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# **Carbon X220**

## **User Manual**

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# First Steps

This manual will help you get the most from your tablet. Please read it carefully before starting

## **Let your tablet acclimatise itself**

Do not power up your tablet immediately if it has been exposed to hot or cold conditions. Instead, allow it to adjust gradually to room temperature over a three to four hour period.

Please note that you must fully charge the battery before using your tablet.

## **Where to use your tablet**

Your tablet will run well under most conditions but avoid extreme temperatures and humidity levels.

Allow sufficient air circulation around the computer when you are working indoors to prevent overheating.

Do not block the ventilation opening or place your tablet in direct sunlight.

There are some things you can tolerate that your tablet can't – things like static electricity, dust, water, steam and oil.

# Introduction

Your tablet features the latest advances in portable computing technology with a modular design that provides maximum expandability without compromising portability.



**WARNING** - Never try to disassemble or back engineer your tablet as we will not be responsible for any damage caused if you do so and this action would void your warranty

Please note that some of the features mentioned in this manual might not be included on your tablet or may vary slightly.

## Unpacking your tablet

Your tablet comes securely packaged in a shipping carton. Please contact your supplier if you find that anything is missing or damaged after examining the contents.

Do not throw the packaging materials away. You may need them later if you have to ship the computer.

## What is in the box

Tablet PC

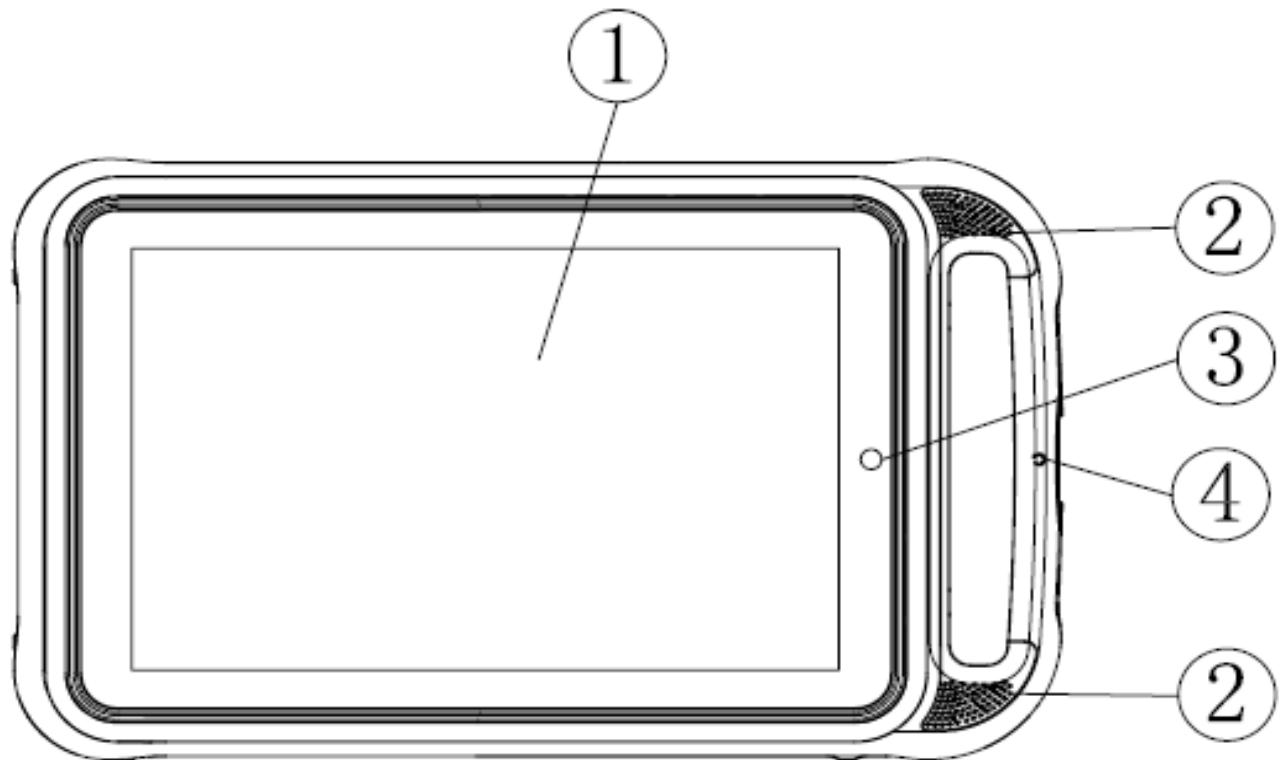
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Power adaptor and cord (12v --- 4.16A)

LAN adaptor cable

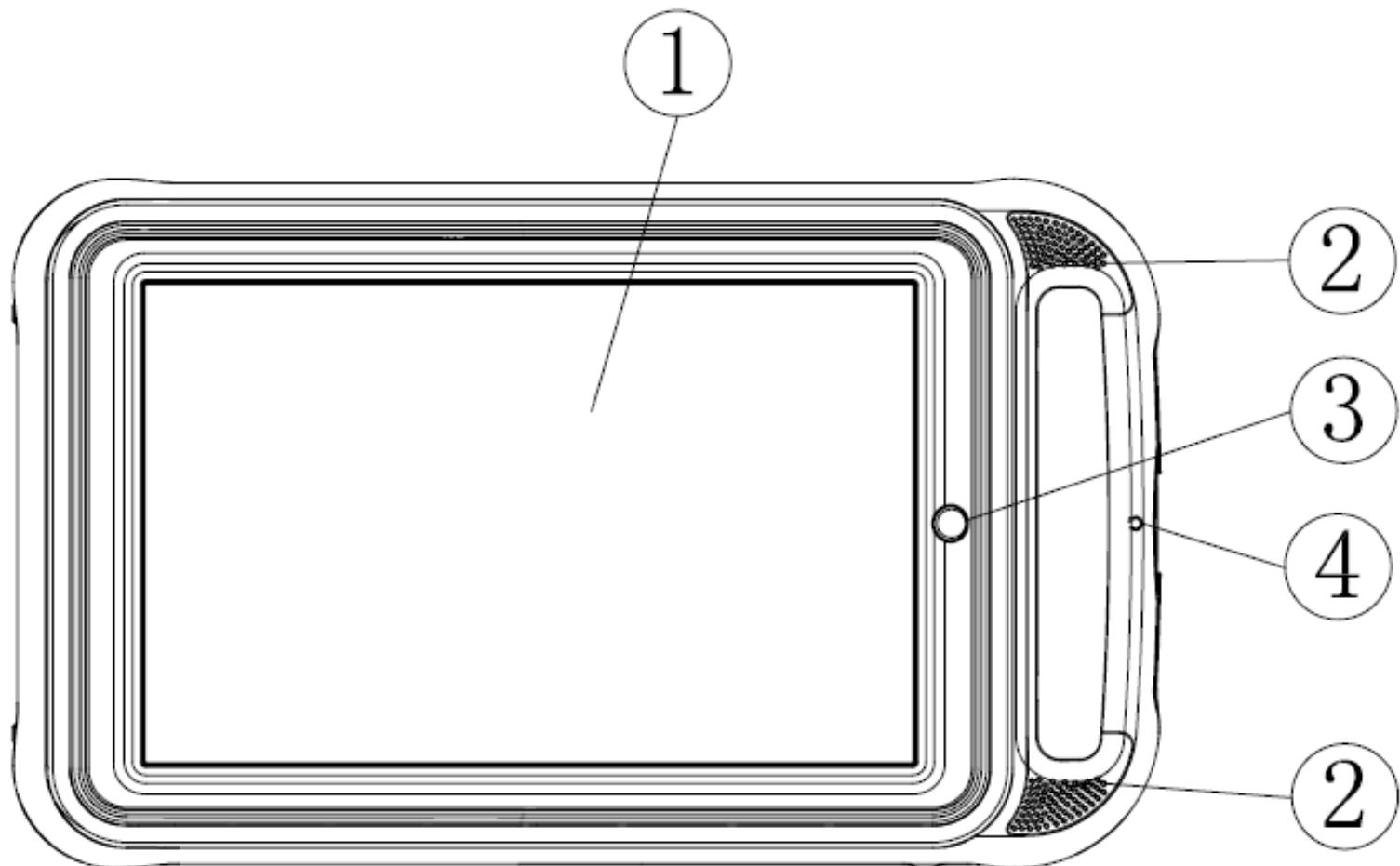
## Getting to know your tablet

### Front View with Capacitive touch panel



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## Front View with Resistive touch panel



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## 1. LCD Panel

This tablet is equipped with a 10.1" LCD display with a resolution of up to 1280 x 800

## 2. Speaker

Two Piezoelectric speaker

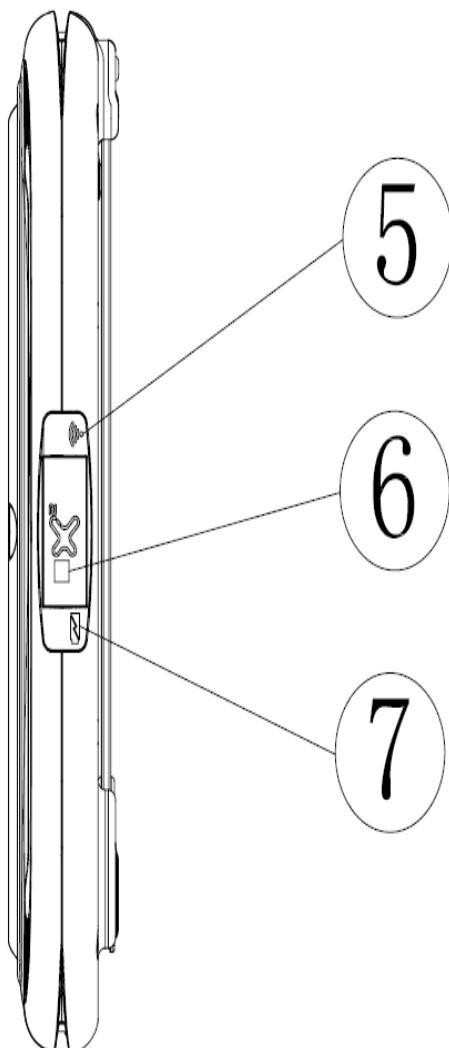
## 3. Front Camera

200MP, USB interface

## 4. Reset Function

Hall IC switch on handle(EC Control) – External magnet action

## Right Side View



### 5. Wi-Fi Indicator & Power LED

#### 5.1 WIFI Indicator

Lights up Green when the Wi-Fi device is turned on.

Light will flicking when data transferring

No light when Wi-Fi stops operation

#### 5.2 Power Indicator

Blue: Connect to DC Power

No Light: No DC Power

Flash: System standby

### 6. Lock LED: Controlled by Power Crate

Device location	U30 change of status	White LED
Slid in to Power Crate	Magnet in locking arm moving into detection range of U30	2 second pulse white LED
Locked in Power Crate	Magnet still in detected range	OFF
Unlocked from Power Crate	Magnet in locking arm Leaving detection range of U30	Flashing(1 second on/1 second off) for 10 seconds
Removed Power Crate	No Magnet detected	OFF
Slid in to Power Crate	the most of charging	On

Note: When Device removed from Power Crate, EC must set PCA9555 PIN4 to "High"

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## 7. Battery Indicator

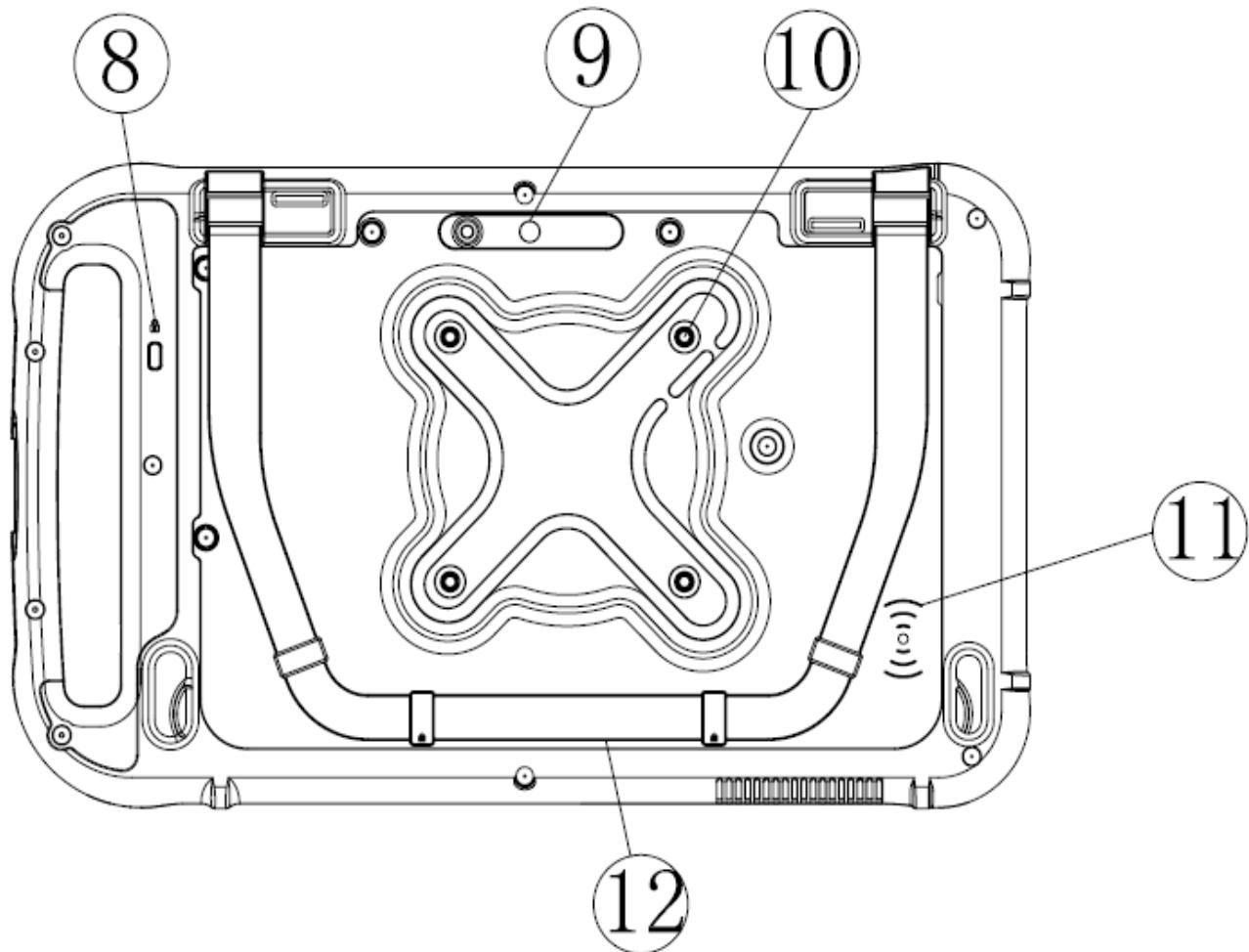
Status		Red	Amber	GREEN
Charge(S0,S3,S5)	0%-40%	Flash	OFF	OFF
	41%-80%	OFF	Flash	OFF
	81%-100%	OFF	OFF	Flash
No Charge (S0)	0%-40%	ON	OFF	OFF
	41%-80%	OFF	ON	OFF
	81%-100%	OFF	OFF	ON
No Charge (S3,S5)	0%-40%	OFF	OFF	OFF
	41%-80%	OFF	OFF	OFF
	81%-100%	OFF	OFF	OFF

Note: Battery charge current had 3 level can be selected. Low voltage charge: 0.368A; Normal Charge: 2A; Fast charge: 4A. And the charge current behaviors selected base on customer requirement.

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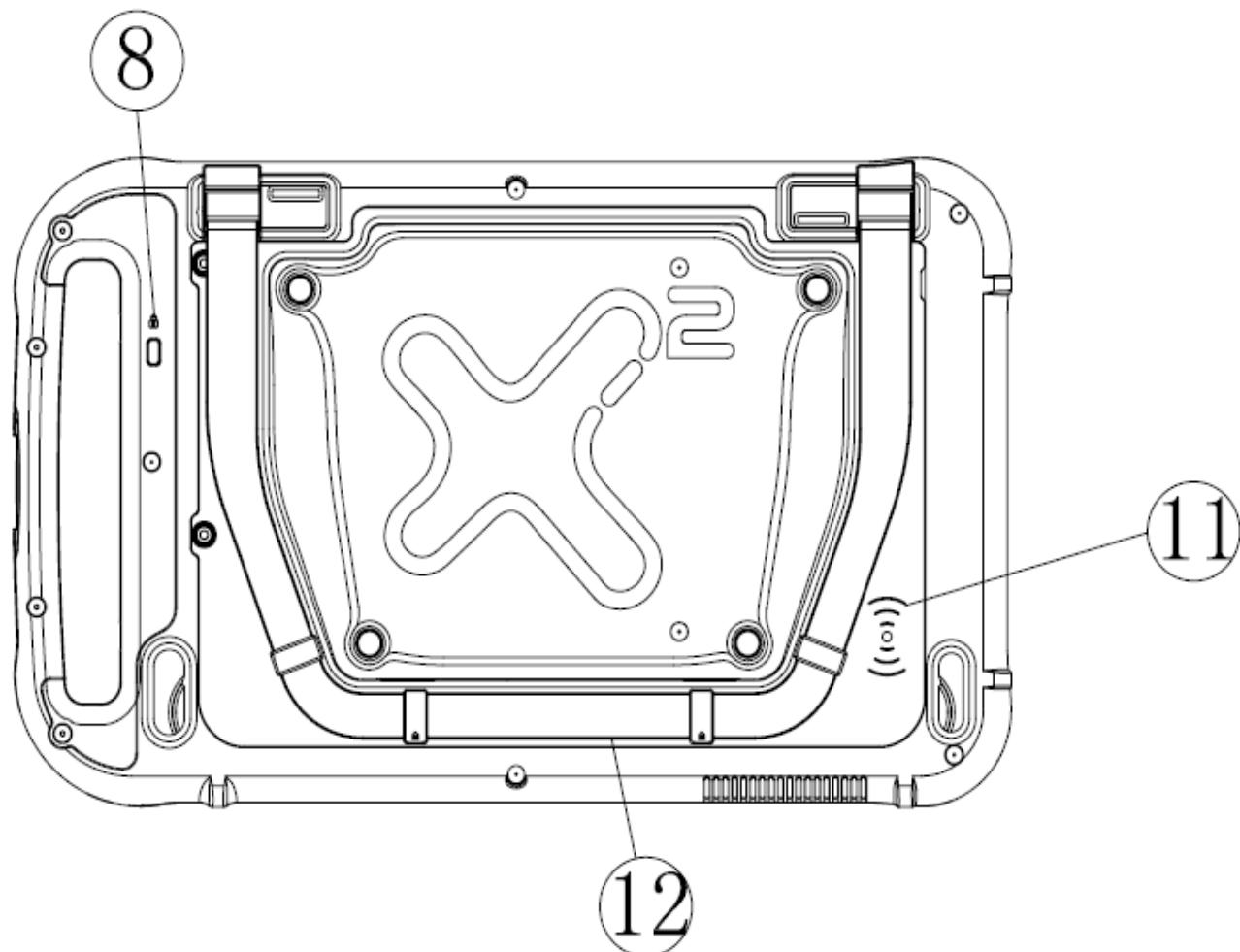
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**Rear View with 8000mAh battery**



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## Rear View with 16000mAh battery



8. Lock hole

For Kingston locker

## 9. Rear Camera

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Rear facing 5Mega Pixel with auto flash and LED flash

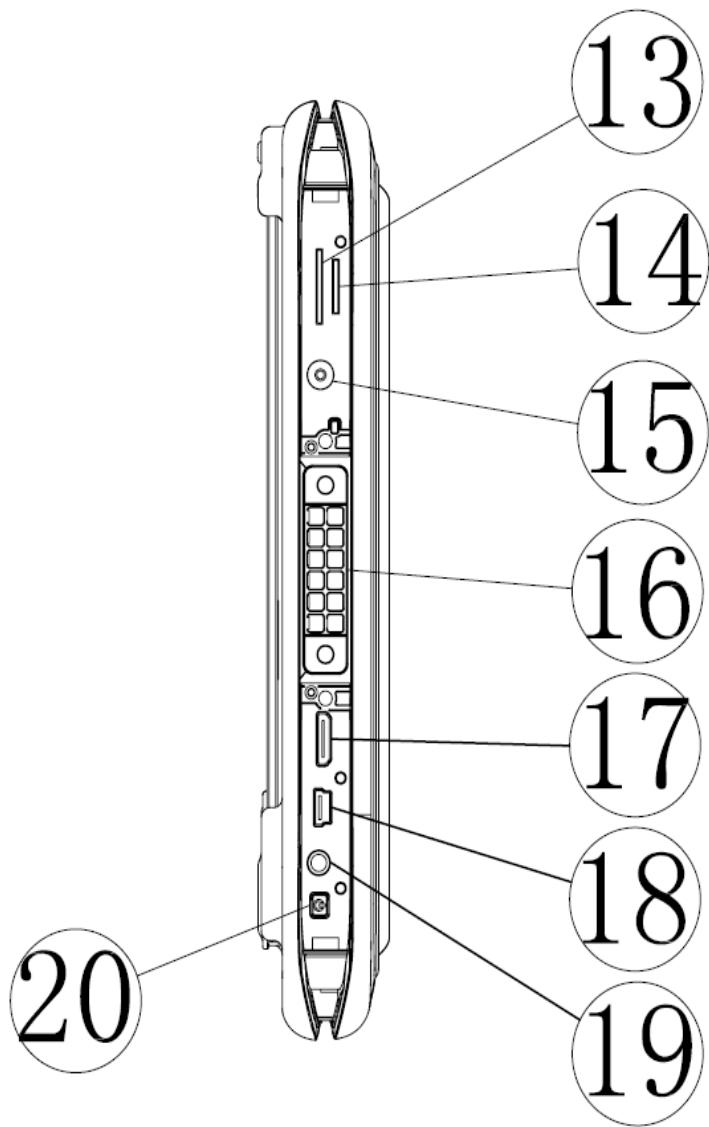
## 10. VESA Mounting

## 11. WIFI Logo

IEEE 802.11b/g/n/ Wireless card with WIFI Antenna

## 12. Kick stand

Integrated rear friction grip kickstand for use in both landscape & portrait orientation, with Indexing for portrait.



13. SIM Card Slot (not supported with Carbon X220 device)

Slot for fitting a SIM Card

14. Micro-SD Slot

Slot for fitting a Micro-SD card

15. DC Jack

DC jack port for charging the tablet (12V --- 4A).

16. Pogo connector (not supported with Carbon X220 device)

For changing the tablet when used with a docking station

17. HDMI / LAN

Mini HDMI for fast earth net (10/100) via HDMI to LAN cable.

18. USB 2.0 port

Mini USB 2.0 hidden port

19. 3.5mm audio Jack

For headphone insert.

20. Power Button

Power button to turn the tablet on

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# Packaging list

This product is shipped with the items list below. Please make sure that all are in Gift box.

- 1 piece of Rugged Tablet PC user manual
- 1 CD for Recovery CD for Operation System (Windows embedded standard 7)
- 1 piece of 12V Adapter w/ Standard Power Cord
- 1 piece of Mini HDMI to RJ45 (female) Adapter cable
- 1 piece of Mini USB to standard USB(female) adapter cable

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## Optional accessories

- Hand strap

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# Getting Started

This chapter guides you to get the X2 Carbon ready for operating.

## **Connecting the AC Power**

Our tablet PC can operate either on the external AC power adapter or internal battery power. It is suggested that you use AC power when you start up the tablet PC first time.



**Caution** - Use only the AC adapter included with your tablet PC. Using other AC adapters may damage the tablet PC.

1. Plug the DC cord of the AC adapter to the power connector of the tablet PC.
2. Plug the female end of the AC power cord to the AC adapter and the male end to the power electrical outlet.

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3. When the AC adapter is connected, the Battery Pack is also charging. You can check the Battery Status LED indicator to see the current progress. The indicator turns to green when it is fully charged.



**Caution** - When you disconnect the AC adaptor, disconnect from the electrical outlet first and then from the tablet PC. A reverse procedure may damage the AC adapter or the tablet PC. When unplugging the connector, always hold the plug head. Never pull on the cord.

## Turning the tablet on and off

### Turning on the tablet PC

1. Place your tablet PC on a flat and stable surface or holding the tablet PC on your hand.
2. Make sure that the tablet PC is either connected to AC power or the battery pack with power.
3. Press the power button on the right side by 2-3 seconds to start it.

### Turning off the tablet PC

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1. To turn off the tablet PC power, use the 'Shut Down' command on your operating system.



**Caution** - If you have to turn the tablet PC on again immediately after turning it off, wait for at least five seconds. Turning the tablet PC off and on rapidly can damage it.

### **The optimised Use for Sunlight Readable Touch Screen**

With the imposed reflective function, the modified LCD can reflect the ambient light passing the LCD cell and utilize the reflected light beams as its illumination. The stronger the ambient light is, the brighter the LCD will appear.

As a result, the modified LCD is viewable under lighting conditions.

The optimised angle of view is forty-five degrees. The optimised viewing distance is 30cm.



**Caution** - Although transreflective LCD is mainly used in outdoor environment and it may increase the reflective lights under sunlight, it is suggested that you should keep the LCD in an appropriate temperature for operation and storage, and avoid direct sunlight if possible. To ensure the transreflective LCD works stably, 0~50°C (32-121°F) operation and storage temperature is suit

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# Specification

Component	Description
Dimension	325.0mm(L)x197.3mm(W)x27.8mm(D)
Processor	Intel Cedarview-M N2600 Dual-core 1.6GHz
Chipset	Intel NM10(Tiger point )
LCD panel	10.1" Toughened Screen (LVDS), 1280 x 800 WXGA 16:10 Aspect Ratio, 350CD/m2, IPS
Touch panel	10 Multi Capacitive touch panel and single Resistive touch panel, Surface Hardness 7H and IK08 compliant,
Memory	2G DDR3 (expansion 4G DDR3) – On board BGA memory module
M-SATA	16G, up to32GB m-SATA SSD
Card Reader	Micro SD reader 8G- 32GB by Secure digital MSD card not provided
WI-FI	IEEE 802.11 b/g/n Wireless card (Intel N6205, 2 antennas )
Speaker	2x Piezoelectric speaker, 95dB/ 5cm;
G-sensor	Automatic screen orientation
Fan	45*45*5mm, 5V, 5200RPM, 27dB noise (type)
Rear I/O	1 mini USB; 1*Micro SD; 1*3.5mm audio Jack; 1*mini HDMI; 1* SIM Slot; 1*DC Jack;
Pogo connector	2x6pin, with DC IN, IIC, USB, LAN(10/100M), optional 2x4pin, with DC IN, IIC
Battery	8000mAh/16000mAh @ 7.4V(fast charge option)
Reset function	Hall IC switch on handle(EC Control) – External magnet action

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Component	Description
<b>Operating System</b>	Microsoft Windows 7
<b>Regulations</b>	FCC / CE / RCM
<b>Halo LED</b>	RGB LED, UART interface, 5V operation voltage
<b>Front camera</b>	200MP, USB interface
<b>Rear camera</b>	500MP+AF+ LED flash
<b>I/O cover</b>	three kinds of optional I/O cover (with Logo, with button hole, without Logo and button hole)
<b>Hand strap</b>	Hand strap for rotating and handle

### **FCC Caution:**

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

Specific Absorption Rate (SAR) refers to the rate at which the body absorbs RF energy. SAR limits are 1.6 Watts per kilogram (over a volume containing a mass of 1 gram of tissue) in countries that follow the United States FCC limit.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.