



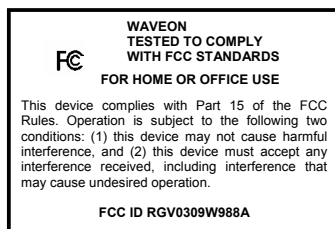
WAVEON 988

USER'S MANUAL

Version 1.3



W988 PRODUCT LABEL LAYOUT



FCC Compliance

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.

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

No special accessory is required to enable the equipment to comply with the emission limits.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter. Use only the antenna that is supplied with the device. Use any other antenna which is not provided with the device will void the user's authority to operate the equipment



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July 2003

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Document Revision Record

Revision	Date	Author	Description
1.0	28/05/2003	Wu Yong Cong	Initial Release
1.1	17/09/2003	Yang Hong	Modify FCC Logo
1.2	08/10/2003	Yang Hong	1. Change the definition of external antenna to receiving only. 2. Remove Bluetooth PC card. 3. Change specification.
1.3	10/10/2003	Yang Hong	1. Indicate that external WLAN antenna is inactive 2. Remove 20cm limit for W988A
1.3	21/11/2003	Yang Hong	1. Add RF statement 2. Remove receive only on page 4





INTRODUCTION

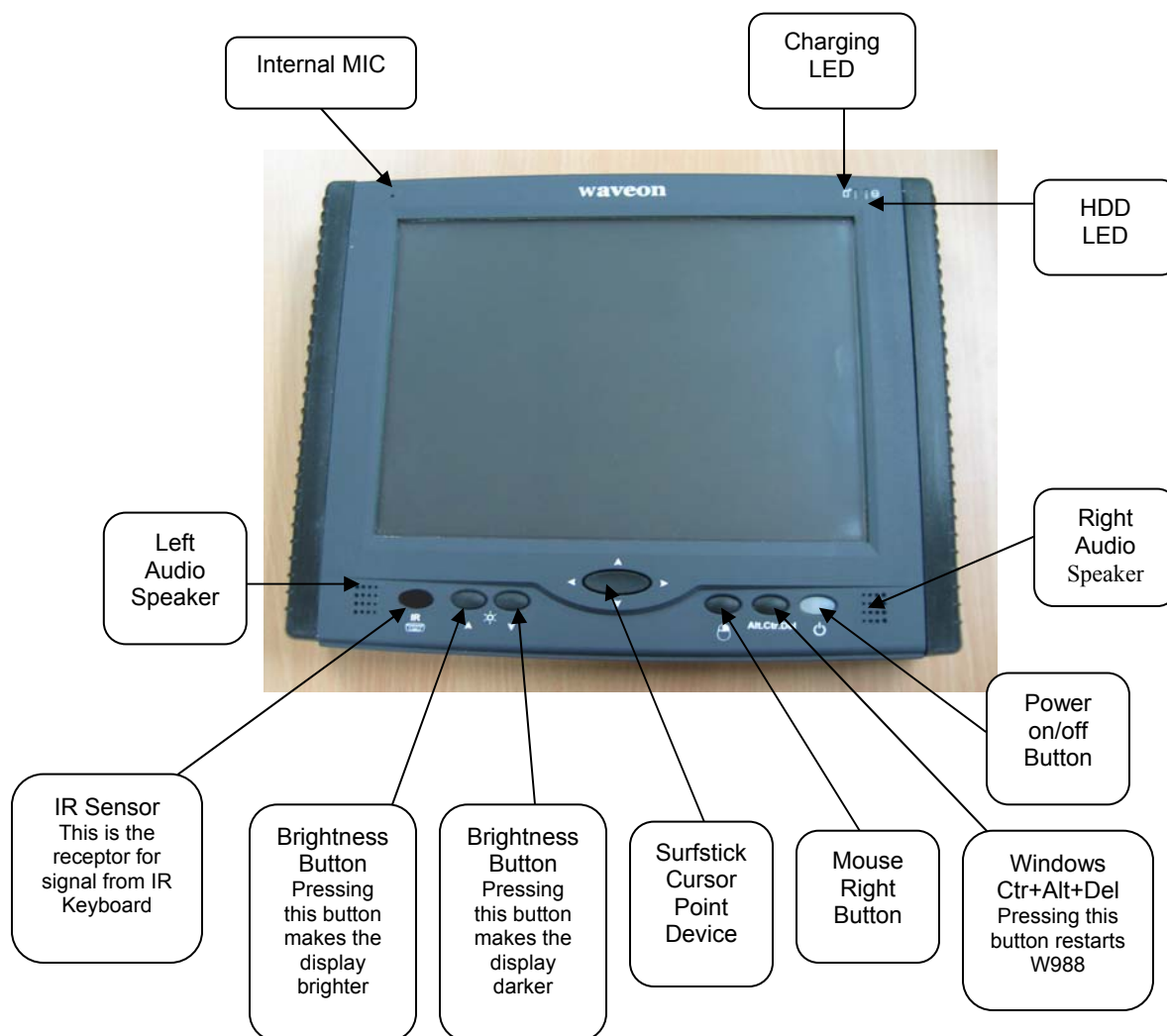
InfoWave Pte Ltd has developed the latest generation of the Ruggedised Tablet PC, the Waveon 988. Specially designed to work under harsh environment, Waveon 988 is a rugged Tablet PC that provides a combination of power, mobility, functionality and durability.

The Waveon 988 is ideal for users from military, law enforcement, logistics, public safety and heavy industries.

The robust 988 offers more superior features than any other similar products.



Front View



Front View

Power on/off Button — Press the power button to turn on Waveon 988 or exit a power management mode.

NOTICE: To avoid losing data, turn off your Waveon 988 by performing a Microsoft Windows operating system shutdown rather than by pressing the power button.

If Waveon 988 stops responding, press and hold the power button until the computer turns off completely (which may take several seconds).

Charging LED — Turns on steadily to indicate battery charge status.

HDD LED — Turns on when Waveon 988 reads/writes data from/to hard disk.

Internal MIC — Internal mono-microphone can record voice.



Right/Left Audio Speaker — To adjust the volume of the integrated speakers, click the **Volume** in task column.

Windows Ctrl+Alt+Del Button — Press the button to choose **Lock Computer**, **Log Off**, **Shut Down**, **Change Password**, **Task Manager** or **Cancel** under **Windows 2000** or **XP**.

Surfstick Cursor Point Device — Detect the movement of your finger on it and allow you to move the cursor on the display. Press on the center of this device works as mouse left-click.

Mouse Right Button — Press the mouse right button to come out a menu just as mouse right-click.

Brightness Buttons — There are two brightness buttons. Press one for display brighter and the other for display darker.

IR Sensor — Receive the signal from IR Keyboard.

Top View



Top View

IRDA Window — Lets you transfer files between your Waveon 988 and another IrDA compatible device without using cable connections.

Left View

Hardware Reset Switch — Will reset Waveon 988 internal microprocessor.

NOTICE: Press this may lose brightness setting and others, you are not suggested to do this.

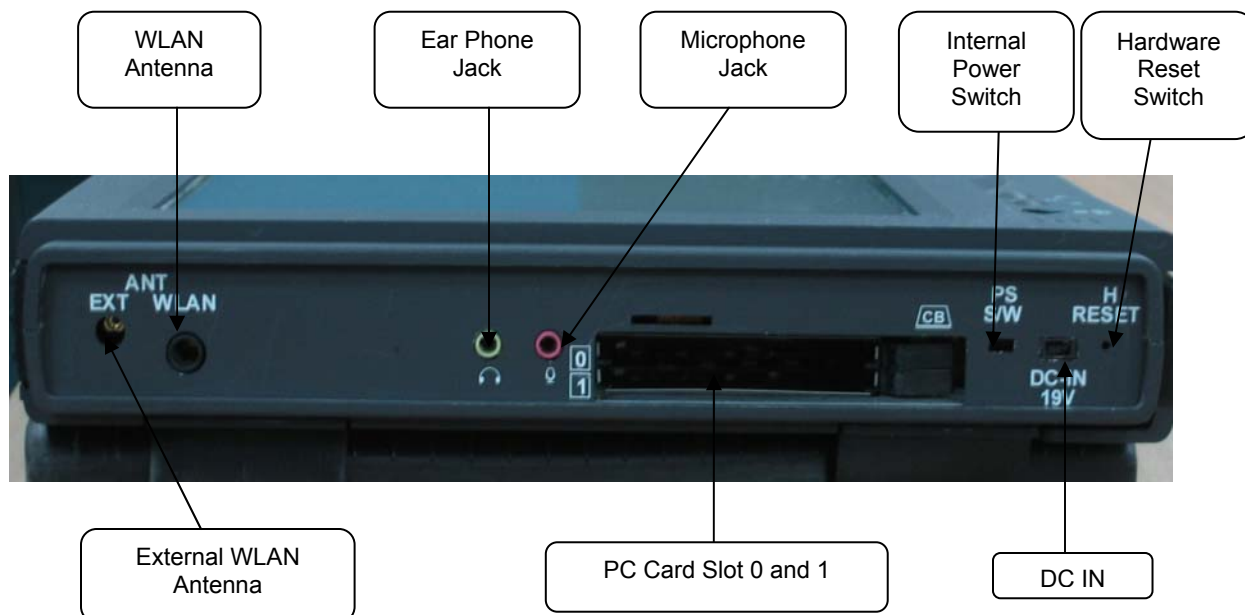
Internal Power Switch — Slide the switch to completely power off Waveon 988.

NOTICE: Sliding the switch may lose some data, you are not suggested to do this.



Microphone Jack — Attach a microphone to it.

Ear Phone Jack — Attach earphones or speakers to it.



Left View

WLAN Antenna — Attach a WLAN antenna to receive data from/to WLAN.

External WLAN Antenna — This port is inactive.

PC Card Slot 0 and 1 — Supports two PC Card (Type III, PCMCIA 2.1), such as a modem, network adapter and so on.

DC IN — Connects Waveon 988 AC adapter to it.

The AC adapter converts AC power to the DC power required by Waveon 988. You can connect the AC adapter with your Waveon 988 turned either on or off.

CAUTION: The power adapter works with electrical outlets worldwide. However, power connectors and power strips vary among countries. Using an incompatible cable or improperly connecting the cable to the power strip or electrical outlet may cause fire or equipment damage.

NOTICE: When you disconnect the AC adapter cable from the Waveon 988, grasp the connector, not the cable itself, and pull firmly but gently to avoid damaging the cable.

Right View

PS/2 Port — Connects a PS/2 keyboard or mouse.

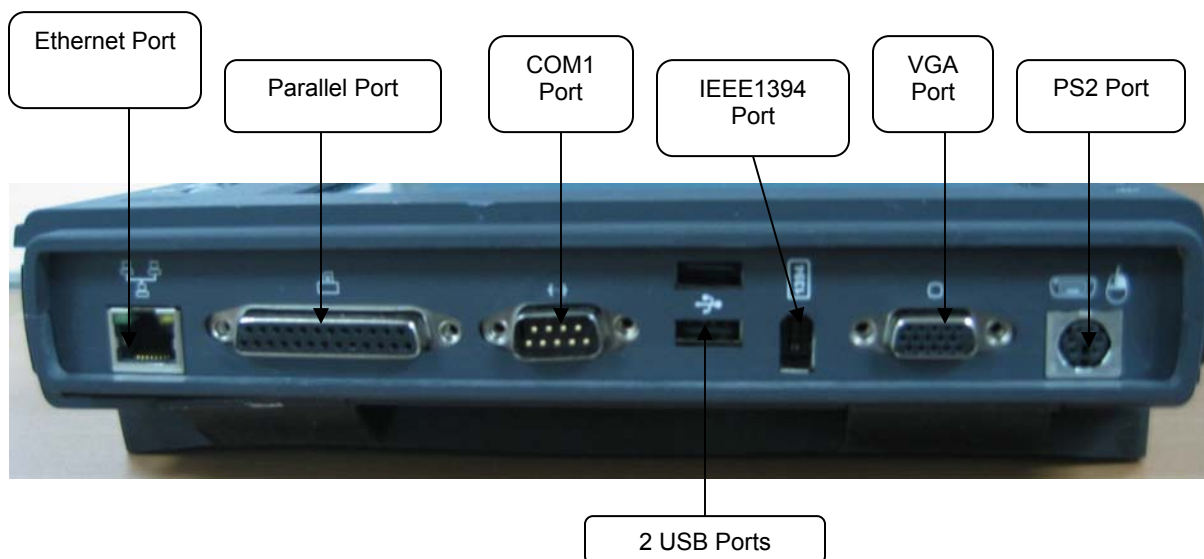
VGA Port — Connects an external monitor.



IEEE 1394 Port — Connects a firmware device.

COM1 Port — Connects a serial device to COM1, such as a mouse or handheld device.

Parallel Port — Connects a parallel device, such as a printer.



right view

Ethernet Port — Connects the Waveon 988 to a network. The lights next to the port indicate activity for wired network communications.

USB Ports — Connects the USB devices, such as a mouse, keyboard, printer, floppy driver or hard disk driver.

SUMMARY OF FEATURES

Waveon 988 provides the following features:

- 1) **Heavy Duty Construction** – Aluminum Housing with impact resistant design
- 2) **Ergonomic Design** – The most compact and powerful Tablet PC with IP54 enclosure
- 3) **Daylight Readable Screen** – A low power consumption 10.4" XGA Color TFT LCD with latest daylight readability technology
- 4) **Powerful Performance** – Intel® Pentium® III Mobility processor, support speed of 700MHz
- 5) **Extensive Interface for Expansion** - Serial, Parallel, USB, Firewire, IrDA, PC Card slot and Docking ports all are ready to use
- 6) **Wireless Connection** – Built-in Wireless LAN (either Infrastructure or 802.11 AdHoc) and fixed LAN offer super flexibility to connect the network at any place



- 7) **Shock and Vibration Resistive Storage** – 2.5” Hard disk drive with anti-shock and anti-vibration design
- 8) **Unique Heat Management Solution** – Reliable and Efficient heat management design for high speed CPU

USING TOUCH SCREEN AND ON-SCREEN KEYBOARD

Waveon 988 provides touch screen and on-screen keyboard. The screen detects the pressure of your finger to allow you to move and click the cursor. Use the touch screen and the right cursor button as you would use a mouse.

Waveon 988 also provides cursor point device (touch pad) to allow you to move the cursor on the display. Use the touch pad and the right cursor button just as you use a mouse.



You can use on-screen keyboard.

- Click the **Start** button, click **Programs** button, click **accessories** button, click **Accessibility** button and then click **on-screen Keyboard**.
- A on-screen keyboard just as the following keyboard appears on the screen. You can use the on-screen keyboard by touching the buttons just as you use a keyboard.



USING IR KEYBOARD AND OTHER KEYBOARDS

If you are used to real keyboards, Waveon 988 supports them too. There is an IR sensor for IR keyboards. IR keyboard can be used within 5 meters.

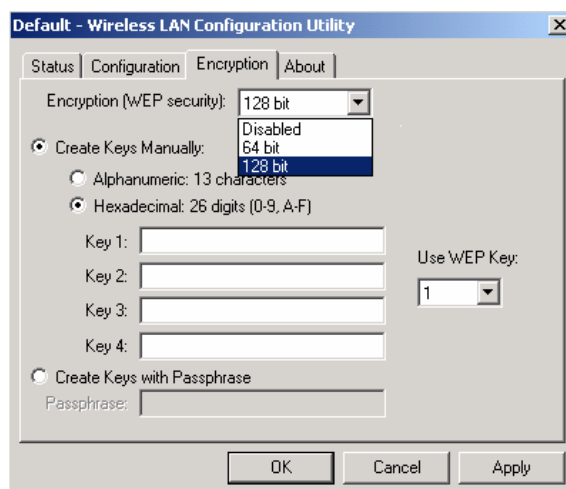
In addition, there is a PS/2 port for PS/2 keyboard or PS/2 mouse.

SETTING UP A NETWORK

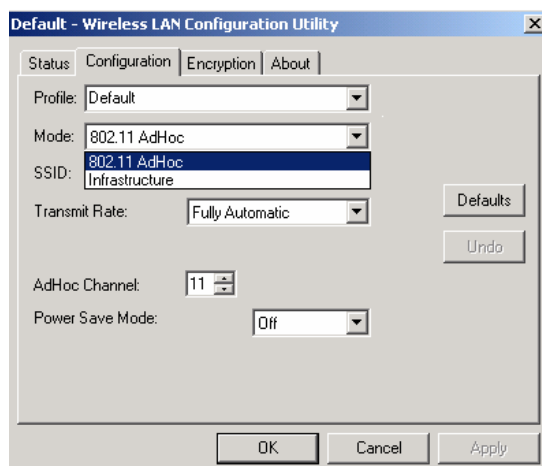
Before you connect Waveon 988 to a network, a network cable must connect to network adapter connector (Ethernet Port). You can setup up a network as following steps: Click the Start button, point to **All Programs** -> **Accessories** -> **Communications**, and then click **Network Setup Wizard**. Then follow the instructions on the screen. The modified networking setting will take effect after system reboots.

Waveon 988 also can be connected to Wireless Local Area Networks. You can choose the wireless network configuration as Infrastructure or 802.11 Ad-Hoc.

If you choose Infrastructure, you should have an access point to connect Waveon 988. You can connect Waveon 988 to Internet by this way. In Start -> Settings -> Control Panel, double click Wireless LAN Settings, select Configuration Tab, and then enter the name of your network in the SSID field. Select Encryption Tab, enter the keys for the connection.



If you are connecting to an Ad-Hoc, which does not use any routers or access points, in Configuration Tab, in Mode, choose 802.11 AdHoc, then click OK. **This is a computer-to-computer (Ad-Hoc) network; wireless access points are not used.**



SPECIFICATIONS

1) Physical Specification

- Dimension: 297mm x 238mm x 42mm
- Weight: 2.6 kg with built-in battery
- Casing: Magnesium alloy

2) Display

- 10.4" TFT color LCD display
- XGA resolution (1024 x 768)



- Daylight readable screen with touch panel

3) Processor & Operating System

- Intel Pentium III 700 Mobility Processor
- Microsoft Windows 2000 / XP / ME
- L2 cache: 256 KB
- Embedded Graphic Chipset
- IDE: support Ultra DMA 33

4) Memory

- RAM: 256MB (Up to 512 MB)
- 2.5" 20GB anti-shock and anti-vibration hard disk drive

5) Power

- Built-in Lithium-Polymer rechargeable battery
- DC input: 19V (Nominal)
- Consumption: 25W (Typical)
- Battery life 1.5 hours⁺ ; 3 hours (Add-on battery)

6) Audio

- AC/97 V2.1 compliant
- Built-in stereo-speakers and mono-microphone

7) Communications & Interface Ports

- Built-in WLAN (802.11b)
- 100Mbps Ethernet (RJ45 port)
- 1 x RS232, 1 x Parallel, 2 x USB, 1 x PS2, 1 x VGA
- 2 x IR ports: 1 x IrDA, 1 x IR wireless keyboard
- 2 x PC Card slot (Type III, PCMCIA2.1)
- 1 x Firewire IEEE1394
- 1 x Docking connector
- 1 x Ear phone out jack
- 1 x Microphone in jack
- 1 x DC in jack

8) Options



- Port Replicator
 - 2 x RS232, 1 x Parallel, 2 x USB
 - 1 x PS2
- 2nd Li-ion rechargeable battery pack
- IR Keyboard
- Universal AC/DC adaptor
 - Input: 100-240VAC, 50/60Hz
- External 1.44 MB FDD (USB bootable)
- External 24X CD-ROM (USB bootable)
- Car adaptor

ENVIRONMENTAL SPECIFICATIONS (BASE UNIT)

1) Temperature

- Operating: 0°C to +50°C
- Storage: -10°C to +70°C

2) Humidity

- 5% to 95% RH, non-condensing

3) Vibration(MIL-STD 810E)

- 5 ~ 500 Hz, random
 - 1.04g rms (vertical)
 - 0.20g rms (transverse)
 - 0.74g rms (longitudinal)

4) Shock

- Operating: 20g, 11ms, half sine wave
- Non-operating: 40g, 11ms, half sine wave

5) Regulation

- EMI: FCC Part 15 Class B
- Enclosure: IP52

