

## **MEDPC-5800**

Intel® Core™ i7 / i3 / Celeron Dual Core Processor

Intel® QM77 Chipset

Multiple display output support

Fanless easy clean design

MEDPC-5800 Manual 1st Ed  
August, 2014

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## Packing List

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Before you begin installing your Medical Station, please make sure that the following items have been shipped:

- MEDPC-5800 Medical PC
- Wall Mount Bracket
- Utility DVD-ROM, which contains User Manual (in PDF format) and Drivers

If any of these items are missing or damaged, you should contact your distributor or sales representative immediately.

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## Safety & Warranty

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1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning.  
Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation.  
Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. **Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.**
9. **WARNING: To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth**
10. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
11. All cautions and warnings on the equipment should be noted.
12. If the equipment is not used for a long time, disconnect it from

the power source to avoid damage by transient over-voltage.

13. Never pour any liquid into an opening. This could cause fire or electrical shock.

14. Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.

**15. Warning: Do not modify this equipment without authorization of the manufacturer.**

**16. If any of the following situations arises, get the equipment checked by service personnel:**

- a. The power cord or plug is damaged.
- b. Liquid has penetrated into the equipment.
- c. The equipment has been exposed to moisture.
- d. The equipment does not work well, or you cannot get it to work according to the users manual.
- e. The equipment has been dropped and damaged.
- f. The equipment has obvious signs of breakage.

**17. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60° C (140° F). IT MAY DAMAGE THE EQUIPMENT.**

**18. External equipment intended for connection to signal input/output or other connectors, shall comply with relevant UL / IEC standard (e.g. UL 60950-1 for IT equipment and ANSI/AAMI ES 60601-1: 2005 AND**



**CAN/CSA-C22.2 No. 60601-1:08) Any person who connects external equipment to signal input, signal output, or other connectors has formed a system and is therefore responsible for the system to comply with the standard IEC 60601-1, safety requirements for medical electrical systems.**

**19. Warning : The device intends to be used in the highly sensitive medical environments and these environments are prevented from access by general hospital staff, and the device should be installed in a suitable and safe location to avoid unauthorized contact. The top cover of device is allowed to be opened by authorized personnel for professional service purpose only.**

## **Classification**

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1. Degree of protection against electric shock: not classified
2. Mode of operation: Continuous
3. Type of protection against electric shock: Class I equipment
4. No Applied Part, No AP/APG

## FCC

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**Warning!**



This device complies with Part 18 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.

## UL Module Description

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	<p><i>MEDPC-5800 modules are developed to suitable for the Classification Mark requirement</i></p>
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## Safety Symbol Description

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The following safety symbols are the further explanations for your reference.

	<p><i>Medical equipment with respect to electric shock, fire and mechanical hazards only in accordance with <b>ANSI/AAMI ES 60601-1: 2005 AND CAN/CSA-C22.2 No. 60601-1:08</b></i></p>
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	<i>Attention, Follow operating instructions.</i>
	<i>Ground wire Protective Ground wire.</i>
	<i>Equipotentiality</i>

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# Chapter

# 1

## General Information

## 1.1 Introduction

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The MEDPC-5800 is based on Intel® i7 Dual Core processor, which delivers a performance improvement of more than 100 percent compared to systems running traditional single-core processors. With dual cores, or computing engines, ONYX can simultaneously execute more computing tasks. It accommodates one 2.5" SATA SSD and two DDRIII SODIMM up to 16GB.

The fanless solution, integrated multimedia functions and extensive expansion options ( USB2.0\*5, USB3.0\*2, COM\*1, Display Port \*1, Mic-in and Line-out) make them the perfect platform upon which to build comprehensive lifestyle computing applications.

The MEDPC-5800 includes all the features of a powerful computer into a slim and attractive chassis. Combining the MEDPC-5800 into your system can achieve both cost-saving and efficient improvements in common applications including Surgical, Radiology, LIS (Lab Information Systems) and Electronic Medical Record. The MEDPC-5800 is definitely your perfect choice.

## 1.2 Feature

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Intel® Core™ i7 / i3 / Celeron Dual Core Processor

Intel® QM77 Chipset

Multiple display output support

Fanless easy clean design

Compact Size

## 1.3 Specification

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### Hardware Specifications

<b>CPU</b>	Intel® Core™ i7 / i3 / Celeron Dual Core Processor
<b>Disk Drive Space</b>	2.5" Hard Disk Drive/Solid State Drive
<b>Function Key</b>	Power On
<b>I/O</b>	1 x Isolated RS-232 port 4 x RS-233 ports (optional) 1 x Isolated USB 2.0 port 4 x USB 2.0 ports 2 x USB 3.0 ports 2 x Isolated Gigabit LAN 1 x Display Port <i>Sound:</i> 1 x Line-out 1 x Mic-in
<b>Expansion</b>	One PCI Express[x16] expansion (optional) ( USB2.0*5, USB3.0*2, COM*1, Display Port *1, Mic-in and Line-out)

### Mechanical Specifications

<b>Construction</b>	Metal chassis with fanless system design
<b>Dimension</b>	303.2mm(W) x 242mm(H) x77.8mm(D)
<b>Carton Dimension</b>	406mm x 400mm x 197mm
<b>Net Weight</b>	4.8 Kg
<b>Gross Weight</b>	5.5 Kg
<b>Packing Filler</b>	PE foam

### Power Supply Specifications

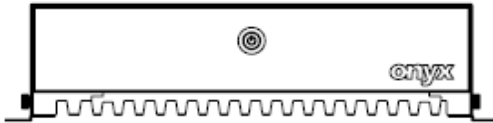
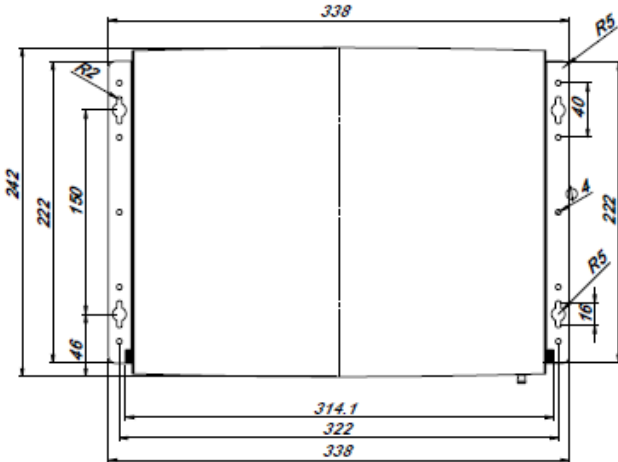
<b>AC/DC Adapter</b>	EDACPOWER EM11201B
<b>Input Voltage</b>	100-240V AC, 2-1A @ 50-60 Hz
<b>Output Voltage</b>	18-24V, 130W max.
<b>MTBF</b>	100,000 hrs operation at 25°C

### Environmental Specifications

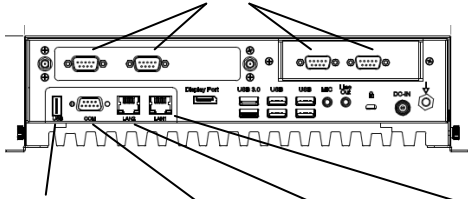
<b>Operating Temperature</b>	0°C to 30°C (32°F ~86°F)
<b>Operating Humidity</b>	30% ~ 75%
<b>Storage Temperature</b>	-20°C to 60°C (-4°F ~140°F)
<b>Storage Humidity</b>	10% ~ 90% @ 40°C, Non-Condensing
<b>Pressure</b>	700~1013hPa(Operating) / 700~1013hPa(Transport / Storage)
<b>EMI / Safety</b>	CE · FCC Class B Passed 18 cULus Mark/UL+ VTC Report +RMF (ISO 14971) (CAN / CSA-C22.2 No.60601-1-08 ; ANSI/AAMI ES60601-1:2005 , IEC 60601-1-1:2005,EN 60601-1:2006, ISO 14971:2007



### 1.4 Dimension (mount kit is optional)



4 RS-232 Ports are optional



Isolated USB2.0, Isolated COM, Isolated LAN, Isolated LAN

# Chapter

# 2

## Hardware

## Introduction

## 2.1 Safety Precautions

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### **Warning!**



*Always completely disconnect the power cord from your board whenever you are working on it. Do not make connections while the power is on, because a sudden rush of power can damage sensitive electronic components.*

### **Caution!**



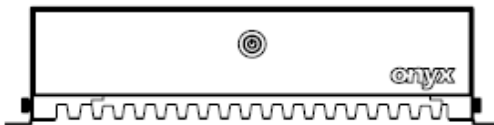
*Always ground yourself to remove any static charge before touching the board. Modern electronic devices are very sensitive to static electric charges. Use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielded bag when they are not in the chassis*

## 2.2 A Quick Tour of the MEDPC-5800

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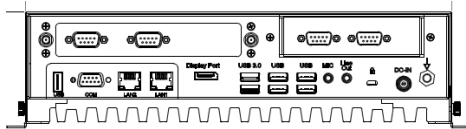
Before you start to set up the MEDPC-5800, take a moment to become familiar with the locations and purposes of the controls, drives, connections and ports, which are illustrated in the figures below.

When you place the MEDPC-5800 upright on the desktop, its front side appears as shown in Picture 1.1.



*Picture 1.1: Front View of the MEDPC-5800*

When you turn the MEDPC-5800 around and look at its rear side, as shown in Picture 1.2.



*Picture 1.2: Rear view of the MEDPC-5800 (4 COM Ports are optional)*

### 2.3 Turn On and Boot up into Windows OS

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This section is for Windows operating system only. If you are installing a different operating system, please contact your vendor for installation details.

Your MEDPC-5800 will begin loading Windows OS once you push the power button to turn power on. After less than one minute, Windows desktop screen will appear.

You can select the programs from the start menu in the left-down corner of the desktop screen.

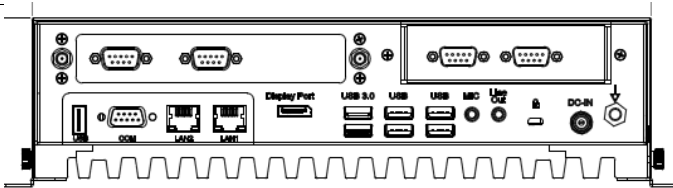
### 2.4 Turn off

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Turning off MEDPC-5800 properly is important for system reliability.

1. On the start menu, click “shut down” and select “OK”
2. And then the system will shut down automatically

## 2.5 Rear Panel Connectors



1. **DC-IN** DC-in power jack This port is for 12V~24V DC power.
2. **COM** COM This 9-pin COM port (RS-232) is for serial devices.
3. **Display Port** Display port This 20-pin port is for external connectors on desktops, notebooks, graphics cards, monitors.
4. **USB** USB 2.0 port These 4-pin Universal Serial Bus (USB) ports are available for connecting USB 2.0 devices.
5. **USB 3.0** USB 3.0 port These 9-pin Universal Serial Bus (USB) ports are available for connecting USB 3.0 devices.
6. **LAN1** **LAN2** LAN (RJ-45) port. These port allows Gigabit connection to a Local Area Network (LAN) through a network hub.
7. **MIC** Mic In port (light blue). This port connects a tape, CD, DVD player, or other audio sources.
8. **Line Out** Line Out port (lime). This port connects a headphone or a speaker. In 4-channel, 6-channel, and 8-channel configuration, the function of this port becomes Front Speaker Out.
9. **Kensington Lock**.

10.  **POTENTIAL EQUALIZATION CONDUCTOR.** The

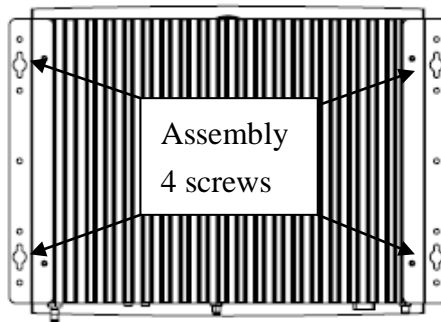
purpose of additional potential equalization is to equalize potentials between different metal parts that can be touched simultaneously, or to reduce differences of potential which can occur during operation between the bodies of medical electrical devices and conductive parts of other objects.

The connector is specially shaped so as to prevent chance disconnection when used as intended, while allowing the lead to be removed without the need for tools.

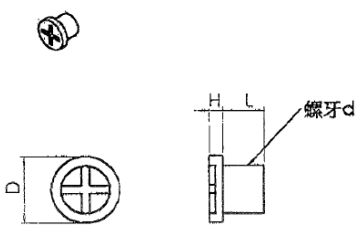
## 2.6 Mounting Kit assembly

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You can easy to assembly the mounting kit by each 4 screws as below, and the following types of screws are recommended.

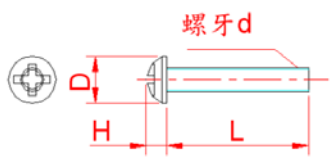


Interior Screw spec. used for screw on the Unit:

項次	檢驗名稱	尺寸	圖	型
1.	頭部外徑 D	5.30mm+0.25-0.25		
2.	頭部厚度 H	1.10mm+0.25-0.25		
3.	螺紋直徑 d 內外牙	M3XP0.5		
4.	螺紋長度 L	6.00mm+0.40-0.40		
5.	材 質	鐵		
6.	電鍍顏色	鍍鎳		

如附圖

Exterior Screw spec. used for screw on the wall or any shelf:

1.	頭部外徑 D	6.80mm+0.25-0.25	
2.	頭部厚度 H	2.60mm+0.25-0.25	
3.	螺紋直徑 d 內外牙	M4XP0.7	
4.	螺紋長度 L	8.00mm+0.40-0.40	
5.	材 質	鐵	

如附圖

# Chapter

# 3

## **Driver Installation**



There are several installation ways depending on the driver package under different Operating Systems.

***Please follow the sequence below to install the drivers:***

### **3.1 Installation**

---

Insert the MEDPC-5800 DVD into the DVD-ROM drive. And install the drivers from Step 1 to Step 9 in order.

Step 1 – Chipset Driver

Step 2 – Graphics Driver

Step 3 – LAN Driver

Step 4 – Audio Driver

Step 5 – USB 3.0 Driver

Step 6 – RAID&AHCI Driver

Step 7 – ME Driver

Step 8 – TPM Driver

Step 9 – Serial Port Driver

# Appendix

# A

## Miscellanea

## A.1 General Cleaning Tips

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You may need the following precautions before you begin to clean the computer. When you clean any single part or component for the computer, please read and understand the details below fully.

1. Never spray or squirt the liquids directly onto any computer component. If you need to clean the device, please rub it with a piece of dry cloth.
2. Be cautious of the tiny removable components when you use a vacuum cleaner to absorb the dirt on the floor.
3. Turn the system off before you start to clean up the component or computer.
4. Never drop the components inside the computer or get circuit board damp or wet.
5. Be cautious of all kinds of cleaning solvents or chemicals when you use it for the sake of cleaning. Some individuals may be allergic to the ingredients.
6. Try not to put any food, drink or cigarette around the computer.

## A.2 Cleaning tools

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Although many companies have created products to help improve the process of cleaning your computer and peripherals users can also use household items to clean their computers and peripherals.

Below is a listing of items you may need or want to use while cleaning your computer or computer peripherals.

Keep in mind that some components in your computer may only be able to be cleaned using a product designed for cleaning that component, if this is the case it will be mentioned in the cleaning tips.

- **Cloth** - A piece of cloth is the best tool to use when rubbing up a component. Although paper towels or tissues can be used on most hardware as well, we still recommend you to rub it with a piece of cloth.
- **Vacuum cleaner** - Absorb the dust, dirt, hair, cigarette particles, and other particles out of a computer can be one of the best methods of cleaning a computer. Over time these items can restrict the airflow in a computer and cause circuitry to corrode.
- **Cotton swabs** - Cotton swabs moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas in your keyboard, mouse, and other locations.
- **Foam swabs** - Whenever possible it is better to use lint free swabs such as foam swabs.

**Note:**

***We strongly recommended that you should shut down the system before you start to clean any single components.***

**Please follow the steps below.**

1. Close all application programs.
2. Close operating software.
3. Turn off power switch
4. Remove all device
5. Pull out power cable

### A.3 Scrap Computer Recycling

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If the computer equipments need the maintenance or are beyond repair, we strongly recommended that you should inform us as soon as possible for the suitable solution. For the computers that are no longer useful or work well, please contact with worldwide distributors for recycling.

The worldwide distributors show on the following website:

<http://www.onyx-healthcare.com.tw/Contact.php>

**Note:**

Follow the national requirement to dispose unit