

# **Wearable Computer**

- WD200 -



## **User Manual**

Version 1.3



## **Revision History**

Date	Change Description	Version
20250304	Initial Version	V1.0
20250415	Add Frequency Information	V1.1
20250429	Update RF Statement	V1.2
20250430	Add Frequency Information	V1.3



### **Preface**

## **About This Manual**

Thank you for purchasing the unitech product.

This manual explains how to install, operate and maintain our product. No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, such as photocopying, recording, or information storage and retrieval systems, without permission in writing from the manufacturer. The material in this manual is subject to change without notice.

## **Regulatory Compliance Statements**

### **FCC Warning Statement**

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna.
- -Increase the separation between the equipment and receiver.
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -Consult the dealer or an experienced radio/TV technician for help.
- This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



- 2. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
- 3. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

#### **FCC Label Statement**

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.
- This device must accept any interference received, including interference that may cause undesired operation.

### **RF Radiation Exposure Statement**

For body contact during operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 5 mm from the body.

Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

### **European Conformity Statement**

unitech Electronics co., Ltd herewith declares that the unitech product is in compliance with the essential requirements and all other provisions of the RED 2014/53/EU directive.

The declaration of conformity is available for download at:

https://portal.unitech.eu/public/Safetyregulatorystatement



### **CE RF Exposure Compliance**

For body-worn operation, this device has been tested and meets the ICNIRP guidelines and the European Standard EN 62209-2, for use with dedicated accessories, SAR is measured with this device at a separation of 0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Use of other accessories which contain metals may not ensure compliance with ICNIRP exposure guidelines.

In accordance with Directive 2022/2380 of the European Union, we hereby provide specific information regarding the charging capabilities and compatible devices for the CE USB-C Adapter. This notice aims to offer essential details to purchasers for informed use and compliance with the outlined safety and performance standards.

Please note that this device supports fast charging via USB Power Delivery (USB PD), allowing for efficient charging at higher power levels when paired with compatible devices.

For reference to the detailed charging power specifications applicable to each device model, please find the link to consult our cloud-based table or scan the QR code provided below.

For detailed information on charging power specifications:

Unitech Products USB-C Charging Power Specification Overview



**CE Mark Warning** 





#### **RoHS Statement**



This device conforms to RoHS (Restriction Of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

## Waste electrical and electronic equipment (WEEE)



unitech has set up a policy and process to meet the 2012/19/EU concerning electronic waste disposal.

For more detailed information of the electronic waste disposal of the products you have purchased from unitech directly or via unitech's resellers, you shall either contact your local supplier or visit us at: <a href="https://portal.unitech.eu/public/WEEE">https://portal.unitech.eu/public/WEEE</a>



### **Taiwan NCC Warning Statement**

### 低功率電波輻射性電機管理辦法

第十二條:經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自 變更頻率、加大功率或變更原設計之特性及功能。

第十四條: 低功率射頻電機之使用不得影響飛航安全及干擾合法通信; 經發現有干擾現象時· 應立即停用·並改善至無干擾時方得繼續使用。

前項合法通信,指依電信法規定作業之無線電通信。

低功率射頻電機需忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

SAR標準值2.0W/KG, 送測產品實測值為: 0.395 (W/KG)

#### 注意事項:

- 1. 使用過度恐傷害視力。
- 2. 使用30分鐘請休息10分鐘;未滿2歲幼兒不看螢幕·2歲以上每天看螢幕不要超過 1小時。
- 3. 減少電磁波影響,請妥適使用。
- 4. 因應各地區/國家開放頻道不同,請依據當地主管機關與電信業者實際公告資訊為主,如 服務細則有所變更,請自行洽詢電信業者,恕不另通知。
- 5. 無線資訊傳輸設備避免影響附近雷達系統之操作

#### Note:

Within the 5.25-5.35 GHz band, U-NII devices will be restricted to indoor operations to reduce any potential for harmful interference to co-channel MSS operations.

5GHz band (W52, W53): Indoor use only in Japan



## **Laser Information**

The unitech product is certified in the U.S. to conform to the requirements of DHHS/CDRH 21CFR Subchapter J and to the requirements of IEC 60825-1. Class II and Class 2 products are not considered to be hazardous. The unitech product contains internally a Visible Laser Diode (VLD) whose emissions do not exceed the maximum limits as set forth in the above regulations. The scanner is designed so that there is no human access to harmful laser light during normal operation, user maintenance or prescribed service operations.

The laser safety warning label required by the DHHS/IEC for the unitech product's optional laser scanner module is located on the memory compartment cover, on the back of the unit.

\* Laser information only applies to the products with laser components.

**CAUTION!** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light. Use of optical instruments with the scanner, including binoculars, microscopes, and magnifying glasses, with will increase eye damage. This does not include eyeglasses worn by the user.

## **LED Information**

The unitech product contains LED indicator(s) or LED ring whose luminance is not harmful to human eyes during normal operation, user maintenance or prescribed service operations.

\*LED information only applies to the products with LED components.



## **Battery Notice**

### **Performance and Replacement**

- For optimal performance, it is recommended to replace rechargeable batteries annually or after 500 charging cycles.
- It's normal for the battery to swell or expand slightly after a year or 500 cycles. This
  doesn't cause damage but indicates the battery should be replaced and disposed of
  properly according to local regulations.
- If battery performance drops by more than 20%, it has reached its end of life and should be replaced and disposed of properly.

### **Battery Life and Conservation**

- Battery life depends on the battery type and device usage.
- Avoid fully discharging the battery as this puts stress on it. Several partial charges are better than one full discharge.
- Do NOT expose the battery or device to high temperatures for extended periods, such as
  in a parked car on a hot day or under direct sunlight. High temperatures can damage the
  battery. Keep the device within acceptable operating temperatures (refer to the
  specifications).
- For long-term storage, charge the battery to at least 50% every six months. Leaving the battery uncharged for extended periods will reduce its lifespan.
- If the battery cannot be charged after a long idle period and starts to heat up, do not attempt to charge it. It may be damaged.



### **Important Cautions**

- Use original batteries only from Unitech. Using third-party batteries can damage the
  device and void the warranty.
- Risk of explosion if the battery is replaced incorrectly. Dispose of used batteries
  according to instructions.
- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.
   DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- 電池若未正確更換,可能會爆炸。請用原廠建議之同款或同等級的電池來更換,請依原廠 指示處理廢電池。
- 请依制造商说明书处理用过之电池,如果更换不正确之电池行事会有爆炸的风险,请依制造商说明书处理用过之电池。

### Charging

- Consider temperature when charging. Charging is most efficient at room temperature or slightly cooler.
- Charge batteries within the specified range of 0°C to 40°C (32°F to 104°F). Charging outside this range can damage the battery and shorten its lifespan.
- Do not charge batteries below 0°C. This is dangerous and can make the batteries unstable. Use a battery temperature detecting device to ensure safe charging temperatures.

### **Maintenance and Safety**

- Keep all connectors free of contaminants like dust, grease, mud, and water to ensure proper device operation. Neglecting this can cause communication issues, short circuits, or overheating.
- To clean the battery connectors:
  - Remove the main battery from the mobile computer.
  - o Dip the cotton part of a cotton-tipped applicator in isopropyl alcohol.
  - Gently rub the cotton part of the applicator back and forth across the connectors on both the battery and the device to remove any grease or dirt. Ensure no cotton residue is left on the connectors.
  - o Repeat this process at least three times.
  - Use a dry cotton-tipped applicator and repeat steps 3 and 4.
  - o Inspect the area for any remaining grease or dirt and repeat the cleaning if needed.



#### • To clean the cradle connectors:

- Disconnect the DC power cable from the cradle.
- o Dip the cotton part of a cotton-tipped applicator in isopropyl alcohol.
- Rub the cotton part of the applicator along the pins of the connector, moving it back and forth gently from one side to the other. Do not leave any cotton residue on the connector
- Rub all sides of the connector with the applicator
- Remove any lint left by the applicator
- If there is grease or dirt on other areas of the cradle, use a lint-free cloth and alcohol to clean them
- Allow the alcohol to air dry for at least 10 to 30 minutes (depending on the ambient temperature and humidity) before powering on the cradle

**CAUTION!** If you clean the battery or cradle connectors with bleach-based chemicals, follow the instructions above to remove any bleach residue from the connectors.

- If a connector is damaged, have it repaired before using the device to avoid short circuits.
- While charged batteries can be left unused for several months, their capacity may decrease due to internal resistance buildup. They may need recharging before use.
- Store batteries at temperatures between -20°C to 60°C. Higher temperatures can cause faster depletion. Room temperature storage is recommended.
- The above storage information applies only to removable batteries. For devices with non-removable batteries, refer to the product specifications.

### **Battery Safety Guidelines**

- Charge the device in a clean area, away from debris, flammable materials, or chemicals. Take extra care when charging in non-commercial environments.
- Improper battery use can lead to fire, explosion, or other hazards.
- Do not disassemble, open, crush, bend, deform, puncture, or shred the battery.
- Dropping the device can cause the battery to overheat.
- Do not short-circuit the battery or allow metal or conductive objects to touch the battery terminals.
- Do not modify the battery, insert foreign objects, expose it to water or other liquids, or expose it to fire, explosion, or other hazards.



- Do not leave or store the device in hot areas, like parked cars or near heat sources. Do not put the battery in a microwave or dryer.
- · Supervise battery usage by children.
- If swallowed, seek medical advice immediately.
- In case of leakage, avoid contact with skin and eyes. If contact occurs, flush the affected area with water for 15 minutes and seek medical advice.
- If you suspect damage to the equipment or battery, contact your service provider for inspection.

### **Product Operation and Storage Notice**

The Unitech product has applicable operation and storage temperature conditions. Please follow the limitation of suggested temperature conditions to avoid failure, damage or malfunction.

\*For applicable temperature conditions, please refer to the specification of each product.

## **Adapter Notice**

- 1. Please do not leave the power adapter in the socket when it is not connected to your unitech product for charging.
- 2. Please remove the power adapter when the battery is fully recharged.
- 3. The bundled power adapter that comes with your unitech product is not meant to be used outdoors. An adapter exposed to water or rain, or a very humid environment can cause damage to both the adapter and the product.
- 4. Please only use the bundled power adapter or same specification of adapter to charge your unitech product. Using the wrong power adapter can damage your unitech product.

<sup>\*</sup> The message above only applies to the product connected to the adapter.

For the products without using the adapters, please refer to the specification of each product.



# **Hearing Damage Warning**

To prevent possible hearing damage, do not listen at high volume levels for long periods.



Figure 1 - Warning label (IEC 60417-6044)



## **Worldwide Support**

Unitech's professional support team is available to quickly answer questions or assist with technical-related issues. Should an equipment problem occur, please contact the nearest Unitech regional service representative.

For complete contact information please visit the Web sites listed below:

Taipei, Taiv	wan – Headquarters	Europe & Africa		
Tel:	+886-2-89121122	Tel:	+31-13-4609292	
E-mail:	info@hq.ute.com	E-mail:	info@eu.ute.com	
Address:	5F, No. 136, Lane 235, Baoqiao Road,	Address:	Kapitein Hatterasstraat 19, 5015 BB,	
	Xindian District, New Taipei City 231,		Tilburg, the Netherlands	
	Taiwan (R.O.C.)			
Website:	http://www.ute.com	Website:	http://eu.ute.com	
Mainland (	China	Japan		
Tel:	+86-59-2310-9966	Tel:	+81-3-62310896	
E-mail:	info@cn.ute.com	E-mail:	info@unitech-japan.co.jp	
Address:	Room401C, 4F, RIHUA International	Address:	3F Tosei Building, 18-10,	
	Mansion, Xinfeng 3nd Road, Huoju Hi-tech		Nihonbashi-Hakozakicho, Cyuouku, Tokyo	
	District, Xiamen, Fujan, China		103-0015, Japan	
Website:		Website:	https://jp.ute.com	
Asia & Pacific / Middle East		Latin America		
Tel:	+886-2-27911556	Tel:	+52-55-5171-0528	
E-mail:	info@tw.ute.com	E-mail:	info@latin.ute.com	
Address:	4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu,	Address:	Av Insurgentes Sur Nro. 859-Segundo Piso	
	114, Taipei,Taiwan		Colonia Nápoles - Delegación Benito	
			Juárez - CP03810 CDMX	
Website:	http://apac.ute.com	Website:	http://latin.ute.com	
North Ame	rica	Please sca	n QRCode to visit us:	
Tel:	+1-714-8916400		CDEX:CD	
E-mail:	info@us.ute.com / info@can.ute.com		- 単微温	
	6182 Katella Ave, Cypress, CA 90630,	(K) 40/45		
Address:				
Website:	http://us.ute.com		EELT (\$704)	



## **Warranty Policy**

The following items covered under the unitech Limited Warranty are free from defects during normal use:

The warranty period is varied from each country. Please consult with your supplier or unitech local office for actual length of warranty period to your purchased product.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.



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## **Chapter 1 - Overview**

## 1.1 Package

Please make sure the following contents are in the WD200 gift box. If something is missing or damaged, please contact your unitech representative.

### **The Package Contents**

- WD200
- USB-C Cable
- Quick Start Guide

### **Optional Accessories**

- 4-slot Cradle
- Ring Scanner
- Wrist Holder



## 1.2 Product Detail



1	Power Button	6	Pogo Pin
2	Camera & LED Flash Light	7	USB-C Port
3	Camera Button / Programmable button	8	Microphone
4	Status LED	9	Touch Panel
5	Speaker		



# 1.3 Specifications

System Features	System Features				
CPU	Octa Core				
OI O	2x A75 2.0GHz + 6x A55 1.8GHz				
Memory 4GB RAM / 64 GB Flash					
os	Android 13 with GMS Certification				
	English, Simplified Chinese, Traditional Chinese, Japanese,				
Languages support	Spanish, German, French, Italian, Portuguese, Korean and				
	multiple languages				
Display					
Screen Size	3.54" Color TFT-LCD (960 X 640) High Resolution Display				
	(500 nits)				
Touch Panel					
·	ouch screen, compatible with gloves and support wet resistance				
Buttons / Keypad					
ON / OFF button , 1x User-	defined function button				
Indicator Type					
LED, Speaker, Vibrator					
Software					
SOTI, 42Gears, MoboLink,	Airwatch				
Audio					
One 1W speaker with Sma	rt PA				
I/O Interface					
USB	USB 2.0 (Type-C) support USB OTG				
OTG	Yes, over USB-C				
POGO PIN	Charging via Cradle				
Communication					
Camera	16 MP Rear and Flash Light				
Bluetooth®	Bluetooth® 5 supported				
	WiFi 6 (2x2 MIMO)				
	IEEE 802.11 ax/a/b/g/n/ac/d/h/i/k/r/v, IPv4, IPv6				
WLAN	Security of Wi-Fi: WEP, WPA/WPA2 PSK, 802.1x EAP, OWE,				
WILDIN	SAE				
	Fast Roaming: PMKID caching, 802.11r, OKC				
	2x2 MU-MIMO				



GPS	GPS, GLONASS, Gallileo, Beidou		
Sensor	Gyroscope, G-sensor, E-Compass, Light Sensor		
RFID			
HF	Support HF/NFC		
	Frequency 13.56Mhz		
	Support: ISO14443A/B, ISO15693 standard		
Power Source			
Main Battery	3.85V, 2500mAh Li-polymer battery		
	(embedded, can be repaired)		
Enclosure			
Weight 123g (with battery)			
Dimensions	96.7mm X 60.7mm X 14.43 mm (H x W x D)		
Environmental			
Operating Temperature	-4°F to 122°F (- 20°C to 50°C)		
Storage Temperature	-4°F to 158°F (-20°C to 70°C)		
Charging Temperature	32°F to 113°F (0°C to 45°C)		
Relative Humidity	5% ~ 95% (non-condensing)		
<b>Drop Test to Concrete</b>	1.5 meter		
Environmental Sealing	IP68		
Tumble Test	MIL-STD 810G / 1000 tumbles @ 1.6 ft./0.5 m		

#### Note:

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

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	H	ΙE
	ΙT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK
	IS	LI	NO	CH	TR		





Transmitter Frequency:

BT: 2402-2480MHz

BLE: 2402-2480MHz

2.4G Wi-Fi: 2412-2472MHz

5G Wi-Fi: 5150-5250 MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz

NFC: 13.56MHz

Receiver Frequency: BT: 2402-2480MHz BLE: 2402-2480MHz

2.4G Wi-Fi: 2412-2472MHz

5G Wi-Fi: 5150-5250 MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz

NFC: 13.56MHz

GPS L1 C/A, BDS B1I, GLONASS G1, Galileo E1: 1559-1610MHz

RF-Output Power: (ERP/EIRP/Conducted)

BT: 7.46dBm BLE: 7.69dBm

2.4G Wi-Fi: 17.50dBm

5G Wi-Fi:

5150-5250MHz: 19.71dBm 5250-5350MHz: 19.99dBm 5470-5725MHz: 19.97dBm 5725-5850MHz: 12.67dBm NFC: 16.93dBuA/m @ 3m



## 1.4 Getting Started

## 1.4.1 Charging the Battery

To charge the WD200, connect the included USB-C cable to the USB-C port on the device. Plug the other end of the cable into an AC power adapter. For optimal performance, it is recommended to use only the USB-C cable provided with the WD200 or a Unitech-designed charging cradle.



#### **CAUTION!**

**DO NOT** force opening the battery cover and attempting to change the battery as you may damage the product and the battery, it is built-in and is not user changeable. Any batteries inappropriate use could result in damage or safety issues such as catching fire, or malfunctioning the sensitive components.

Unitech reserves the right and disclaims any liability as a result of any damages caused by ignoring this warning. To avoid any consequential damages, please contact a unitech representative before removing the battery.

**DO** charge between 20% and 80% to protect your battery.

Avoid full discharges (<0%) or charging all the time (always 100%) to reduce stress on the battery.



## 1.4.2 Turning on the terminal for the first time

It is recommended to fully charge WD200 before first use. You can now start up your device to set up the languages, WLAN setting, and date and time.

#### **Power Button**

Turn ON your device by pressing the power button on the terminal.



## 1.4.3 Checking the LED status

	LED	Description		
Terminal		<ul><li>Battery Charging</li><li>Flashing to indicate battery low status (less than 15%)</li></ul>		
	Green Light	<ul><li>Battery Fully charged</li></ul>		
	Blue Light	Message		