Touch
<b>Camera</b>	16MP Main Rear Camera, 8MP Front Camera, Flashlight, Autofocus
<b>Audio</b>	1.5W/8Ω Internal Speaker; 1 x 3.5mm Audio Jack
<b>Microphone</b>	Sensitivity: -32±2dB, Output Impedance: 2.2kΩ
<b>USB</b>	2 x USB2.0 Type-A, 1 x USB Type C (Download, Charging), USB-C port cannot be used together with USB-A ports
<b>Charging</b>	DC 5V/3A 3.5 mm Terminal; USB Type-C
<b>Battery</b>	3.8V, 10000mAh, Unremovable Li-ion Polymer Battery
<b>Buttons</b>	Power Button, Volume+/- Buttons, 1 x P Button(Scanner), 1 x F(No definition), 1 x H(No definition)
<b>SIM Slot</b>	1 x SIM Slot
<b>TF Slot</b>	1 x TF Slot
<b>GSM</b>	850/900/1800/1900
<b>TD-SCDMA</b>	B34/B39
<b>WCDMA</b>	850/900/1900/2100
<b>4G/LTE</b>	FDD-LTE: B1/B2/B3/B4/B5/B7/B8/B12/B17/B20/B28; TDD-LTE: B34/B38/B39/B40/B41/B66
<b>5G</b>	N1/N5/N8/N28AB/N78/N41
<b>Wired Ethernet</b>	Not Supported
<b>RS232</b>	1 x RS232 (Through MiniUSB)
<b>WiFi</b>	802.11 a/b/g/n/ac/ax, 2.4G+5G
<b>Bluetooth</b>	BT5.2, BLE, Backwards Compatible
<b>GPS</b>	Support for GPS/BeiDou/GLONASS
<b>NFC</b>	Support for ISO/IEC14443, ISO/IEC15693, MIFARE, 13.56MHz, Distance: 1-3cm; Front NFC
<b>Barcode Scanner</b>	Support for integrated scanner

<b>Product</b>	HPC-MT6877-080
<b>Fingerprint Module</b>	Support for fingerprint module ( <b>optional</b> )
<b>Sensors</b>	Light, Geomagnetic, Barometric, G-Sensor, Acceleration, Gyroscope, Distance, Vibrate (motor)
<b>OS</b>	Android 15
<b>Operating Temp.</b>	From -20°C to +55°C
<b>Storage Temp.</b>	From -25°C to +80°C
<b>Waterproof</b>	IP65;
<b>Dropping Proof</b>	1.2m, Six Sides
<b>Dimensions</b>	234 x 144 x 16.8 mm
<b>Weight</b>	600g
<b>Accessories</b>	Blue box; DC Charger(5V/3A); Wrist strap; Screws

Table 501 Key Features

# Connectivity

## TF Card and SIM Card

The HPC-MT6877-080 supports one SIM card and one TF card. To insert a TF card or SIM card, check the image below for the correct direction.



## NFC

The HPC-MT6877-080 has one NFC module. By default, NFC is enabled in the Android OS. If NFC is not responding, please go to system settings to check if NFC is enabled. If NFC is enabled, but is still not working, try rebooting the device then test NFC again.



## Scanner

When using a scanner to scan 1D/2D barcode, first ensure the scanner switch is toggled to "ON" in the system setting.

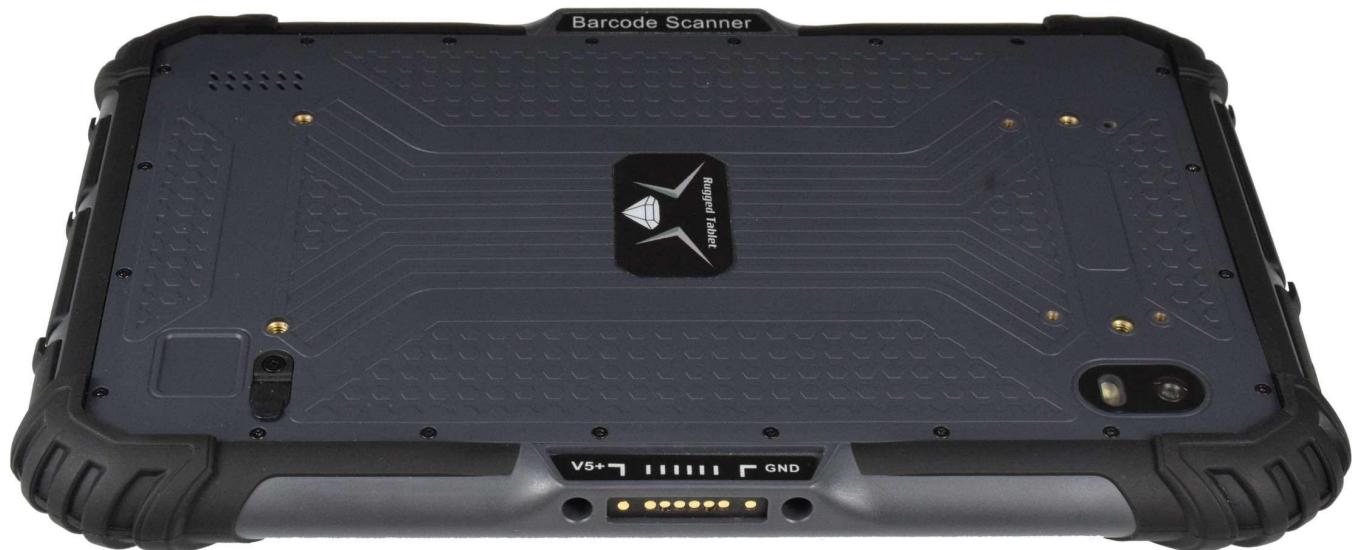
While holding the "P" button, the scanner's led will be turned on, then you can aim the scanner at 1D barcode or 2D barcode, the code data will appear on the screen.

For 1D bar code, the scanner can read UPC-A, UPC-E, EAN-8, EAN-13, Code128, Code39, Interleaved 2 of 5, Codabar, Matrix 2 of 5. For 2D bar code, the scanner can read Code39, PDF417, Data Matrix.



## Bottom Pogo Pins

The bottom pogo pin supports charging the device in a dock, here is the pin definition:



Pin	Definition	Note
Pin 1	VCHG(5V IN)	Charging
Pin 2	VBUS(5V OUT)	OTG
Pin3	DM3	USB2.0
Pin4	DP3	USB2.0
Pin5	GND	
Pin6	RS232-TX0(Not supported on Android)	RS232
Pin7	RS232-RX0(Not supported on Android)	RS232
Pin8	GND	Charging

An **optional** dock is available for this product, it has 2 USB-A ports and an Ethernet port, it can also be used to charge the product.

Note that the USB-A port and Ethernet port on the dock cannot be used together with the USB-C port. I.e. when the USB-C port is occupied, neither the USB-A port nor the Ethernet port is usable.

The RS232 port on the dock is not functional under Android system. The USB-A ports and Ethernet port are functional under Android system.



## Serial Port

RS232	Port
Mini USB	/dev/ttysWK1

There is a Serial Chat app installed in the Android system, you can use a mini USB cable to connect the RS232 port (protocol is RS232, data is transmitted through mini USB) and test with the app.



## USB

There are 2 USB-A ports and 1 USB-C port. One USB-A is on the top, the other is on the bottom.

There is a software OTG switch in the system setting. When USB OTG is toggled to "OFF", USB-C is enabled, USB-A's are disabled. When OTG is toggled to "ON", USB-C is disabled, USB-A's are enabled.

USB-A ports and USB type-C port are mutually exclusive, they **cannot** be used at the same time.

The USB-A and USB-C on the top:



The USB-A on the bottom:



# Charging

The HPC-MT6877-080 can be charged through:

1. 5V/3A DC charger.
2. USB-C port.

The HPC-MT6877-080 ships with a 5V/3A charger; you can charge the device through the DC input port on the top of the product.



The product ships with a DC charger.



Alternatively, you can also charge the device through its USB-C port on the top of the product.

The HPC-MT6877-080 also provides an **optional** dock for charging.



# Buttons

There are several buttons on the device, here is how to use them.

Key F/H are reserved for customization, they have no functionality out of factory.



## 1. Power Button

- Short press: wake the device/put the device to sleep.
- Long press: turn on/off the device, emergency call, reboot.

## 2. Volume up/down

- Press: adjust volume to high/low.
- Press volume up *and* power button: turn on vibrate.
- Press volume down *and* power button: screenshot.

## 3. The P/H/F buttons

- P: **scanner** button.
- F: customizable button, key 184, reserved for customization, no functionality out of factory.
- H: customizable button, key 185, reserved for customization, no functionality out of factory.

## Dimension

The dimension of HPC-MT6877-080 is 234 x 144 x 16.8 mm.

# While Using the Device

## USB

Do not short circuit the ports with metal, it might damage the circuits inside the device.

## Cleaning

Please use dry, soft cloth when cleaning. Do not use chemical solvent, or the color might fade and the case might deformate.

## Case and Panel

Volatiles might damage the case and screen, and might cause malfunction, do not pour those to the case or panel. Also do not put rubber or PVC on the device, long time contact with these materials might damage the device.

## Before Moving the Device

Unplug the power cord and cables when carrying the device. After using the device, detach the cables from the ports if there is any.

## When Not Using the Device

If the device will not be used for a long time, avoid draining the battery, maintain the battery at a proper interval. The battery performance will degrade when it's at low level for a long time, it will also take longer to charge the battery. If you find it only takes very short time to charge the battery to full, and the device lasts only a short time while you use it, please replace the old battery with a new one.

## Faults

When the device emits strange or suspicious noise, smell, or smoke, if possible, power off the device and unplug the power cable immediately, and contact us as soon as possible.

## Others

1. Fully charge the battery the first and every time you use it is recommended.
2. If an abnormality occurs in the device, please turn off the device immediately, then reboot it.

3. Avoid exposure to direct strong sunlight or heat, they might affect the internal circuit and the case.
4. Condensation might occur when environment temperature changes rapidly. In this case, wait an hour before using the device, to allow it to adapt to the new environment.
5. Strong electromagnetic fields affect the device's internal circuit, and may cause malfunctions. For example, when transmitting data between the device and a mobile phone, keep the mobile phone at least 1 meter away from the device, because phone generated electromagnetic waves may interfere with communications.

# Safety

Please take care of the following aspects when you use this device:

1. Follow the regulations when the device is used in the hospitals.
2. Keep the device and accessories out of children's reach.
3. Put the batteries in e-waste bins if the old batteries are to be recycled.
4. Do not paint the device, because paints affect the peripherals of the device.
5. Keep the device away from precision instruments.
6. Do not use harsh chemicals, harsh detergents or caustic cleaners to clean the device.  
When cleaning the device, wipe gently with normal soap water.
7. Do not store or use the device and its accessories in unsuitable high temperature, low temperature, high humidity or very dusty environments.
8. Keep the battery safe, avoid strong shakes or collisions.
9. Keep the device dry. Rain, moisture and various liquids may contain minerals that can corrode the circuits
10. Keep the device away from magnetic devices such as magnetic cards and floppy disks.  
Do not put the device, batteries and chargers in electromagnetic fields such as induction cooktops and microwave ovens.
11. Please do not put the device in a high temperature area, as high temperature may shorten the lifespan of electronic devices, damage batteries, and cause plastic parts to deform or melt.
12. Do not keep the device in a cold location because when you move the device from a low temperature location to a normal temperature location, moisture generates inside the device, it can damage the circuit boards.
13. Please use original standard batteries, chargers and other accessories. We will not be responsible if you use third party accessories.
14. Only appointed professionals are allowed to disassemble the device, do not disassemble it by yourself. If the device needs repairing, return the device to us, or contact a professional to repair.
15. Charge the battery to full capacity before it's used for the first time.
16. Take care of the UIM card, avoid scratching or bending.
17. Use the genuine accessories of the device.
18. The device has a built-in antenna, it has radiation like any other mobile devices. Do not get too close to the antenna, take care of your own safety.

19. If the wireless signal is poor, go to the coverage area to take advantage of the wireless communication features.
20. Screen performance might change due to significant temperature changes and long time usage.

# Trouble Shooting

If below **situations** occur, please follow the instructions to fix the issues. Contact a professional if none of these help.

## • Device Does Not Turn On

- a. (*Not pressing the power button correctly*) Hold the power button for at least 2 seconds.
- b. (*Insufficient power*) Charge the battery.

## • Some Applications Do Not Launch

- a. (*Insufficient storage*) Delete unnecessary media and apps, delete downloaded contents.

## • Short Standby Time

- a. (*Battery performance degradation*) Replace the battery with a new one.
- b. (*Playing games or music*) Restrict gaming and music playing activities.

## • Charging

- a. (*Bad contact*) Check or replace the power cable and plug.
- b. (*Low battery level*) Charge for 30 minutes(charging indicator often does not display), unplug, then plug in the power cable to charge again.
- c. (*Battery faults*) Replace the battery with a new one.
- d. (*Charger faults*) Use a proper charger or repair the charger.
- e. (*Using a wrong charger model*) Use a proper charger.

## • Device Turns Off Automatically

- a. (*Insufficient power*) Charge the battery.
- b. (*Settings related*) Check if the device is set to power off automatically intentionally.
- c. (*External interference*) Reboot.

## Disclaimer

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