

# Reference Manual

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10.1inch Tablet PC

# CT-RU101PC-W8100

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# Reference Manual

## TABLET PC

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## Copyright and Trademarks Notice

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## Revision History

- ▶ Version: 1.0
- ▶ Date: 06, 2023

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## FCC-B Radio Frequency Interference Statement

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 radiates 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.

NOTE

- ▶ The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- ▶ Shield interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

## FCC Conditions

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- ▶ This device may not cause harmful interference.
- ▶ This device must accept any interference received, including interference that may cause undesired operation.

## FCC

FCC RF Radiation Exposure Statement:

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device was tested for typical lap held operations with the device contacted directly to the human body to the back side of the notebook computer. To maintain compliance with FCC RF exposure compliance requirements, avoid direct contact to the transmitting antenna during transmitting SAR information

1.30 W/kg@1g (body).

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## CE Conformity

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This device is in compliance with the essential safety requirements and other relevant provisions set out in the European Directive.

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## Battery Regulations

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**European Union:** Batteries, battery packs, and accumulators should not be disposed of as unsorted household waste. Please use the public collection system to return, recycle, or treat them in compliance with the local regulations.

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廢電池請回收

**Taiwan:** For better environmental protection, waste batteries should be collected separately for recycling or special disposal.

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California, USA: The button cell battery may contain perchlorate material and requires special handling when recycled or disposed of in California.

For further information please visit:  
<http://www.dtsc.ca.gov/hazardouswaste/perchlorate/>

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### Safety Guideline for Using Lithium Battery

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the equipment manufacturer. Discard used batteries according to manufacturer's instructions.

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## WEEE Statement

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**European Union:** Under the European Union ("EU") Directive on Waste Electrical and Electronic Equipment, Directive 2002/96/EC, which takes effect on August 13, 2005, products of "electrical and electronic equipment" cannot be discarded as municipal waste anymore and manufacturers of covered electronic equipment will be obligated to take back such products at the end of their useful life.

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## Safety Instructions

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Read the safety instructions carefully and thoroughly. All cautions and warnings on the equipment or Reference Manual should be noted.

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Keep this equipment away from humidity and high temperature.

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Lay this equipment on a stable surface before setting it up.

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The openings on the enclosure are used for air convection and to prevent the equipment from overheating. Do not cover the openings.

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- Do not leave the equipment in an unconditioned environment with a storage temperature above 60°C (140°F) or below -20°C (-4°F), which may damage the equipment.
  - This unit should be operation under maximum ambient temperature of 50°C (120°F) or under 60°C (140°F) for light loading applications.
- 



- Make sure the power voltage is within safety range and has been adjusted properly to the value of 100~240V before connecting the equipment to the power outlet.
  - Always unplug the AC power cord before installing any add-on card or module to the equipment.
  - Always disconnect the AC power cord or uninstall the battery pack or switch off the wall socket if the equipment would be left unused for a certain time to achieve zero energy consumption.
- 



Place the power cord in a way that people are unlikely to step on it. Do not place anything on top of the power cord.

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Always keep the strong magnetic or electrical objects away from the tablet.

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Never pour liquid into the opening that could damage the equipment or cause an electrical shock.

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If any of the following situations arises, get the equipment checked by a service personnel:

- The power cord or plug is damaged.
  - Liquid has penetrated into the equipment.
  - The equipment has been exposed to moisture.
  - The equipment has not worked well or you can not get it work according to Reference Manual.
  - The equipment was dropped and damaged.
  - The equipment has obvious signs of breakage.
- 



#### **Green Product Features**

- Reduced energy consumption during use and stand-by
- Limited use of substances harmful to the environment and health
- Easily dismantled and recycled
- Reduced use of natural resources by encouraging recycling
- Extended product lifetime through easy upgrades
- Reduced solid waste production through take-back policy

#### **Environmental Policy**

- The product has been designed to enable proper reuse of parts and recycling and should not be thrown away at its end of life.
  - Users should contact the local authorized point of collection for recycling and disposing of their end-of-life products.
-

# Introductions

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Congratulations on becoming an user of this product, the finely designed Tablet PC. You will have a delightful and professional experience in using this exquisite Tablet PC. We are proud to tell users that this Tablet PC is thoroughly tested and certified by our reputation for unsurpassed dependability and customer satisfaction.

## Unpacking

First, unpack the shipping carton and check all items carefully. If any item contained is damaged or missing, please contact your local dealer immediately. Also, keep the box and packing materials in case you need to ship the unit in the future. The package should contain the following items:

- ▶ Tablet PC
- ▶ AC Adapter
- ▶ AC Cable
- ▶ Product Guide

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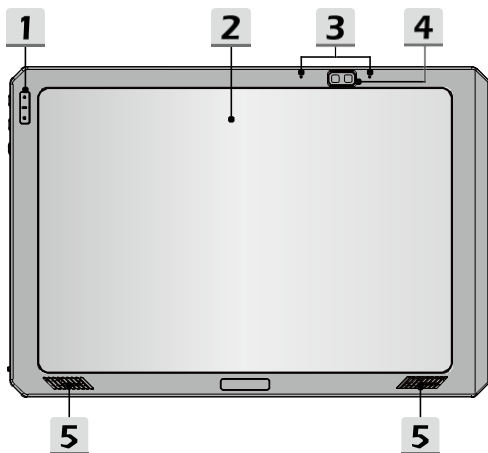
## Product Overview

This section provides the description of basic aspects of the Tablet PC. It will help you to know more about the appearance of this tablet before using it. Please be aware that the figures shown here are for reference only.

### Front View

The figure of open view and description shown below will lead you to browse the main operating area of your Tablet PC.

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## 1. Status LED

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### Power

- Glowing green when the tablet PC power is active.
- Blinking green when the system is in suspend mode, blink: 1sec ON/OFF.
- LED goes off when the tablet PC is turned off.



### Battery Status

- LED glows green when the battery is being charged.
- LED blinks orange while the battery is in low capacity status.
- Battery LED goes out when the battery is fully charged or when the AC/DC adapter is disconnected.



### Drive Activity Indicator

LED glows green when the system is accessing the internal storage drives.

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## 2. Touch Screen

Whenever the display is rotated, the touch screen will be rotated and expanded to fit the display automatically.

- NOTE: This function will be changed depends on the user's settings.

## 3. Internal Microphone

This is the built-in microphone and its function is the same with microphone.

## 4. Front Camera

This built-in front camera can be used for picture taking, video recording or conferencing, and any other interactive applications.

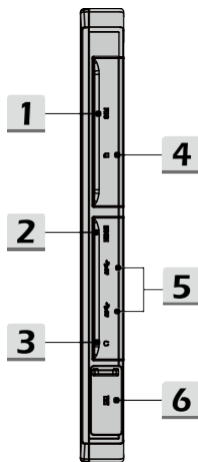
## 5. Speaker

Support high quality sound.

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## Right Side View

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### 1. Smart Card Reader

SCR supports ISO7816 type of cards, eg: Chip Card.

Please insert chip card, chip needs to be same direction with screen.

### 2. MicroHDMI Port

Micro HDMI (High-Definition Multimedia Interface) technology is the industry-leading interface and de-facto standard connecting high-definition (HD) equipment.

### 3. Headphone Jack

Used for connecting the speakers or headphones.

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**4. Micro SD Card Slot**

Used for inserting or replacing SD card to increase the storage capacity of the tablet PC.

**5. USB 3.0 Port**

The USB 3.0 port allows you to connect USB-interface peripheral devices, such as the mouse, keyboard, modem, portable hard disk module, printer, etc.

**6. RJ-45 Connector**

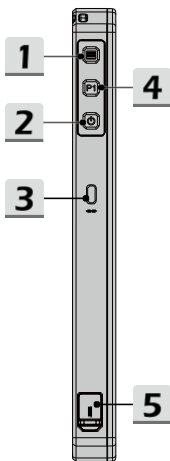
The Ethernet connector, with bandwidths 10/100/1000 Mbps, is used to connect a LAN cable for network connection but without Wake-on-LAN supported.

\* Although a SIM slot is provided on the right side, this product does not support SIM card reading.

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## Left Side View

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**1. Barcode Scanner Trigger (not used)**

This button is not used.

**2. Power Button**

- Before powering on the tablet PC for the very first time, you must connect it with AC power.
- Press and hold the power button for 2 seconds to power on the tablet PC.
- Press and hold the power button for 4 seconds can shut down the tablet PC.

**3. Kensington Lock**

This tablet provides a Kensington lock hole, which allows users to secure the tablet in place.

**4. User Defined**

Press P1 to launch the user defined application without default definition.

**5. DC-in Jack**

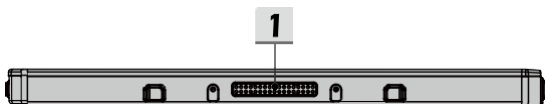
It is an electrical connector for supplying direct current (DC) power.



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## Rear Side View

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### 1. Dock Connector

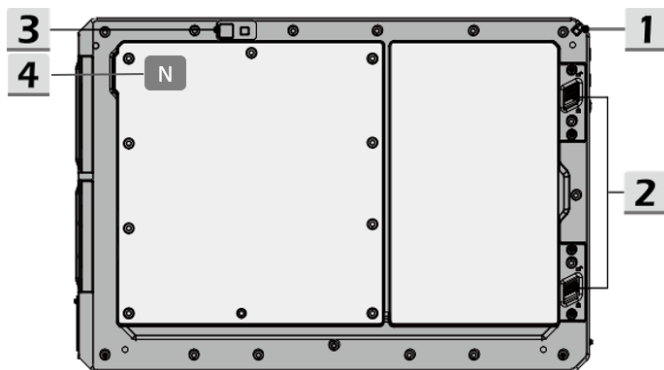
Connect with external Docking Station to increase more I/O functions.

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## Bottom Side View

The figure of open view and description shown below will lead you to browse the main operating area of your Tablet PC.

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- 1. Active Stylus (optional)**  
This is the pendant hole which is for hanging Active Stylus with the rope.
  - 2. Battery Latch**  
To lock/unlock battery.
  - 3. Rear Camera**  
This built-in rear camera can be used for picture taking, video recording or conferencing, and any other interactive applications.
  - 4. NFC**  
ISO/IEC 14443 A/B, 15693/18092 compliant; NFC card is used by tapping on the NFC mark.

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## Specifications

| Physical Characteristic |                                                                               |
|-------------------------|-------------------------------------------------------------------------------|
| Dimension               | 279 (L) x 192.5 (W) x 17.9 (H) mm                                             |
| Weight                  | 1 kg                                                                          |
| CPU                     |                                                                               |
| Processor Type          | Intel® Apollo lake Pentium Processor                                          |
| Supported Processor     | N4200                                                                         |
| Memory                  |                                                                               |
| Technology              | DDR3L                                                                         |
| Memory                  | 8GB                                                                           |
| Power                   |                                                                               |
| DC Jack                 | AC: 100 - 240V, DC: 12/19/24V                                                 |
| AC/DC Adapter           | 90W, 19V<br>Input: 100-240V~, 50/60Hz<br>Output: 19V—, 4.74A                  |
| SATA M.2 SSD            | 128 GB                                                                        |
| Interface               |                                                                               |
| Display                 | 1 x Micro HDMI Port                                                           |
| Micro SD Card           | 1 x Micro SD Card Slot                                                        |
| LAN                     | 1 x RJ-45 Connector (10/100/1000Mbps)                                         |
| I/O Port                |                                                                               |
| USB                     | 2 x USB 3.0                                                                   |
| Audio                   | 1 x Internal Microphone Stereo (set with Camera module)<br>1 x Headphone Jack |
| Others                  | 1 x Pogo Pin<br>1 x Kingston Lock<br>1 x Power Jack                           |

|                           |                                                |
|---------------------------|------------------------------------------------|
| <b>Communication Port</b> |                                                |
| Wireless Wifi             | Intel AC8265 802.11 ac/a/b/g/n (TELEC support) |
| Bluetooth                 | BT4.2                                          |
| NFC                       | Supported ISO/IEC 14443 A/B, 15693/18092       |
| <b>Display</b>            |                                                |
| LCD Type                  | 10.1 (NOTE: LCD Interface: MIPI)               |
| Resolution                | WXGA 800x1280                                  |
| Multi Touch               | Supported                                      |
| Brightness                | Controlled by setting                          |
| <b>Video</b>              |                                                |
| Graphics                  | UMA                                            |
| <b>Webcam</b>             |                                                |
| Front Camera              | 1 x 2M Pixel w/ ALS and D-MIC                  |
| Rear Camera               | 1 x 5M Pixel Auto Focus w                      |
| <b>Audio</b>              |                                                |
| Internal Speakers         | 2 x                                            |
| Sound Volume              | Adjust by windows volume bar                   |

| <b>Optional Function</b>           |                                                                                                                                                                                  |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Active Stylus                      | Supported devices conform to MPP protocol 1.5.1                                                                                                                                  |
| Backup Battery                     | Supported Hot swappable (after entering S3 mode to replace the battery and less than 1 minute hot swap time)                                                                     |
| Water/Dust Resistance Test         | Supported IP65                                                                                                                                                                   |
| Gravity Drop Resistance Test       | Supported 120cm                                                                                                                                                                  |
| <b>Security</b>                    |                                                                                                                                                                                  |
| Trusted Platform Module (optional) | <p>There is no external silicon chip solution, The APL supports TPM 2.0 internally.</p> <ul style="list-style-type: none"> <li>Firmware TPM</li> </ul> <p>Ready for Ver. 2.0</p> |
| <b>Acquisition Standards</b>       |                                                                                                                                                                                  |
| Standard                           | FCC Class B, VCCI Class B, CE Marking (EMC Directive Class A, RoHS Directive), RCM, TELEC (set with the certified wireless module), BSMI                                         |

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## Tablet Office Docking Product Overview

This section provides the description of basic aspects of the Tablet Office Docking. It will help you to know more about the appearance of this Tablet Office Docking before using it. Please be aware that the figures shown here are for reference only.

### Front View

The figure of open view and description shown below will lead you to browse the main operating area of your Tablet Office Docking.

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#### 1. Status LED

##### **Power**

Glowing green when the power supply is plugged in cradle.

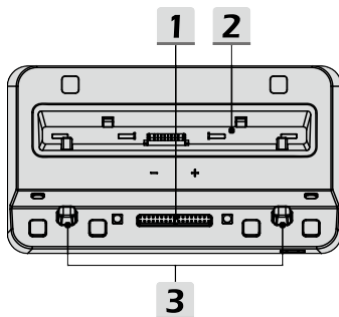
##### **Battery (only for single main battery pack)**

- Glowing green when the battery is being charged.
  - LED goes out when the battery is fully charged or when the AC/DC adapter is disconnected.
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## Top Side View

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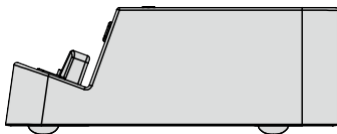


- 
1. **Dock Connector**  
Used for connecting with the tablet.
  2. **Battery Charging Slot**
    - Charging time for the single main battery pack (0% to 100%) 3.5hrs.
    - Charging priority: 1st priority: The main battery pack only; 2nd priority: Main battery that has been assembled on the tablet.
  3. **Boss Hole**  
Used for immobilizing the tablet on the dock.

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## Right Side View

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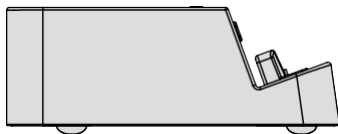




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## Left Side View

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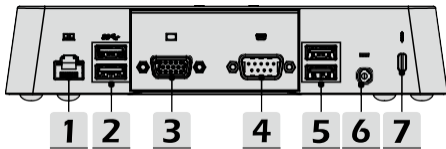


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## Rear Side View

The figure of open view and description shown below will lead you to browse the main operating area of your Tablet Docking.

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### 1. Gigalan RJ-45 Connector

The Ethernet connector, with optionally supported Wake-on-LAN and transmitting rate of 10/100/1000 megabits per second, is used to connect a LAN cable for network connection.

### 2. USB 3.0 Port

USB 3.0, the SuperSpeed USB, delivers the higher interface speeds for connecting various devices, such as storage devices, hard drives, or video cameras, and offers more advantages over high-speed data transferring.

### 3. VGA Port

### 4. RS-232 Port

To connect other device function.

### 5. USB 2.0 Port

The USB 2.0 port allows you to connect USB-interface peripheral devices, such as the mouse, keyboard, modem, portable hard disk module, printer, etc.

### 6. DC-in Jack

It is an electrical connector for supplying direct current (DC) power.

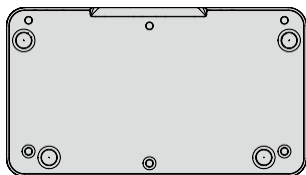
### 7. Kensington Lock Hole

This tablet provides a Kensington lock hole, which allows users to secure the tablet in place.

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## Bottom Side View

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## Specifications

The specifications listed here is reference only, and may change without notice. The actual products sold are different from areas.

| Application Framework        |                                                              |
|------------------------------|--------------------------------------------------------------|
| Operating System             | Win 10 supported                                             |
| I/O Port                     |                                                              |
| USB                          | 2 x USB 3.0<br>2 x USB 2.0                                   |
| LAN                          | 1 x RJ-45 Gigalan 10/100/1000 + Wake-on-LAN supported        |
| Video Connector              | 1 x VGA port female (resolution 1920x1080p supported)        |
| RS-232                       | 1 x male (5V and 12V supported, used only in AC mode)        |
| Input                        |                                                              |
| DC-in                        | 1 x                                                          |
| Output                       |                                                              |
| Pogo pin                     | 1 x                                                          |
| Power                        |                                                              |
| AC/DC Adapter                | 90W, 19V<br>Input: 100-240V~, 50/60Hz<br>Output: 19V—, 4.74A |
| Optional Function            |                                                              |
| Temperature                  | 0 to 40°C (32 to 113 °F )                                    |
| Water/Dust Resistance Test   | N/A                                                          |
| Gravity Drop Resistance Test | N/A                                                          |

Getting Started

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# How to Manage Power Supply

This section provides users basic safety precautions to take when using an AC/DC adapter and battery power properly.

## AC/DC Adapter

Ensure that your notebook is connected to an AC power source via the AC adapter before turning it on for the first time. If the notebook automatically shuts down due to low battery power, it is likely to cause system failure. Below are some Dos and Don'ts of an AC/DC adapter.

- ▶ Dos
    - Use the adapter that shipped with your notebook only.
    - Always be aware of heat coming from the in use AC/DC adapter.
    - Unplug the AC power cord before disassembly the notebook.
  - ▶ Don'ts
    - Cover an in-use adapter since it can generate heat.
    - Have the AC power cord plugged after powering off the system when the notebook is going to be left unused for a longer time.
1. Take up the interchangeable plug and look for the groove on the interchangeable plug which can be used for locking on the AC/DC adapter. Then align the groove of the interchangeable plug on the tenon of the AC/DC adapter with correct orientation. Next, rotate the interchangeable plug 90 degrees clockwise until it is fixed on the AC/DC adapter.
  2. Plug the DC end of the AC/DC adapter into the DC-in jack of the Tablet PC.
  3. Then plug the AC/DC adapter into the power outlet.
  4. When remove, please follow the steps 3, 2, 1.
- ▶ NOTE: The interchangeable plug may vary depending on countries or regions.

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## Battery

This Tablet PC is equipped with a built-in high-capacity Lithium-ion Polymer battery pack. The rechargeable Lithium-ion Polymer battery pack is an internal power source of the Tablet.

Be aware that this battery pack may be damaged if users try to disassemble the battery pack on their own. Also, please note that the limited warranty of the battery pack will be voided if the battery pack is disassembled by non-authorized technicians. Please follow your local laws and regulations to recycle the Tablet and the built-in battery pack.

### ► Conserving Battery Power

Efficient battery power is critical to maintain a normal operation. If the battery power is not managed well, the saved data and customized settings may be lost.

To optimize battery life and avoid a sudden power loss, read the tips below:

- Suspend system operation if the system will be idle for a while or shorten the suspend time period.
- Turn off the system if you won't be using it for a period of time.
- Disable unnecessary settings or remove idle peripherals.
- Connect an AC/DC adapter to the system whenever possible.

### ► Charging the Battery Pack

The built-in battery pack can be recharged when the Tablet PC is connected to the AC power. Please pay attention to the following tips before recharging the battery:

- You can use the system, suspend system operation or shut down and turn off the system without interrupting the charging process.
- The built-in battery pack uses Lithium-ion Polymer battery cells that have no "memory effect." It is unnecessary to discharge the battery before recharging. However, to optimize the life of battery, we suggest that consuming the battery power completely once a month is necessary.
- The actual charging time will be determined by the applications in use.

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## Power On

Long press the Power Button to power on the Tablet PC.

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