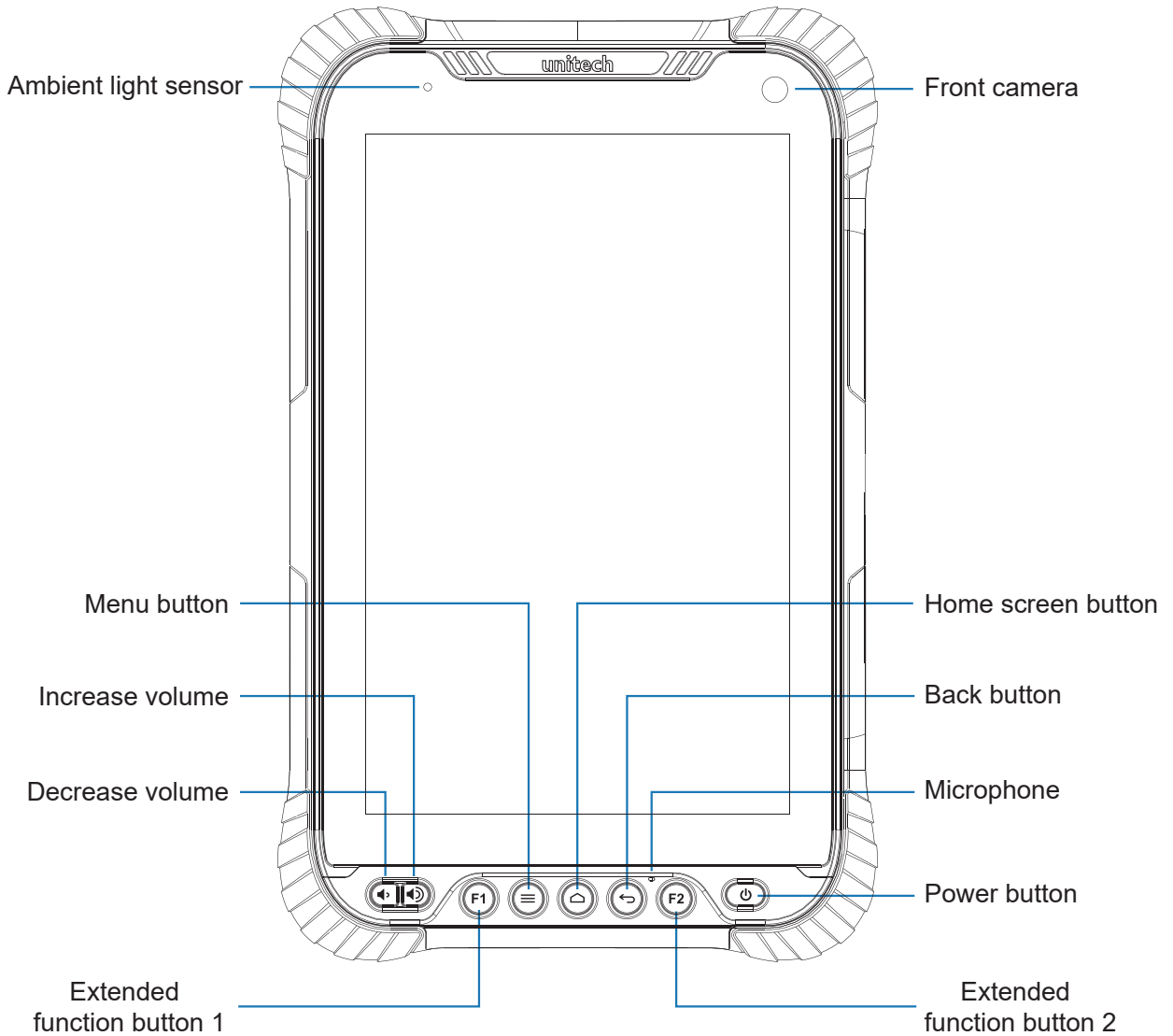
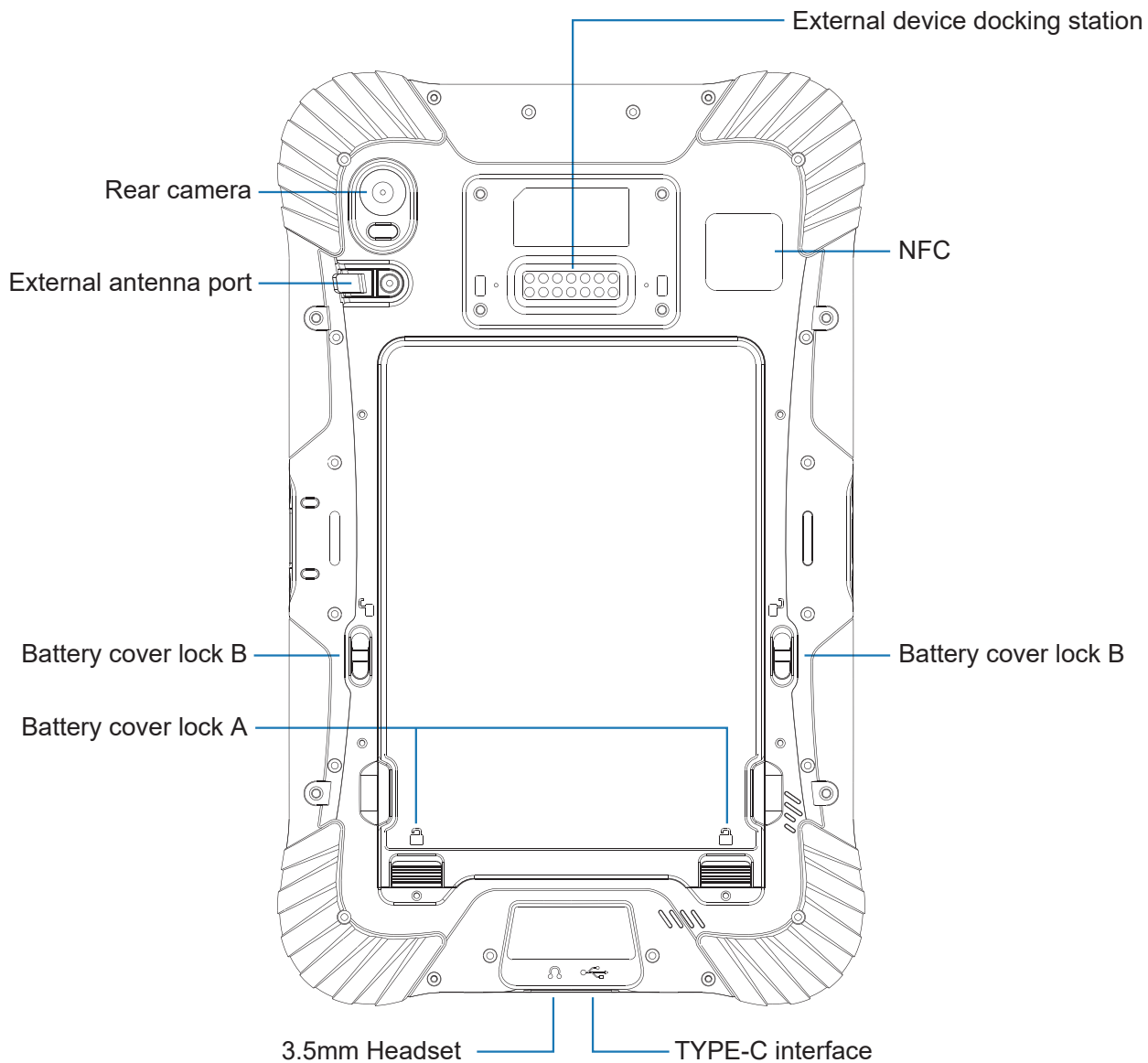


**unitech**

# **TB85**

**Quick Start Guide**





## 1. Battery Charging

- **Charge with travel charger**

Insert the small plug end of the USB data cable into the TYPE-C port of the device, insert the large plug end of the USB data cable into the travel charger plug, and then insert the travel charger plug into a power outlet to charge.

- **Charge with USB data cable**

Connect the cable and the device with USB type-c interface, and plug in the other end with adapter.

Note: During normal charging, the home screen status bar will display the charging icon when screen is on.

When the charging is completed, the home screen status bar will display the full battery icon when screen is on.

## 2. Install SIM card, memory card, battery

Power off the device before installing or removing the SIM card, MicroSD card or battery. Flip the device to its rear, follow the directions shown in Figure 1 and push the back cover lock to the open position, and remove the battery cover. Install the SIM card and MicroSD card according to the battery compartment label instructions, as shown in Figure 2.

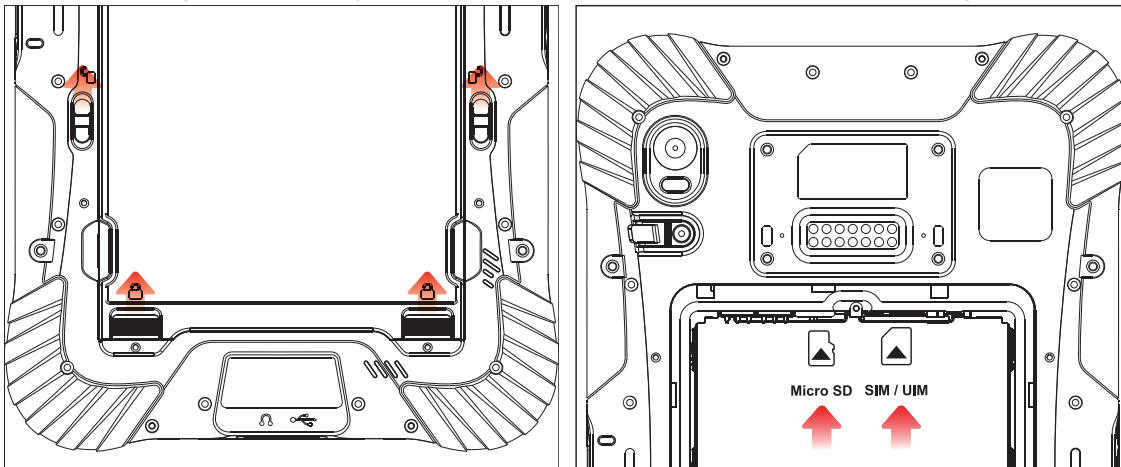


Figure 1

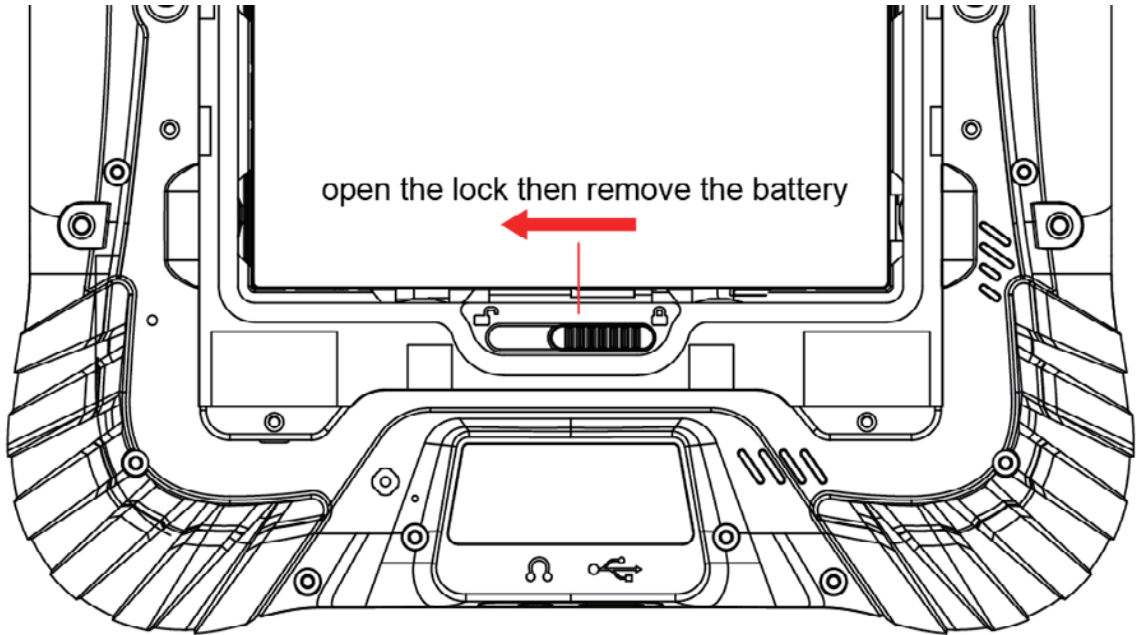


Figure 2

- Face the SIM card metal contacts downwards and push into the slot. Take note on the direction of the notched corner.
- Face the MicroSD card metal contacts downwards and push into the slot. Take note on the direction of the notched corner.
- Align the contacts of the battery with the terminals of the battery compartment and put in the battery gently.
- After the battery is installed, replace the battery compartment cover and push the back cover lock to locked position to secure the battery compartment cover.

### 3. Turning the device on and off

To turn on the device, firmly press and hold the bottom right **【Power Button】** until the boot screen appears.

To turn off the device, firmly press and hold the **【Power Button】** to display the options menu. Select the Power off option to shutdown.

With the device turned on, press the **【Power Button】** to turn off the screen and go into sleep mode; Press the **【Power Button】** again to wake the device, swipe upwards on the screen to unlock; If the device has been idle for a period of time, the screen will automatically turn off and go into sleep mode.

### 4. Home screen operation

From the home screen, you can view the device status and access the applications.

The home screen can have multiple panels;

Swipe left or right on the screen to view each panel.

At the top of the home screen is the status bar, which contains the notification area, the status area and the display area; the shortcut panel is at the bottom.

- **Using the notification panel**

When new notification icons appear in the notification area of the status bar, hold the status bar and drag down to open the notification panel; To hide the panel, drag the bottom border of the panel upwards.

- **Customize the shortcut panel**

You can customize the shortcuts at the bottom of the home screen by adding or removing “Shortcut Icons”.

To remove the “Shortcut icon”, press and hold the “Shortcut icon” and drag it to the “Delete icon”.

To add a “Shortcut icon”, press and hold the icon on the home screen and drag it to the Shortcut panel.

- **Using applications**

Slide the screen left and right to see all the included applications. Touch the [Home button] below the screen to close it and return to the home screen.

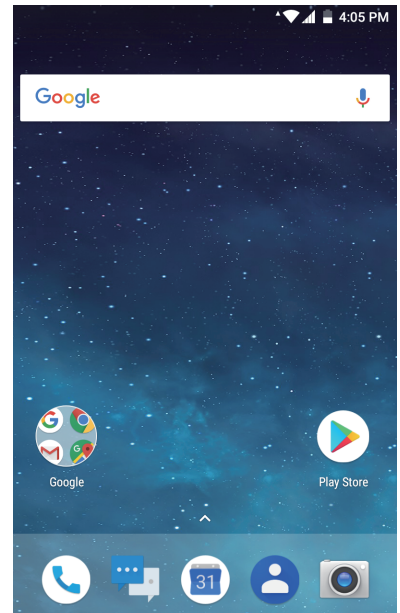


Figure 3

- **Expanding the home screen**

Swipe your finger horizontally on the home screen to expand to the left or right of the home screen.

- Adding an icon on the home screen

Press and hold any application or widget icon and drag it to an empty area on the home screen.

- Moving icons on the home screen

Press and hold the icon on the home screen and drag the icon to the desired location on the screen.

- Removing icons on the home screen

Press and hold the home screen icon and drag the icon to the "Delete" icon until the icon turns red.

- **Create folder**

- On the home screen, folders are automatically formed when you drag an icon onto another icon.

- Touch the new folder on the screen to open it.

- Click on the folder's label to rename it.

- **Changing the home screen wallpaper**

Press and hold a blank area on the home screen or touch the [Menu button] → "Wallpaper" to change the home screen wallpaper by selecting options such as wallpaper, live wallpaper, gallery, etc.

## 5. Connecting to a computer

Use the USB data cable to connect the device to the computer, pull down the top status bar, and you can see the message "Connected as a media device" in the notification area.

Clicking on that notification bar will bring up 3 options "Media device", "Camera" and "Charging mode", which can be selected according to your needs. Select "Media device" mode to transfer files between the device and the computer.

If you need to remove the MicroSD card when the device is turned on, slide the screen to the left or right → Settings, or touch the [Menu button] → "System Settings", go into the Settings panel, scroll down the screen, and then select "Save" → "Uninstall SD Card".

## 6. Installation and management of applications

Users can enter the applications store to download and install related application programs.

**Slide the screen left or right** → "Settings", select "Apps", or touch the [Menu button] → "Manage apps" to view and manage application programs on your device.

## 7. Using Beidou/GPS positioning function

**Slide the screen left or right** → "Settings", select "Location Information" to go into the location service panel, turn on the location information switch.

In the "Satellite Positioning Mode" option, select GPS + BDS or GPS + GLONASS or BDS options as needed.

The meaning of the following 2 options:

- (1) The NMEA switch turns on the NMEA data output function, which requires the use of a dedicated data line.
- (2) SBAS: To use differential positioning.

The user can view the status of the BeiDou Satellite, GPS satellites and GLONASS satellites at the current position through an application with the corresponding functions. The program can display real-time information such as the serial number, signal strength, position of the satellite, etc. at the current position.

After the location service is turned on, the applications downloaded and installed from the applications store can obtain the current location information and provide location-related services and applications through the corresponding service interfaces.

Note: "Satellite Positioning Mode" "SBAS" is only supported in certain models.

## 8. Camera and videos

**Slide the screen left or right** → "Camera", to turn on the camera, the screen orientation will change according to how the device is held.

Use two fingers to make a gesture of zooming in or zooming out on the subject.

Touch the camera switch icon on the top middle part of the screen to select the front or rear camera.

Touch the button at the bottom right of the screen to switch between taking photos and videos.

After taking a photo or video, tap the gallery button at the bottom left of the screen to share, delete, edit or other operations.



## 9. Mobile network connection (WLAN/Bluetooth)

### • WLAN connection

**Slide the screen left or right** → "Settings" to go into the settings panel, go to the WLAN options and turn the "On" switch to activate WLAN. After WLAN is turned on, the WLAN icon will be displayed in the status bar. Select the connection to be used from the list of available networks and follow the prompts to enter the network key to connect.

### • Bluetooth connection

- (1) Activate Bluetooth **Slide the screen left or right** → "Settings", go into the Settings panel, go to the Bluetooth option and turn on the "on" switch to activate Bluetooth. After Bluetooth is turned on, a Bluetooth icon is displayed in the status bar.
- (2) Bluetooth pairing The system will search for connectable Bluetooth devices in the list of available devices. Click on the Bluetooth device you want to connect to, enter the Bluetooth password when "Bluetooth pairing request" pops up, and select pairing. When the owner of the external Bluetooth device accepts the connection or enters the same password, the connection to the external device is completed.
- (3) Bluetooth transmission Photos, videos and music files can be shared with family members and friends via Bluetooth.

### • Mobile network connection

**Slide the screen left or right** → "Settings", "More", go to Wireless and Network panel. Select "VPN" to make the relevant settings. Precautions

### Notice

According to EU/RED directive, This device is restricted to indoor use when it is operated in the Frequency in 5150MHz ~ 5250MHz to reduce the potential for interference. This restriction is applicable to the listed countries from below. Restriction in BE, BG, CZ, DK, DE, EE, IE, EL, ES, FR, HR, IT, CY, LV, LT, LU, HU, MT, NL, AT, PL, PT, RO, SI, SK, FI, SE, UK.



Do not change antenna types , just only allowed to use Original configuration antenna (FPC)

## **PRODUCT SAFETY WARNINGS**

Use responsibly. Read all instructions and safety information before use to avoid injury. The maximum operating ambient temperature of the equipment is 55°C.

### **① Battery safety**

Battery works at ambient temperatures ranging from -20°C to 55°C.

(1) CAUTION: Risk of explosion if battery is replaced incorrectly. Replace with the same or equivalent type of battery as recommended by the manufacturer. Dispose used batteries according to battery manufacturer's instructions.

Note: Charging temperature specifications is from 0°C to 45°C.

### **② Charger safety**

Please place the device in an environment that has a normal room temperature with good ventilation when charging. It is recommended to charge the device in an environment with an ambient temperature that ranges from 5°C~40°C

### **③ Wi-Fi Safety**

Turn Wi-Fi off in areas where Wi-Fi use is prohibited or when it may cause interference or danger, such as in airplanes while flying.

### **④ Avoid damage to your hearing**

Exposure to loud volumes from earphones and headphones over prolonged periods can cause hearing loss.

## Notice

1. Some special places, such as airports, hospitals, gas stations and other places, do not allow the use of electronic equipment. Please comply with the rules and do not use this product in these places.
2. The driver should pay attention to the road condition and traffics when the vehicle is moving. The driver shall not be distracted by the device.
3. In order to avoid potential safety problems, do not put this product near the vehicle's airbag.
4. For your safety, please do not use this product during thunderstorms.
5. Although this product is waterproof, do not leave this product for long periods of time in areas with water or moisture.
6. This product has an operating temperature range of  $-20^{\circ}\text{C}\sim+55^{\circ}\text{C}$  and a storage temperature range of  $-40^{\circ}\text{C}\sim+70^{\circ}\text{C}$ . Extreme temperatures can affect the device's performance and service life.
7. Please use an original rechargeable lithium battery. Low-quality batteries will affect the performance and service life of the device, and may even have the danger of explosion.
8. Although the product has been tested to withstand harsh operating environments, do use the product in an improper manner.
9. Please do not disassemble this product. In case of failure, please send to our authorized service centres to proceed with repairs.
10. After the device has reached the end of its service life, please discard in a proper way to avoid environmental pollution.
11. When replacing the battery or during the use of an external power supply, shut down the device completely before removing the battery or disconnecting the external power supply to prevent damage.
12. This product is a Class B product, which may cause radio interference. The user may be required to take necessary preventive measures.

## Battery Instructions

1. This product uses a rechargeable lithium battery as a power source. When the power is low, please charge the battery. To maintain battery life, it is recommended to deplete the battery's power before charging.
2. When the battery charger is not in use, please remove it from the power supply. Do not connect the charger to the battery for more than one week. Excessive charging will shorten the battery life.
3. Temperature affects the battery charging limit. Therefore, the battery may need to be cooled or warmed up before charging.
4. Please use the battery for its original intended purpose to prevent short-circuiting the battery. A short circuit will occur when a conductive material connects the battery's positive and negative terminals.
5. Do not use a battery that is damaged.
6. Placing the battery in extremely cold or hot places will lead to shortened battery life. Exposing the battery to extreme temperatures may cause the phone to malfunction, even if the battery is fully charged.
7. Do not put the battery in a fire. Please discard the battery in a proper manner or take the battery to a battery recycling station. Please dispose waste batteries in accordance with local laws and regulations.

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info@eu.ute.com

Manufacturer : Unitech Electronics Co., LTD.  
5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan



## NOTICE:

The SAR limit of Europe is 2.0 W/kg. Device types TB85 has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 0.977W/kg This device was tested for typical body - worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with RF exposure requirements, and should be avoided.

Working Temperature: -20°C ~ +55°C  
Storage Temperature: -40°C ~ +70°C

Charging mode need to operate indoors, please pay attention to the environment temperature should be 0°C ~ +45°C

CAUTION RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

## Regulatory Compliance Statements

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 EMC 2014/30/EU directive and the Low Voltage 2014/35/EU directive.

The declaration of conformity is available for download at :  
<https://portal.unitech.eu/public/Safetyregulatorystatement>

### 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 EU directive 2002/96/EC and update 2003/108/EC 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 :

<https://portal.unitech.eu/public/WEEE>

This device complies with Part 22 & 24 and Part 27 of the FCC Rules.

## SAR INFORMATION

The SAR limit of FCC and ISED is 1.6 W/kg averaged over one gram of tissue. Device types TB85 (FCC ID:HLETB85TNFL) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for use on the body is 1.047 W/kg. This device was tested for typical body-worn operations with the back of the handset kept 0 cm from the body. To maintain compliance with FCC and ISED RF exposure requirements, use accessories that maintain a 0 cm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC and ISED RF exposure requirements, and should be avoided.

## NOTICE:

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada.

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.

Le présent appareil est conforme aux CNR d'Industrie 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, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

**NOTICE:**

Changes or modifications made to this equipment not expressly approved by Unitech Electronics Co., LTD. Unitech Science & Technology Co., Ltd. may void the FCC authorization to operate this equipment.

**NOTE:** This equipment 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 to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to 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.

**NOTICE:**

This Class [B] digital apparatus complies with Canadian ICES -003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB - 003 du Canada.

RF mode and power tune-up refer to appendix A

UniStrong APAC Pte Ltd

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## Antenna Type

FPCAntenna

### Power:

GSM/GPRS/EGPRS900:33dBm

GSM/GPRS/EGPRS1800:30dBm

WCDMA/HSDPA/HSUPA Band 1:23dBm

WCDMA/HSDPA/HSUPA Band 8:23dBm

LTE FDD Band 1:24dBm , LTE FDD Band 3:24dBm , LTE FDD Band 7:23dBm , LTE FDD Band 8:24dBm, LTE FDD Band 20:24dBm , LTE FDD Band 28:24dBm , LTE TDD Band38: 23dBm , LTE TDD Band 40: 23dBm

GSM Release 99 ;WCDMA Release 6 ;LTE Release 8

WIFI and BT 2400-2483.5MHz : 14 dBm

WIFI(5150-5250MHz): 13dBm

WIFI(5725-5850MHz) : Power:14dBm ,Receiver category:2

NFC : 13.56MHz/ Power class 4 / Modulation type: ASK / antenna gain : 0dBi

GPS :1559-1610MHz

GSM900 (880.2MHz---914.8MHz)

DCS1800 (1710.2MHz---1784.8MHz)

WCDMA band 1 (1922.4MHz---1977.6MHz)

WCDMA band 8 (1712.4MHz---1782.6MHz)

LTE BAND 1 (1922.5---1977.5)MHz

LTE BAND 3 (1710.7---1784.3)MHz

LTE BAND 7 (2502.5---2567.5)MHz

LTE BAND 8 (880.7---914.3)MHz

LTE BAND 20 (834.5---859.5)MHz

LTE BAND 28 (704.5---746.5)MHz

LTE BAND 38 (2572.5---2617.5)MHz

LTE BAND 40 (2302.5---2397.5)MHz



## Normal Mode RF Power Range (GSM, WCDMA)

Mode	Range(dBm)
GSM 900	32.00-33.00
GPRS 900 (1 Slot)	32.00-33.00
GPRS 900 (2 Slots)	31.00-32.00
GPRS 900 (3 Slots)	29.00-30.10
GPRS 900 (4 Slots)	28.00-29.00
EGPRS (8PSK, 1-Slot)	25.00-26.00
EGPRS (8PSK, 2-Slots)	24.00-25.00
EGPRS (8PSK, 3 -Slots)	22.00-23.00
EGPRS (8PSK, 4 -Slots)	21.00-22.00
GSM1 800	29.00-30.00
GPRS 1800 (1 Slot)	29.00-30.00
GPRS 1800 (2 Slots)	28.00-29.00
GPRS 1800 (3 Slots)	27.00-28.00
GPRS 1800 (4 Slots)	26.00-27.00
EGPRS (8PSK, 1 -Slot)	24.00-25.00
EGPRS (8PSK, 2-Slots)	23.00-24.00
EGPRS (8PSK, 3 -Slots)	22.00-23.00
EGPRS (8PSK, 4 -Slots)	20.50-21.50
WCDMA Band 1 RMC	22.00-23.00
HSDPA Band 1	21.00-22.00
HSUPA Band 1	19.50-22.00
WCDMA Band 3 RMC	22.00-23.00
HSDPA Band 3	21.00-22.00
HSUPA Band 3	19.50-22.00

### Normal Mode RF Power Range (LTE)

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 1	20 MHz	1	QPSK	22.50-23.50
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.50-22.50
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.50-23.50
		36		21.50-22.50
		75		21.50-22.50
		1	16QAM	21.00-23.00
		36		20.50-21.50
		75		20.50-21.50
	10 MHz	1	QPSK	22.50-23.50
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	21.00-22.50
		25		20.50-21.50
		50		20.50-21.00
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	21.00-22.00
		12		20.50-21.50
		25		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 3	20 MHz	1	QPSK	22.00-23.40
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	21.00-22.50

		50		20.00-21.10
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.00
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	21.00-22.60
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.50-23.50
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	21.50-22.50
		25		20.50-21.50
		50		20.00-21.00
	5 MHz	1	QPSK	22.50-23.00
		12		21.50-22.00
		25		21.50-22.00
		1	16QAM	21.00-22.00
		12		20.00-21.00
		25		20.00-21.00

	3 MHz	1	QPSK	22.00-23.00
		8		21.00-22.00
		15		21.00-22.00
		1	16QAM	21.00-22.00
		8		20.00-21.10
		15		20.00-21.00
	1.4 MHz	1	QPSK	22.50-23.20
		3		22.00-23.00
		6		21.50-22.10
		1	16QAM	21.50-22.60
		3		21.50-22.10
		6		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 7	20 MHz	1	QPSK	22.00-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	20.50-22.00
		50		20.00-21.00
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.00
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	20.50-22.50
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	20.50-22.00
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.00-23.00
		12		21.00-22.00
		25		21.00-22.00
		1	16QAM	20.50-21.50
		12		20.00-21.00
		25		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 8	10 MHz	1	QPSK	22.00-23.50
		25		22.00-22.50
		50		22.00-22.50
		1	16QAM	21.50-22.50
		25		20.50-21.50

	5 MHz	50	QPSK	20.00-21.00	
		1		22.00-23.20	
		12		21.50-22.50	
		25		21.50-22.50	
		1		16QAM	21.00-22.50
		12			20.50-21.50
		25			20.50-21.50
	3 MHz	1	QPSK	22.50-23.50	
		8		21.50-22.50	
		15		21.50-22.50	
		1	16QAM	21.50-22.50	
		8		20.50-21.50	
		15		20.50-21.50	
	1.4 MHz	1	QPSK	22.50-23.10	
		3		22.50-23.10	
		6		21.50-22.10	
		1	16QAM	21.50-22.50	
		3		21.50-22.50	
		6		20.50-21.50	

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 20	20 MHz	1	QPSK	22.50-23.50
		50		21.50-22.50
		100		21.50-22.50
		1	16QAM	21.50-22.50
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.50-23.50
		36		21.50-22.50
		75		21.50-22.50
		1	16QAM	21.00-23.00
		36		20.50-21.50
		75		20.00-21.00

	10 MHz	1	QPSK	22.50-23.50
		25		21.50-22.50
		50		21.50-22.50
		1	16QAM	21.50-23.00
		25		20.50-21.50
		50		20.50-21.00
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50
		25		21.50-22.50
		1	16QAM	21.00-22.50
		12		20.50-21.50
		25		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 28	20 MHz	1	QPSK	22.00-23.50
		50		22.00-22.50
		100		22.00-22.50
		1	16QAM	21.50-22.50
		50		20.50-21.50
		100		20.50-21.50
	15 MHz	1	QPSK	22.00-23.50
		36		21.50-22.50
		75		22.00-22.50
		1	16QAM	21.00-23.00
		36		20.50-21.50
		75		21.00-21.50
	10 MHz	1	QPSK	22.50-23.60
		25		22.00-23.00
		50		22.00-23.00
		1	16QAM	21.50-23.00
		25		20.50-21.50
		50		20.50-21.50
	5 MHz	1	QPSK	22.50-23.50
		12		21.50-22.50



		25		21.50-22.50
		1	16QAM	21.50-22.50
		12		20.50-21.50
		25		20.50-21.50
	3 MHz	1	QPSK	22.50-23.50
		8		21.50-22.50
		15		21.50-22.50
		1	16QAM	21.00-22.00
		8		20.50-21.50
		15		20.50-21.50

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 38	20 MHz	1	QPSK	22.00-23.50
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	20.50-22.50
		50		20.00-21.00
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.00
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	20.50-22.00
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	20.50-23.00
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.00-23.00
		12		21.00-22.00
		25		21.00-22.00
		1	16QAM	20.50-21.50
		12		20.00-21.00
		25		20.00-21.00

Mode	Bandwidth	RB	Modulation	Range(dBm)
LTE Band 40	20 MHz	1	QPSK	21.50-23.00
		50		21.00-22.00
		100		21.00-22.00
		1	16QAM	20.00-22.00
		50		20.00-21.00
		100		20.00-21.00
	15 MHz	1	QPSK	22.00-23.00
		36		21.00-22.00
		75		21.00-22.00
		1	16QAM	20.50-22.00
		36		20.00-21.00
		75		20.00-21.00
	10 MHz	1	QPSK	22.00-23.00
		25		21.00-22.00
		50		21.00-22.00
		1	16QAM	20.50-22.50
		25		20.00-21.00
		50		20.00-21.00
	5 MHz	1	QPSK	22.00-23.00
		12		21.00-22.00
		25		21.00-22.00
		1	16QAM	20.50-21.50
		12		20.00-21.00
		25		20.00-21.00

## Normal Mode RF Power Range (WLAN/Bluetooth)

Band (GHz)	Mode	Range(dBm)
WIFI 2.4G (2.4~2.4835)	802.11b	11.00-12.00
	802.11g	9.00-10.00
	802.11n(HT20)	9.00-10.00

Band (GHz)	Mode	Range(dBm)
WIFI 5.2 G (5.15~5.25)	802.11a	10.50-12.00
	802.11n(HT20)	11.00-12.00
	802.11ac(VHT20)	10.50-12.00
	802.11ac(VHT40)	11.00-12.00
	802.11ac(VHT80)	10.00-10.50
WIFI 5.8G (5.725~5.850)	802.11a	11.50-13.00
	802.11n(HT20)	11.50-13.00
	802.11ac(VHT20)	11.50-13.00
	802.11ac(VHT40)	11.50-13.10
	802.11ac(VHT80)	11.50-12.00

Band (GHz)	Mode	Range(dBm)
Bluetooth (2.4~2.4835)	GFSK	5.00-9.00
	$\pi/4$ DQPSK	3.00-7.00
	8-DPSK	3.00-7.00
	BLE	(-1.50)-1.00



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