

## 7" Rugged Tablet Computer

- TB128 -



## User's Manual

Version 1.2

## Revision History

| Date      | Change Description                                          | Version |
|-----------|-------------------------------------------------------------|---------|
| 2017/5/25 | first published version                                     | 1.0     |
| 2017/6/21 | Update 1.2 & 1.4 & 1.4.5<br>Update HF & UHF<br>Add Hot swap | 1.1     |
| 20170811  | Update backlight spec                                       | 1.2     |

## 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

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### 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.
1. 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.

Operation on the 5.15 - 5.25GHz frequency band is restricted to indoor use only. The FCC requires indoor use for the 5.15-5.25GHz band to reduce the potential for harmful interference to co-channel Mobile Satellite Systems. Therefore, it will only transmit on the 5.25-5.35 GHz, 5.47-5.725 GHz and 5.725 – 5.850 GHz band when associated with an access point (AP).

## **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.
2. 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 0.5 cm from the body.

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

## Canadian Compliance Statement

This Class B Digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte les exigences du Règlement sur le matériel brouilleur du Canada.

## 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 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>

## CE RF Exposure Compliance

This device meets EU requirements (2014/53/EU) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.

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.

## CE Mark Warning



This equipment complies with the requirements of Directive 2014/53/EU of the European Parliament and Commission from 24 May, 2014 governing Radio and Telecommunications Equipment and mutual recognition of conformity. The highest CE SAR values for the device are as follows :

1.75 W/kg @ 10g (Body)

## 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>

## 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。

#### 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；2歲以下幼兒不看螢幕，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。

## Laser Information

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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 825-1. 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

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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

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1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.
3. The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:
  - Avoid fully uncharging the battery because this places additional strain on it. Several partial uncharges with frequent charges are better than a fully uncharged battery. Charging a partially charged battery does not cause harm to the unit.
  - Keep the battery cool. Avoid hot vehicles. For prolonged storage, keep the battery at a 40% charge level.
  - Do not leave the battery uncharged and unused for an extended period of time, the battery will wear out and the longevity of the battery will be at least half of one with frequent charges.
4. Protect battery life by not over or under charging the battery.
5. Please do not leave battery unused for long time without charging it. Despite unitech's safety precautions, the battery pack may begin to change shape. If so, stop using it immediately. Please check to see if you are using a proper power adapter to charge the battery or contact your service provider for service.
6. If you cannot charge the battery after it has been idle for an extended period of time and it begins to heat up, please do not try to charge it. It may not be functional anymore.
7. Please only use the original battery from unitech. Using a third party battery can damage our products. Please note that when such damage occurs, it is not covered by unitech's warranty policy.

**CAUTION!**

- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.  
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- 如果更換不正確之電池行事會有爆炸的風險  
請依製造商說明書處理用過之電池
- 如果更換不正確之電池行事會有爆炸的風險  
請依製造商說明書處理用過之電池

## Battery charge notice

It is important to consider temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 40°C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

**CAUTION!** Do not charge batteries at a temperature lower than 0°C. This will make the batteries unstable and dangerous. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

**CAUTION!** To ensure the unit working properly, please keep all connectors away from the contaminants staying inside of them such as dust, grease, mud, and water. The negligence may cause the unit with no communication, short circuited, overheated and so on.

**CAUTION!** If the connector is damaged, please ensure the connector is being fully repaired before use the unit to avoid causing short circuited.

## Storage and safety notice

Although charged batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens, they will require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

*\* The message above only applies to the usage of the removable batteries.  
For the products with non-removable batteries / without batteries, please refer to the specification of each product.*

## 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

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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.

*\* 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

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## Zx.3 Warning

The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:

- the symbol of Figure 1 with a minimum height of 5 mm; and
- the following wording, or similar :

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



Figure 1 – Warning label (IEC 60417-6044)

Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.

## 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:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Taipei, Taiwan – Headquarters</b><br><br><b>Tel:</b> +886-2-89121122<br><b>E-mail:</b> <a href="mailto:info@hq.ute.com">info@hq.ute.com</a><br><b>Address:</b> 5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.)<br><b>Website:</b> <a href="http://www.ute.com">http://www.ute.com</a>                                                                                                                                                                         | <b>Europe</b><br><br><b>Tel:</b> +31-13-4609292<br><b>E-mail:</b> <a href="mailto:info@eu.ute.com">info@eu.ute.com</a><br><b>Address:</b> Kapitein Hatterasstraat 19, 5015 BB, Tilburg, the Netherlands<br><b>Website:</b> <a href="http://eu.ute.com">http://eu.ute.com</a>                  |
| <b>China</b><br><br><b>Tel:</b> +86-59-2310-9966<br><b>E-mail:</b> <a href="mailto:info@cn.ute.com">info@cn.ute.com</a><br><b>Address:</b> Room401C, 4F, RIHUA International Mansion, Xinfeng 3rd Road, Huoju Hi-tech District, Xiamen, Fujan , China<br><b>Website:</b> <a href="http://cn.ute.com">http://cn.ute.com</a>                                                                                                                                                                                   | <b>Japan</b><br><br><b>Tel:</b> +81-3-35232766<br><b>E-mail:</b> <a href="mailto:info@jp.ute.com">info@jp.ute.com</a><br><b>Address:</b> Kayabacho Nagaoka Building 8F.,1-5-19 Shinkawa, Chuo-Ku, Tokyo, 104-0033, Japan<br><b>Website:</b> <a href="http://jp.ute.com">http://jp.ute.com</a> |
| <b>Asia &amp; Pacific / Middle East</b><br><br><b>Tel:</b> +886-2-27911556<br><b>E-mail:</b> <a href="mailto:info@apac.ute.com">info@apac.ute.com</a><br><a href="mailto:info@india.ute.com">info@india.ute.com</a><br><a href="mailto:info@mideast.ute.com">info@mideast.ute.com</a><br><b>Address:</b> 4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu, 114, Taipei,Taiwan<br><b>Website:</b> <a href="http://apac.ute.com">http://apac.ute.com</a> / <a href="http://mideast.ute.com">http://mideast.ute.com</a> | <b>Latin America</b><br><br><b>Tel:</b> +52-55-5171-0528<br><b>E-mail:</b> <a href="mailto:info@latin.ute.com">info@latin.ute.com</a><br><b>Address:</b> 17171 Park Row, Suite 210 Houston, TX 77084USA (Rep.)<br><b>Website:</b> <a href="http://latin.ute.com">http://latin.ute.com</a>     |
| <b>North America</b><br><br><b>Tel:</b> +1-714-8916400<br><b>E-mail:</b> <a href="mailto:info@us.ute.com">info@us.ute.com</a> / <a href="mailto:info@can.ute.com">info@can.ute.com</a><br><b>Address:</b> 6182 Katella Ave, Cypress, CA 90630, USA<br><b>Website:</b> <a href="http://us.ute.com">http://us.ute.com</a>                                                                                                                                                                                      | <b>Please scan QR Code to visit us :</b><br><br>                                                                                                                                                         |

# Warranty Policy

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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.

## Table of Contents

|                                                       |     |
|-------------------------------------------------------|-----|
| <b>Preface</b> .....                                  | i   |
| Regulatory Compliance Statements .....                | i   |
| Laser Information .....                               | vi  |
| LED Information .....                                 | vi  |
| Battery Notice .....                                  | vii |
| Adapter Notice.....                                   | ix  |
| Hearing Damage Warning .....                          | x   |
| Worldwide Support .....                               | xi  |
| Warranty Policy .....                                 | xii |
| <b>Chapter 1 - Overview</b> .....                     | 1   |
| 1.1 Package .....                                     | 1   |
| 1.2 Product Detail .....                              | 2   |
| 1.3 Specifications .....                              | 5   |
| 1.4 Getting Started .....                             | 9   |
| <b>Chapter 2 – Installation &amp; Operation</b> ..... | 15  |
| 2.1 Barcode Setting .....                             | 15  |
| 2.2 HF Setting .....                                  | 22  |
| 2.3 UHF Setting.....                                  | 24  |
| 2.4 MSR Setting .....                                 | 27  |
| 2.5 WWAN Setting.....                                 | 27  |
| 2.6 WLAN Setting.....                                 | 31  |
| 2.7 PAN Setting .....                                 | 33  |
| 2.8 GPS Setting.....                                  | 35  |
| 2.9 PC Setting .....                                  | 38  |
| 2.10 Camera Setting .....                             | 39  |
| 2.11 Performing a Hardware Reset .....                | 43  |
| 2.12 Performing Factory data reset .....              | 44  |
| 2.13 Programmable Keys.....                           | 47  |
| 2.14 Battery Swap (Hot Swap) .....                    | 54  |

|                                               |    |
|-----------------------------------------------|----|
| Chapter 3 – Introduction to Applications..... | 55 |
| 3.1 Scan Service .....                        | 55 |
| 3.2 File Manager .....                        | 59 |
| 3.3 Update Center .....                       | 61 |
| 3.4 Sound Recorder .....                      | 63 |
| 3.5 MoboLink.....                             | 68 |

# Chapter 1 - Overview

## 1.1 Package

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Please make sure the following contents are in the TB128 gift box.  
If something is missing or damaged, please contact your unitech representative.

### The standard package contents

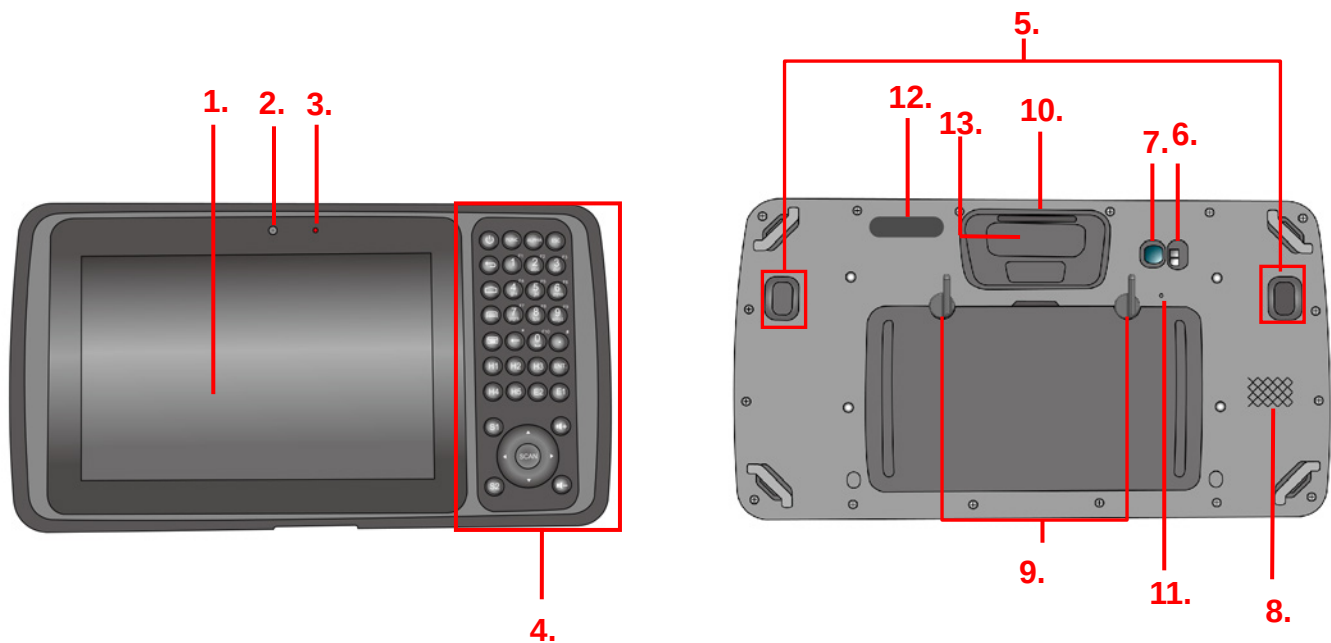
- TB128
- Battery
- Hand Strap
- USB cable (Standard USB to Micro USB)
- Power Adapter
- Regulatory Compliance Statements
- Quick start Guide
- QR code card

### Optional accessories

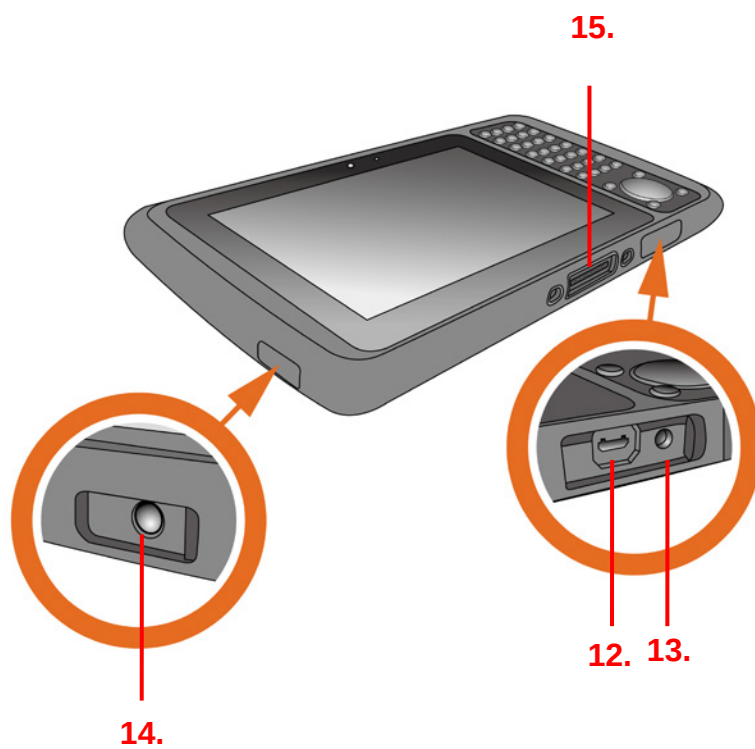
- Desk Dock Cradle

## 1.2 Product Detail

### TB128 Overview

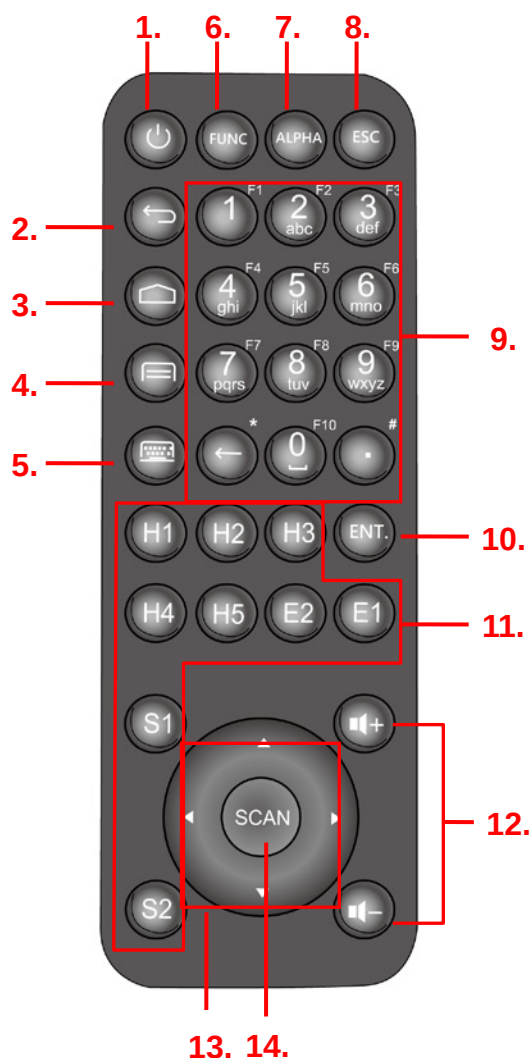


|                                |                                  |
|--------------------------------|----------------------------------|
| 1. 7" LCD touchscreen          | 7. 8M pixels rear camera with AF |
| 2. 2M pixels front camera      | 8. Speaker                       |
| 3. LED indicator               | 9. Two screws for battery cover  |
| 4. Physical keyboard (37 keys) | 10. Bar code Scan Engine         |
| 5. Trigger button              | 11. Reset button                 |
| 6. LED flashlight              | 12. UHF antenna                  |
| 13. NFC antenna                |                                  |



|                    |                      |
|--------------------|----------------------|
| 12. Micro USB port | 14. Earphone jack    |
| 13. DC-IN port     | 15. Cradle connector |

## Physical keyboard overview



|                                  |                                |
|----------------------------------|--------------------------------|
| 1. Power on/off key              | 8. Escape key                  |
| 2. Android BACK key              | 9. Alpha/Numeric keys          |
| 3. Android HOME key              | 10. Enter key                  |
| 4. Android APP List key          | 11. H.E.S. keys (programmable) |
| 5. Soft keypad on/off key        | 12. Volume up/down keys        |
| 6. Function keys to enter F1-F10 | 13. 4 directional keys         |
| 7. Alpha key                     | 14. Scan key                   |

## 1.3 Specifications

| System Features                                                                                                   |                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                                                                                                               | MTK MT8735 1.3Ghz Quad Core Processor                                                                                                                                                                                                                                                                             |
| Memory                                                                                                            | 3GB Mobile DDR RAM<br>16GB eMMC NAND Flash                                                                                                                                                                                                                                                                        |
| OS                                                                                                                | Android 6.0                                                                                                                                                                                                                                                                                                       |
| Languages support                                                                                                 | English, Simplified Chinese, Traditional Chinese, Japanese, Spanish, German, French and multiple languages                                                                                                                                                                                                        |
| Display                                                                                                           |                                                                                                                                                                                                                                                                                                                   |
| Gorilla Glass III with capacitive touch panel<br>7" Color Transmissive 1280x800 dots LCD with Backlight 450 nits. |                                                                                                                                                                                                                                                                                                                   |
| Keypad                                                                                                            |                                                                                                                                                                                                                                                                                                                   |
| 37 physical keys. Numeric and functionable keys                                                                   |                                                                                                                                                                                                                                                                                                                   |
| 1 x LED indicate charge/Message/ Scan                                                                             |                                                                                                                                                                                                                                                                                                                   |
| Symbologies                                                                                                       |                                                                                                                                                                                                                                                                                                                   |
| 2D (SE4750)                                                                                                       | <ul style="list-style-type: none"> <li>◆ PDF417</li> <li>◆ MicroPDF417</li> <li>◆ Code128Emulation</li> <li>◆ DataMatrix</li> <li>◆ DataMatrixInverse</li> <li>◆ Maxicode</li> <li>◆ QRcode</li> <li>◆ MicroQR</li> <li>◆ Aztec</li> <li>◆ Aztec Inverse</li> <li>◆ Han Xin</li> <li>◆ Han Xin Inverse</li> </ul> |

| Engines                           |                                                                                                                                                                                                                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2D                                | SE4750SR ( LASER AIMER ) :<br>Sensor Resolution: 1280 x 960 pixels<br>Field of View: Horizontal: 48°, Vertical: 36.7°<br>Aiming : 655 nm Laser<br>Illumination Element: 2 x Warm white LED<br>Minimum Bar Code Print Contrast : 20%<br>Ambient Light: Max 107,639 lux (direct sunlight) |
| Regulatory Approvals              |                                                                                                                                                                                                                                                                                         |
| CE, NCC, FCC, RoHS compliance, CB |                                                                                                                                                                                                                                                                                         |
| Certificate                       |                                                                                                                                                                                                                                                                                         |
| Microsoft Azure IOT               |                                                                                                                                                                                                                                                                                         |
| Communication                     |                                                                                                                                                                                                                                                                                         |
| Camera and Flash Light            | 2M Pixels Front Camera<br>8M Pixels Rear Camera CMOS Sensor Camera with Auto focus, 2x LED flash light                                                                                                                                                                                  |
| External storage                  | Support MicroSD memory card up to 128 GB                                                                                                                                                                                                                                                |
| USB                               | USB 2.0                                                                                                                                                                                                                                                                                 |
| WLAN                              | IEEE 802.11 a/b/g/n                                                                                                                                                                                                                                                                     |
| PAN                               | Bluetooth 4.1                                                                                                                                                                                                                                                                           |
| WWAN (Optional)                   | 4G LTE (Optional )                                                                                                                                                                                                                                                                      |
| GPS                               | Support Galileo, GPS/GLONASS, GPS/Beido                                                                                                                                                                                                                                                 |
| Other Sensors                     | eCompass<br>Light sensor<br>G-sensor                                                                                                                                                                                                                                                    |
| RFID (HF)                         | Frequency: 13.56MHz<br>Tag Support: ISO15693, ISO14443A , ISO14443B<br>Support NFC                                                                                                                                                                                                      |
| RFID (UHF)                        | Frequency 902~928 MHz<br>Frequency 865.6~867.6 MHz<br>TX Power 24dBm (2.5W)<br>Vertical polarized antenna<br>Reading distance : 1m (Depends on the tag and environment )                                                                                                                |

| Power Source                                                                                                                                                                  |              |                                                     |  |                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------|--|----------------------|
| Main Battery                                                                                                                                                                  |              | 3.8V Li-Polymer battery pack ,<br>Support hot swap. |  |                      |
| Weight                                                                                                                                                                        |              | 735g with 2D SE4750 Engine version (with Battery)   |  |                      |
| Dimension                                                                                                                                                                     |              | 264.5x143.7x18.8 (mm)                               |  |                      |
| Environmental                                                                                                                                                                 |              |                                                     |  |                      |
| Operating temperature                                                                                                                                                         |              | 14°F to 122°F (-10°C to 50°C)                       |  |                      |
| Storage temperature                                                                                                                                                           |              | -4°F to 140°F (-20°C to 60°C)                       |  |                      |
| Relative Humidity                                                                                                                                                             |              | 5% ~ 95% ( non-condensing )                         |  |                      |
| Drop test                                                                                                                                                                     |              | 1.2 meter                                           |  |                      |
| Environmental Sealing                                                                                                                                                         |              | IP65                                                |  |                      |
| Vibration and Shock test                                                                                                                                                      |              | MIL-STD-810G                                        |  |                      |
| Mobile Device Management Software and Service                                                                                                                                 |              |                                                     |  |                      |
| MoboLink®                                                                                                                                                                     |              |                                                     |  |                      |
| Rating label for Direct Current                                                                                                                                               |              |                                                     |  |                      |
|  : To indicate on the rating plate that the equipment is suitable for direct current only. |              |                                                     |  |                      |
| Radio Type / Description                                                                                                                                                      |              | Transmitter Frequency                               |  | Maximum Output Power |
| GSM                                                                                                                                                                           | GSM900       | 880-915MHz                                          |  | 32.5dBm              |
|                                                                                                                                                                               | DCS 1800     | 1710-1785MHz                                        |  | 29.5dBm              |
| UMTS                                                                                                                                                                          | FDD 1        | 1920-1980MHz                                        |  | 22.5dBm              |
|                                                                                                                                                                               | FDD 8        | 880-915MHz                                          |  | 22.5dBm              |
| LTE                                                                                                                                                                           | FDD 1        | 1920-1980MHz                                        |  | 22.5dBm              |
|                                                                                                                                                                               | FDD 3        | 1710-1785 MHz                                       |  | 22.5dBm              |
|                                                                                                                                                                               | FDD 7        | 2500-2570MHz                                        |  | 22.5dBm              |
|                                                                                                                                                                               | FDD 8        | 880-915MHz                                          |  | 22.5dBm              |
|                                                                                                                                                                               | FDD 20       | 832-862MHz                                          |  | 22.5dBm              |
| WLAN 2.4GHz                                                                                                                                                                   | IEEE 802.11b | 2400-2483.5MHz                                      |  | 20dBm                |
|                                                                                                                                                                               | IEEE 802.11g | 2400-2483.5MHz                                      |  | 17.5dBm              |
|                                                                                                                                                                               | IEEE 802.11n | 2400-2483.5MHz                                      |  | 18dBm                |
| WLAN 5GHz                                                                                                                                                                     | IEEE 802.11a | 5150-5350MHz                                        |  | 17dBm                |
|                                                                                                                                                                               |              | 5470-5725MHz                                        |  | 17dBm                |

|           |              |                              |           |
|-----------|--------------|------------------------------|-----------|
| WLAN 5GHz | IEEE 802.11n | 5150-5350MHz                 | 16dBm     |
|           |              | 5470-5725MHz                 | 16dBm     |
| Bluetooth | Bluetooth    | 2400-2483.5MHz               | 8dBm      |
| RFID      | NFC          | 13.56MHz                     | <25dBuA/m |
|           | UHF          | 865~868MHz and<br>902~928MHz | 30dBm     |

**NOTE:**

Requirements in

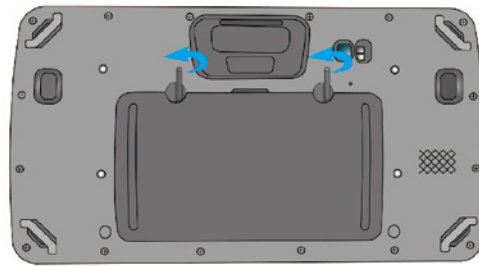
AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MT/NL/NO/PL/PT/RO/SI/SK/TR/FI/SE/CH/UK/HR. 5150MHz~5350MHz is for indoor use only.

## 1.4 Getting Started

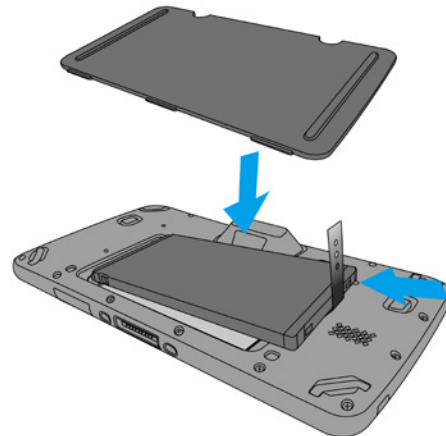
---

### 1.4.1 Installing the Battery

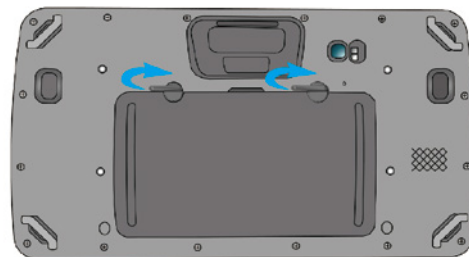
1. Release the two latches on the battery cover by turning counterclockwise.



2. Put battery into battery compartment and put back cover.



3. Lock the two latches on the battery cover by turning clockwise.



**NOTE:** After installing the battery, make sure the battery cover is securely closed, or you may be unable to turn ON the terminal.

**WARNING!** There is a risk of fire and burns if the battery pack is handled improperly. DO NOT disassemble, crush, puncture, short external contacts, or dispose the battery pack in fire or water. DO NOT attempt to open or service the battery pack. Dispose of used batteries according to local recycling guidelines in your area.

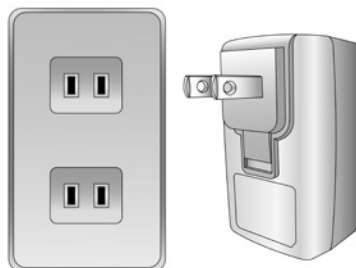
## 1.4.2 Charging the Battery

Connect TB128 to the charger, it will be charged automatically.

1. Plug the power adapter into the DC-IN port at the bottom.



2. Plug the power adapter into a wall outlet. If needed, attach a plug converter onto the power adapter.



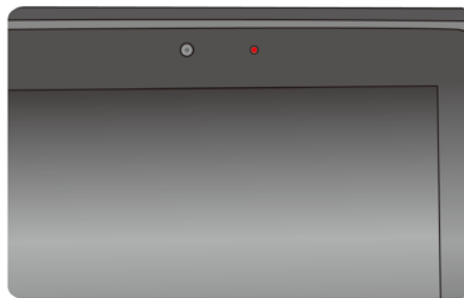
### 1.4.3 Turning on the terminal for the first time

After you have initially charged your device for about 24 hours, the device is ready to be used. You can now start up your device. You can then set up the languages, WiFi setting, and date and time.

#### Power-On Button

Turn ON your device by pressing the power button  on the physical keyboard.

### 1.4.4 Checking the LED status

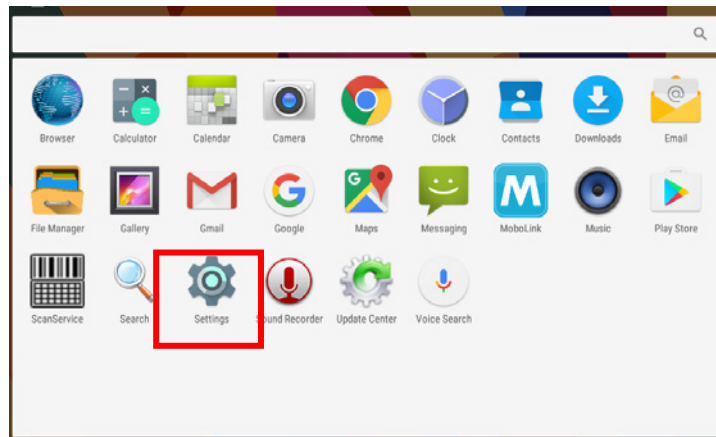


| Status  | LED               | Description                                                                                                                    |
|---------|-------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Message | Blue light blinks | Message received                                                                                                               |
| Power   | Lights Red        | <ul style="list-style-type: none"> <li>The battery is charging.</li> <li>The battery level is between low and full.</li> </ul> |
|         | Solid Green light | Fully charged                                                                                                                  |
|         |                   | Good Read                                                                                                                      |

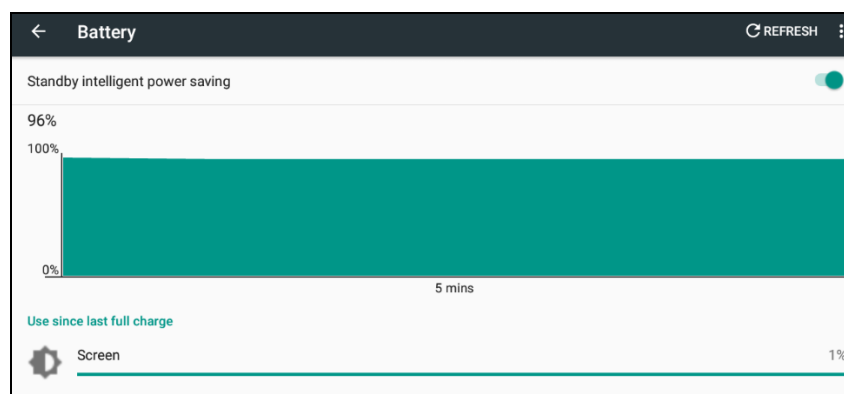
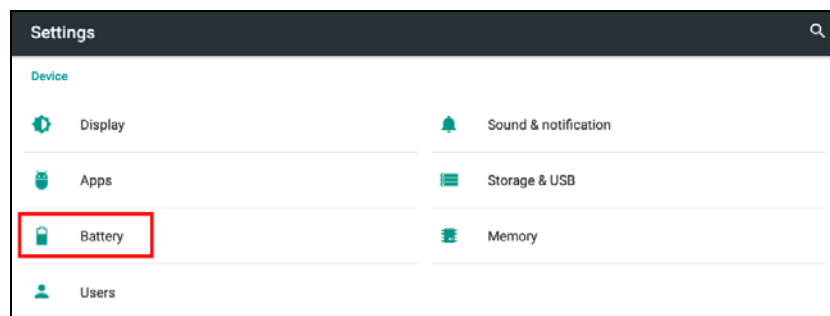
## Checking the Battery Status

To check the battery level and to access the battery usage menu

1. From your Home screen, tap .
2. Find and tap Settings.



3. Find and tap  Battery.

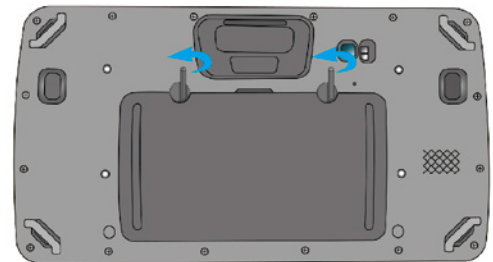


## 1.4.5 Using the SD/SIM Card

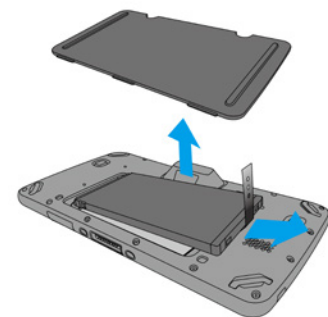
The TB128 has SD/SIM card slots inside the battery compartment.

### Inserting a SD/SIM Card

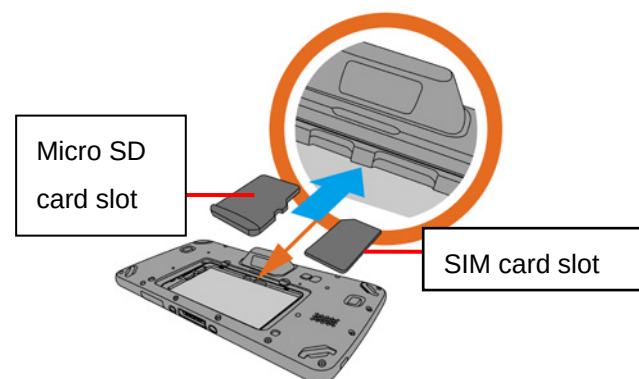
1. Release the two latches on the battery cover by turning counterclockwise.



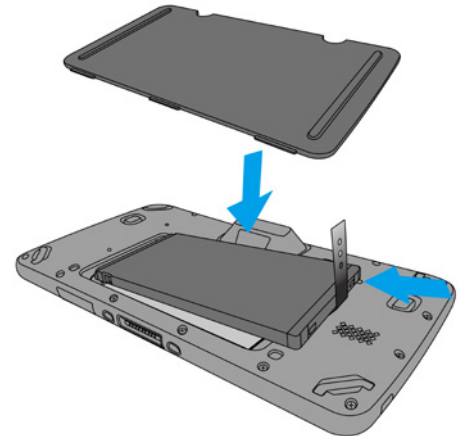
2. Remove the back cover and pull the battery out.



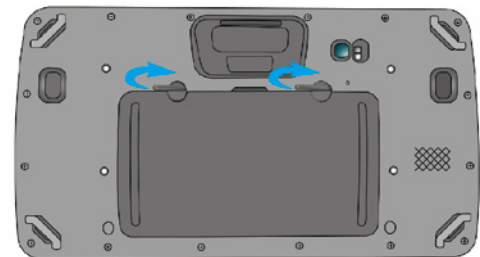
3. Now you can access the micro SD card slot and SIM card slot.



4. Put battery into battery compartment and put back cover.



5. Lock the two latches on the battery cover by turning clockwise.



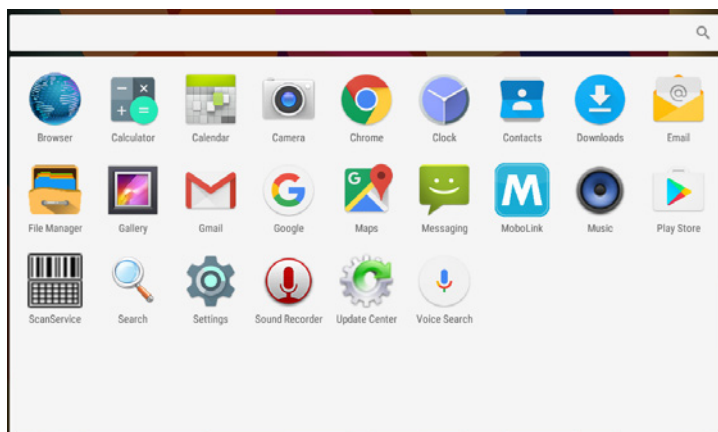
## Removing the SD/SIM Card

1. Release the two latches on the battery cover by turning counterclockwise.
2. Remove the battery cover and the main battery.
3. Press the card in and release. The card pops out.
4. Remove the card from the slot.
5. Put the battery back into the battery cover.
6. Replace the battery cover.
7. To tighten the two latches on the battery cover by turning clockwise.

## Chapter 2 – Installation & Operation

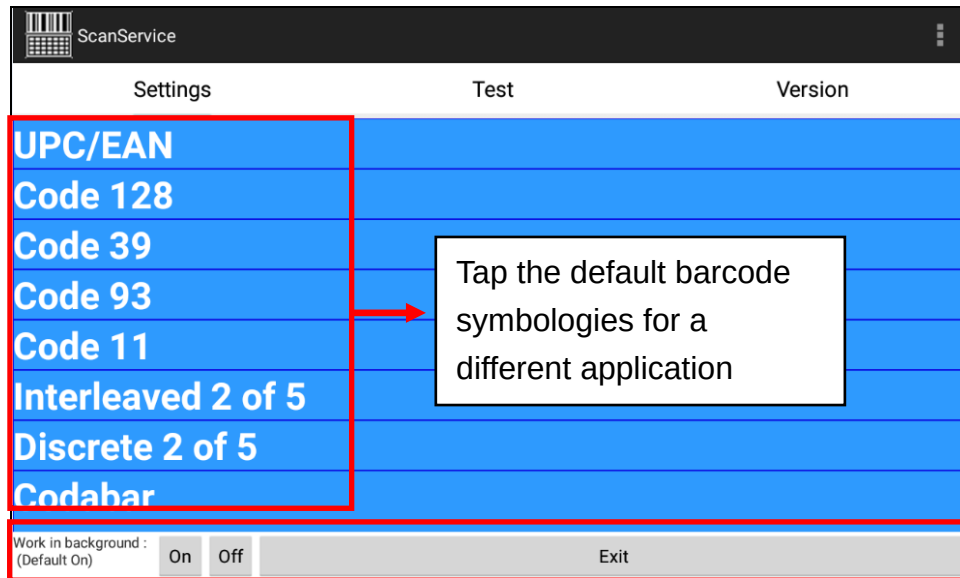
### 2.1 Barcode Setting

1. Tap  go to APPS, and tap  **ScanService**.



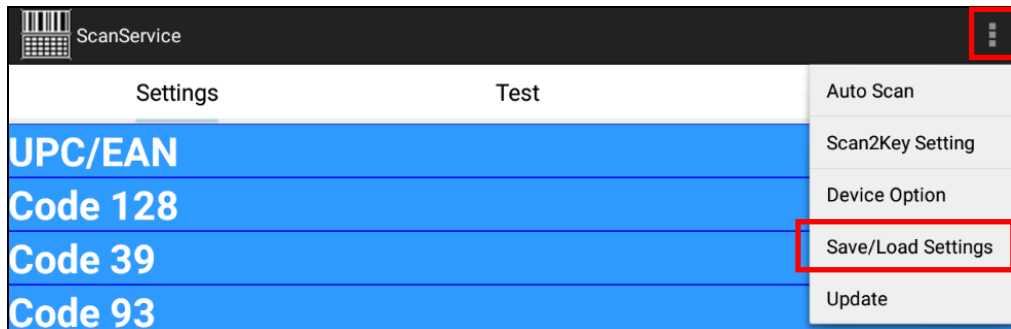
2. You are now enter the **ScanService** application:  
There are three main items: **Settings, Test and Version.**

- Settings

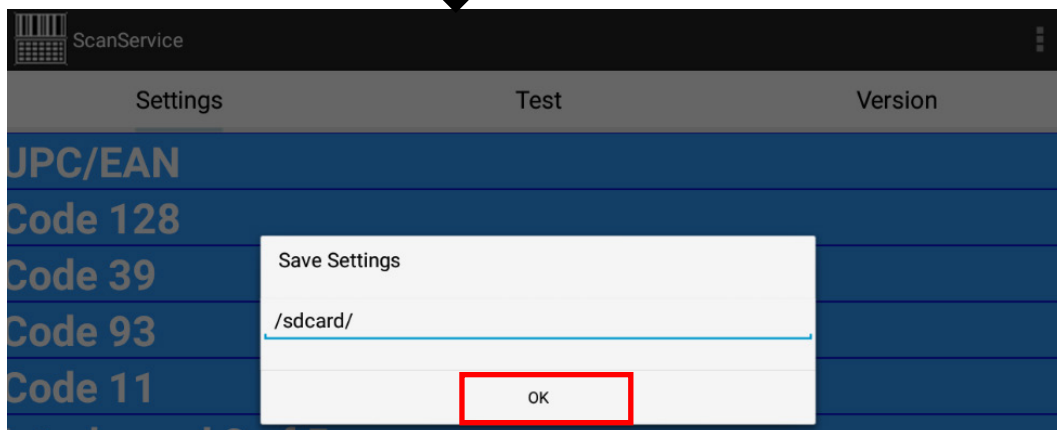
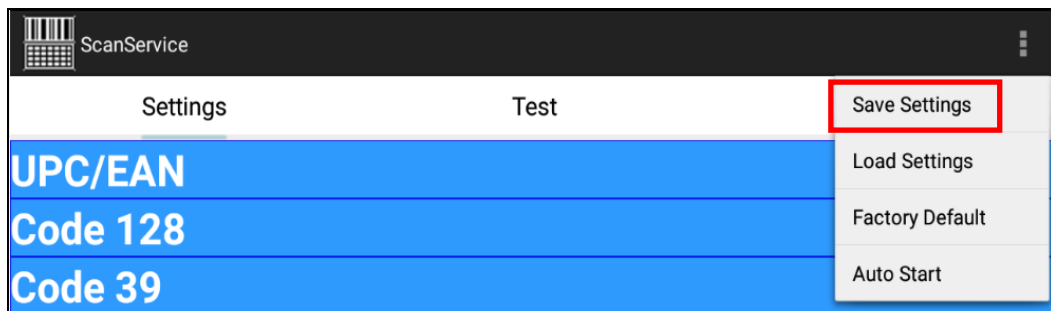


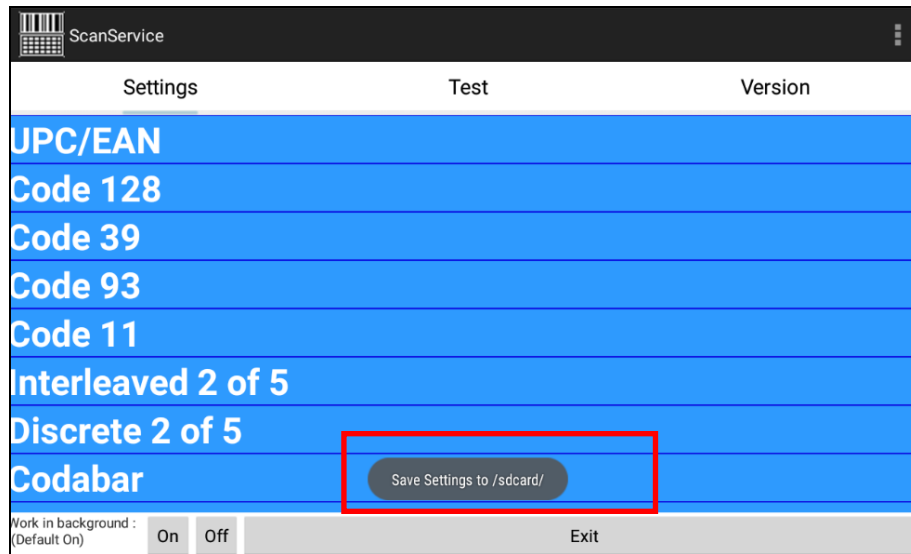
Tap **On / Off** to enable / disable to work in background  
Tap **Exit** to leave **ScanService**

- Please tap  for **Save / Load Settings, Factory Default** and **Auto start**.

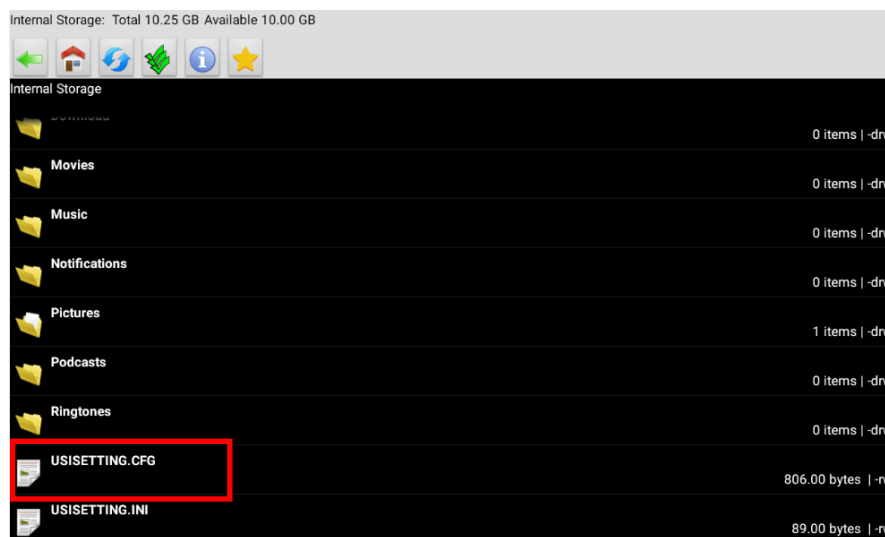


To save settings, please tap **Save Settings – OK**

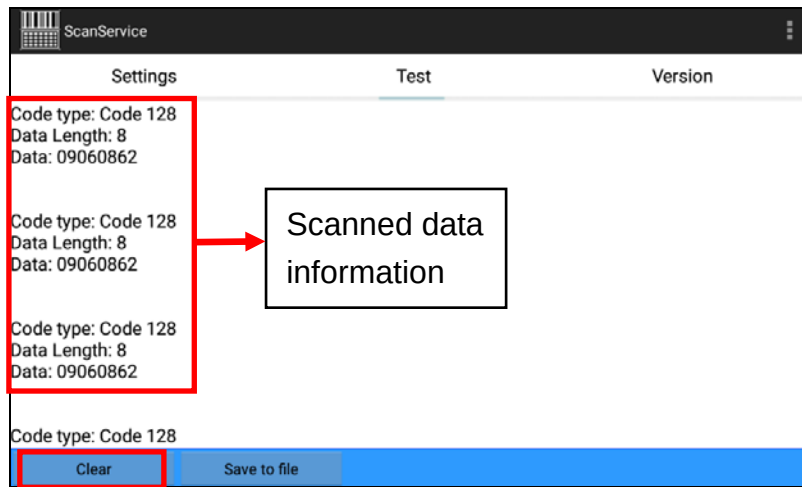




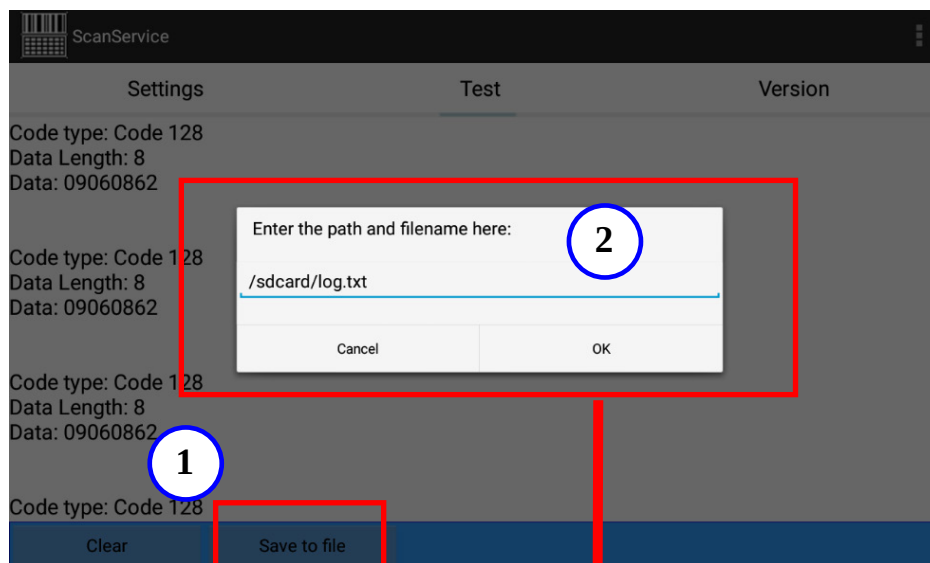
The save setting data is stored in File Manager. (Please see [3.2 File Manager](#) )



## ■ Test

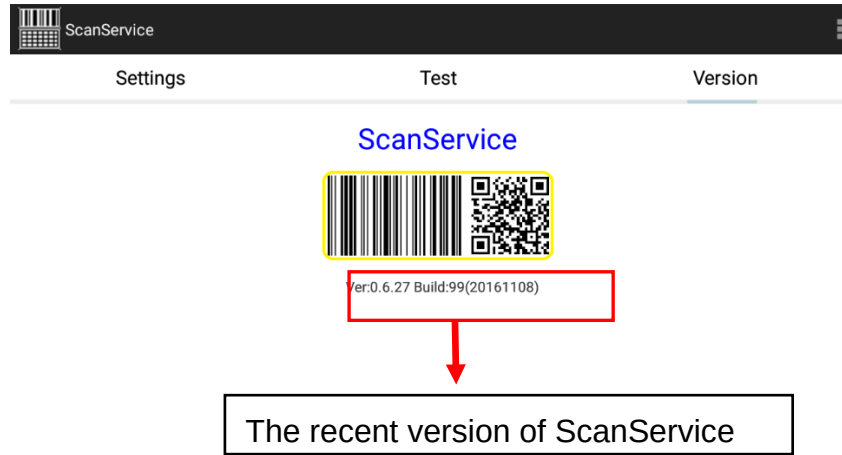


Tap **Clear** : Clear all scanned data



- ① Tap **Save to file**.
- ② Choose the path and filename and press **OK** to save the scanned data.

## ■ Version



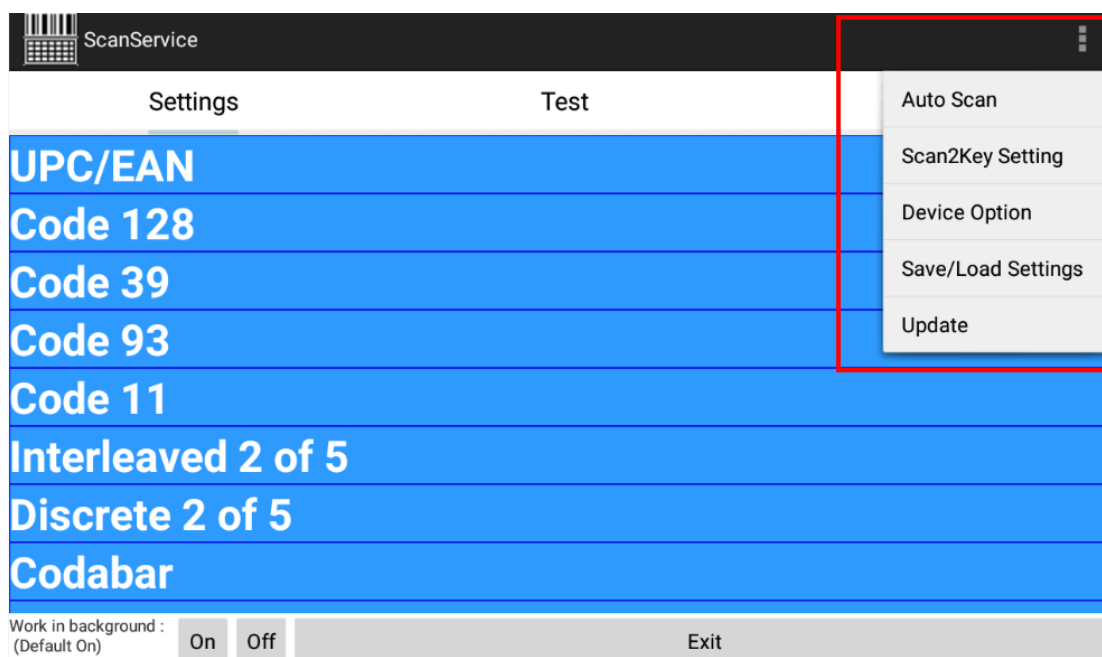
Copyright Protected, 2002-2017

- To update ScanService, Please tap  and then tap **Update** to get the latest version.

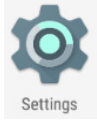


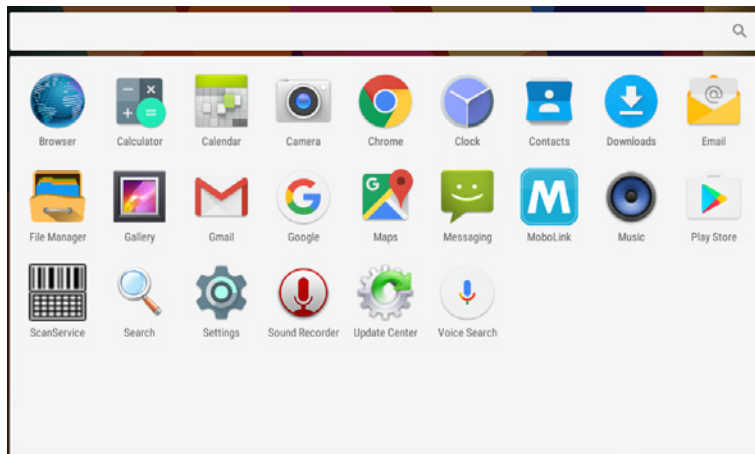
## ■ More Options

For more options and settings, please tap .

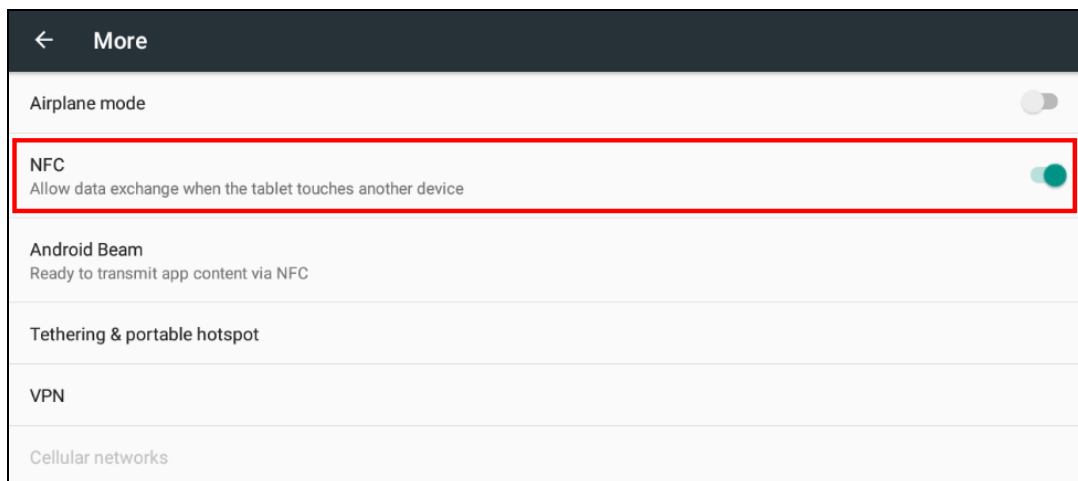
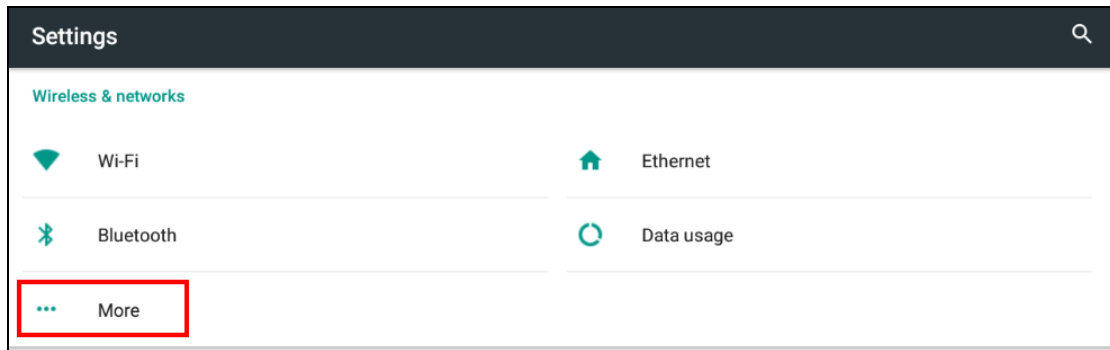


## 2.2 HF Setting

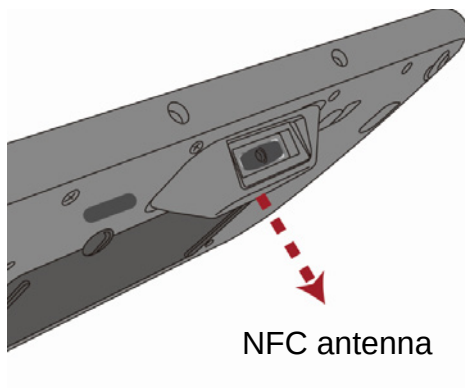
1. Tap  go to APPS, and tap  **Setting.**



## 2. Tap **More** to enable / disable NFC.



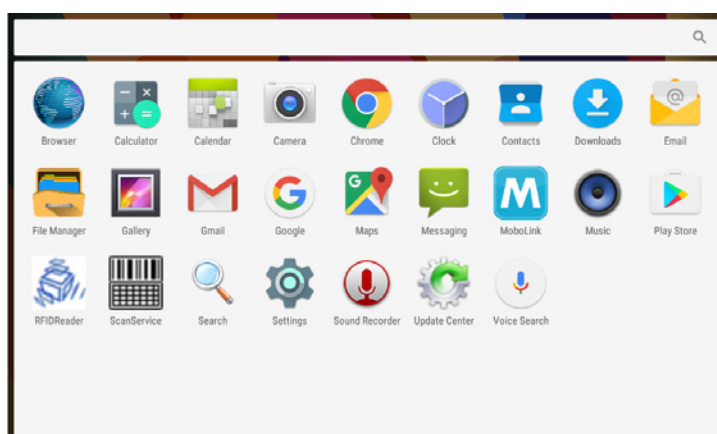
- Allow data exchange when the tablet touches another device:



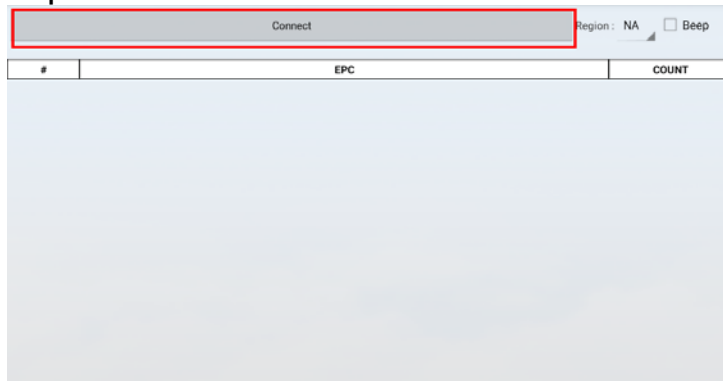
## 2.3 UHF Setting

1. Tap  go to APPS, and tap  **RFID Reader.**

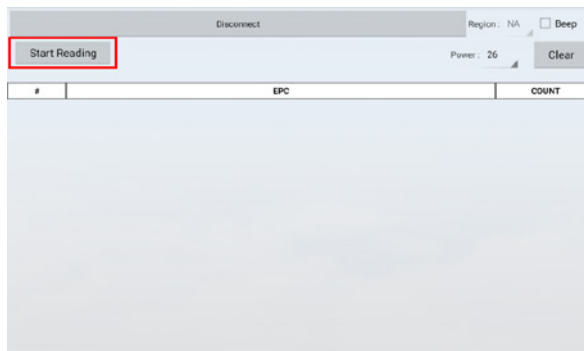
***NOTE:** It only applies to the device which supports UHF.*



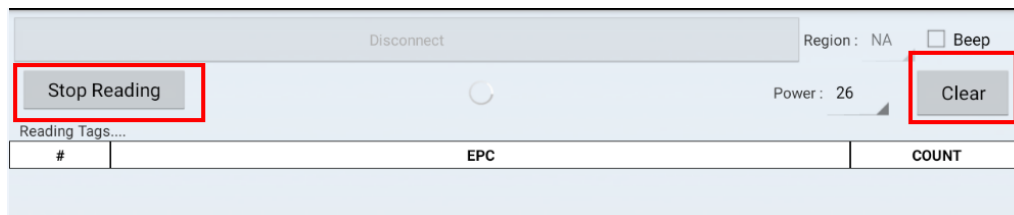
2. Tap **Connect** to enable it.



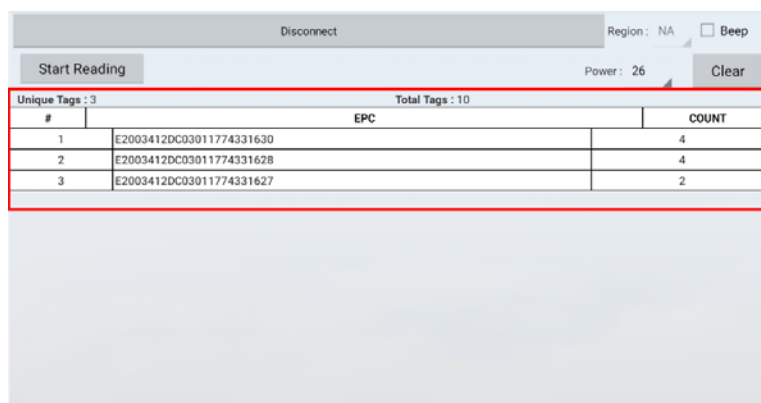
3. Tap **Start Reading** and get ready to read tags.



Tap **Stop Reading** and stop reading tags.  
Tap **Clear** to erase the information.

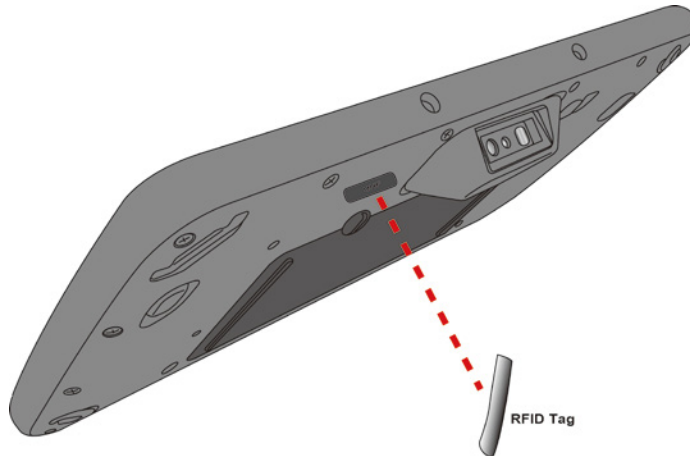


4. Information is shown below.



## RFID reading angle / distance

Using UHF RFID reader to read the tag, please keep the reading angle of 90° and the reading distance should be about 1.8M~1M.



## 2.4 MSR Setting

---

Current model is not available.

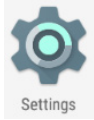
## 2.5 WWAN Setting

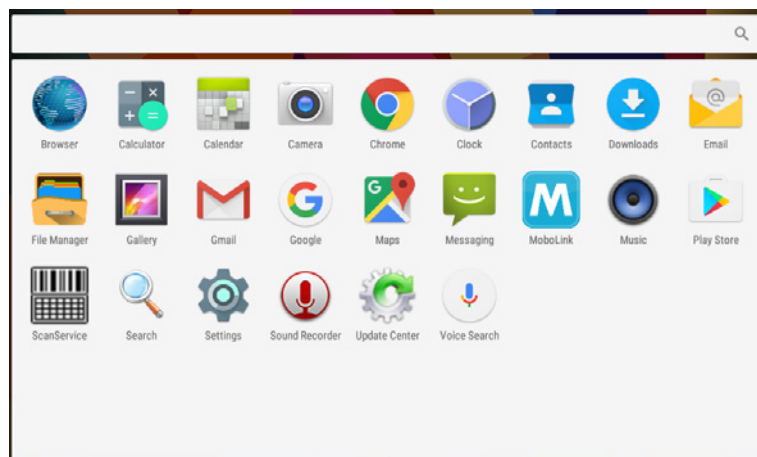
---

1. To insert SIM card, please make sure the terminal is off.  
**NOTE:** • For the instruction, please refer to [1.4.5 Using the Micro SD/SIM Card](#).  
• It only applies to the device which supports WWAN.
2. Turn on the terminal, 4G signal will show on the top right of the screen.

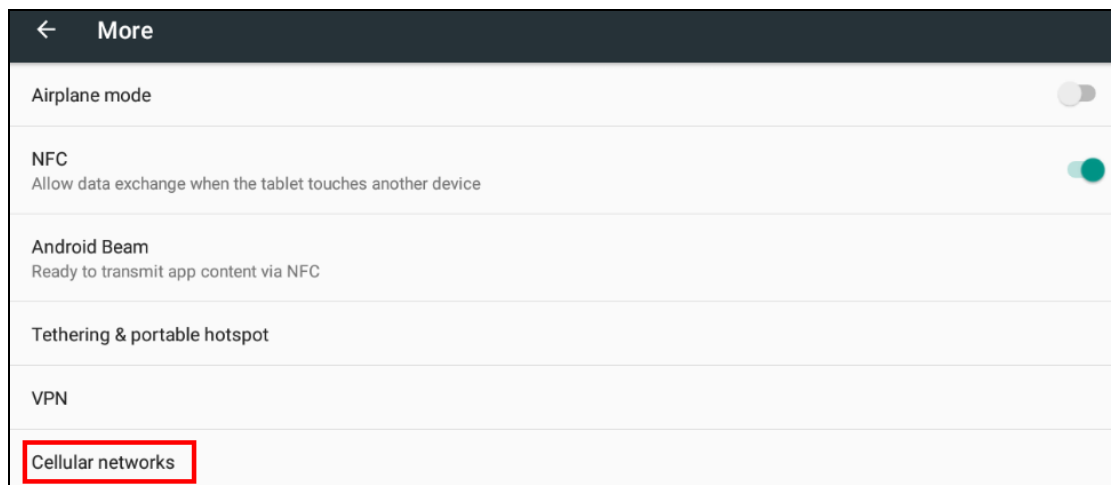
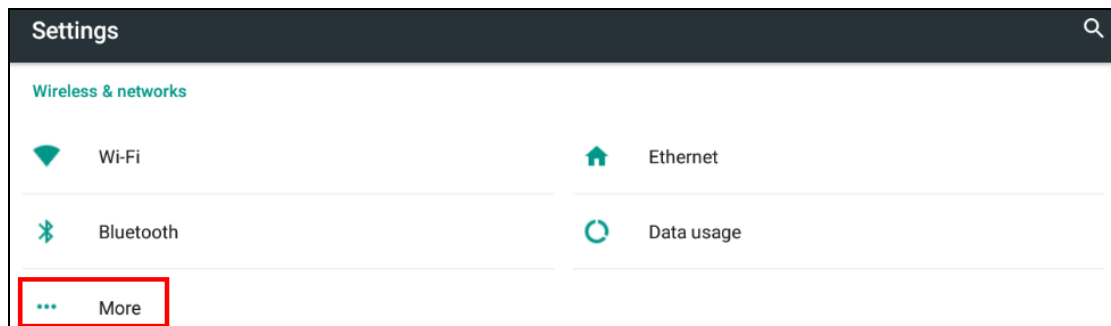


## 2.5.1 Mobile network settings

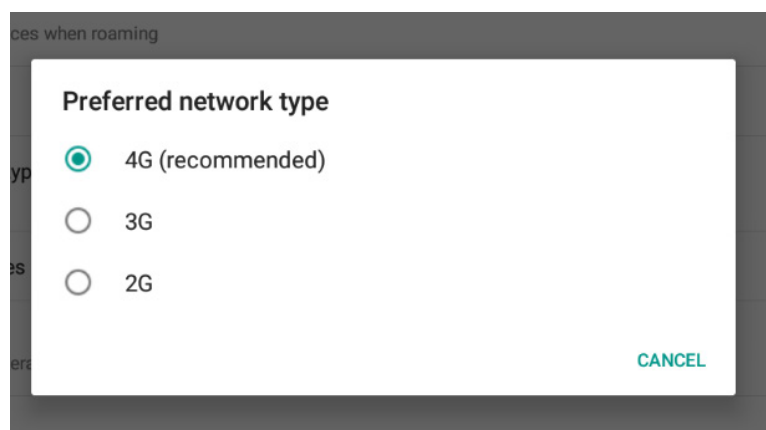
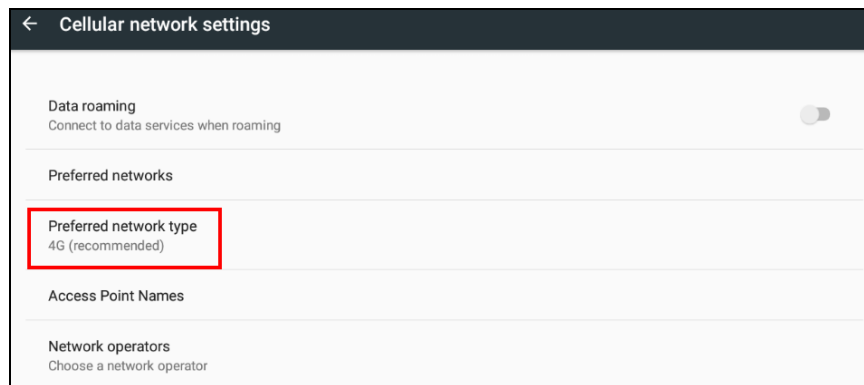
1. Tap  go to APPS, and tap  **Setting.**



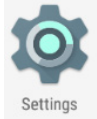
2. Go to Wireless & networks, Tap **More**, and then tap **Cellular networks**.

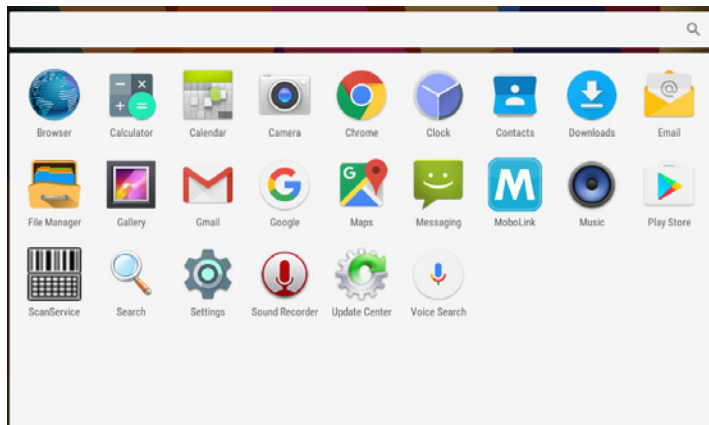


3. There are more **Cellular network settings** in this section. For network type, please tap **Preferred network type**.

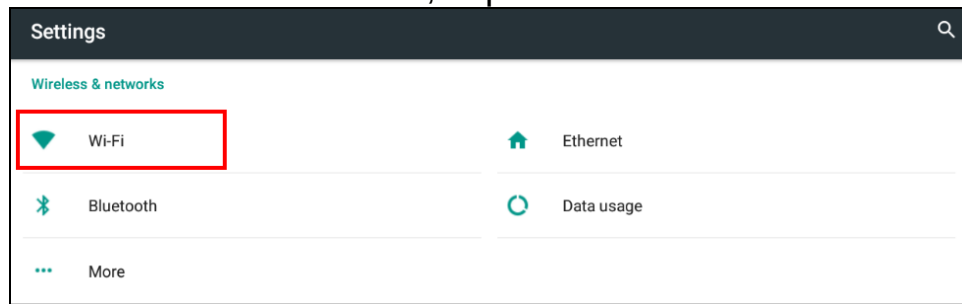


## 2.6 WLAN Setting

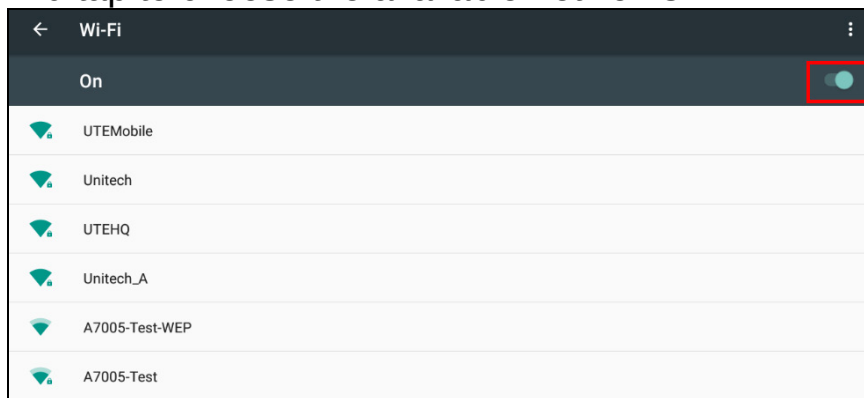
1. Tap  go to APPS, and tap  **Setting.**



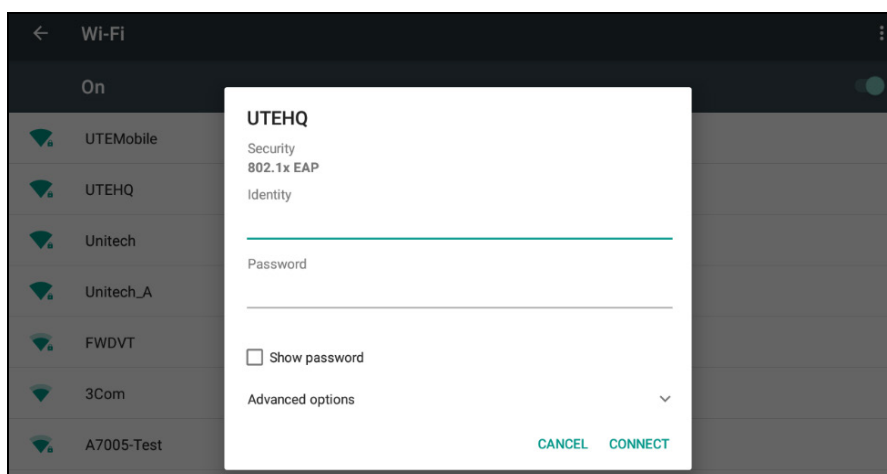
2. Go to Wireless & networks, Tap **Wi-Fi**



3. To see available networks, turn Wi-Fi **ON**.  
And tap to choose the available networks.

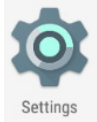


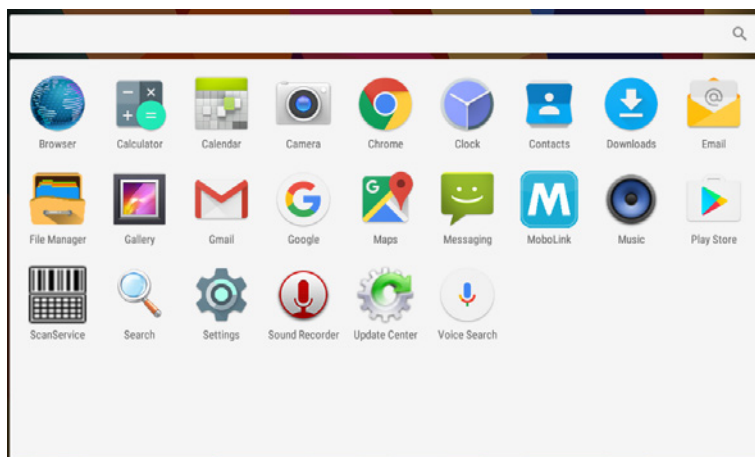
4. Choose the available networks, and enter the Password and tap **Connect**.



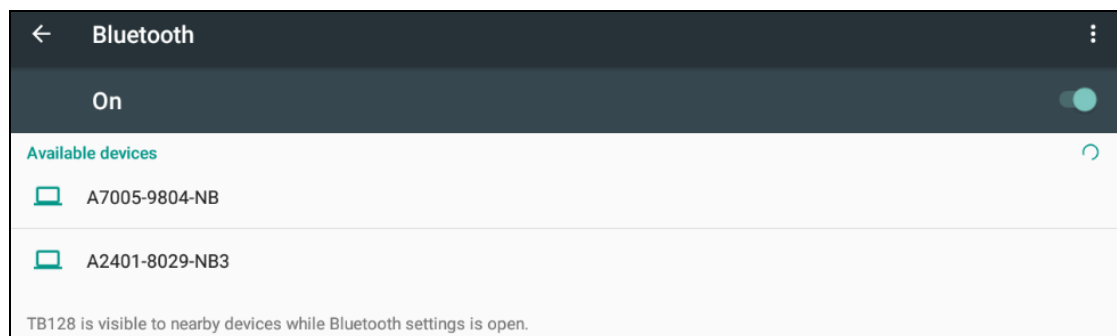
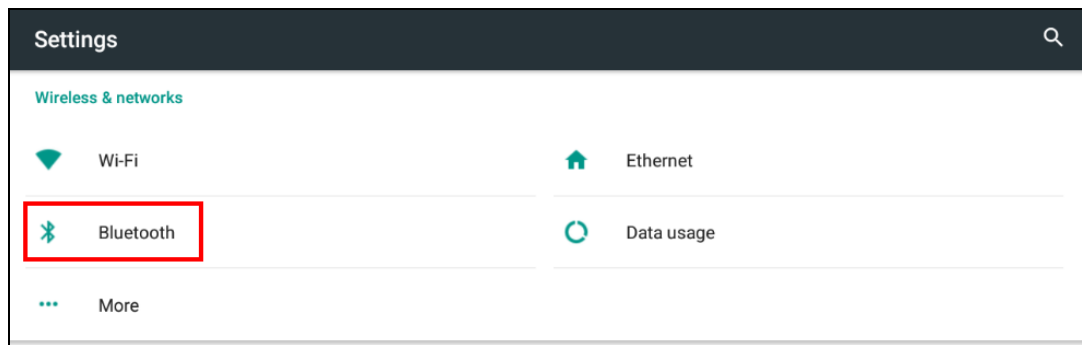
## 2.7 PAN Setting

---

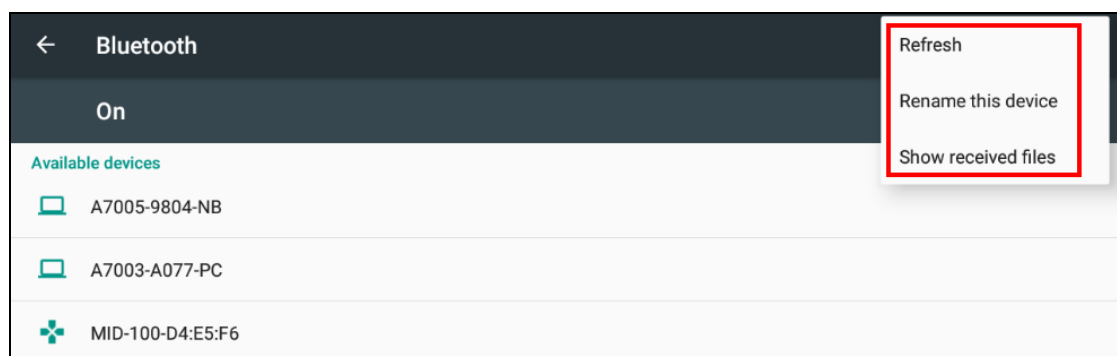
1. Tap  go to APPS, and tap  **Setting.**



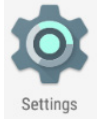
- Go to Wireless & networks, Tap **Bluetooth** (PAN)  
Tap **ON / OFF** to enable / disable Bluetooth (PAN).  
To pair the available device, turn Bluetooth **ON** to  
choose the available device.

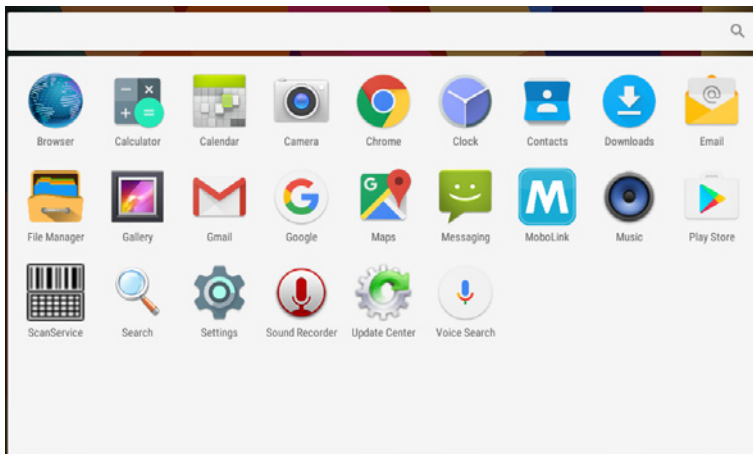


- Tap  for **Refresh, Rename this device and show received files** options.

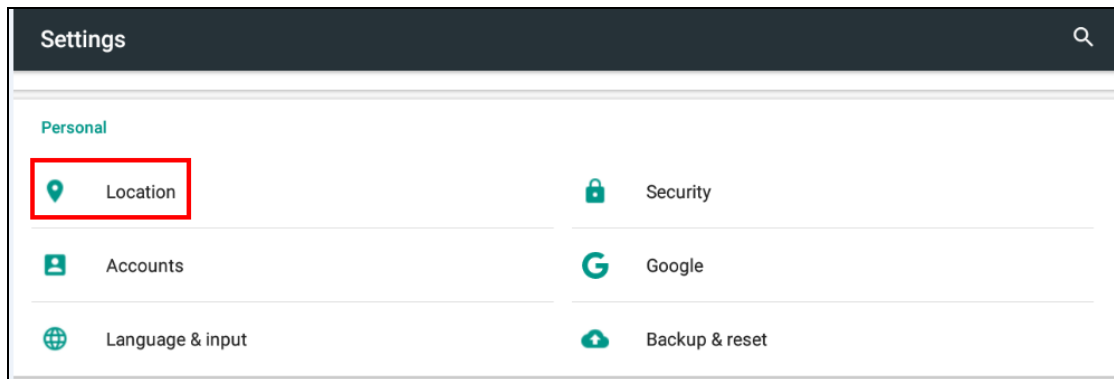


## 2.8 GPS Setting

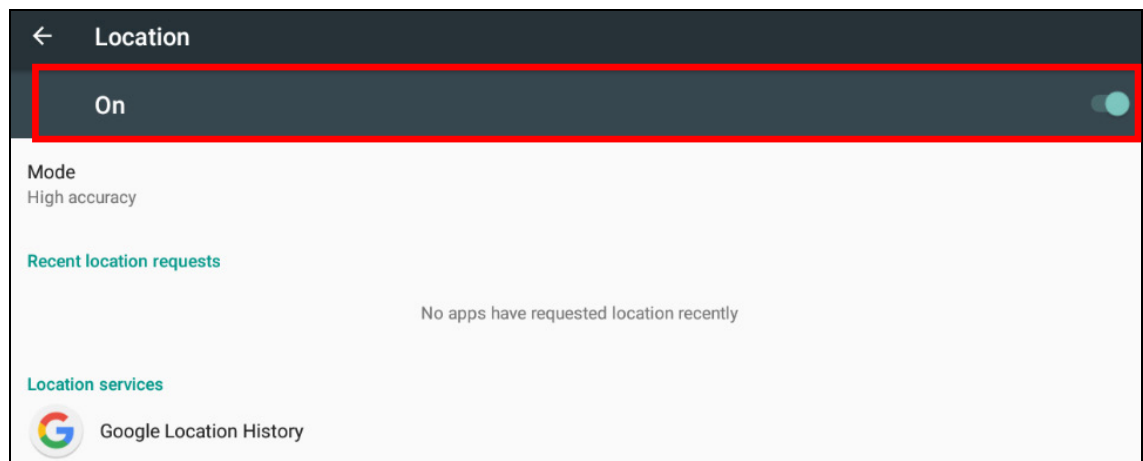
1. Tap  go to APPS, and tap  **Setting.**



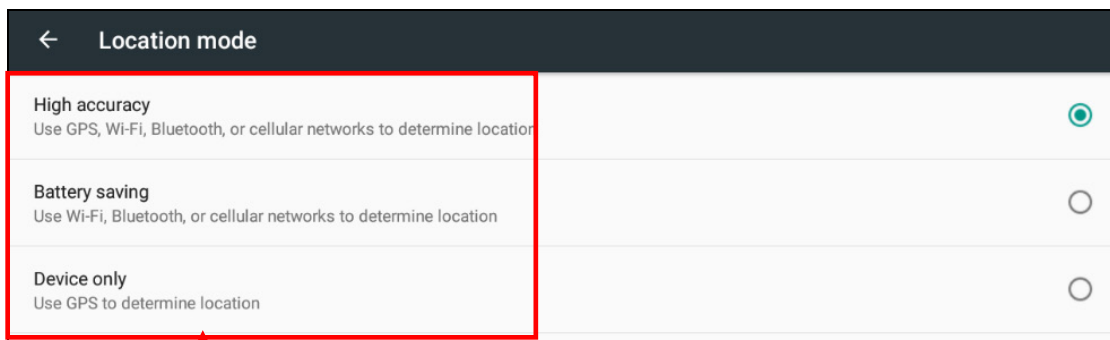
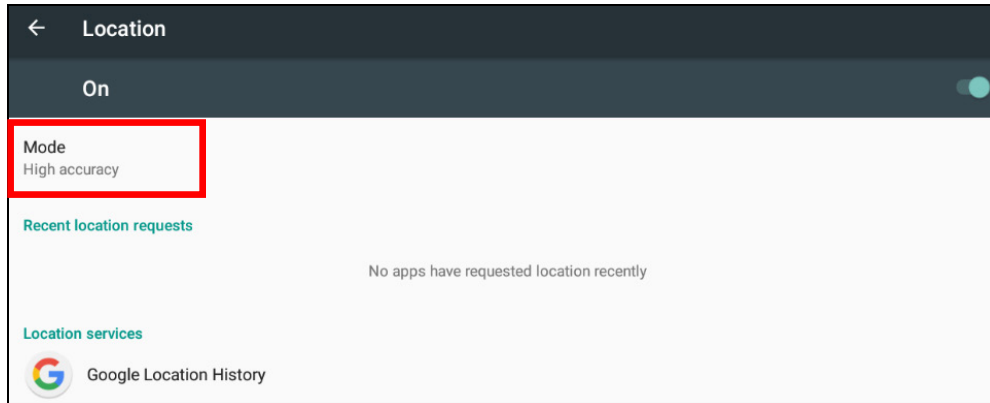
2. Go to **PERSONAL** , Tap **Location**.



3. Tap **ON/OFF** for the permission to use your location information.



4. Tap **Mode** for more location mode settings.

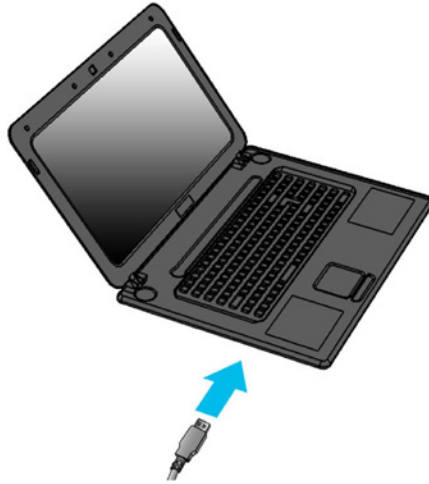


- **High accuracy :**  
Use GPS, Wi-Fi and cellular networks to determine location
- **Battery saving :**  
Use Wi-Fi and cellular networks to determine location
- **Device only :**  
Use GPS to determine your location

## 2.9 PC Setting

---

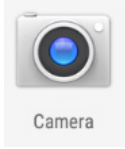
1. Connect the standard USB connector to the USB port of the PC device.

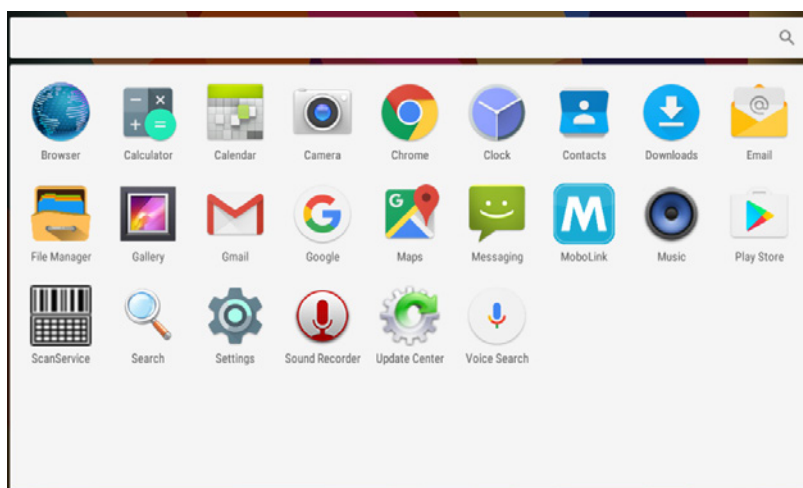


2. Connect the micro USB connector to the micro USB port at the bottom.

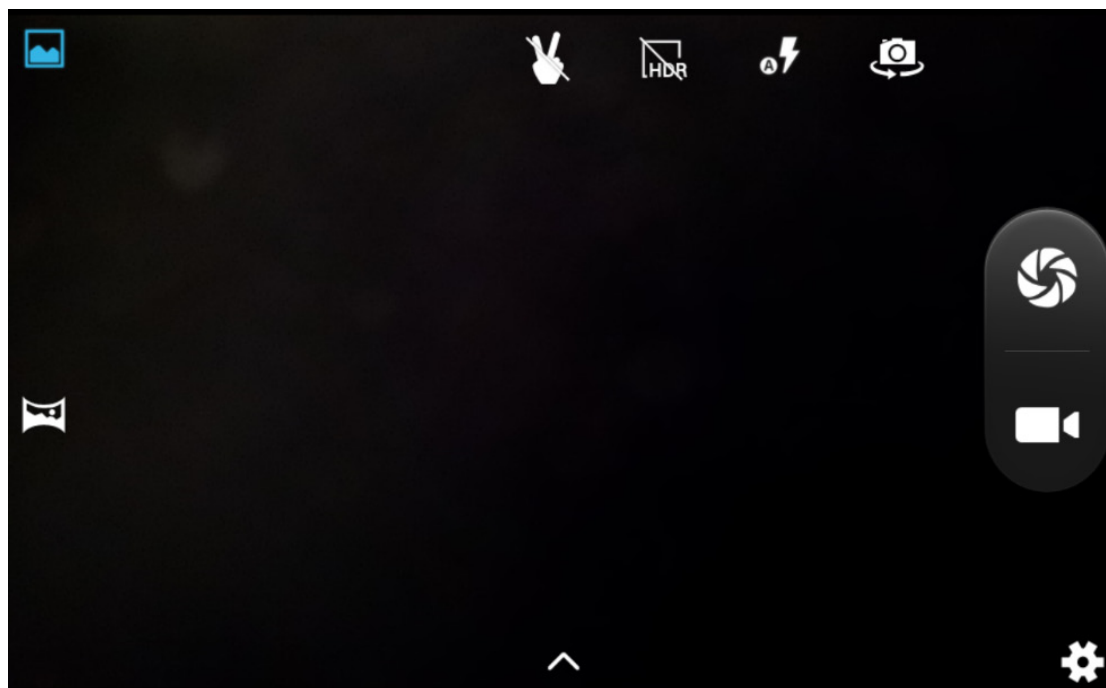


## 2.10 Camera Setting

1. Tap  go to APPS, and tap  **Camera.**



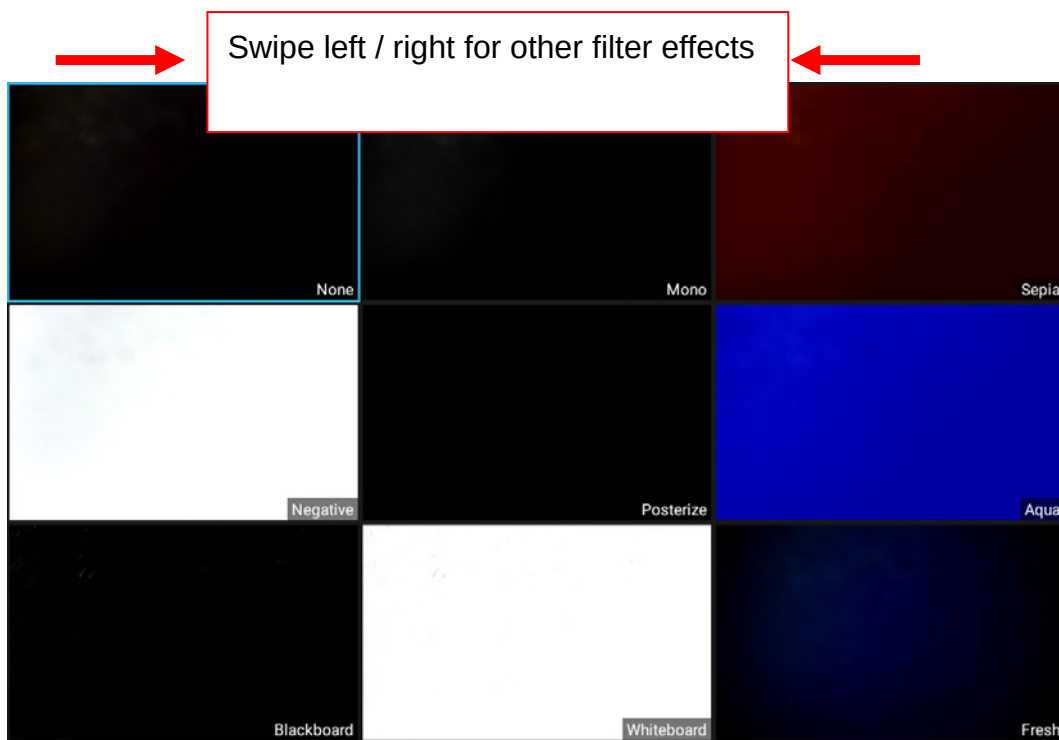
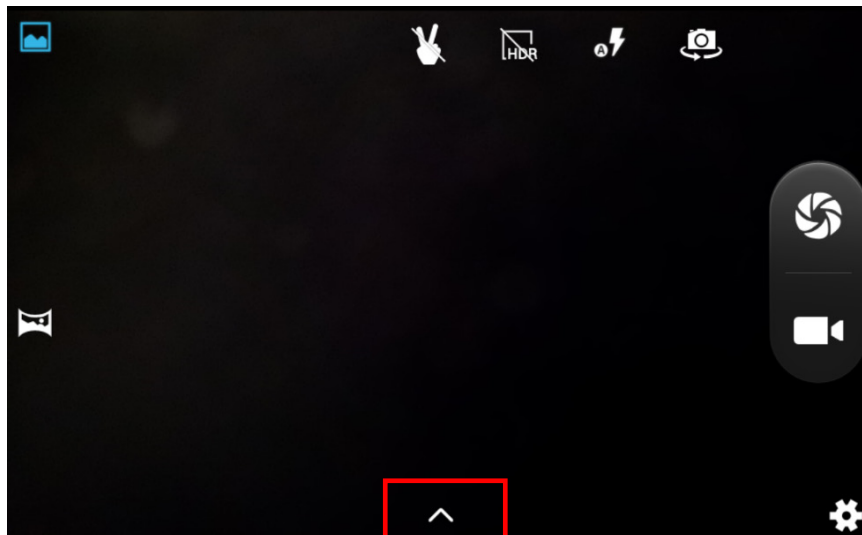
2. The following are the introduction of the camera interface.



|                                                                                     |                                                          |
|-------------------------------------------------------------------------------------|----------------------------------------------------------|
|  | Panorama mode                                            |
|  | Normal mode                                              |
|  | Gesture capture : Auto capture when gesture is detected. |
|  | HDR                                                      |
|  | Flash Mode                                               |
|  | Camera switch                                            |
|  | Record / Camera                                          |
|  | Settings                                                 |

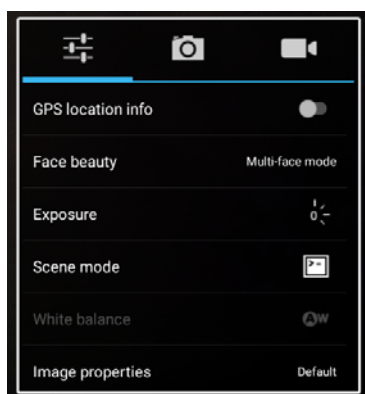
### 3. More options / settings

- camera filter effects ( for normal mode only )

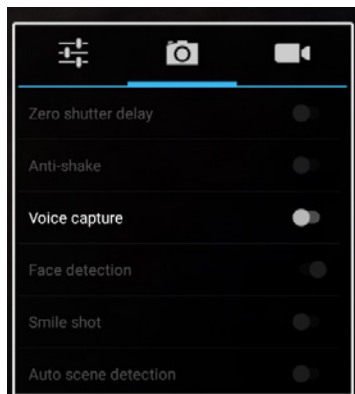


- Tab  for More settings as below.

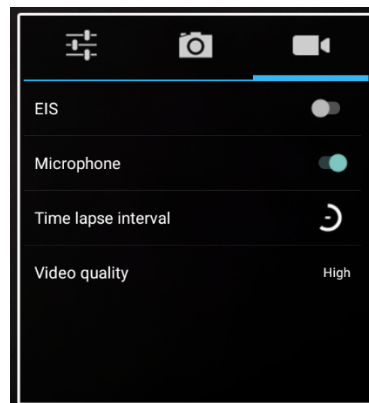
### Main settings



### Camera settings



### Video Setting

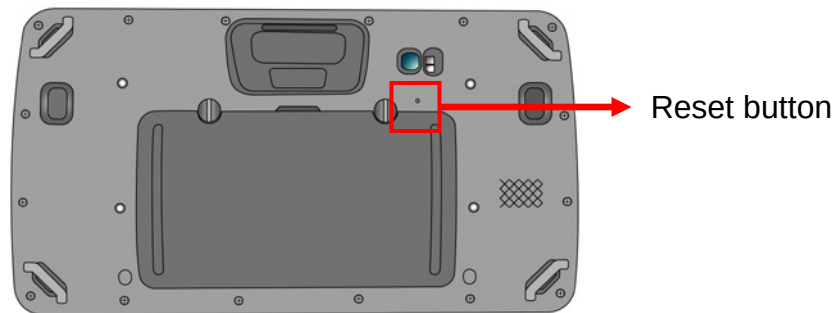


## 2.11 Performing a Hardware Reset

---

You may have to perform a reset if the device freezes (i.e., the terminal no longer responds to the buttons or tapping on the screen).

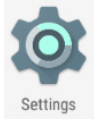
1. Use a pin, a paper clip, or tip of a pen.
2. Lightly press the reset button located on the back side of TB128.

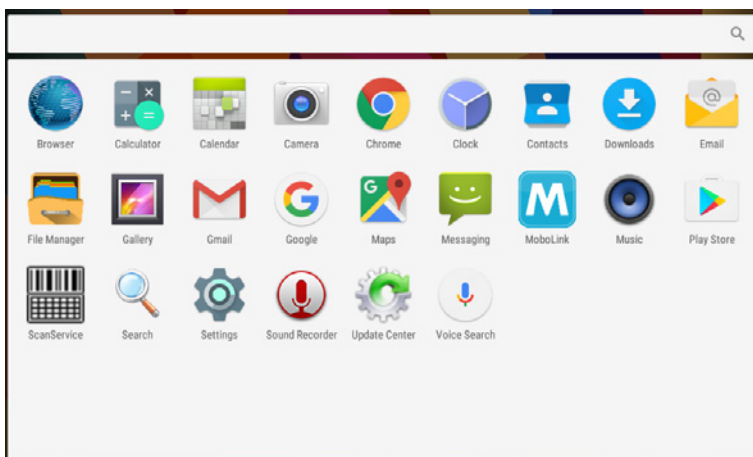


3. The terminal will restart the system after you press the reset button.

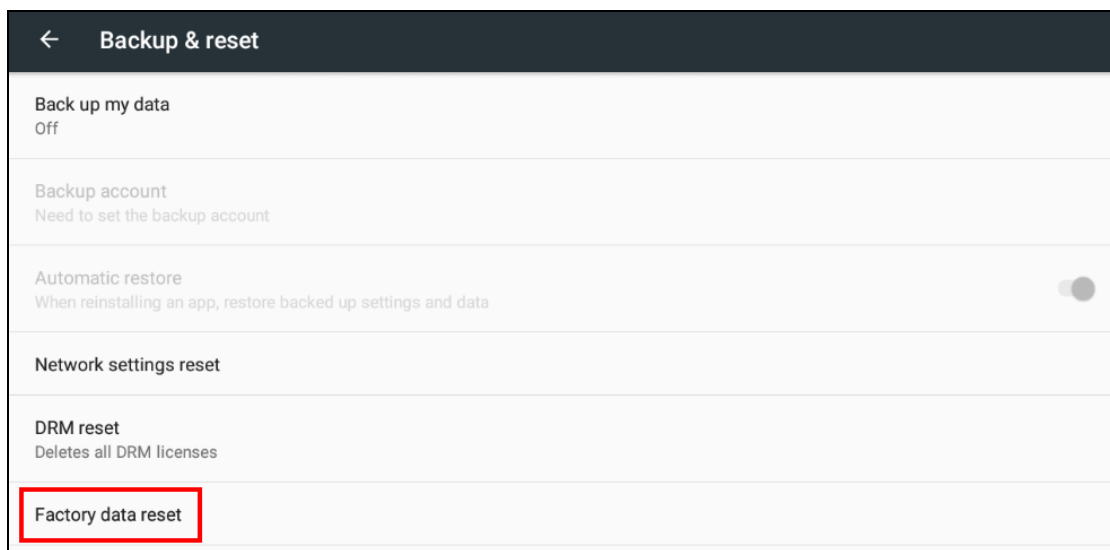
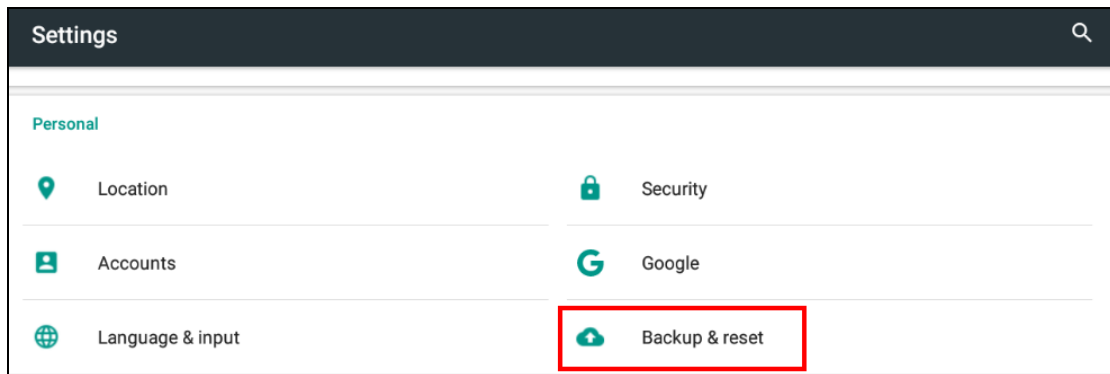
## 2.12 Performing Factory data reset

---

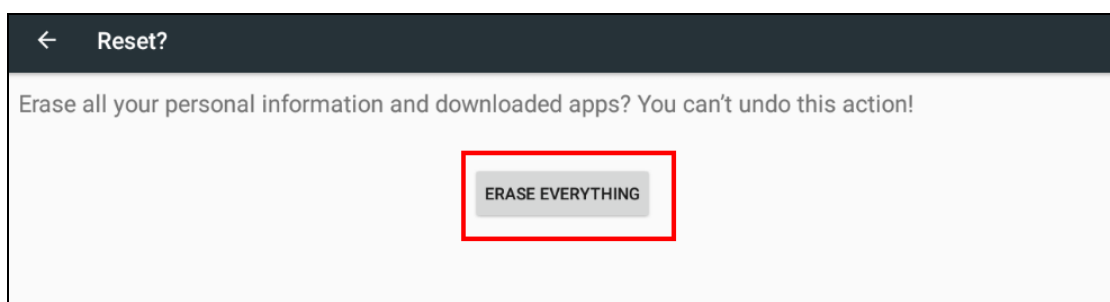
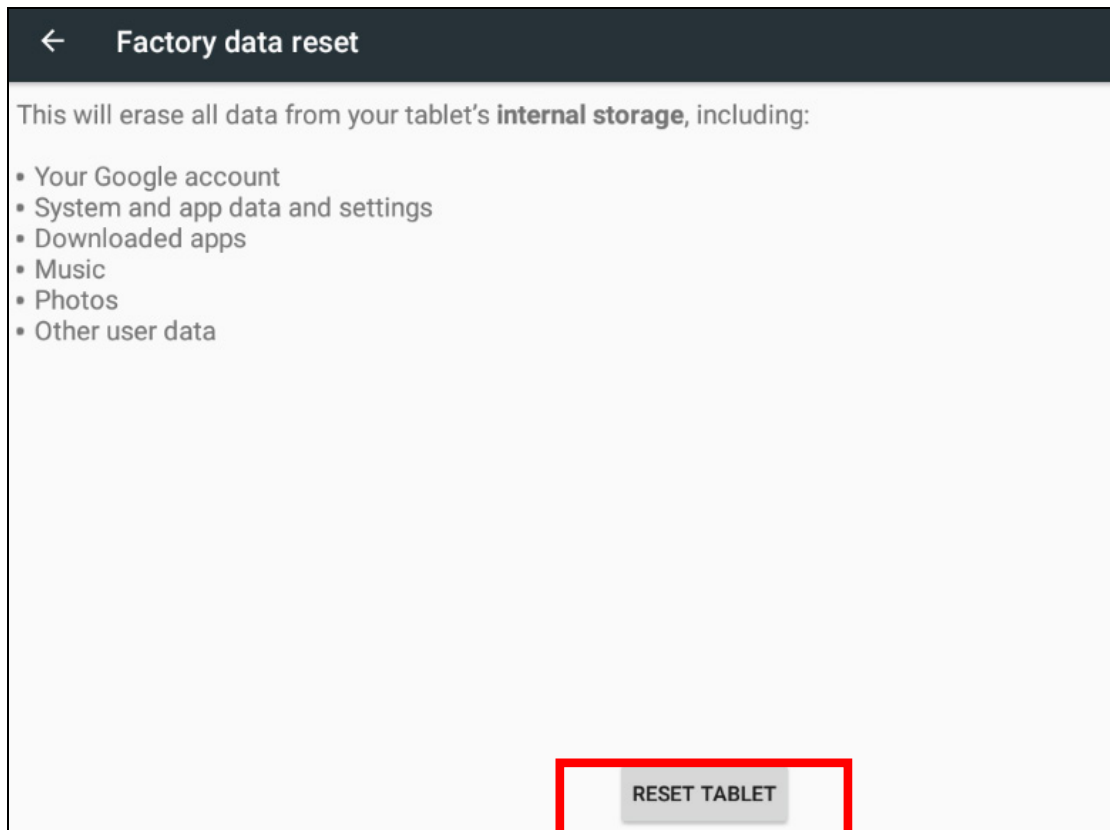
1. Tap  go to APPS, and tap  **Setting.**



2. Go to **PERSONAL** , tap **Backup & reset**
3. Tap **Factory data reset**



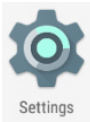
4. Tap **RESET TABLET** and then tap **ERASE EVERYTHING**

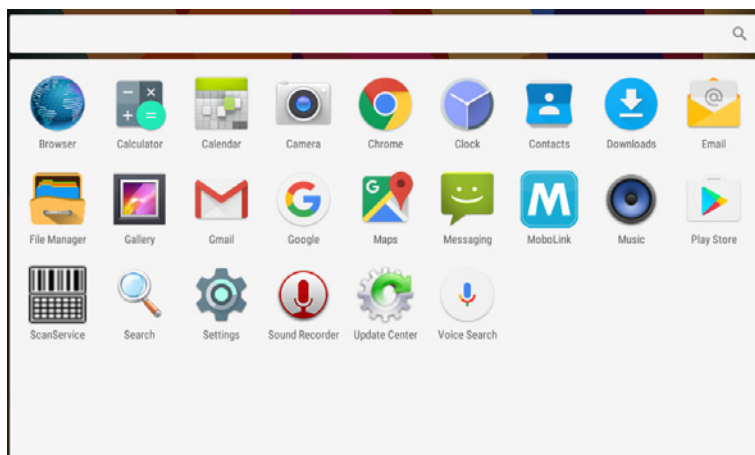


## 2.13 Programmable Keys

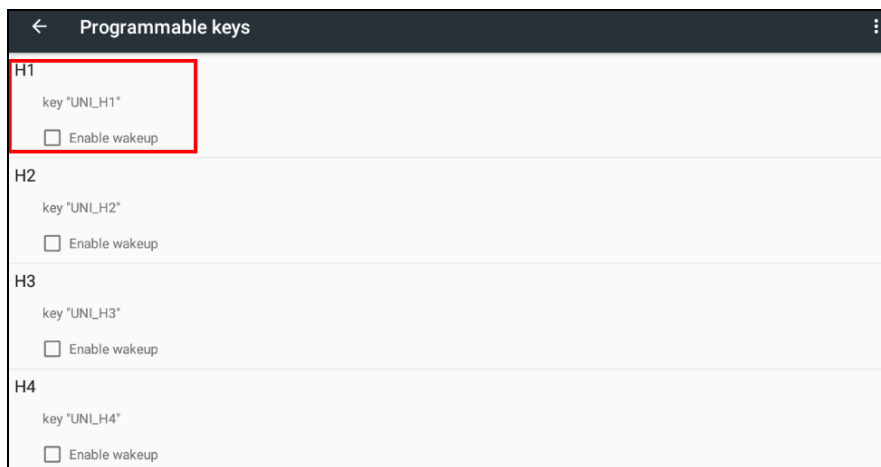
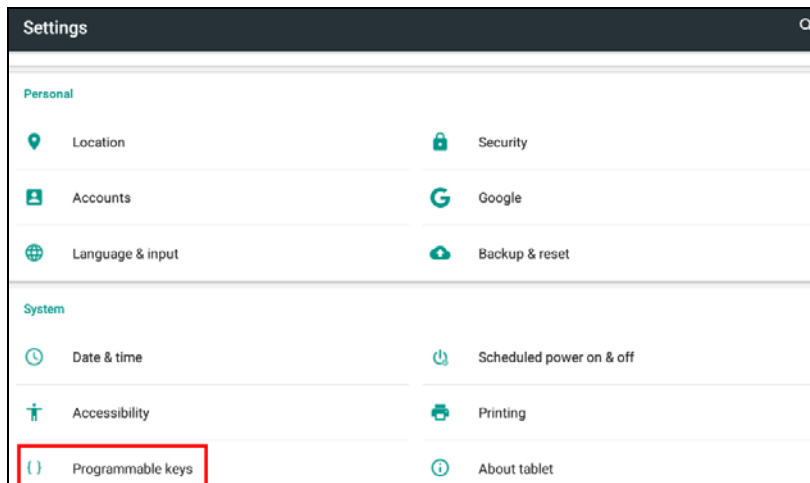
The TB128's keys can be programmed for users to be able to perform different functions or applications.

### 2.13.1 Programming a key

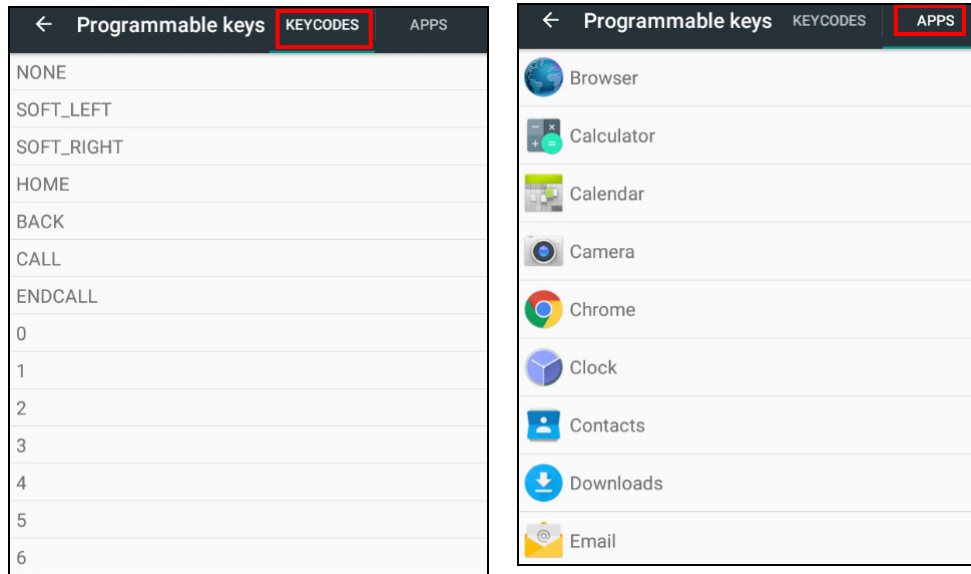
1. Tap  go to APPS, and tap  **Setting.**



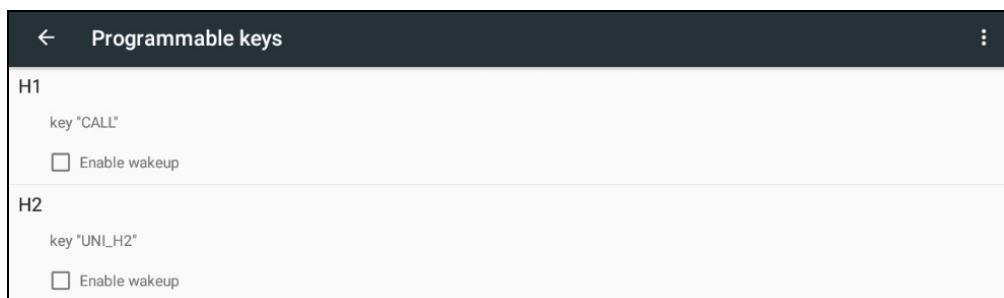
2. Go to SYSTEM, Tap **Programmable keys**, and select the keys to remap. (ex. *tab H1* )



3. Tab one of **KEYCODES** or **APPS** that lists the available functions or applications and select one shortcut to map to the key. (ex. tab *CALL* )



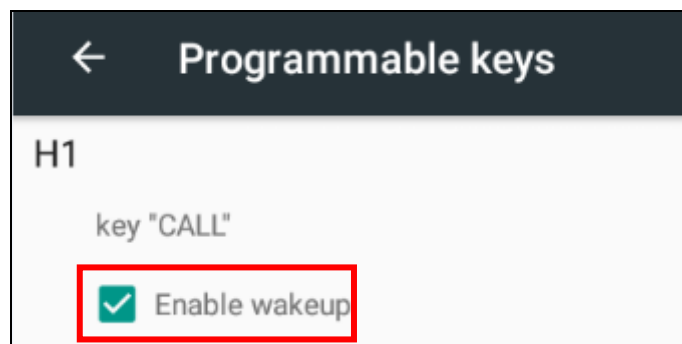
4. The key is successfully mapped to a key code.



## 2.13.2 Enable/ Disable wakeup

After the key is mapped to a key code, check the **Enable wakeup** checkbox to wake TB128 by pressing the programmable keys when TB128 is in sleep mode.

**Note:** This function only applies to **KEYCODES**.

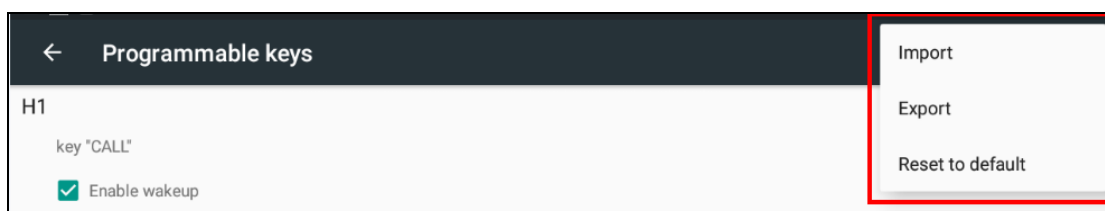


## 2.13.3 Export / Import a Programmable Key

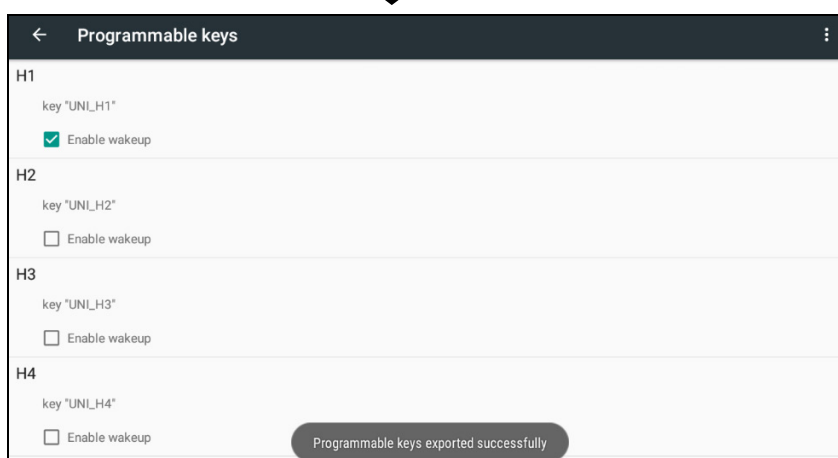
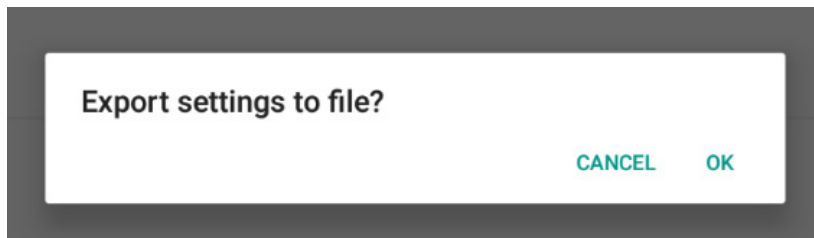
### Configuration file

#### ■ Export file

1. Tab 
2. Select **Export**



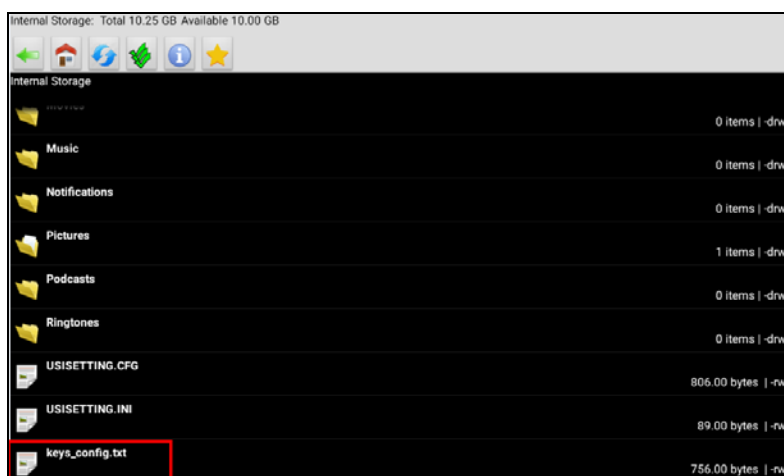
3. Tab **OK** ➡ Programmable keys exported successfully



The Programmable Key configuration can be exported to a text file or imported into TB128.

**Note:** The configuration file (*keys\_config.txt*) is saved in File Manger.

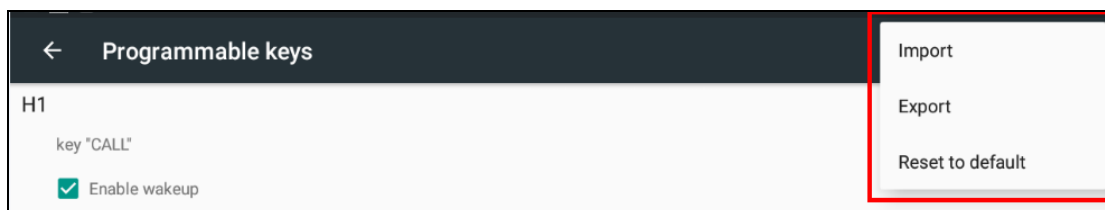
(For File Manager setting, please refer to [3.2 File Manager](#).)



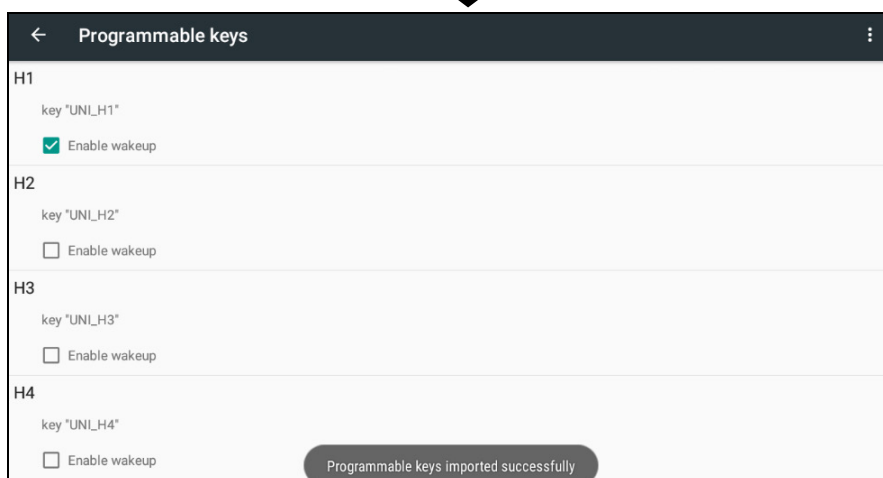
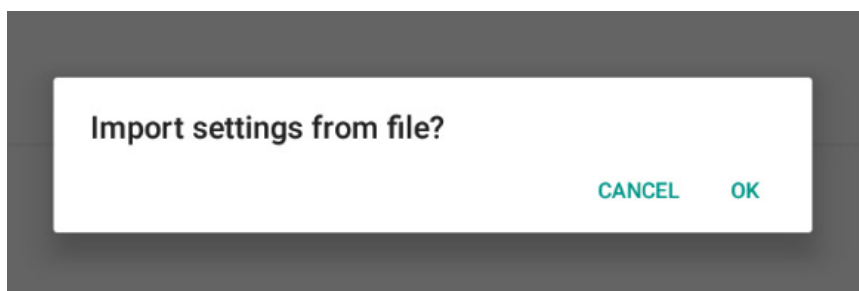
## ■ Import file

Before importing the file, please make sure the configuration file (keys\_config.txt) is in File Manager.

1. Tab 
2. Select **Import**

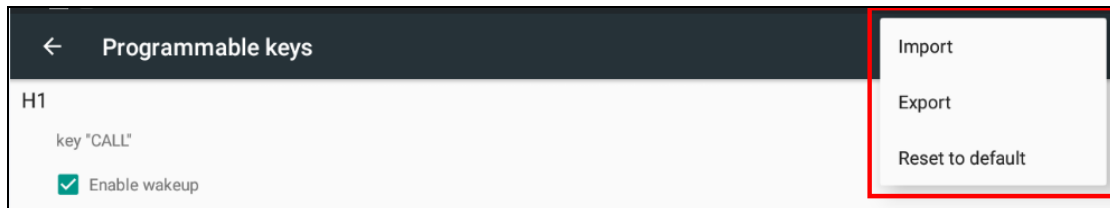


3. Tab **Ok** ➡ **Programmable keys imported successfully**  
The new configuration will be applied immediately after import.



## Reset default

1. Tab 
2. Select **Reset to default**

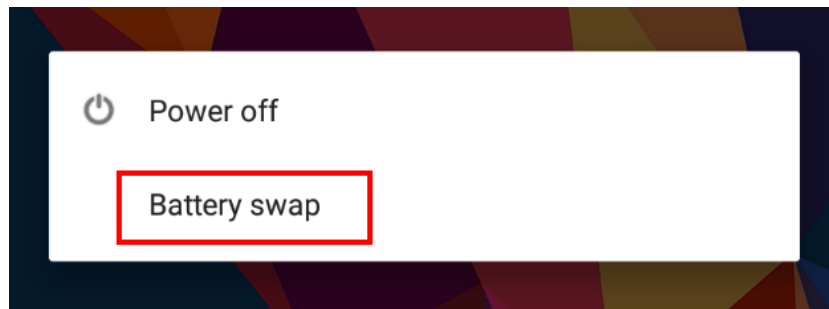


## 2.14 Battery Swap (Hot Swap)

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Please follow the steps for the battery swap.

1. Long press power button until you see the pop up window and tap **Battery swap**.



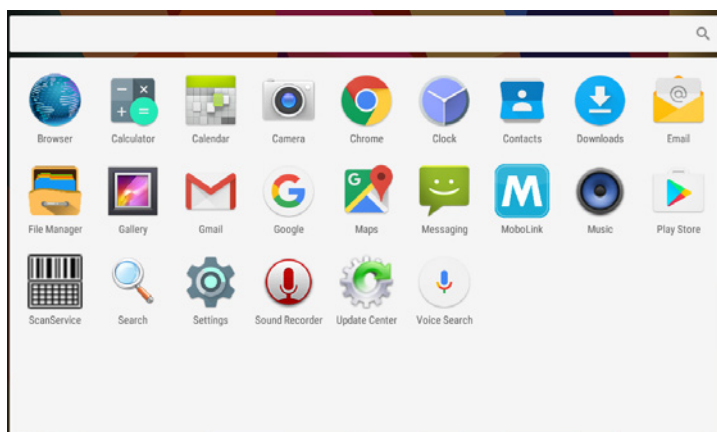
2. The LED indicator will start showing solid red light. **Please swap the battery after the LED red light goes off.** Make sure do not turn on TB128 during the battery swap.
3. When the battery swap is done, you can press the power button to restart TB128.

*Note :Please see [1.4.1 Installing the Battery](#) for more information.*

## Chapter 3 – Introduction to Applications

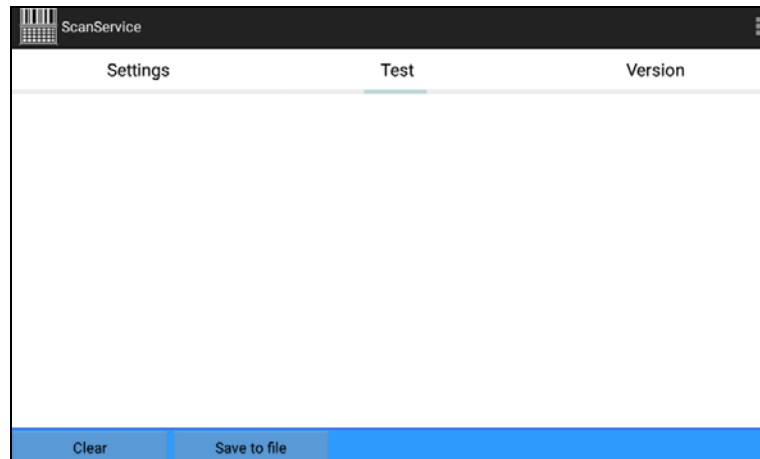
### 3.1 Scan Service

1. Tap  go to APPS, and tap  **ScanService**.

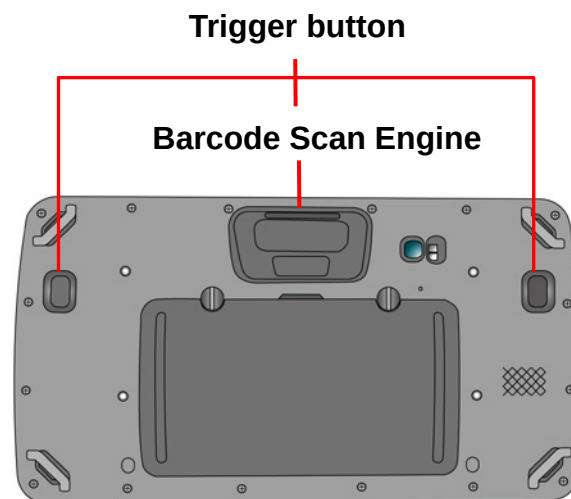


**Note :** For more Scan Service settings, please refer to [2.1 Barcode Setting](#).

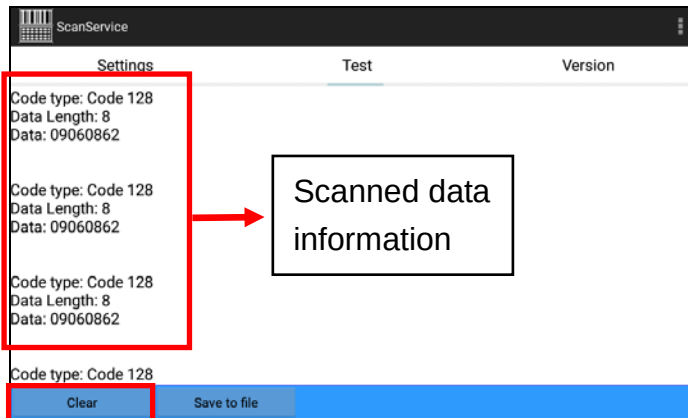
2. You are now enter the **ScanService** application. Tap **Test** to start scanning barcodes.



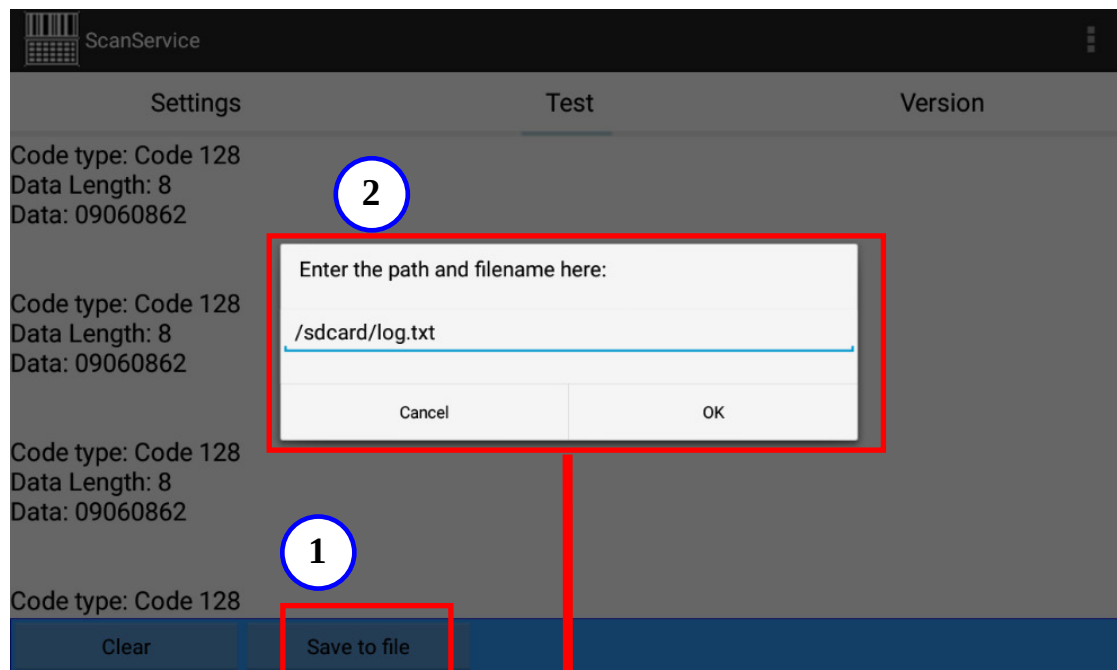
3. Aim the Barcode Scan Engine to the barcode and press one of two scan trigger buttons. (Or press Scan key on the keypad.)



4. After scanning the barcodes, the barcode information is as shown below.



Tap **Clear** : Clear all scanned data



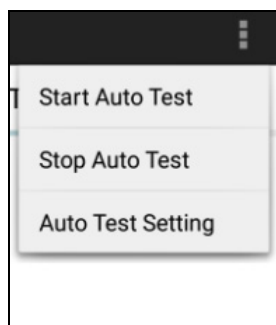
- ① Tap **Save to file**.
- ② Choose the path and filename and press **OK** to save the scanned data.

## ■ More Options

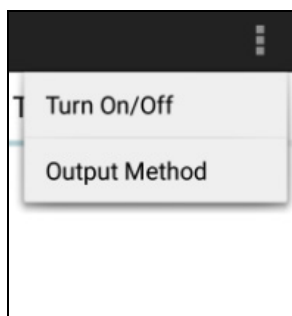
For more options and settings, please tap .



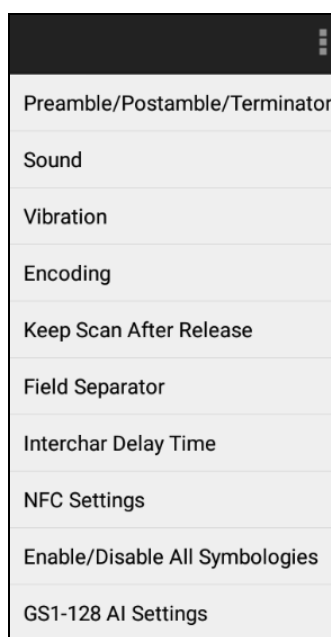
### ■ Auto Scan



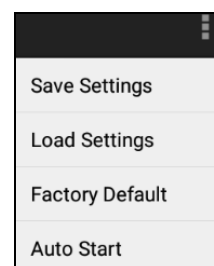
### ■ Scan2Key Setting



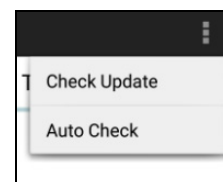
### ■ Device Option



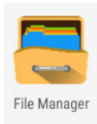
### ■ Save/ Load Settings



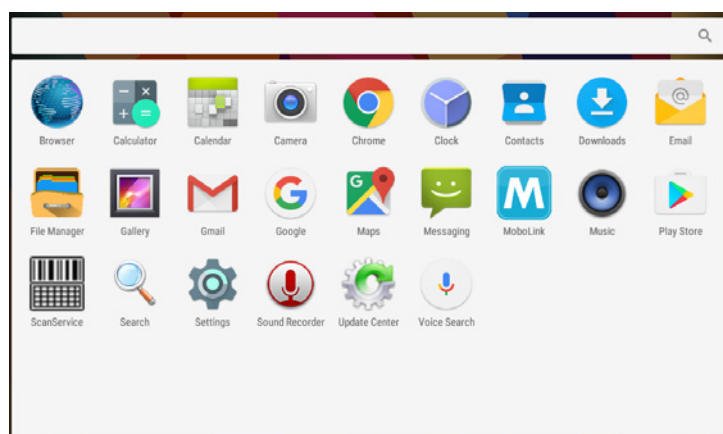
### ■ Update



## 3.2 File Manager

1. Tap  go to APPS, and tap  **File Manager.**

( or tap **File Manager**  on the main menu.)



## 2. Items Introduction :

 : Return to the previous page

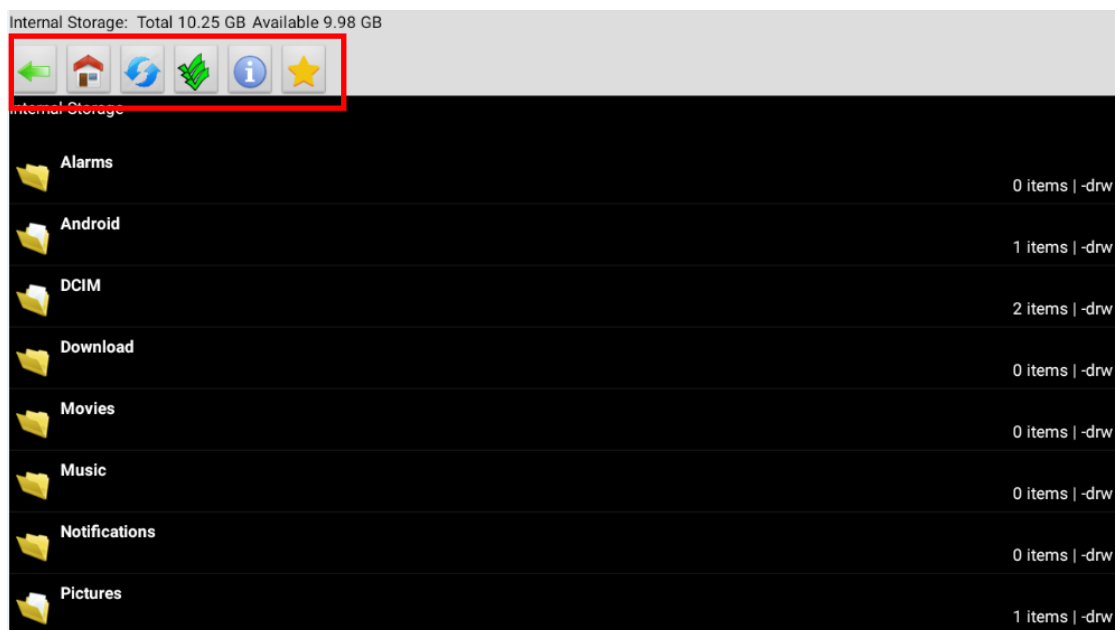
 : Main page

 : Refresh

 : Folder setting

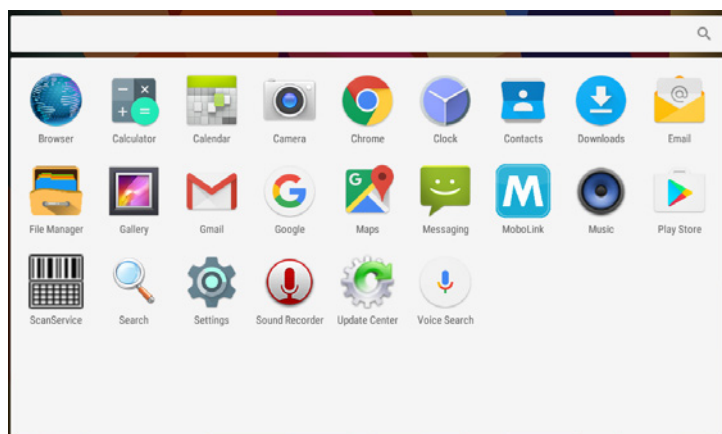
 : Folder Information

 : Solutions

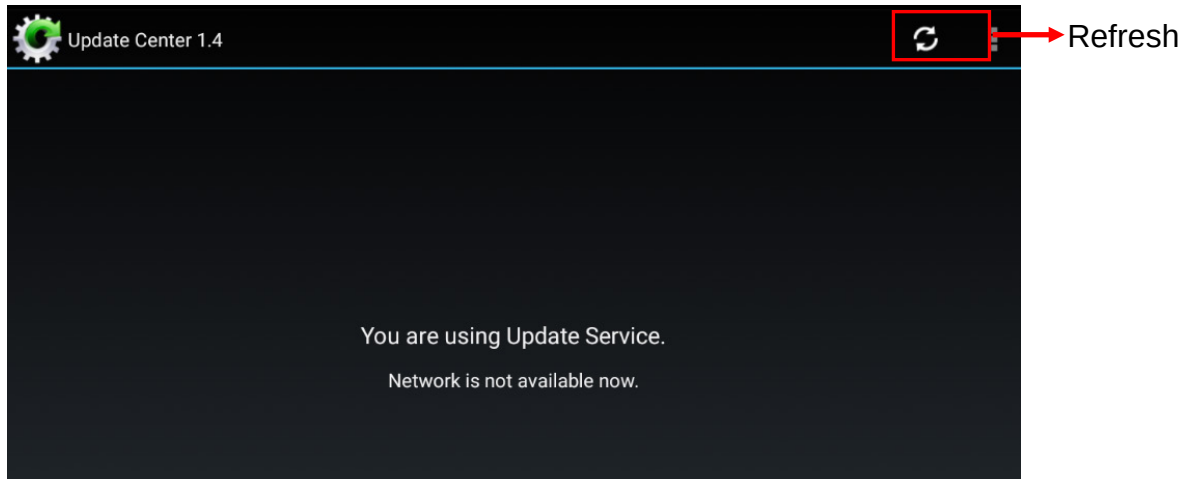


## 3.3 Update Center

1. Tap  go to APPS, and tap  **Update Center.**

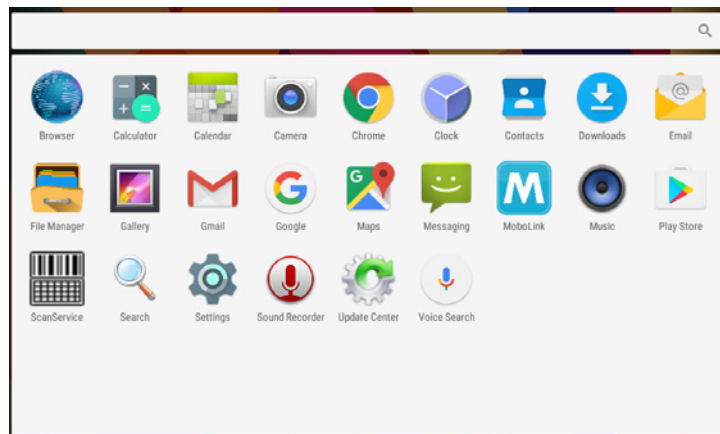


2. To update or check the latest version of software and applications, you will need to do it manually.

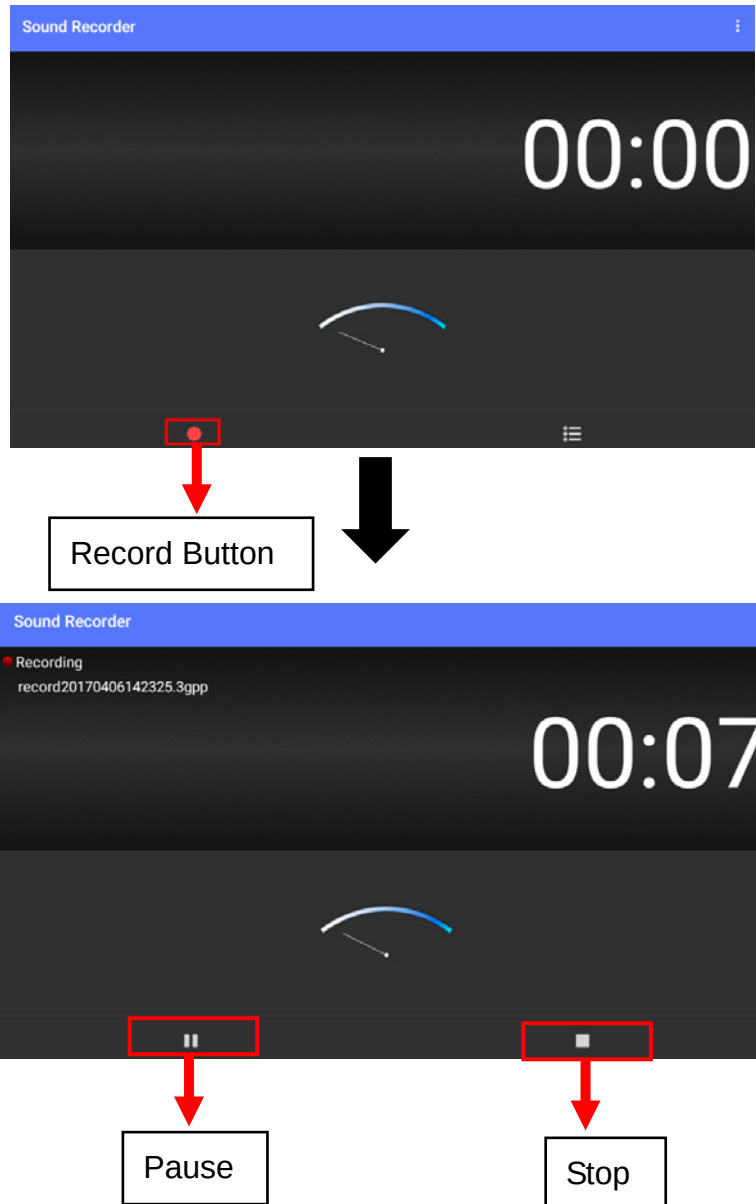


## 3.4 Sound Recorder

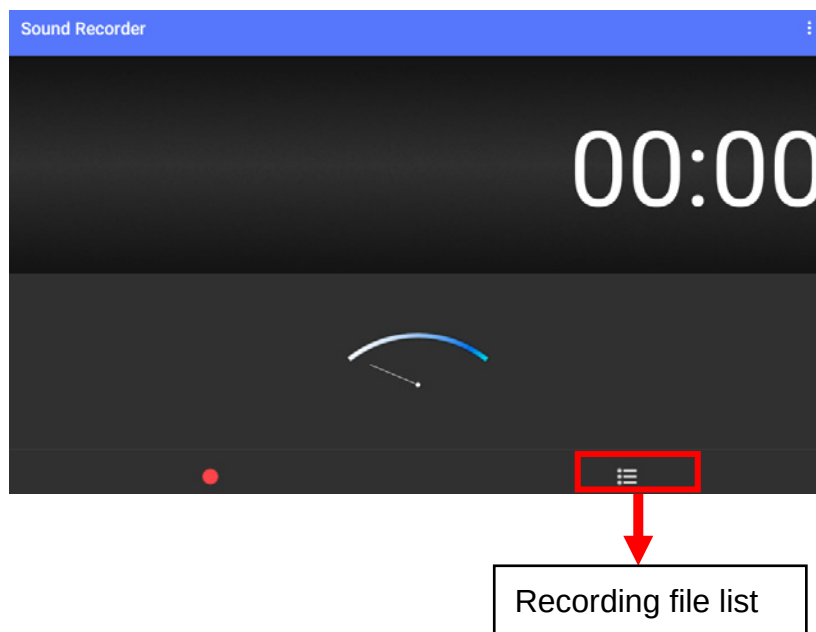
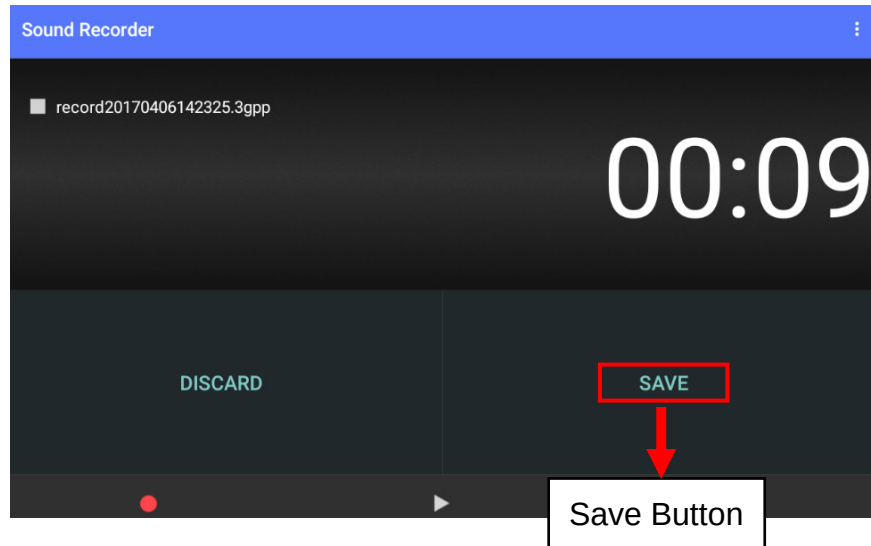
1. Tap  go to APPS, and tap  **Sound Recorder.**



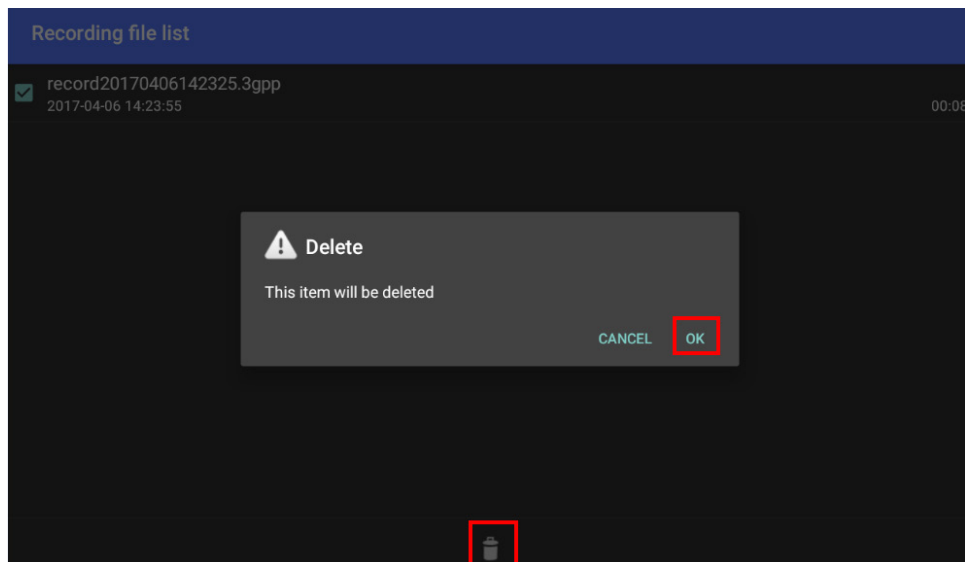
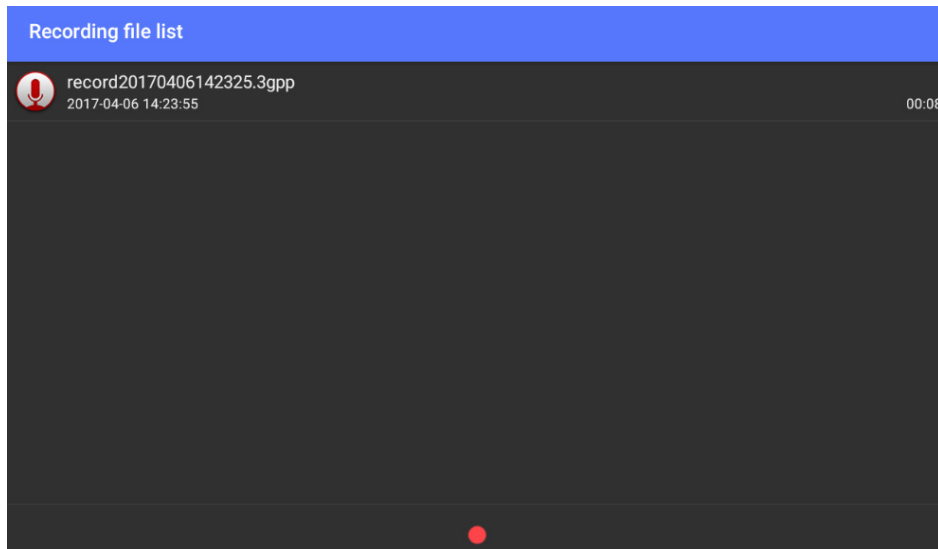
2. **Recording** : Tap red dot to start the sound recording.



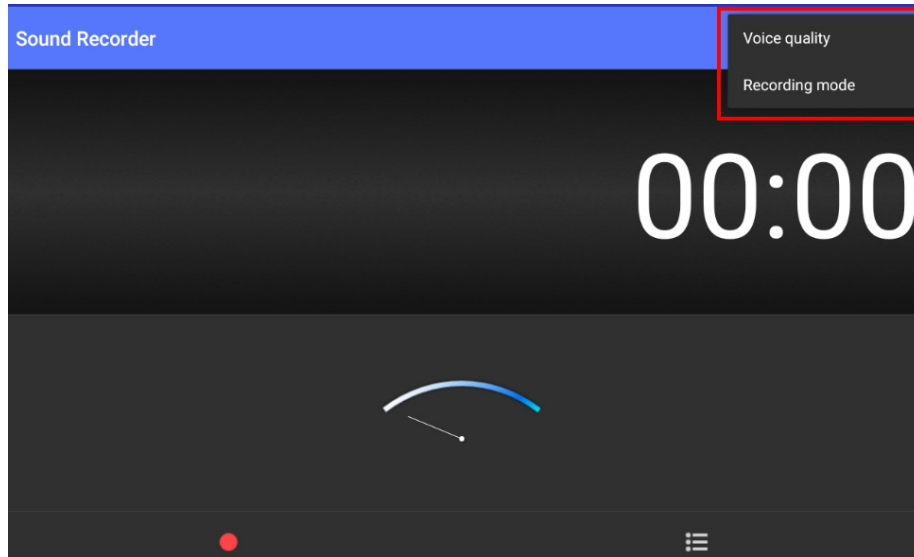
3. **Save files** : Tap stop button during the sound recording and choose **save**. Tap  to the recording file list.



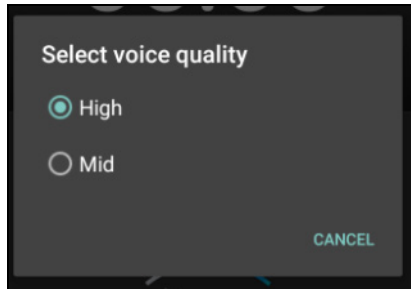
4. **Delete files:** Tap  to the recording file list and long press the file you choose to remove. Tap  and press OK to delete the file.



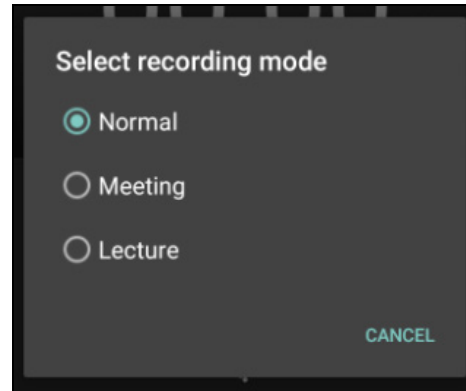
5. More settings : Tap  for **Voice quality / Recording mode**.



■ **Voice quality**



■ **Recording mode**

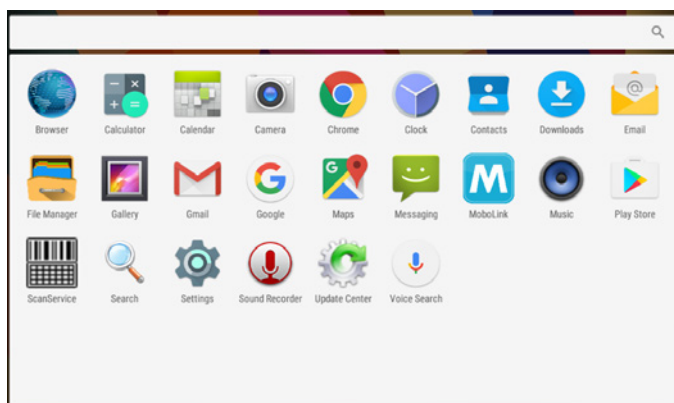


## 3.5 MoboLink

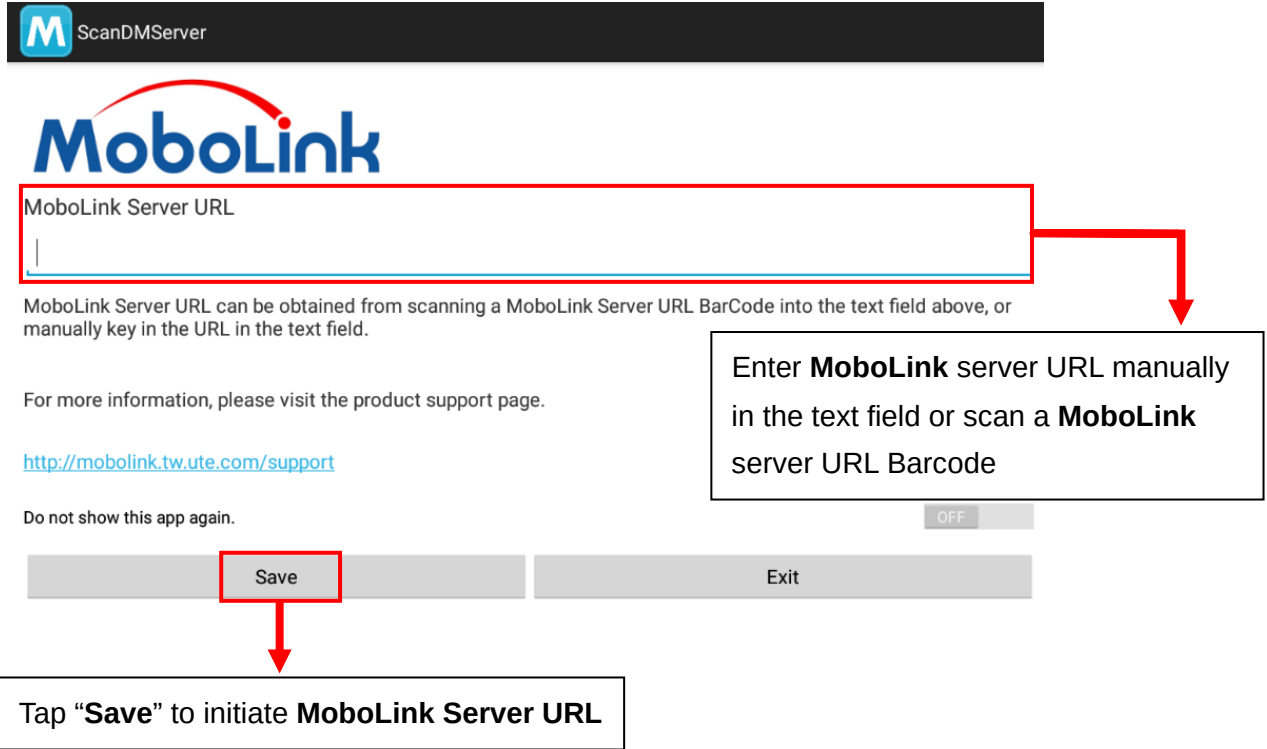
MoboLink is a software platform that helps unitech customers to remote manage their purchased devices and applications. The core of the MoboLink platform provides functionalities in the MDM (Mobile Device Management) and MAM (Mobile Application Management) domains, and then further extends into other management functions such as alert notification management and account management.

1. Tap  go to APPS, and tap  **MoboLink**  
**MoboLink** will run in the background.

***Note:** If there is no internet connection, **MoboLink** will be activated after few seconds.*

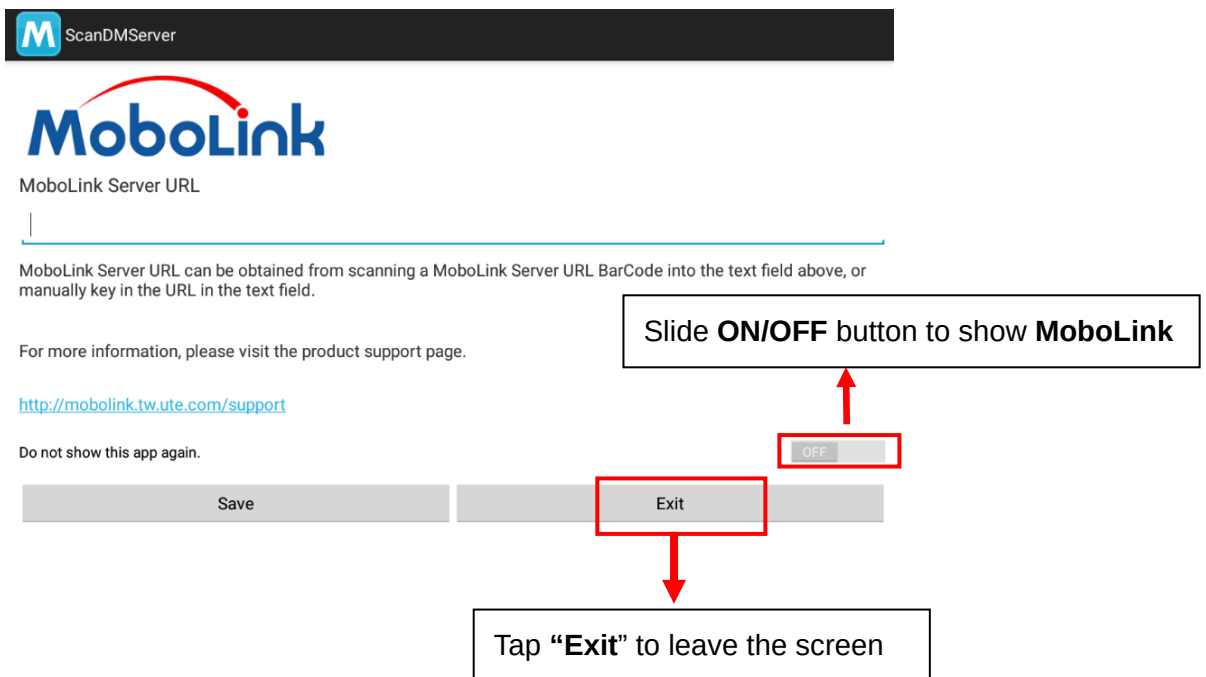


## 2. MoboLink setting is as below :



The screenshot shows the MoboLink settings interface. At the top is a black header with a blue 'M' icon and the text 'ScanDMServer'. Below this is the 'MoboLink' logo. A text field labeled 'MoboLink Server URL' is highlighted with a red box. A red arrow points from this box to a callout box on the right that says: 'Enter **MoboLink** server URL manually in the text field or scan a **MoboLink** server URL Barcode'. Below the text field is a paragraph of text: 'MoboLink Server URL can be obtained from scanning a MoboLink Server URL BarCode into the text field above, or manually key in the URL in the text field.' Below this is a link: '<http://mobolink.tw.ute.com/support>'. Below the link is a toggle switch labeled 'Do not show this app again.' with the text 'OFF' to its right. At the bottom are two buttons: 'Save' and 'Exit'. A red box highlights the 'Save' button, and a red arrow points from it to a callout box at the bottom that says: 'Tap "**Save**" to initiate **MoboLink** Server URL'.

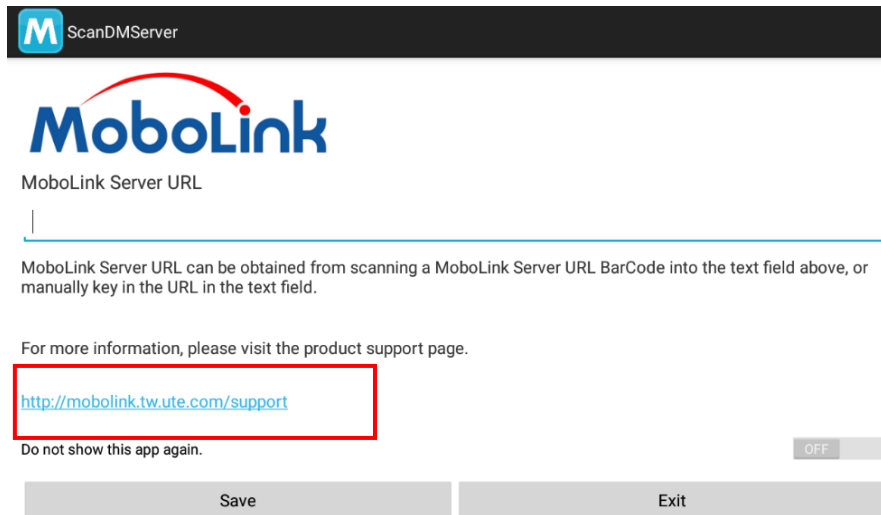
## 3. MoboLink screen information is as below:



The screenshot shows the MoboLink screen. At the top is a black header with a blue 'M' icon and the text 'ScanDMServer'. Below this is the 'MoboLink' logo. A text field labeled 'MoboLink Server URL' is shown. Below the text field is a paragraph of text: 'MoboLink Server URL can be obtained from scanning a MoboLink Server URL BarCode into the text field above, or manually key in the URL in the text field.' Below this is a link: '<http://mobolink.tw.ute.com/support>'. Below the link is a toggle switch labeled 'Do not show this app again.' with the text 'OFF' to its right. At the bottom are two buttons: 'Save' and 'Exit'. A red box highlights the 'Exit' button, and a red arrow points from it to a callout box at the bottom that says: 'Tap "**Exit**" to leave the screen'. Another red box highlights the 'OFF' toggle switch, and a red arrow points from it to a callout box above it that says: 'Slide **ON/OFF** button to show **MoboLink**'.

### 3.5.1 More about MoboLink

For detailed operation, solution and usage, please refer to **MoboLink** user's guide. ( <http://mobolink.tw.ute.com/support> )



The screenshot shows the ScanDMServer application window. At the top is a black header bar with a blue 'M' icon and the text 'ScanDMServer'. Below this is the 'MoboLink' logo in blue. Under the logo is the label 'MoboLink Server URL' followed by a text input field. Below the input field is a note: 'MoboLink Server URL can be obtained from scanning a MoboLink Server URL BarCode into the text field above, or manually key in the URL in the text field.' Below this note is a line of text: 'For more information, please visit the product support page.' Underneath is a red rectangular box containing the URL <http://mobolink.tw.ute.com/support>. Below the box is a checkbox labeled 'Do not show this app again.' with a toggle switch set to 'OFF'. At the bottom are two buttons: 'Save' and 'Exit'.