WMP-153

Medical Panel PC

USER'S MANUAL

P/N: 205G000WMP1530, V1.0

Version Change History

Date	Version	Description	Remark
2015/6/25	1.0	First release	James

Acknowledgments

- Intel® Atom processor is registered trademarks of Intel® Corporation.

- IBM, PC/AT, PS/2 are trademarks of International Business Machines Corporation.

- Microsoft$^{®}$ Windows is a registered trademark of Microsoft$^{®}$ Corporation.

- RTL is a trademark of Realtek Semi-Conductor Co., Ltd.

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FCC Class B

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 when the equipment is operated in a residential environment. This equipment generates, uses and can radiate radio frequency energy. If not installed and used in accordance with this user manual, it may cause harmful interference to radio communications.
Note that even when this equipment is installed and used in accordance with this user manual, there is still no guarantee that interference will not occur. If this equipment is believed to be causing harmful interference to radio or television reception, this can be determined by turning the equipment on and off. If interference is occurring, 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 the receiver
● Connect the equipment to a power outlet on a circuit different from that to which the receiver is connected
● Consult the dealer or an experienced radio/TV technician for help

Warning:
Any changes or modifications made to the equipment which are not expressly approved by the relevant standards authority could void your authority to operate the equipment.

To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

Do not modify this equipment without authorization of the manufacturer.

Safety Instructions

Intended use

The WMP-153 is intended to serve as a medical monitor which is designed for general purpose for hospital environment and for diagnosis. It could be used for Surgical, Radiology, PACS (Picture Archiving Communication Systems), LIS (Lab Information Systems) and Electronic Medical Record purpose. It shall not be used for life-supporting system.
WARNING: Critical diagnostic decision must not be based solely on images displayed by this device

Greeting & Setup

Thank you for purchasing the WMP-153 unit. We wish that this unit will be durable and reliable in providing your medical application needs. Please follow the instructions below to ensure the unit continues to have high performance.

Unpacking

After opening the carton, there will be a medical panel PC unit with an accessory box. Examine the contents to see if there are damages to the unit and if all accessories are present.

Setting up

Please read this manual carefully and remember to keep this manual for future reference.

Safety Instructions & Cleaning

The unit has undergone various tests in order to comply with safety standards. Inappropriate use of the open frame unit may be dangerous. Please remember to follow the instructions below to insure your safety during the installation and operating process.

Transporting & Placement of unit

1. When moving the unit on a cart; be very cautious. Quick stops, excessive forces and uneven surfaces may cause the cart to overturn thus risking the unit to fall to the ground.

2. If the medical panel PC unit does fall to the ground, immediately turn the power off and disconnect cords. Then contact a service technician for repairs. Continual use of the unit may result cause a fire or electric shock. Also, do not repair the unit on your own.

3. Having two or more people transporting the display unit is recommended. In addition, when installing the unit by suspending it also requires two or more people.

4. Before suspending the unit, make sure the material used for suspension is sturdy and stable. If not properly suspended, the display unit may fall and cause serious injury to people standing nearby as well as to the unit itself.

5. If you wish to mount the display unit, remember to use only the mounting hardware recommended by the manufacturer.

Electrical and Power Source Related

1. This medical panel PC unit must operate on a power source as shown on the specification label. If you are not sure what type of power supply used in the area, consult your dealer or local power supplier.

2. The power cords must not be damaged. Applied pressure, added heat, and tugging may damage the power cord.

3. The power cord must be routed properly when setup takes place. We advise that this aspect measure is to prevent people from stepping on the cords or while the unit is suspended to prevent flying objects from getting tangled with the unit.

4. Do not overload the AC outlets or extension cords. Electrical shocks or fires may occur from overloading.

5. Do not touch the power source during a thunderstorm.

6. If your hands are wet, do not touch the plug.

7. Use your thumb and index finger, grip firmly on the power cord to disconnect from the electrical socket. By pulling the power cord, may result in damaging it.

8. If the unit is not going to be in use for an extended period of time, remember to disconnect the unit.

9. The medical panel PC unit uses voltage between 100-240VAC. Connect the unit to a power source with the same numerical value as shown. Please use only the power cord provided by the dealer to ensure safety and EMC compliance.

Various Factors of Environment

1. Do not insert objects into the openings.

2. Do not have liquids seep into the internal areas of the medical panel PC unit.

3. Having liquids seep in or inserting objects into the unit may result in electric shocks from taking and/or short circuiting the internal parts.

4. Do not place the medical panel PC unit in the presence of high moisture areas.

5. Do not install the medical panel PC unit in a wet environment.

6. Do not place near unit near heat generating sources.

7. Do not place the unit in a location where it will come in contact with fumes or steam.

8. Remember to keep the medical panel PC unit away from the presence of dust.

9. If water has flow in or seep in, immediately disconnect the open frame unit. Then contact a service technician for repairs.

Ventilation Spacing

1. Do not cover or block the openings on the top and back sides of the display unit. Inadequate ventilation may cause overheating thus reducing the lifespan of the unit.

2. Unless proper ventilation is present, do not place unit in an enclosed area; such as a built-in shelf. Keep a minimum distance of 10 cm between the display unit and wall.

Cleaning the unit

1. Remember to turn off the power source and to unplug the cord from the outlet before cleaning the unit.

2. Carefully dismount the unit or bring the unit down from suspension to clean.

3. Please use a dry soft cloth to clean the unit.

4. Take a dry cloth and wipe the unit dry. Remember to avoid having liquids seep into the internal components and areas of the medical panel PC unit.

Servicing, Repairing, Maintenance & Safety Checks

1. If the unit is not functioning properly, observe the performance level of the display closely to determine what type of servicing is needed.

2. Do not attempt to repair the medical panel PC unit on your own. Disassembling the cover exposes users' to high voltages and other dangerous conditions. Notify and request a qualified service technician for servicing the unit.

3. To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

4. If any of the following situations occur turn the power source off and unplug the unit. Then contact a qualified service technician.

    (a) A liquid was spilled on the unit or objects have fallen into the unit.

    (b) The unit is soaked with liquids.

    (c) The unit is dropped or damaged.

    (d) If smoke or strange odor is flowing out of the operating unit.

    (e) If the power cord or plug is damaged.

    (f) When the functions of the unit are dysfunctional.

5. When replacement parts are needed for the medical panel PC unit, make sure service technicians use replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original

parts. If unauthorized parts are used it may result in starting a fire, electrical shock and/or other dangers.

⚠	ISO 7000-0434 : Caution, consult ACCOMPANYING DOCUMENTS.
📖	ISO 7000-1641 : Follow operating instructions or Consult instructions for use.
⏻	IEC 60417 -5009 : STAND-BY.
===	IEC 60417-5031 : Direct current.
🗑	EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product, or if applicable, follow any agreements made between yourself. The mark on electrical and electronic products only applies to the current European Union Member States.

When networking with electrical devices, the operator is responsible for ensuring that the resulting system meets the requirements set forth by the following standards:

– EN 60601-1 (IEC 60601-1)
Medical electrical equipment
Part 1: General requirements for safety

– EN 60601-1-1 (IEC 60601-1-1)
Medical electrical equipment
Part 1-1: General requirements for safety
Collateral standard: Safety requirements for
Medical electrical systems

– EN 60601-1-2 (IEC 60601-1-2)
Medical electrical equipment
Part 1-2: General requirements for safety
Collateral standard: Electromagnetic compatibility;
Requirements and tests

Accessory equipment connected to the analog and digital interfaces must be in compliance with the respective nationally harmonized IEC

With Respect To Electric Shock, Fire And Mechanical Hazard Only In Accordance With ANSI/AAMI ES60601-1. (2005 and Amendment 1),CAN/CSA C22.2 NO.60601-1(2014)

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standards (i.e. IEC 60950 for data processing equipment, IEC 60065 for video equipment, IEC 61010-1 for laboratory equipment, and IEC 60601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 60601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 60601-1-1. The unit is for exclusive interconnection with IEC 60601-1 certified equipment in the patient environment and IEC 60XXX certified equipment outside of the patient environment. If in doubt, consult the technical services department or your local representative.

Caution:

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). THIS MAY DAMAGE THE EQUIPMENT.

This equipment shall not be used in life support systems.

The user is not to touch SIP/SOPs and the patient at the same time.

The patient is the intended operator.

Caution – Use suitable mounting apparatus to avoid risk of injury.

The sound pressure level at the operator's position according to IEC 704-1:1982 is no more than 70dB (A).

A) Grounding reliability can only be achieved when the equipment is connected to an equivalent receptacle marked "Hospital Only" or "Hospital Grade".
B) Use a power cord that matches the voltage of the power outlet, which has been approved and complies with the safety standard of your particular country.
C) Caution: This adapter Sinpro HPU101-105 is a forming part of the medical device

Contact information:
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Introduction

Product Description

The WMP-153 Medical Panel PC is based on Intel *ATOM* processor, it accommodates one 2.5" SATA II hard disk drive and up to 8GB DDR3L SODIMM.

The high brightness LCD, Low noise Fanless solution, integrated multimedia functions and extensive expansion options make them the perfect platform upon which to build comprehensive lifestyle computing applications.

The WMP-153 includes all the features of a powerful computer into a slim and attractive chassis. The WMP-153 has a 15.6" high brightness TFT display with 1366 x 768 resolutions.

The WMP-153 is compact, Giga LAN and selectable WLAN network compatible PC with full safety and medical approval and features to control a dedicated system with a wide variety of applications. Combining the WMP-153 into your system can achieve both cost-saving and efficient improvements.

Common applications include Surgical, Radiology, PACS (Picture Archiving Communication Systems), LIS (Lab Information Systems) and Electronic Medical Record. The WMP-153 are definitely your perfect choices.

Package list

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

- The WMP-153 Medical Panel PC unit
- One DVD containing user's manual, chipset drivers
- Power Adapter x 1 (Mf:Sinpro, type/model: HPU101-105)
- Power cord – Hospital grade used(US type), or other type in UK, EU…etc.
- Screw x 8 (VESA 75/100 use)

Features

- *Seamless on the front side*
- *Easy wipe surfaces with no internal corners*
- *IP65 at front side and IPX1 for whole system*
- *Intel® Celeron® J1900 2.0 GHz quad-core processor 10W*
- *Projective Capacitive Multi-touch screen (10 fingers)*
- *Two mini PCI-e expansion (One full and one half)*
- *HDD Anti-vibration mechanism*
- *Fanless solution*
- *Anti-bacteria (MRSA) plastic housing*
- *Built-in Battery backup function (option)*
- *Support PCI-E x 1 (option)*
- *Support isolated module by different configuration (optional order configuration)*

Specifications

Hardware Specifications

Display	15.6" 400 nits TFT LCD
CPU Support	*Intel® Celeron® J1900 2.0 GHz quad-core processor 10W*
Disk Drive Space	2.5" Hard Disk Drive (SATA II)
Expansion	Two Mini PCIe slot (+3.3V loaded 0.5A, total loaded = 1A); One PCI-E x 1 expansion slot (+3.3 loaded 1A, +12V loaded 0.56A, total loaded = 10.02W)
Button	Power Button // Mute // Audio adjustment (+)(-) // brightness (+)(-) // LCD on/off // Clean me(auto release after 1 minute) // *Dis-webcam* // *Fn*
I/O	**Standard version** 1 RS-232 port + 1 RS-232/422/485 port 1 USB 3.0 port + 3 USB 2.0 ports 1 DC-in w/ lock function 1 Gigabit LAN RJ-45 Connectors 1 DVI-I output Sound: 1 x Line-in 1 x line-out 2 x 2W Speakers on back side

LCD Specifications

Model Name	G156XW01 V1
Display Type	LED backlight LCD
Max. Resolution	1366 x 768
Contrast Ratio	500 : 1 (Typ)
Pixel Pitch (um)	252 (per one triad) × 252
Luminance (cd/m2)	400 (TYP)
Viewing Angle	170°(H)
	160°(V)
Operating Temperature	0°C~ 40°C (32°F~104°F)
Brightness Control	Yes

Power Adapter Specifications

Power	Close-frame
MFR	Sinpro
Type	HPU101-105
Input Voltage	AC 100 ~ 240 V, 1.25 – 0.5A @ 47 ~ 63 Hz
Output Voltage	DC 12V @ 8.33 A
MTBF	100,000 hrs operation at 25°C

Mechanical Specifications

Architecture	Close-frame
Front Bezel	PET bezel with PCT touch screen
Color	Medical-white
Mounting / Holder	VESA 75/100mm
Construction	3mm ABS + PC TYPE Plastic housing
Dimension (WxHxD)	*430 (H) x 300 (V) x 83 (T)*
Net Weight	*5.0 kg (w/o power adapter)*
Packing Filler	PE

Environmental Specifications

Temperature	Operating: 0°C to 40°C (32°F ~104°F) Storage, Transportation: -20°C to 60°C (-4°F ~140°F)
Humidity	Operating: 10% to 90%@ 40°C, non-condensing Storage, Transportation: 10% to 90%, non-condensing
Vibration	Operating: 15g/0.53 oz, 11 ms, half sine wave Non-operating: 50g/1.76 oz, 11 ms, half sine wave
Shock	Operating: 5 ~ 17 Hz , Amplitude：0.117 ~ 500Hz , Acceleration：1.0G Non-operating:10~55Hz/0.15g, 55~500Hz/2.0g
Altitudes	Operational: up to 3000 m (9842 feet) Shipping: up to 12192 m (40000 feet)
Pressure	700 – 1060 hPa (Operation) 186 – 1060 hPa (Storage) 186 – 1060 hPa (Transportation)

Input Power Rating	For Adaptor: AC100~240 V, 1.25 – 0.5A, @47 ~ 63 Hz. For Unit: DC 12V, 8.33A
Power Consumption	Typical: 54W

Touch Screen

Type	Full flat projective capacitive touch panel
Interface	Controller with USB interface, 5V
Resolution	100ppi to 25ppi Based WIN7 definition ppi (Pixel per inch)
Light Transmission	90% ± 3%
Life Time	100M times

Guidance and manufacturer's declaration – electromagnetic emissions		
The model WMP-153 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-153 should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11		The model WMP-153 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11		The model WMP-153 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2		
Voltage fluctuations/ flicker emissions IEC 61000-3-3		
Recommended separation distances between portable and mobile RF communications equipment and the model WMP-153		

The model WMP-153 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the model WMP-153 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the model WMP-153 as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2,5 GHz $d = 2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distanced in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Guidance and manufacturer's declaration – electromagnetic immunity			
The model WMP-153 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-153 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance

Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	±2 kV for power supply lines ±1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	<5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the model WMP-153 requires continued operation during power mains interruptions, it is recommended that the model WMP-153 be powered from an uninterruptible power supply or a battery.

Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity

The model WMP-153 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-153 should assure that it is used in such an environment.

Immunity	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2,5 GHz	Vrms V/m	Portable and mobile RF communications equipment should be used no closer to any part of the model WMP-153, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1{,}2\sqrt{P}$ $d = 1{,}2\sqrt{P}$ 80 MHz to 800 MHz $d = 2{,}3\sqrt{P}$ 800 MHz to 2,5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, [a] should be less than the compliance level in each frequency range. [b] Interference may occur in the vicinity of equipment marked with the following symbol: $\left(\left(\left(\cdot\right)\right)\right)$
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the model WMP-153 is used exceeds the applicable RF compliance level above, the model WMP-153 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the model WMP-153.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Cleaning/Disinfecting

Steps:

1. Wipe the WMP-153 with a dry clean cloth.

2. Prepare agent per manufacturer's instructions or hospital protocol.

Cautions:

- Do not immerse or rinse the WMP-153 and its peripherals. If you accidentally spill liquid on the device, disconnect the unit from the power source. Contact your Biomed regarding the continued safety of the unit before placing it back in operation.

- Do not spray cleaning agent on the chassis.

- Do not use disinfectants that contain phenol.

- Do not autoclave or clean the WMP-153 or its peripherals with strong aromatic, chlorinated, ketone, ether, or Esther solvents, sharp tools or abrasives. Never immerse electrical connectors in water or other liquids.

Getting Started

System Set Up

The following is a summary of the steps in setting up the system for use.

(1). You can fix the system to a mounting fixture using the screw holes on the sides of the system.

(2). Make any required external connections such as the display, keyboard, and LAN.

(3). Plug the appropriate end of the power cord into the power connector on the rear of the system and the plug to an electrical outlet.

(4). ***<u>Waiting for 3 seconds</u>*** then press the power switch on the front panel of the system once to turn on the system power.

(5). If necessary, run the BIOS SETUP programs to configure the system.

> ### *Caution:*
> *In order to boot up system from USB-CD/DVD drive, please connect USB-CD/DVD drive, turn on computer power, keep on pressing "F11" key, go into BIOS quick boot menu, select "USB-CD ROM", WAIT FOR 20 SECONDS, then press enter, system OS will boot up from USB-CD/DVD drive directly.*

Dimension

WMP-153
(VESA Mount Screw type: M4)

System View

Front View

Webcam (optional)
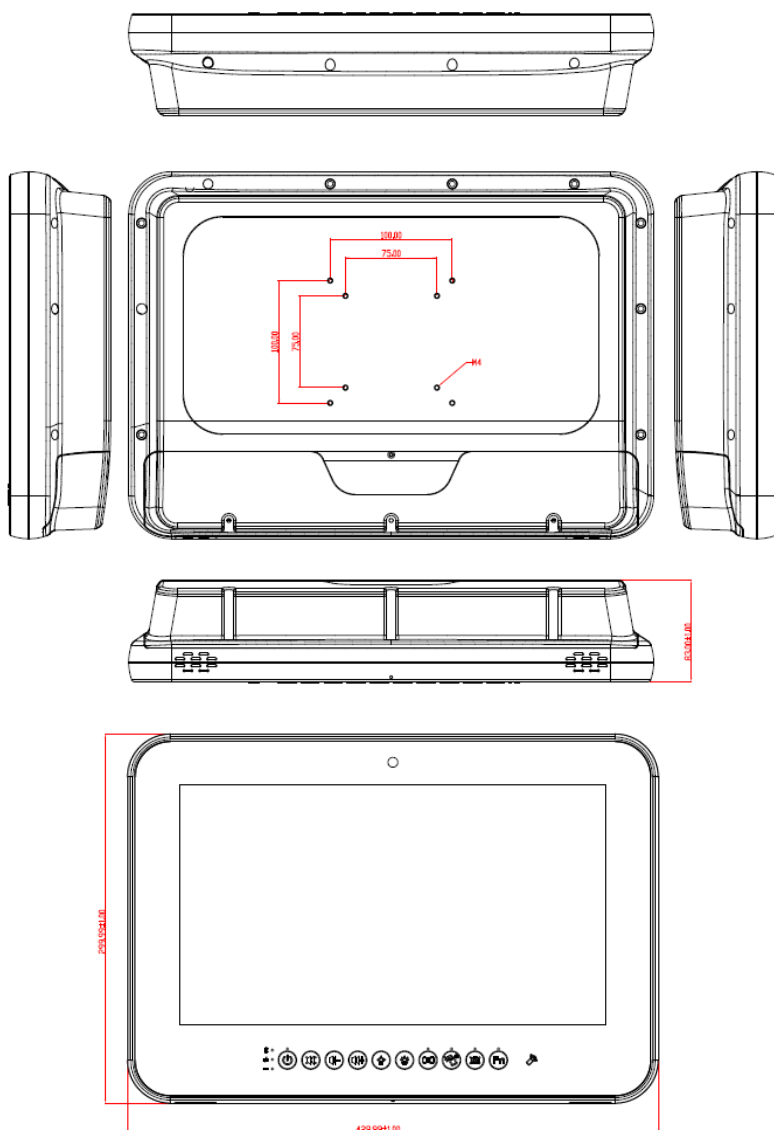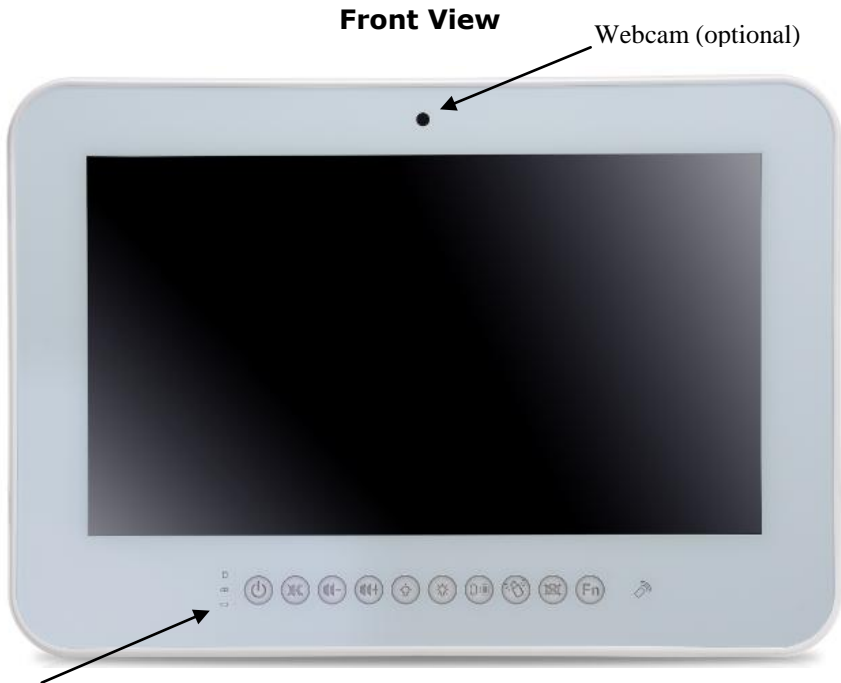
Hotkey and LED definition at front panel

Located on Touch screen bottom side, from left to right, front view
1-1. Up. HDD: Yellow
1-2 Down. Battery:

	LED 1	LED 2
	(Charge/Discharge/Low)	(Batt present/ not present)
In charge	blinking	ON
Discharge	OFF	ON
Full charge	ON	ON
Low battery	blinking	blinking
No battery	OFF	OFF

2. Power (with LED status indicator: ON: Green, OFF: dark)

3. Mute
4. Volume adjustment (-)
5. Volume adjustment (+)
6. Brightness (-)
7. Brightness (+)
8. LCD on/off (with LED status indicator: LCD ON: dark, LCD OFF: Yellow)
9. Clean me (with LED status indicator: ON: Yellow, OFF: dark)
  a. Keep on contacting 5 seconds to active
  b. keep contacting 5 seconds to release
  c. auto release after 60 seconds
10. Dis-Webcam: Webcam hotkey disable function
11. Fn: Function key (with LED status indicator: ON: Green, OFF: dark)

I/O parts (WMP-153)
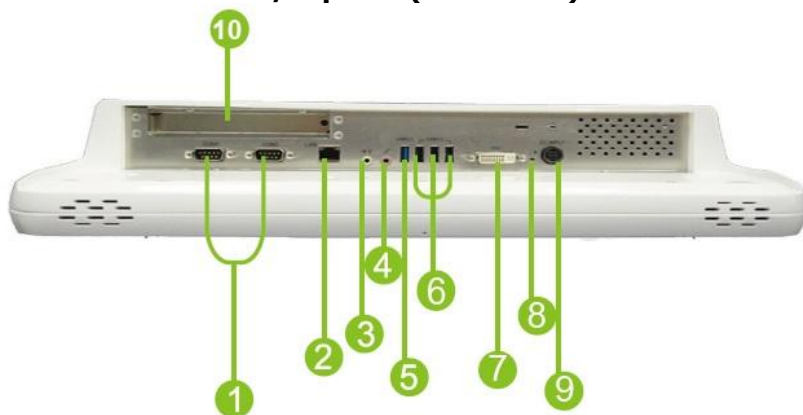
❶ COM x 2
❷ LAN x 1
❸ Line-out
❹ Microphone-in
❺ USB 3.0 x 1

❻ USB 2.0 x 3
❼ DVI-I output
❽ Reset
❾ DC-in
❿ PCI-E/PCI expansion

⑪ Isolation COM x 2
⑫ Isolation USB x 1
⑬ Isolation LAN x 1

Disconnect Device
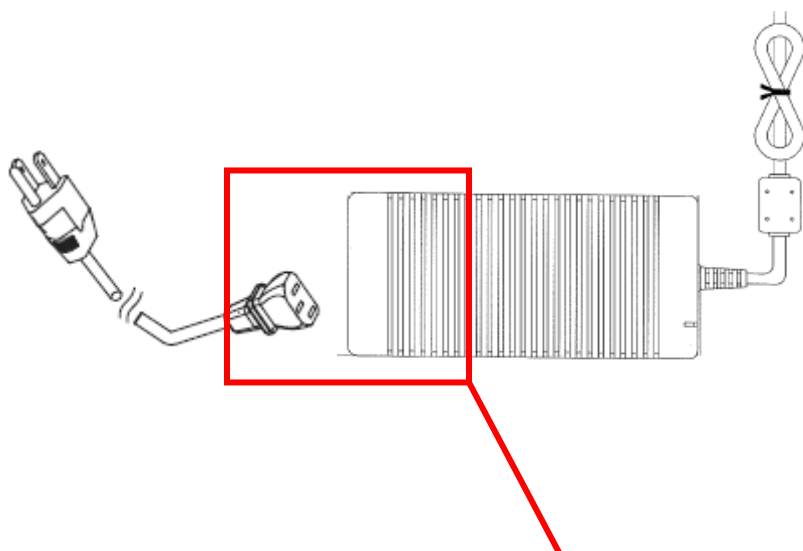
Unplug the power cord from the power adapter jack to disconnect the device.

BIOS Setup

BIOS Introduction

The AMI BIOS (Basic Input / Output System) installed in your computer system's ROM supports Intel processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also adds virus and password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

BIOS Setup

The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the AMI BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

<p align="center">Press <DEL> to Enter Setup</p>

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Main

```
                Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
  Main  Advanced  Chipset  Security  Boot  Save & Exit

  BIOS Information                                         Set the Date. Use Tab to
  BIOS Vendor                  American Megatrends         switch between Date elements.
  Core Version                 5.010
  BIOS Version                 636G00WMP15303 V1.00

  Firmware Information
  Embedded Controller          636G00WMP15300 V1.0E2
  Keypad Controller            636G00WMP24802 V1.0

  Battery Status
  Voltage                      8286 mV
  Current                      Full Charging
  Capacity(%)                  97%
                                                          →←: Select Screen
  System Date                  [Sun 03/29/2015]           ↑↓: Select Item
  System Time                  [22:41:55]                 Enter: Select
                                                          +/-: Change Opt.
  Access Level                 Administrator              F1: General Help
                                                          F2: Previous Values
                                                          F3: Optimized Defaults
                                                          F4: Save & Exit
                                                          ESC: Exit




                Version 2.17.1246. Copyright (C) 2015 American Megatrends, Inc.
```

This section provides information on the BIOS information, and Battery information

System Date
Set the system date. Use the <Tab> key to switch between data elements.

System Time
Set the system time. Use the <Tab> key to switch between time elements.

Advanced

```
                Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
     Main  Advanced  Chipset  Security  Boot  Save & Exit

  ▶ Trusted Computing                                    Trusted Computing Settings
  ▶ ACPI Settings
  ▶ F81216 Super IO Configuration
  ▶ Intel(R) Smart Connect Technology
  ▶ S5 RTC Wake Settings
  ▶ CPU Configuration
  ▶ IDE Configuration
  ▶ Embedded Controller Configuration
  ▶ Miscellaneous Configuration
  ▶ Info Report Configuration
  ▶ USB Configuration

                                                         ↔: Select Screen
                                                         ↑↓: Select Item
                                                         Enter: Select
                                                         +/-: Change Opt.
                                                         F1: General Help
                                                         F2: Previous Values
                                                         F3: Optimized Defaults
                                                         F4: Save & Exit
                                                         ESC: Exit

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```

Trusted Computing
Configuration
Enables or disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

ACPI Settings
Enable Hibernation
Enables or Disables System ability to Hibernate (0S/S4 Sleep State). This option may be not effective with some OS.

ACPI Sleep State
Select the highest ACPI sleep state the system will enter when the SISPEND button is pressed.

F81216 Super IO Configuration
Serial Port 1 Configuration
Serial Port
Enable or Disable Serial Port (COM).
Function

RS232,RS422,RS485
Change Settings
   Select an optimal settings for super IO Device.
Change Settings
   Select an optimal settings for Super IO Device.
 Set Parameters of Serial Port 1.

Serial Port 2 Configuration
 Serial Port
   Enable or Disable Serial Port (COM).

 Change Settings
   Select an optimal settings for super IO Device.

Serial Port 3 Configuration
 Serial Port
   Enable or Disable Serial Port (COM).

 Change Settings
   Select an optimal settings for super IO Device.

Serial Port 4 Configuration
 Serial Port
   Enable or Disable Serial Port (COM).

 Change Settings
   Select an optimal settings for super IO Device.

Intel(R) Smart Connect Technology
 ISCT Support
   Enable/Disable Intel Smart Connect

S5 RTC Wake Settings
 Wake system From S5
   Enable or disable System wake on alarm event. Select
   FixedTime, System will wake on the hr::min::sec specified.
   Select DynamicTime , System will wake on the current time
   + Increase minute(s).

CPU Configuration
 Socket 0 CPU Information
   Socket specific CPU Information.

IDE Configuration
  Serial-ATA (SATA)
    Enable / disable Serial ATA.
  SATA Test Mode
    Test Mode enable / disable.

  SATA Speed Support
    SATA Speed Support Gen1 or Gen2.

  SATA ODD Port
    SATA ODD is Port0 or Port1.

  SATA Mode
    Select IDE / AHCI

  Serial-ATA Port 0
    Enable / Disable Serial ATA Port 0.

  SATA Port0 HotPlug
    Enable / Disable SATA Port0 HotPlug.

  Serial-ATA Port 1
    Enable / Disable Serial ATA Port 1.

  SATA Port0 HotPlug
    Enable / Disable SATA Port1 HotPlug

Embedded Controller Configuration
  Lock key click time
    Number of seconds to press lock key to (un)active.
    1~10 seconds mean press hold time.

  Locked Status Hold Time
    Number of minutes to keep lock status. 0 means lock always.
    1~100 minutes mean lock hold time.

  Power key
   Enable / Disable power key.

  Mute key
   Enable / Disable Mute key.

Volume Up/Dn keys
  Enable / Disable Vol+/Vol- key.

LCD Brightness Up/Dn keys
  Enable / Disable LCD Brightness up/down key.

LCD Backlight On / Off key
  Enable / Disable LCD Backlight key.

Lock key
  Enable / Disable Lock key.

Webcam key
  Enable / Disable webcam key.

Fn key
  Enable/Disable Function key

Miscellaneous Configuration
  PCI Express Dynamic Clock Gating
    Enable / Disable PCIE Dynamic Clock Gating.

  Show/hide hidden items
    For debug only.
    Show / hide hidden items.

Info Report Configuration
  Post Report
    Post Repost Support Enabled / Disabled.

  Info Error Message
    Info Error Message Support Enabled / Disabled.

  Summary Screen
    Summary Screen Support Enabled / Disabled.

USB Configuration
  USB Support
    USB Support Parameters.

Legacy USB Support
Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications

XHCI Hand-off
Enable / Disable XHCI Controller Legacy support.

USB Mass Storage Driver Support
Enable/Disable USB Mass Storage Driver Support.

Chipset

```
                 Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
      Main  Advanced  Chipset  Security  Boot  Save & Exit

  ▶ North Bridge                                          North Bridge Parameters
  ▶ South Bridge









                                                          →←: Select Screen
                                                          ↑↓: Select Item
                                                          Enter: Select
                                                          +/−: Change Opt.
                                                          F1: General Help
                                                          F2: Previous Values
                                                          F3: Optimized Defaults
                                                          F4: Save & Exit
                                                          ESC: Exit




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```
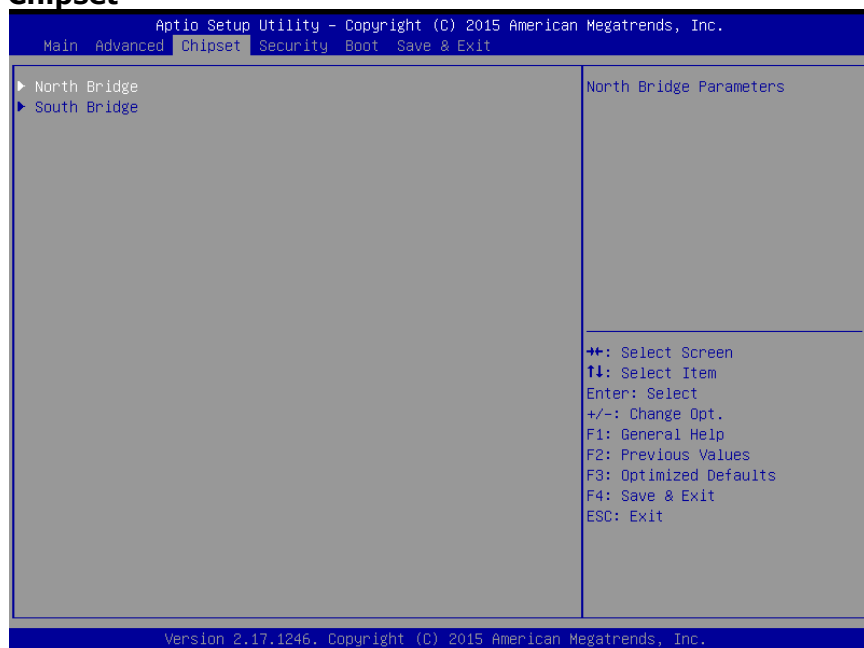
North Bridge
Config Intel IGD Settings.
South Bridge
  High Precision Timer
    Enable or Disable the High Precision Event Timer.

  Audio Controller
    Control Detection of the Azalia device.
    Disabled = Azalia will be unconditionally disabled.
    Enable = Azalia will be unconditionally Enabled.
    Auto = Azalia will be enabled if present disabled otherwise.

  Restore AC Power Loss
    Select AC power state when power is re-applied after a power
failure.

Security

Administrator Password
  Set Administrator Password.

User Password
  Set user Password.

P0：TOSHIBA MQ01
  HDD Security Configuration for selected drive.

Boot

```
                 Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
   Main  Advanced  Chipset  Security  Boot  Save & Exit

   Boot Configuration                                       Number of seconds to wait for
   Setup Prompt Timeout                 6                   setup activation key.
   Bootup NumLock State                 [Off]               65535(0xFFFF) means indefinite
                                                            waiting.
   PXE Boot                             [Enabled]
   OS Selection                         [Windows 7]

   Quiet Boot                           [Disabled]


   Boot Option Priorities
   Boot Option #1                       [UEFI: JetFlashTrans...]
   Boot Option #2                       [P0: TOSHIBA MQ01ABF...]
   Boot Option #3                       [JetFlashTranscend 1...]    ↔: Select Screen
   Boot Option #4                       [B03 D00 Yukon PXE]         ↑↓: Select Item
                                                                    Enter: Select
                                                                    +/-: Change Opt.
                                                                    F1: General Help
                                                                    F2: Previous Values
                                                                    F3: Optimized Defaults
                                                                    F4: Save & Exit
                                                                    ESC: Exit




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```

Setup Prompt Timeout
   Number of seconds to wait for setup activation key.
   65535(0xFFFF) means indefinite waiting.
Bootup Numlock State
   Selects the keyboard NumLock state.
PXE Boot
   PXE Network Boot Enable / Disable.
OS Selection
   OS Selection.
Quiet Boot
   Enable or disables Quiet Boot option.
Boot Option #1
   Sets the system boot order.
Boot Option #2
   Sets the system boot order.

Save & Exit

```
             Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
      Main   Advanced   Chipset   Security   Boot   Save & Exit

     Save Changes and Exit                              Exit system setup after saving
     Discard Changes and Exit                           the changes.
     Save Changes and Reset
     Discard Changes and Reset

     Save Options
     Save Changes
     Discard Changes

     Restore Defaults
     Save as User Defaults
     Restore User Defaults

     Boot Override                                      →←: Select Screen
     P0: TOSHIBA MQ01ABF032                             ↑↓: Select Item
     B03 D00 Yukon PXE                                  Enter: Select
     UEFI: JetFlashTranscend 1GB 8.07                   +/-: Change Opt.
     JetFlashTranscend 1GB 8.07                         F1: General Help
                                                        F2: Previous Values
     Launch EFI Shell from filesystem device            F3: Optimized Defaults
   ▶ Reset System with ME disable ModeMEUD000           F4: Save & Exit
                                                        ESC: Exit



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```

Save Changes and Exit
Exit system setup after saving the changes.

Discard Changes and Exit
Exit system setup without saving any changes.

Save Changes and Reset
Reset the system after saving the changes.

Discard Changes and Reset
Reset system setup without saving the changes.

Save Changes
Save the changes done so far to any of setup options.

Discard Changes
Discard the changes done so far to any of setup options.

Restore Defaults
Restore/load default values for all the setup options.

28   WMP-153 User's manual

Save as User Defaults
   Save the changes done so far as User Defaults.

Restore User Defaults
   Restore the User Defaults to all the setup options.

Boot Override
To *override* the *boot* device.

Launch EFI Shell From filesystem device
Attempts to Launch EFI Shell application (Shell.efi) from one of the available filesystem devices.

Reset System with ME disable ModeMEUD000
ME will runs into the temporary disable mode, Ignore if ME Ignition FWMEUD001.
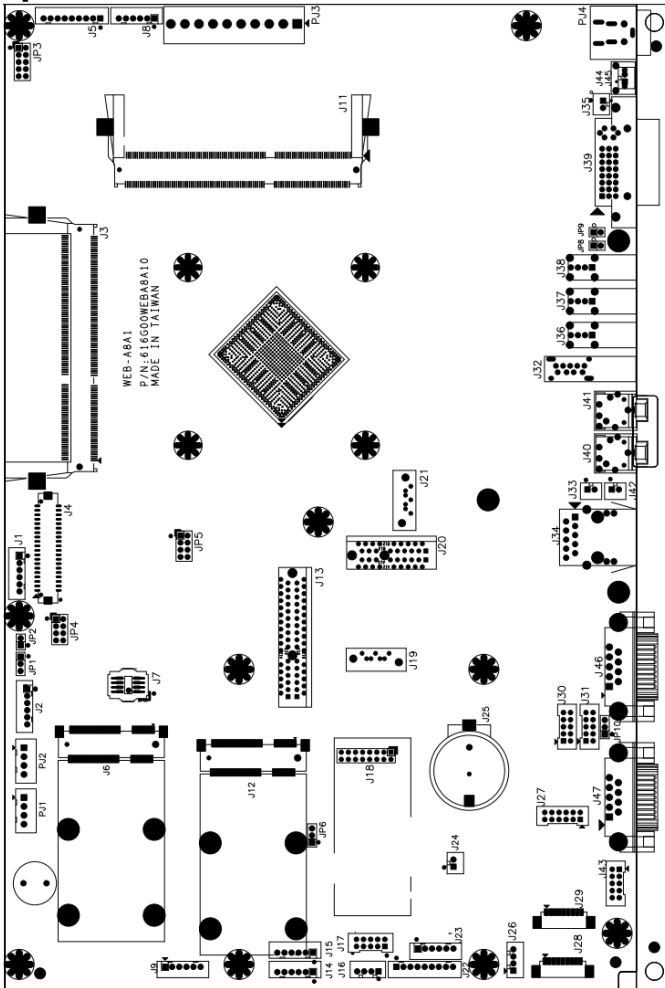
Appendix
A. Jumper settings and Connectors
This appendix gives the definitions and shows the positions of jumpers, headers and connectors. All of the configuration jumpers on WMP-153 are in the proper position.

Note: Some of jumpers or connectors will be removed base on system configuration.

Jumper and Connector Definition Block

JP1 – Backlight Adjust

Description	Jumper Setting
analog Inverter	*1-2 (default)*
PWM Inverter	2-3

JP2 – Backlight Voltage Selection

Description	Jumper Setting
4 wire	1-2, 3-4, 5-6, 7-8, 9-10
5 wire	*3-4, 5-6, 7-8, 9-10 (default)*
8 wire	1-2

JP3 – Touch Panel Type Selection

Description	Jumper Setting
3M type	*1-2, 3-4 (default)*
ELO type	5-6,7-8

JP4 – LVDS Power Selection

Description	Jumper Setting
+5VS (for 17''/19''/21.5'')	*1-2,3-4 (default)*
+3.3VS (for 10"/12"/15")	5-6,7-8

JP5 – Panel Type Selection

	0	1
GPIO3	JP5(1-2) short	JP5(1-2) open
GPIO2	JP5(3-4) short	JP5(3-4) open
GPIO1	JP5(5-6) short	JP5(5-6) open
GPIO0	JP5(7-8) short	JP5(7-8) open

```
NOTE: Customer can choose different panel
by pull high or low of GPIO[0:3].
```

GPIO3	GPIO2	GPIO1	GPIO0		
0	0	0	0	600X800	6bit
0	0	0	1	1024X768	6bit
0	0	1	0	1024X768	8bit
0	0	1	1	1280X768	6bit
0	1	0	0	1280X800	6bit
0	1	0	1	1280X960	6bit
0	1	1	0	1280X1024	8bit
0	1	1	1	1366X768	6bit
1	0	0	0	1366X768	8bit
1	0	0	1	1440X900	8bit
1	0	1	0	1400X1050	8bit
1	0	1	1	1600X900	8bit
1	1	0	0	1680X1050	8bit
1	1	0	1	1600X1200	8bit
1	1	1	0	1920X1080	8bit
1	1	1	1	1920X1200	8bit

JP6 – CMOS Clear

Description	Jumper Setting
Normal Open	*1-2* (default)
CMOS Clear	2-3

JP8,JP9 – Support Y cable with DVI+VGA

Description	Jumper Setting	Description
	JP8	
DVI	Open	DVI
DVI+VGA	Short	DVI+VGA

JP10 – COM4 Power Selection

Description	Jumper Setting
+5VS	*2-3(default)*
+12VS	1-2

Connector Definition

PJ1 /PJ2 – HDD Power Connector
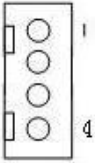
Pin #	Signal Description
1	+12VS
2	Ground
3	Ground
4	+5VS

PJ4 – Power Jack Connector
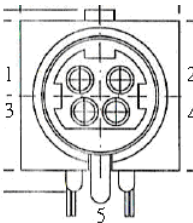
Pin #	Signal Description
1	DC In
2	DC In
3	Ground
4	Ground
5	Ground

J1 – LCD Inverter Interface

Pin1
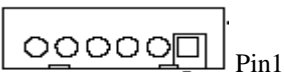
Pin #	Signal Description
1	+12VS
2	+12VS
3	Backlight Adjust
4	Backlight Enable
5	Ground
6	Ground

J2 – Internal Webcam USB 2.0 Pin Header

Pin1
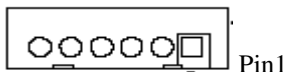
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	Ground
6	Ground

J3 / J11 – DDR3 SO-DIMM Interface

J3→ H9.2 STD
J11→ H9.2 REV

Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol
1	VREFDQ	69	DQ27	137	DQS4	2	VSS	70	DQ31	138	VSS
3	VSS	71	VSS	139	VSS	4	DQ4	72	VSS	140	DQ38
5	DQ0	73	CKE0	141	DQ34	6	DQ5	74	NC	142	DQ39
7	DQ1	75	VDD	143	DQ35	8	VSS	76	VDD	144	VSS
9	VSS	77	NC	145	VSS	10	DQS0#	78	NC	146	DQ44
11	DM0	79	BA2	147	DQ40	12	DQS0	80	NF/A14	148	DQ45
13	VSS	81	VDD	149	DQ41	14	VSS	82	VDD	150	VSS
15	DQ2	83	A12	151	VSS	16	DQ6	84	A11	152	DQS5#
17	DQ3	85	A9	153	DM5	18	DQ7	86	A7	154	DQS5
19	VSS	87	VDD	155	VSS	20	VSS	88	VDD	156	VSS
21	DQ8	89	A8	157	DQ42	22	DQ12	90	A6	158	DQ46
23	DQ9	91	A5	159	DQ43	24	DQ13	92	A4	160	DQ47
25	VSS	93	VDD	161	VSS	26	VSS	94	VDD	162	VSS
27	DQS1#	95	A3	163	DQ48	28	DM1	96	A2	164	DQ52
29	DQS1	97	A1	165	DQ49	30	RESET#	98	A0	166	DQ53

31	VSS	99	VDD	167	VSS	32	VSS	100	VDD	168	VSS
33	DQ10	101	CK0	169	DQS6#	34	DQ14	102	CK1	170	DM6
35	DQ11	103	CK0#	171	DQS6	36	DQ15	104	CK1#	172	VSS
37	VSS	105	VDD	173	VSS	38	VSS	106	VDD	174	DQ54
39	DQ16	107	A10	175	DQ50	40	DQ20	108	BA1	176	DQ55
41	DQ17	109	BA0	177	DQ51	42	DQ21	110	RAS#	178	VSS
43	VSS	111	VDD	179	VSS	44	VSS	112	VDD	180	DQ60
45	DQS2#	113	WE#	181	DQ56	46	DM2	114	S0#	182	DQ61
47	DQS2	115	CAS#	183	DQ57	48	VSS	116	ODT0	184	VSS
49	VSS	117	VDD	185	VSS	50	DQ22	118	VDD	186	DQS7#
51	DQ18	119	A13	187	DM7	52	DQ23	120	NC	188	DQS7
53	DQ19	121	NC	189	VSS	54	VSS	122	NC	190	VSS
55	VSS	123	VDD	191	DQ58	56	DQ28	124	VDD	192	DQ62
57	DQ24	125	NC	193	DQ59	58	DQ29	126	VREFCA	194	DQ63
59	DQ25	127	VSS	195	VSS	60	VSS	128	VSS	196	VSS
61	VSS	129	DQ32	197	SA0	62	DQ3#	130	DQ36	198	EVENT#
63	DM3	131	DQ33	199	VDDSPD	64	DQ3	132	DQ37	200	SDA
65	VSS	133	VSS	201	SA1	66	VSS	134	VSS	202	SCL
67	DQ26	135	DQS4#	203	VTT	68	DQ30	136	DM4	204	VTT

J4 – LVDS Interface
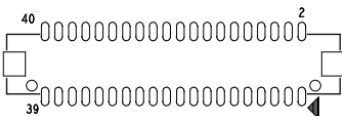
Pin #	Signal Description	Pin #	Signal Description
1	+LCD (+5V/ +3.3V)	2	+LCD (+5V/ +3.3V)
3	+LCD (+5V/ +3.3V)	4	+LCD (+5V/ +3.3V)
5	Ground	6	Ground
7	Ground	8	Ground
9	A_RxIn0-	10	B_RxIn0-
11	A_RxIn0+	12	B_RxIn0+
13	Ground	14	Ground
15	A_RxIn1-	16	B_RxIn1-
17	A_RxIn1+	18	B_RxIn1+
19	Ground	20	Ground
21	A_RxIn2-	22	B_RxIn2-
23	A_RxIn2+	24	B_RxIn2+
25	Ground	26	Ground
27	A_CKIN-	28	B_CKIN-
29	A_CKIN+	30	B_CKIN+
31	Ground	32	Ground

33	A_RxIn3-	34	B_RxIn3-
35	A_RxIn3+	36	B_RxIn3+
37	Ground	38	Ground
39	Ground	40	Ground

J5 – Res Touch Panel Interface
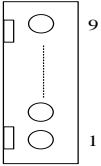
Pin #	Signal Description		
	8-wire	4-wire	5-wire
1	UL(X+)	UL(X+)	UL(X+)
2	UR(Y+)	UR(Y+)	UR(Y+)
3	N/A	N/A	PROBE
4	LR(X-)	LR(X-)	LR(X-)
5	LL(Y-)	LL(Y-)	LL(Y-)
6	X+_DRIVE	N/A	N/A
7	Y+_DRIVE	N/A	N/A
8	X-_DRIVE	N/A	N/A
9	Y-_DRIVE	N/A	N/A

J6 / J12 – Mini PCI Express Socket
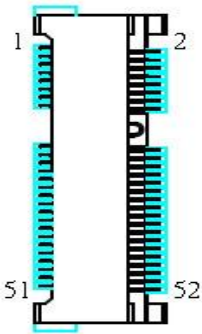
Pin #	Signal Description	Pin #	Signal Description
1	WAKE#	2	+3.3VSB
3	Reserved	4	GND
5	Reserved	6	+1.5VS
7	CLKREQ#	8	Reserved
9	GND	10	Reserved
11	REFCLK-	12	Reserved
13	REFCLK+	14	Reserved
15	GND	16	Reserved
17	Reserved	18	GND
19	Reserved	20	Reserved
21	GND	22	PERST#
23	PERn0	24	+3.3VSB
25	PERp0	26	GND
27	GND	28	+1.5VS
29	GND	30	SMB_CLK
31	PETn0	32	SMB_DATA
33	PETp0	34	GND
35	GND	36	USB_D-
37	GND	38	USB_D+
39	+3.3VSB	40	GND
41	+3.3VSB	42	Reserved
43	GND	44	Reserved
45	CL_CLK	46	Reserved
47	CL_ DATA	48	+1.5VS
49	Controller Link RST#	50	GND
51	Reserved	52	+3.3VSB

J7 – BIOS Socket

Pin #	Signal Description	Pin #	Signal Description
1	CS#	5	SI
2	SO	6	SCLK
3	WP#	7	HOLD#
4	VSS	8	VDD

J8 – PCT Touch
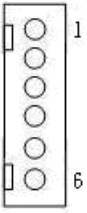
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	Ground
6	Ground

J9/J14/J15 – Internal USB 2.0 Pin Header (co-layout)

Pin1
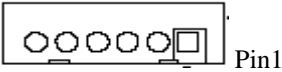
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	Ground
6	Ground

J16– Power / HDD LED
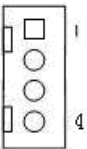
Pin #	Signal Description
1	SATA_LED#
2	+3.3VSB
3	+3.3VSB
4	PWR_LED#

J17 – For JTAG
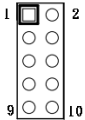
Pin #	Signal Description	Pin #	Signal Description
1	TRST#	2	+3.3VSB
3	TMS	4	RDY#
5	TDI	6	GND
7	TCK	8	GND
9	TDO	10	GND

J18 –TPM / ID-394
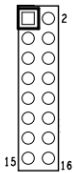
Pin #	Signal Description	Pin #	Signal Description
1	LPC AD0	2	PLT reset#
3	LPC AD1	4	SERIRQ
5	LPC AD2	6	+3.3VS
7	LPC AD3	8	+5VSB
9	LPC Frame#	10	CLKRUN#
11	Debug CLK	12	SMB CLK
13	GND	14	SMB DATA
15	SUS_STAT#	16	+3.3VSB

J19 / J21 – Standard SATA Interface
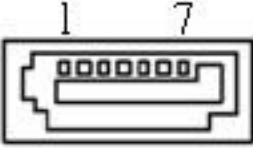
Pin #	Signal Description
1	Ground
2	Tx+
3	Tx-
4	Ground
5	Rx-
6	Rx+
7	Ground

J23 – PS2 KB/MS
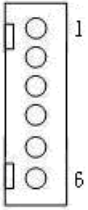
Pin #	Signal Description
1	KBDATA
2	MSDATA
3	Ground
4	+5VSB
5	KBCLK
6	MSCLK

J24 – EC Reset
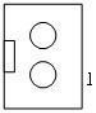
Pin #	Signal Description
1	EC_RESET#
2	GND

J25 – Battery Socket
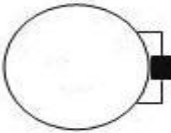
Pin #	Signal Description
1	RTC +3.3V
2	GND

J27 – GPIO Connect
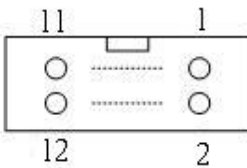
Pin #	Signal Description	Pin #	Signal Description
1	GEN_GPO1	2	GEN_GPI1
3	GEN_GPO2	4	GEN_GPI2
5	GEN_GPO3	6	GEN_GPI3
7	GEN_GPO4	8	GEN_GPI4
9	+5V	10	+5V
11	GND	12	GND

J28 –CAP Front Bezel Button Light Sensor Connect

Pin #	Signal Description
1	+5VSB
2	+3.3VSB
3	KP_SCL
4	KP_SDA
5	PWR_LED#
6	KP_P_LED
7	SATA_LED#
8	GND
9	GND

J29 –Light Sensor Connect

Pin #	Signal Description
1	+5VSB
2	+3.3VSB
3	KP_SCL
4	KP_SDA
5	PWR_LED#
6	KP_P_LED
7	SATA_LED#
8	GND
9	GND

J30 – Internal COM4 Serial Port
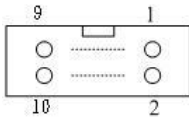
Pin #	Signal Description	Pin #	Signal Description
1	232_DCD#	2	232_DSR#
3	232_SIN	4	232_RTS#
5	232_SOUT	6	232_CTS#
7	232_DTR#	8	232_RI#
9	GND	10	+5VS / +12VS

J31 – Internal COM4 TTL
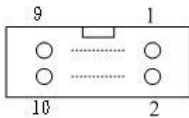
Pin #	Signal Description	Pin #	Signal Description
1	DCD#	2	DSR#
3	SIN	4	RTS#
5	SOUT	6	CTS#
7	DTR#	8	RI#
9	GND	10	+5VS

J32 – External USB 3.0 Port
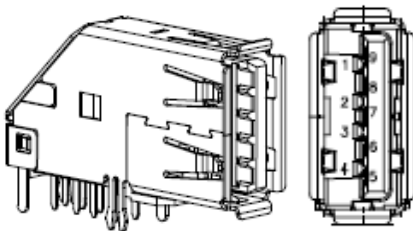
Pin #	Signal Description
1	+5V
2	Data-
3	Data+
4	GND
5	SSRX-
6	SSRX+
7	GND
8	SSTX-
9	SSTX+

J33, J42 – RIGHT / LEFT CH for Speaker

Pin #	Signal Description	
	J33 (RIGHT CH)	J42 (LEFT CH)
1	ROUT+	LOUT+
2	ROUT-	LOUT-

J34 –External RJ45 Ethernet Port
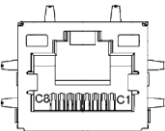
Pin #	Signal Description
1	Data0+
2	Data0-
3	Data1+
4	Data2+
5	Data2-
6	Data1-
7	Data3+
8	Data3-

J35 – Power Switch connect
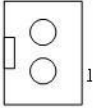
Pin #	Signal Description
1	Power ON
2	GND

J36,J37,J38 – External USB 2.0 Port
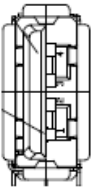
Pin #	Signal Description
1	+5V
2	USB_D-
3	USB_D+
4	GND

J39 – External DVI-I Connector
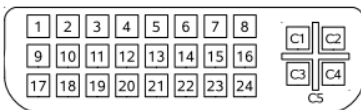
Pin #	Signal Description	Pin #	Signal Description
1	DVI Data2-	2	DVI Data2+
3	GND	4	NC
5	NC	6	DVI SCL

7	DVI SDA	8	VSYNC
9	DVI Data1-	10	DVI Data1+
11	GND	12	NC
13	NC	14	+5V
15	GND	16	Hot Plug Detect
17	DVI Data0-	18	DVI Data0+
19	GND	20	CRT_CLK
21	CRT_DATA	22	GND
23	DVI Clock+	24	DVI Clock-
C1	CRT_R	C2	CRT_G
C3	CRT_B	C4	HSYNC
C5	GND	C6	GND

J40 / J41 – External Audio Phone Jack
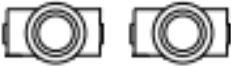
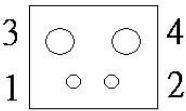| Pin #	Signal Description
J40	Line Out (stereo) Green
J41	Microphone (stereo) Pink

J43 – Internal COM3 Serial Port
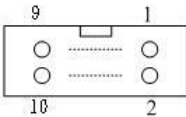
Pin #	Signal Description	Pin #	Signal Description
1	232_DCD#	2	232_DSR#
3	232_SIN	4	232_RTS#
5	232_SOUT	6	232_CTS#
7	232_DTR#	8	232_RI#
9	GND	10	+5VS

J44 – Reset Button

Pin #	Signal Description
1	SYS_RESET#
2	GND
3	GND
4	GND

J45 – Reset connector
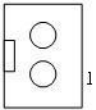
Pin #	Signal Description
1	SYS_RESET#
2	GND

J46 – External COM2 Connector
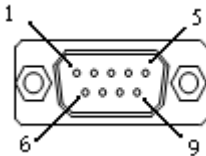
Pin #	Signal Description	Pin #	Signal Description
1	232_DCD	2	232_SIN
3	232_SOUT	4	232_DTR
5	GND	6	232_DSR
7	232_RTS	8	232_CTS
9	232_RI	10	Not Used

J47 – External COM1 Connector
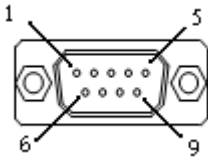
Pin #	Signal Description		
	RS-232	RS-422	RS-485
1	Carrier Detect	Transmit Data -	Transmit Data -
2	Receive Data	Transmit Data +	Transmit Data +
3	Transmit Data	Receive Data +	NC
4	Data Terminal Ready	Receive Data -	NC
5	Ground	NC	NC
6	Data Set Ready	NC	NC
7	Request to Send	NC	NC
8	Clear to Send	NC	NC
9	Ring Indicator	NC	NC

B. L type Stand (optional kit)

Key Features and Benefits

- Similar color as WMP series
- 10 degree tilt down and 30 degree tilt up solution
- 5,000 times hinge life cycle

Specifications:

Weight Capacity:	Max 10kgs
Monitor Mounting Holes	VESA 75*75mm or 100*100mm
Application using	Desktop stand

C. Battery Pack Specifications (optional kit)

Battery Model133	BP-WMP226 22/3900 SA
Battery Type	Li-ion 2S2P
Minimum Capacity	3900 mAh
Nominal Voltage	7.2 V
Max. Charge Voltage	8.4V
Cut Off Voltage	6.0v
Suggested Charge Current (Max.)	2A
System Continuous Discharging Current (Max.)	16.6 A
The End of Charge Condition	150 mA/min
Discharge Protection	UVP/OCP
Charge Protection	OVP/OTP
Self-discharge Rate	10uA ~800 uA
Dimensions	133 x 47 x 21mm
Weight	240g max.
Ambient Temperature	0°C ~ +40°C
Storage Temperature	-20°C ~ +60°C
Energy	28.08Wh
Backup	53 W/ 40 min

D. How to disable battery when system hang up -WMP-153

1. When system hang up ,press power button 10 seconds to turn off system . If you can't power on system by power button. Please follow below step to reset system.
2. Remove AC power cord, then the battery LED will on.
3. Press volume up key 10 seconds, then all LED will turn on and turn off

4. Plug in AC power cord again, press power button then you can power on system.

E. Scrap Computer Recycling

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.wincomm.com.tw/contact.aspx

Note:
Follow the national requirement to dispose unit