WMP-155

Medical Panel PC

USER'S MANUAL

V1.1

Version Change History

Date	Version	Description	Remark
2019/7/15	1.0	First release	Cosa
2020/11/12	V1.1	Modify Hotkey information Modify Contact & Manufacturer information	Cosa

Acknowledgments

- Intel® Celeron 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.
- C&T is a trademark of Chips and Technologies, Inc.
- UMC is a trademark of United Microelectronics Corporation.
- ITE is a trademark of Integrated Technology Express, Inc.
- Intel is a trademark or registered trademark of Intel Corporation.
- Winbond is a registered trademark of Winbond Electronics Corporation.

All other product names or trademarks are properties of their respective owners.

FCC Class B

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 18 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-155 is intended to serve as a medical monitor which is designed for general purpose for hospital environment. It shall not be used for life-supporting system.

Intended User profile
The equipment is intended for infant or adults by profession Health care professionals.

Greeting & Setup
Thank you for purchasing the WMP-155 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. For plug-in equipment, the power outlet socket must be located near the equipment and must be easily accessible.
5. Do not overload the AC outlets or extension cords. Electrical shocks or fires may occur from overloading.
6. Do not touch the power source during a thunderstorm.
7. If your hands are wet, do not touch the plug.

8. 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.
9. If the unit is not going to be in use for an extended period of time, remember to disconnect the unit.
10. 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.

Operating principle

- A Medical Panel PC has four main components: the arithmetic logic unit (ALU), the control unit, the memory, and the input and output devices (collectively termed I/O). These parts are interconnected by buses, often made of groups of wires.
- The control unit, ALU, and registers are collectively known as a central processing unit (CPU).
- Inside each of these parts are thousands to trillions of small electrical circuits which can be turned off or on by means of an electronic switch. Each circuit represents a bit (binary digit) of information so that when the circuit is on it represents a "1", and when off it represents a "0" (in positive logic representation). The circuits are arranged in logic gates so that one or more of the circuits may control the state of one or more of the other circuits.

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.

Error message / Troubleshooting

No power	1. Connect the AC adapter to the computer, and then plug it into an AC outlet. 2. Turn on the computer.

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
	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.
 YYYY-MM	Date of Manufacture

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 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.

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

Caution - Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

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 & Manufacturer information:

Wincomm Corporation
3F, No.14, Prosperity Road II, Science-Based Industrial Park, Hsinchu, Taiwan 300, R.O.C
TEL: (886) 3 5780000
E-Mail: sales_support@wincomm.com.tw

Importer & Authorized Representative:

ASINFO
55 Avenue Edouard Vaillant, 93310 Le Pré-Saint-Gervais, France
TEL.: +33 01 48 10 11 20
E-Mail: ridha@asinfo.com

Table of Contents

Introduction

Product Description

The WMP-155 Medical Panel PC is based on Intel Celeron processor, it accommodates one 2.5" SATA III hard disk drive and up to 8GB DDR3L SODIMM.

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

The WMP-155 includes all the features of a powerful computer into a slim and attractive chassis.
WMP-155 has a 15.6" 400nits TFT display with 1366 x 768 resolutions.

The WMP-155 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-155 into your system can achieve both cost-saving and efficient improvements.

Common applications include LIS (Lab Information Systems) and Electronic Medical Record. The WMP-155 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-155 Medical Panel PC unit
- 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 100mm use)

Features

- Anti-bacteria (MRSA) plastic housing
- 15.6" HD (1366 X 768) Diagnostic Panel
- Intel® Apollo Lake SoC Processor J3455
- Single Channel DDR3L SODIMM up to 8GB
- P.cap Multi-Touch Screen
- Easy wipe surfaces with no internal corners
- IP65 at front side, IPx1 for whole system
- Fanless solution
- One M.2 E type support WLAN solution
- Supports PCI-E x1 riser card (option)
- USB/LAN/COM 4KV isolated module (optional order configuration)
- Optional Full HD capture card
- Optional WLAN/Bluetooth module with inner antenna, 5M pixel auto focus camera, desktop stand and RFID solution

Specifications

Hardware Specifications

Display	15.6" 400 nits 1366x768 TFT LCD
CPU Support	*FCBGA1296 Intel® Apollo Lake SoC Processor (10W max)*
Disk Drive Space	2.5" Hard Disk Drive (SATA III)
Expansion	One Mini PCIe slot One M.2 slot One PCIE Slot
Button	Power Button // Mute // Audio adjustment (+)(-) // brightness (+)(-) // LCD on/off // Clean me(auto release after 1 minute) // *Dis-webcam* // *Fn*

I/O	**Standard version** PCI-E x 1 slot *1(optional riser card) RS-232 port *1 + RS-232/422/485 port *1 + Optional RS-232/422/485 *2 (COM 3/4) USB 3.0 port *2, USB 2.0 port *2 + Optional USB 2.0 port *2 (USB5/6) DC-in w/ lock function *1 Gigabit LAN RJ-45 Connectors *2 DP output *2 Sound: Line-in *1 Line-out *1 2W Speaker *2 **Isolated version** Isolated 4KV USB2.0 *1 Isolated 4KV GigaLAN *1 Isolated 4KV RS-232 *1, RS-232/422/485 *1 (The isolated ports verified through Dielectric test 4000Vac only) RS-232 port *1 + RS-232/422/485 port *1 + Optional RS-232/422/485 *2 (COM 3/4) USB 3.0 port *2, USB 2.0 port *2 + Optional USB 2.0 port *2 (USB5/6) DC-in w/ lock function *1 Gigabit LAN RJ-45 Connectors *2 DP output *2 Sound: Line-in *1 Line-out *1 2W Speaker *2

LCD Specifications

Model Name	WMP-155
Display Type	15.6” LED
Max. Resolution	1366 x 768
Contrast Ratio	500 : 1 (Typ)
Pixel Pitch (um)	252 x 252
Luminance (cd/m2)	400 (TYP)
Viewing Angle	170°(H) 160°(V)

Cautions:

Continuous displaying fixed pattern may induce image sticking. It's recommended to use screen saver or moving content periodically if fixed pattern is displayed on the screen.

Power Adapter Specifications

Power	Close-frame
MFR	Sinpro
Type	HPU101-105
Input Rating	AC 100 ~ 240 V, 1.2 – 0.5A @ 47 ~ 63 Hz
Output Rating	DC 12V, 8.33A
MTBF	100,000 hrs operation at 25°C
Classification	Power by Class I certified power adapter. No applied part.
Mode of operation	Continuous operation
System input rating	DC 12V, 6.7A

Mechanical Specifications

Architecture	Close-frame
Front Bezel	PCT touch screen / PET bezel with resistive touch screen
Color	Medical-white
Mounting / Holder	VESA 100mm
Construction	3mm ABS + PC TYPE Plastic housing
Dimension (WxHxD)	WMP-155 : 430 x 300 x 90 mm
Net Weight	*WMP-155 : 6.7 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)
EMI / Safety	CE / FCC / VCCI Class B/UL 60601-1/EN 60601-1
Noise	Fanless

Touch Screen

Configuration 1 - P.cap touch (WMP-155)

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-155 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-155 should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11		The model WMP-155 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-155 is suitable for use in all establishments, including

Harmonic emissions IEC 61000-3-2		domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations/ flicker emissions IEC 61000-3-3		

Recommended separation distances between portable and mobile RF communications equipment and the model WMP-155

The model WMP-155 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the model WMP-155 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the model WMP-155 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 2.7 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-155 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-155 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	±8 kV contact ±15 kV air	±8 kV contact ±15 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	0% *U*T (100 % dip in *U*T) for 0.5 cycle 0 % *U*T (100 % dip in *U*T) for 1 cycles 70 % *U*T (30 % dip in *U*T) for 25 cycles 0 % *U*T (100 % dip in *U*T) for 250 cycles	0 % *U*T (100 % dip in *U*T) for 0.5 cycle 0 % *U*T (100 % dip in *U*T) for 1 cycles 70 % *U*T (30 % dip in *U*T) for 25 cycles 0 % *U*T (100 % dip in *U*T) for 250 cycles	Mains power quality should be that of a typical commercial or hospital environment. If the user of the model WMP-155 requires continued operation during power mains interruptions, it is recommended that the model WMP-155 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m	30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE *U*T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration – electromagnetic immunity

The model WMP-155 is intended for use in the electromagnetic environment specified below. The customer or the user of the model WMP-155 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 2.7 GHz	Vrms V/m	Portable and mobile RF communications equipment should be used no closer to any part of the model WMP-155, 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 2.7 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: 

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.

[a] 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-155 is used exceeds the applicable RF compliance level above, the model WMP-155 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-155.

[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-155 with a dry clean cloth.
2. Operate with manufacturer's instructions or hospital protocol.

Cautions:

- Do not immerse or rinse the WMP-155 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-155 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 (only mounting with VESA hole 100*100mm). Standard use for the system is land scape mode.

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

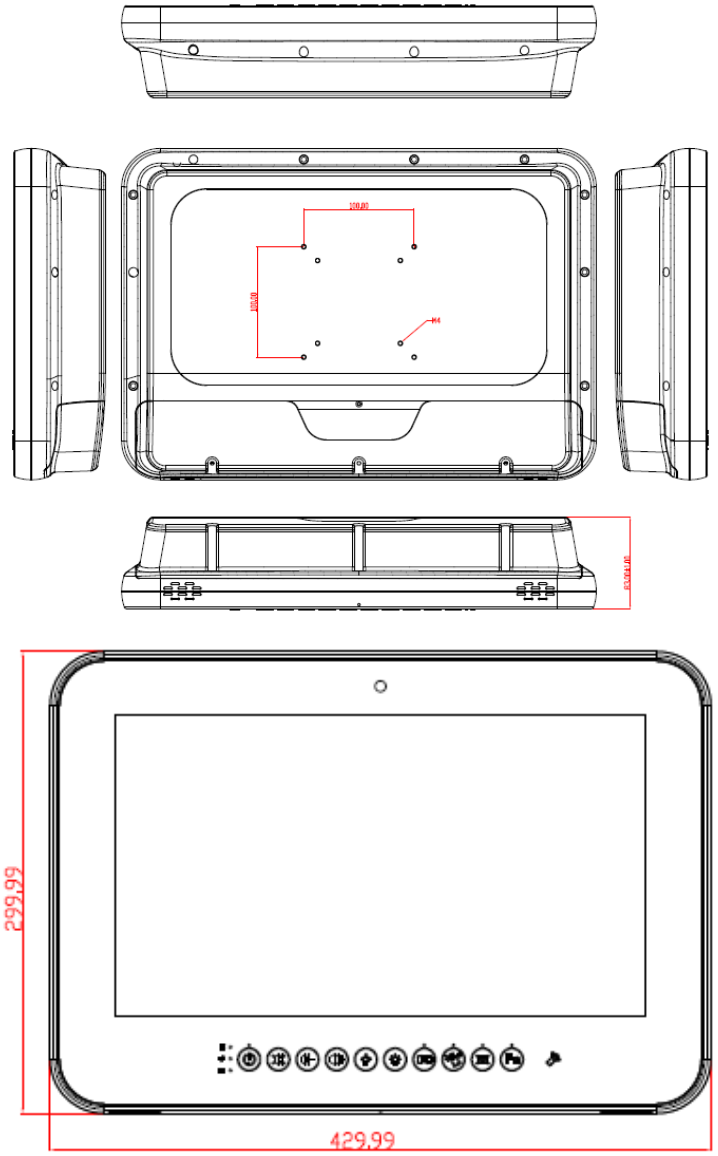
(5). If necessary, run the BIOS SETUP programs to configure the system.

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.

Notice:
The installation is only to be carried out by manufacturer trained and authorized personnel.

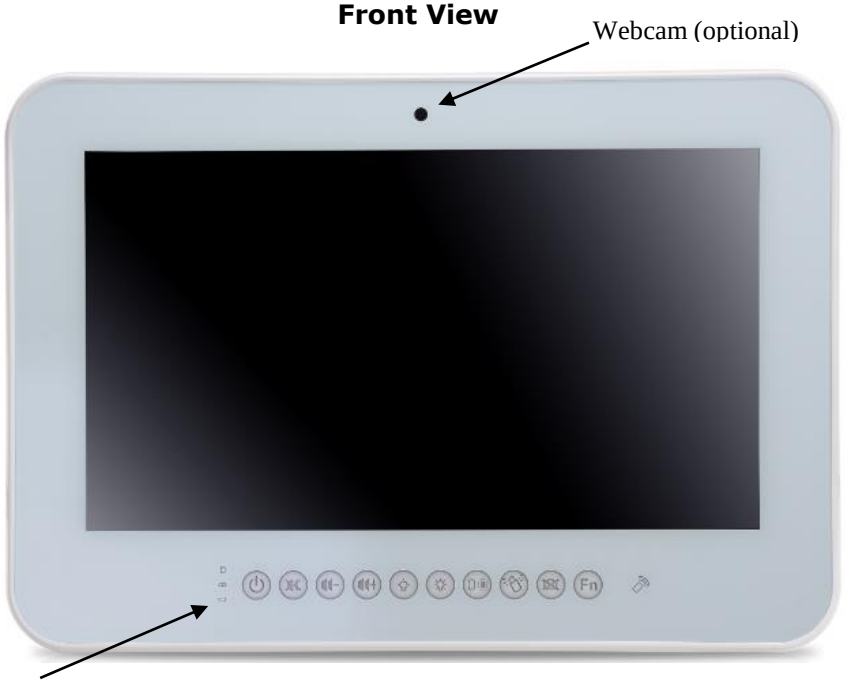
Dimension

WMP-155
(VESA Mount Screw type: M4 x 10mm)



System View

Front View



Hotkey and LED definition at front panel

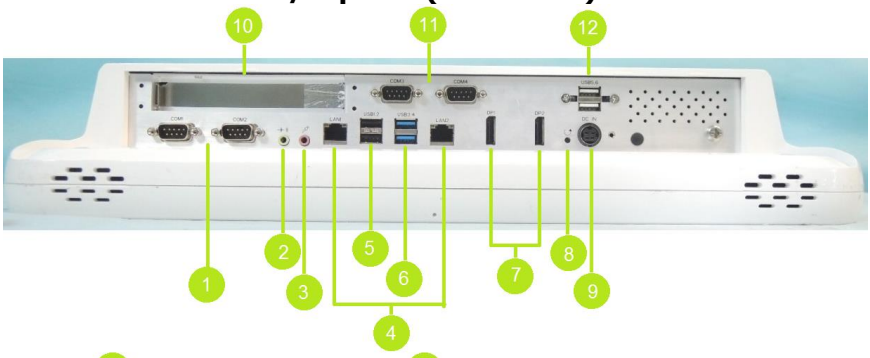
Located on Touch screen bottom side, from left to right, front view
1-1. Up. HDD: Amber
1-2 Down. Battery1(Green) & Battery2(Amber):

	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 (-)

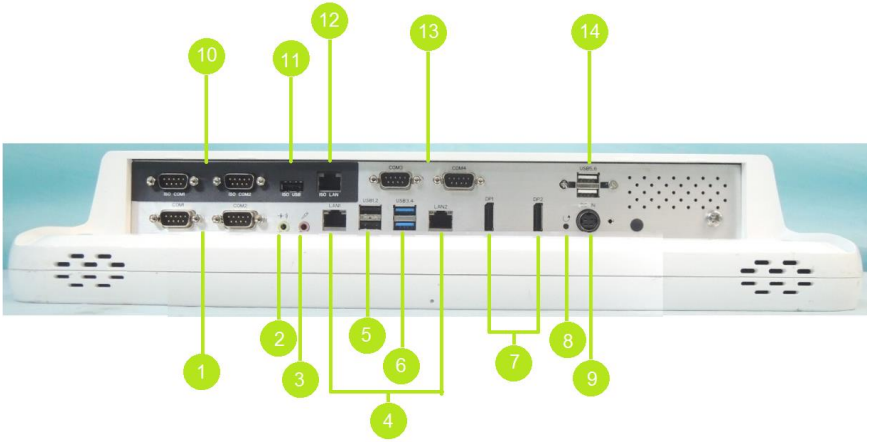
5. Volume adjustment (+)
6. Brightness (-)
7. Brightness (+)
8. LCD on/off (with LED status indicator: LCD ON: Dark, LCD OFF: Green)
9. Clean me (with LED status indicator: ON: Amber, OFF: dark)
   a. Keep on contacting 5 seconds to active
   b. keep contacting 5 seconds to release
   c. auto release 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-155)



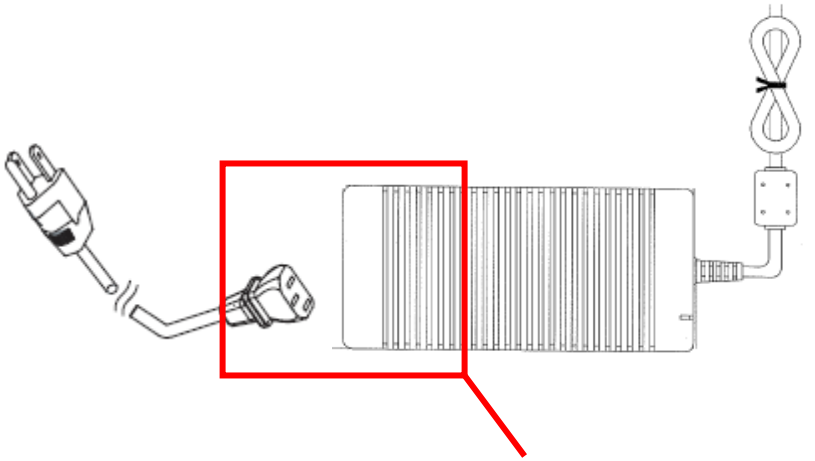
1. COM x2
2. Line-out
3. Micropone-in
4. LAN x2
5. USB 2.0 x2
6. USB 3.0 x2
7. DP x2
8. Reset
9. DC-in
10. PCI-E/PCI expansion
11. COM 3/4 (Optional)
12. USB 5/6 (Optional)

Isolated I/O parts (WMP-155)



1	COM x2	8	Reset
2	Line-out	9	DC-in
3	Micropone-in	10	Isolation COM x2
4	LAN x2	11	Isolation USB x1
5	USB 2.0 x2	12	Isolation LAN x1
6	USB 3.0 x2	13	COM 3/4 (Optional)
7	DP x2	14	USB 5/6 (Optional)

Disconnect Device



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

Turn off the system:

Turning off WMP-155 properly is important for system reliability.
1. On the start menu, click "Shut down" and select "OK"

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

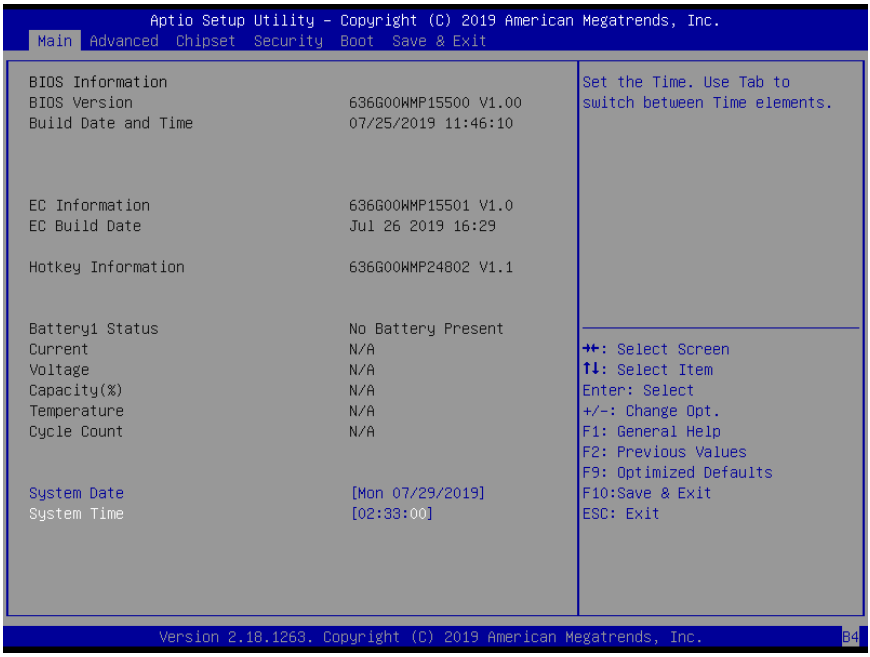
The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the AMI BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If 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:

Press <DEL> to Enter Setup

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



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

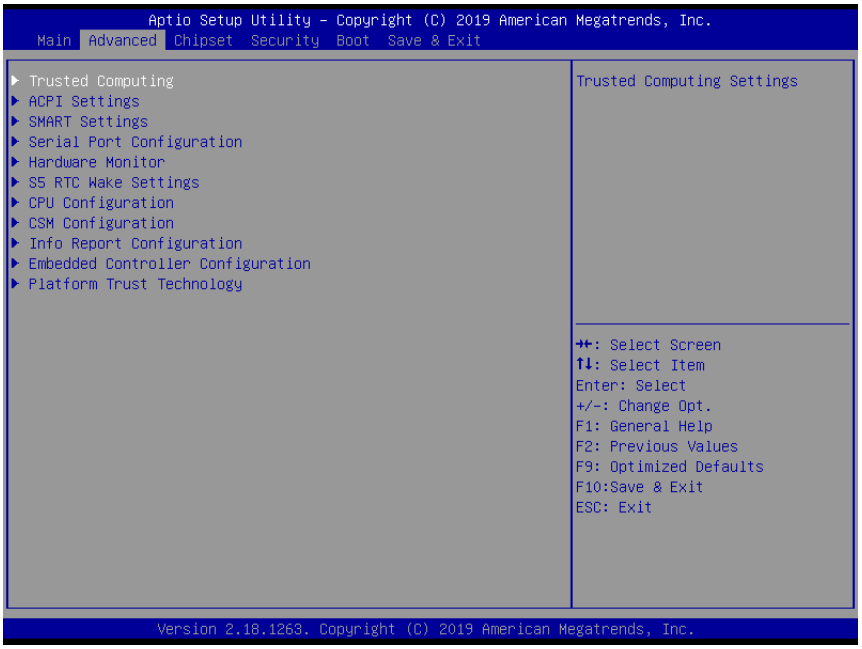
System Date

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



Trusted Computing

Trusted Computing settings

Security Device Support

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 (OS/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 SUSPEND button is pressed.

SMART Setting

System SMART Settings

SMART self Test

Run SMART Self Test on All HDDs during POST.

Serial Port Configuration

System Super IO Chip Parameters..

Serial Port 1 Configuration

Set Parameters of Serial Port 1 (COM).

Serial Port

Enable or Disable Serial Port (COM).

Function

Select RS232,RS422,RS485 function

Termination(120 Ohm)

RS-422/485 Receiver Resistance

Ring Mode

Select Signal RING Mode

Change Settings

Select an optimal settings for Super IO Device.
Set Parameters of Serial Port 1.

Device Mode

Select an optimal settings for super IO Device.

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.

Serial Port 5 Configuration

Serial Port

Enable or Disable Serial Port (COM).

Change Settings

Select an optimal settings for super IO Device.

Serial Port 6 Configuration

Serial Port

Enable or Disable Serial Port (COM).

Change Settings

Select an optimal settings for super IO Device.

Hardware Monitor

Monitor hardware status

Panel heating temperature

Panel starts heating when the temperature below setting.

Mainboard heating temperature

Mainboard starts heating when the temperature below setting.

S5 RTC wake Settings

Enable system to wake form S5 using RTC alarm

Wake system form 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

CPU Configuration Parameters

CSM Configuration

CSM Configuration :Enable/Disable, Option ROM execution settings, etc.

CSM Support

Enabled /Disable CSM Support.

GateA20 Active

UPON REQUEST - GA20 can be disabled using BIOS services. ALWAYS - do not allow disabling GA20; this option is useful when any RT code is executed above 1MB.

Option ROM Messages

Set display mode for option ROM.

INT19 Trap Response

BIOS reaction on INT19 trapping by Option ROM: IMMEDIATE - execute the trap right away; POSTPONED - execute the trap during legacy boot.

Boot option filter
The option controls Legacy/UEFI ROMs priority
Network
Controls the execution of UEFI and Legacy PXE OpROM
Storage
Controls the execution of UEFI and Legacy Storage OpROM
Video
Controls the execution of UEFI and Legacy Video OpROM
Other PCI devices
Determines OpROM execution policy for devices other than Network, Storage, or Video

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.

Embedded Controller Configuration
Embedded Controller Configuration
Battery off Time
Number of seconds of cut off battery ouput after system shutdowns.\n0~600 second(s)\n0 means disable battery off function.
Lock key long press time
Number of seconds to press lock key to (un)active.1~10 seconds mean press hold time.
Locked Time
Number of minutes to keep lock status.0 Means lock always.1~100 minutes mean lock hold time
Show/hide hidden items
For debug only Show / hide hidden items

Platform Trust Technology
Platform Trust Technology
fTPM
Enable/Disable fTPM.

Chipset

North Bridge

North Bridge Parameters

South Bridge

South Bridge Parameters

Restore on AC Power Loss

Specify what state to go to when power is re-applied after a power failure (G3 state).\nS0 State: System will boot directly as soon as power applied.\nS5 State: System keeps in power-off state until power button is pressed.

Wake On OnBoard Lan

Enable or Disable the wake on onboard lan

Wake On PCIe Devices

Enable or Disable the Wake on PCIe devices

SATA Drives

Press <Enter> to select the SATA Device Configuration Setup options

Chipset SATA

Enables or Disables the Chipset SATA Controller. The Chipset SATA controller supports the 2 black internal SATA ports (up to 3Gb/s supported per port).

SATA Mode Select

Determines how SATA controller(s) operate

SATA Test Mode

Test Mode Enable / Disable

Aggressive LPM Support

Enable PCH to aggressively enter link power state.

Port 0

Enable or Disable SATA Port

SATA Port 0 Hot Plug Capability

If enabled, SATA port will be reported as Hot Plug Capable.

Mechanical Presence Switch

Controls reporting if this port has an Mechanical Presence Switch. Note: Requires hardware support

Spin up Device

If enabled for any of ports Staggerred Spin Up will be performed and only the drives which have this option enabled will spin up at boot. Otherwise all drives spin up at boot.

SATA Device Type

Identify the SATA port is connected to Solid State Drive or Hard Disk Drive

SATA Port 0 Devslp

Enable/Disable SATA Port 0 Devslp. Board rework for LP needed before enalbe

DITO Configuration

Enalbe/Disable DITO Configuration.

Port 1

Enable or Disable SATA Port

SATA Port 1 Hot Plug Capability

If enabled, SATA port will be reported as Hot Plug Capable.

Mechanical Presence Switch

Controls reporting if this port has an Mechanical Presence Switch. Note: Requires hardware support

Spin up Device

If enabled for any of ports Staggerred Spin Up will be performed and only the drives which have this option enabled will spin up at boot. Otherwise all drives spin up at boot.

SATA Device Type

Identify the SATA port is connected to Solid State Drive or Hard Disk Drive

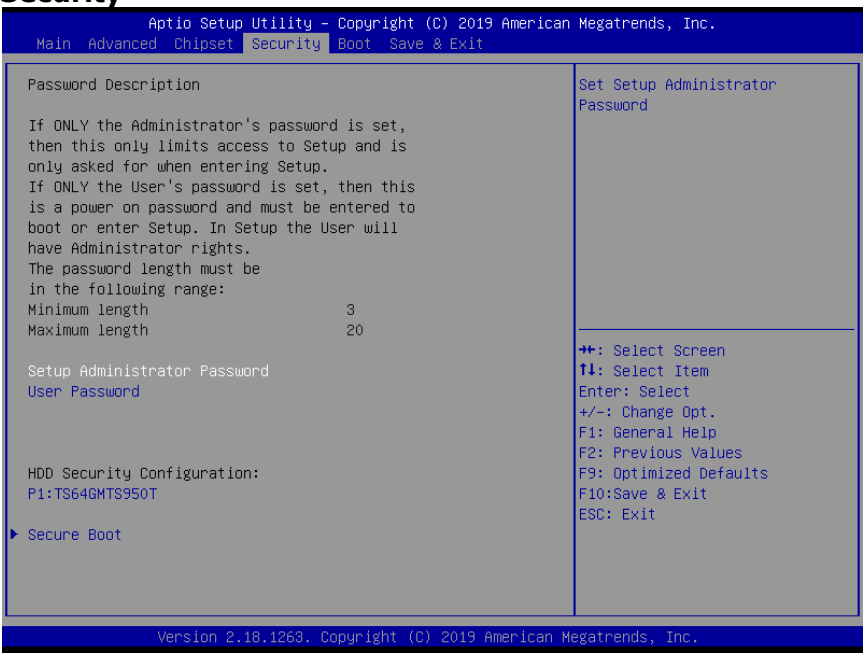
SATA Port 1 Devslp

Enable/Disable SATA Port 0 Devslp. Board rework for LP needed before enalbe

DITO Configuration

Enalbe/Disable DITO Configuration.

Security



Setup Administrator Password

Set Administrator Password.

User Password

Set user Password.

P1 : **********

HDD Security Configuration for selected drive.

Secure Boot

Customizable Secure Boot settings

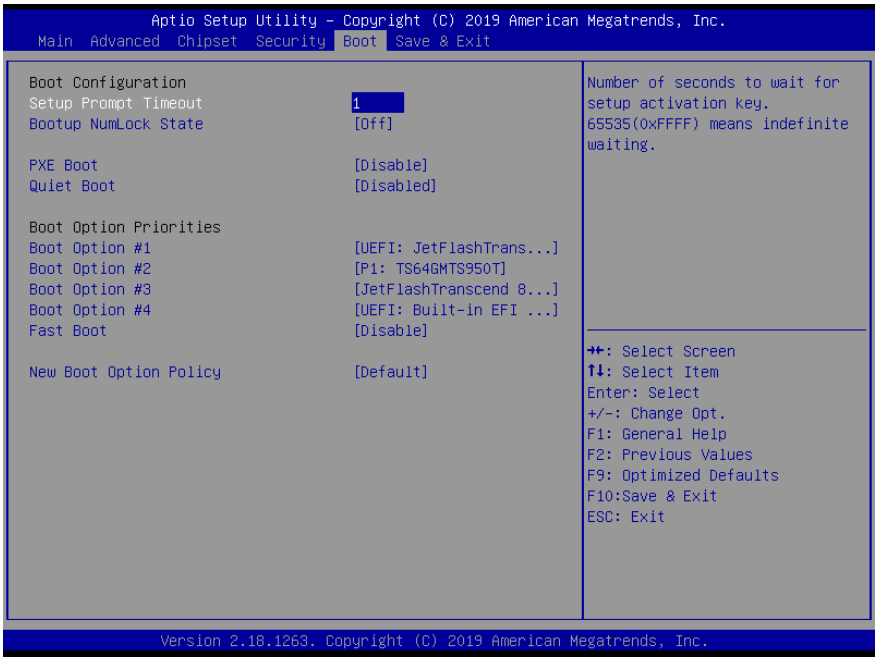
Secure Boot

Secure Boot can be enabled if 1.System running in User mode with enrolled Platform key(PK). 2. CSM function is disabled.

Secure Boot Customization

Secure Boot Mode - Custom & Standard, Set UEFI Secure Boot Mode to STANDARD mode or CUSTOM mode, this change is effect after save. And after reset, the mode will return to STANDARD mode

Boot



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

Legacy PXE Network Boot / Enable / Disable.

Boot Option #1

Sets the system boot order.

Boot Option #2

Sets the system boot order.

Boot Option #3

Sets the system boot order

Boot Option #4

Sets the system boot order

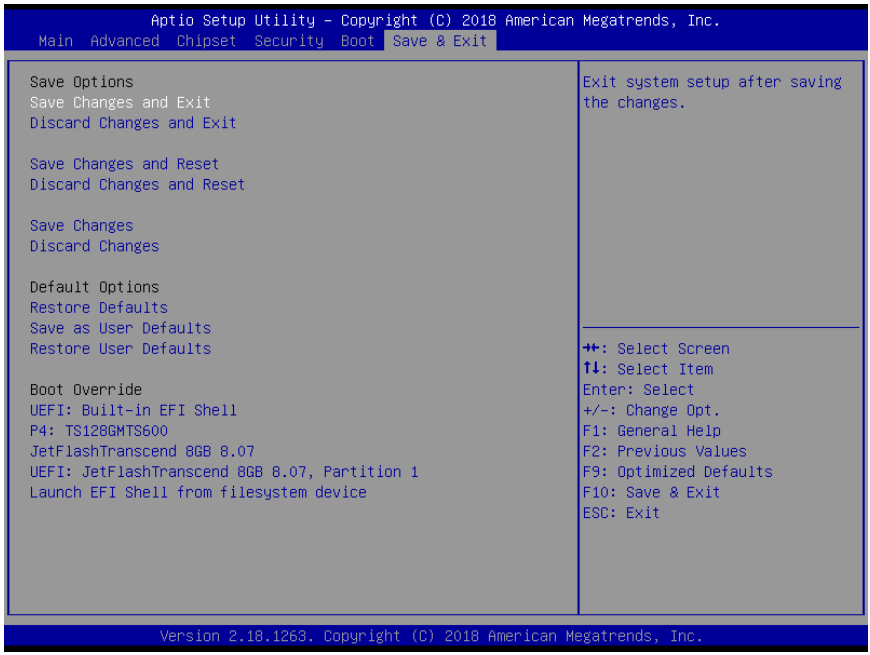
Fast Boot

Enables or disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

New Boot Option

Controls the placement of newly detected UEFI boot options

Save & Exit



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.

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.

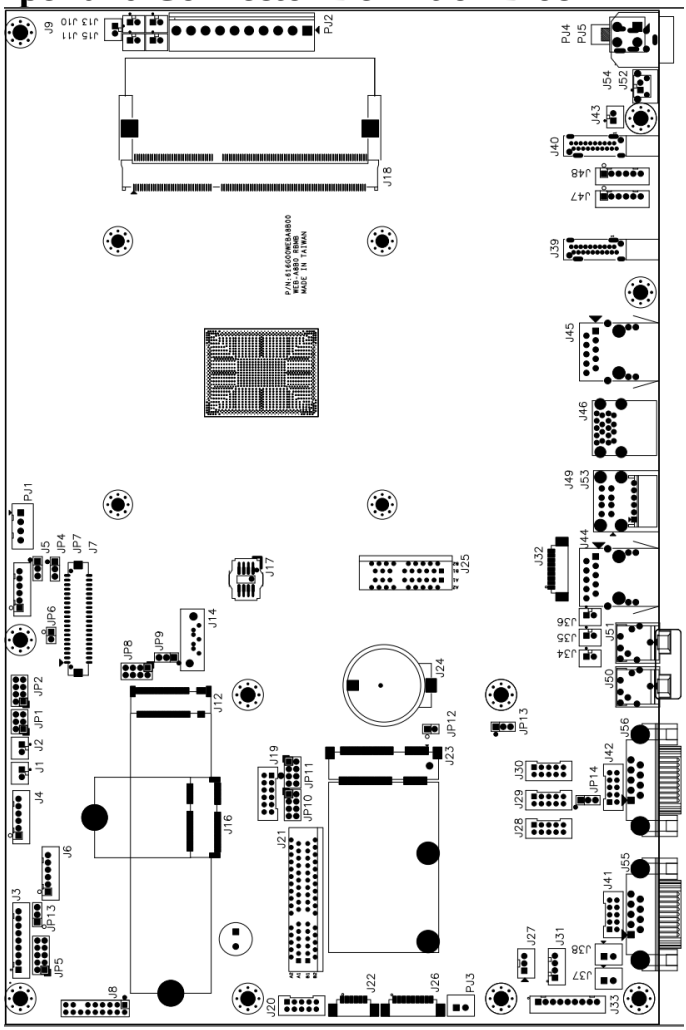
Appendix

A. Jumper settings and Connectors

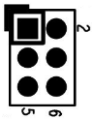
This appendix gives the definitions and shows the positions of jumpers, headers and connectors. All of the configuration jumpers on WMP-155 are in the proper position.

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

Jumper and Connector Definition Block

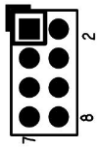


JP1 – Sensor Selection



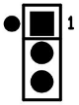
Description	Jumper Setting
No Panel Sensor	***1-2(default)***
No MB Sensor	3-4
MB Sensor	***5-6(default)***

JP2 – LVDS Power Selection



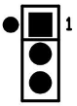
Description	Jumper Setting
+3.3VS(for 10”/12”/15”)	5-6, 7-8
+5VS(for 17”/19”)	***1-2, 3-4 (default)***

JP3 – PCT / RES Touch Selection



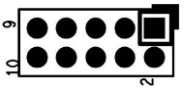
Description	Jumper Setting
PCT Touch	1-2
RES Touch	2-3

JP4 – Backlight Type Selection



Description	Jumper Setting
Analog Inverter	1-2
PWM Inverter	2-3

JP5 – Touch Panel Type Selection

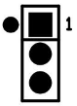


Description	Jumper Setting
3M type	***1-2, 3-4 (default)***
ELO type	5-6,7-8

JP6 – Heater Test Selection

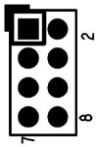
Description	Jumper Setting
Normal	***Open (default)***
Heater Test	1-2

JP7 – Backlight DC Level Selection



Description	Jumper Setting
5V	***NC(default)***
3.3V	1-2
3V	2-3

JP8 –Panel Resolution Selection



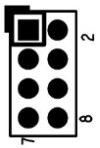
NOTE: Customer can choose different panel by pull high or low of GPIO[0:3].

1-2	3-4	5-6	7-8		
V	V	V		1024X768	6bit
V	V		V	1024X768	8bit
V		V	V	1280X800	6bit
V			V	1280X1024	8bit
V				1366X768	6bit
	V	V	V	1366X768	8bit
			V	1920X1080	8bit

JP9 – SATA / SATADOM Selection

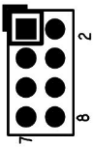
Description	Jumper Setting
SATA	***2-3(default)***
SATA DOM	1-2

JP10 – GPI Settings



Description	Jumper Setting
Dry	On (1-2, 3-4, 5-6, 7-8 short)
Wet	Off (NA)

JP11 – GPO Settings



Description	Jumper Setting
Dry	Off (NA)
Wet	On (1-2, 3-4, 5-6, 7-8)

JP12 – RTC Register Clear Selection

Description	Jumper Setting
Normal	***Open (default)***
RTC Register Clear	1-2

JP13 – CMOS Clear Selection

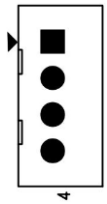
Description	Jumper Setting
Normal Open	***1-2 (default)***
CMOS Clear	2-3

JP14 – COM4 Power Selection

Description	Jumper Setting

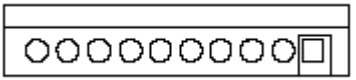
+5VS	*2-3(default)*
+12VS	1-2

PJ1 – HDD Power Connector



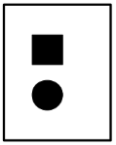
Pin #	Signal Description
1	+12VS
2	GND
3	GND
4	+5VS

PJ2 – Battery Connector



Pin #	Signal Description
1	BATT+
2	BATT+
3	BATT+
4	BATT_T
5	BATT_CLK
6	BATT_DAT
7	BATT_EN#
8	Ground
9	Ground
10	Ground

PJ3 – 5V/1A DC OUT

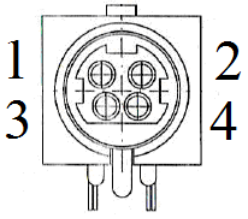


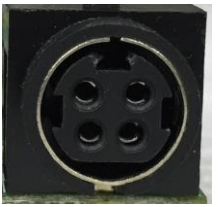
Pin #	Signal Description
1	+5VS
2	GND

- **PJ4 – Power Input Connector**

Pin #	Signal Description
1	GND
2	GND
3	DC In
4	DC In

- **PJ5 – Power Jack**





Pin #	Signal Description
1	DC In
2	DC In
3	GND
4	GND

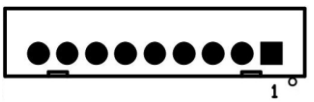
J1 – EC Reset Connector

Pin #	Signal Description
1	WRST#
2	GND

J2 – Panel Temp Sensor Connector

Pin #	Signal Description
1	PANEL_SENSOR
2	GND

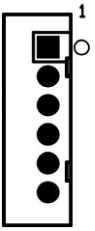
J3 – Resistance Touch Screen Interface



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

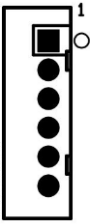
8	X-_DRIVE	N/A	N/A
9	Y-_DRIVE	N/A	N/A

J4 – Internal USB 2.0 Pin Header for Webcam



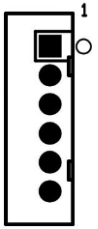
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

J5 – LCD Inverter Wafer Header



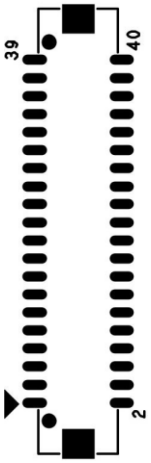
Pin #	Signal Description
1	+12VS
2	+12VS
3	Backlight Control
4	Backlight Enable
5	GND
6	GND

J6 – Internal USB 2.0 Pin Header for PCT Touch



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

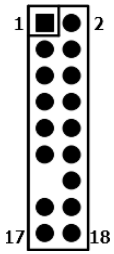
J7 – LVDS Interface



Pin #	Signal Description	Pin #	Signal Description
39	GND	40	GND
37	Ground	38	GND
35	A_TXD3+	36	B_TXD3+
33	A_TXD3-	34	B_TXD3-

31	GND	32	GND
29	A_CLK+	30	B_CLK+
27	A_CLK-	28	B_CLK-
25	GND	26	GND
23	A_TXD2+	24	B_TXD2+
21	A_TXD2-	22	B_TXD2-
19	GND	20	GND
17	A_TXD1+	18	B_TXD1+
15	A_TXD1-	16	B_TXD1-
13	GND	14	GND
11	A_TXD0+	12	B_TXD0+
9	A_TXD0-	10	B_TXD0-
7	GND	8	GND
5	GND	6	GND
3	+LVDS PWR	4	+LVDS PWR
1	+LVDS PWR	2	+LVDS PWR

J8 – TPM2.0

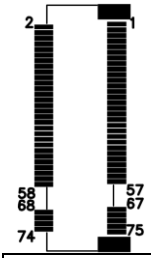


Pin #	Signal Description	Pin #	Signal Description
1	DEBUG_CLK	2	GND
3	LPC_FRAME#	4	SMBCLK
5	PLT_RST#	6	SMBDATA
7	LPC_AD3	8	LPC_AD2
9	+3.3VS	10	LPC_AD1
11	LPC_AD0	12	GND
NA	NA	14	PWRDWN#=SUS_STAT#
15	+3.3VSB	16	SERIRQ
17	GND	18	GND

J9, J10, J11, J13 – Panel Heater Connector

Pin #	Signal Description
1	+12VSB
2	GND

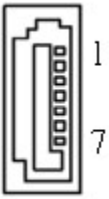
J12 – M.2 SATA SSD Connector



Pin #	Signal Description	Pin #	Signal Description
1	GND	2	+3.3VS
3	GND	4	+3.3VS
5	NC	6	NC
7	NC	8	NC
9	GND	10	RSVD
11	NC	12	+3.3VS
13	NC	14	+3.3VS
15	GND	16	+3.3VS
17	NC	18	+3.3VS
19	NC	20	NC
21	GND	22	NC
23	NC	24	NC
25	NC	26	NC
27	GND	28	NC
29	NC	30	NC
31	NC	32	NC
33	GND	34	NC
35	NC	36	NC

37	NC	38	M2_DVESLP
39	GND	40	NC
41	SATA_RXP	42	NC
43	SATA_RXN	44	NC
45	GND	46	NC
47	SATA_TXN	48	NC
49	SATA_TXP	50	PLT_RST#
51	GND	52	NC
53	NC	54	PCIE_WAKE#
55	NC	56	NC
57	GND	58	NC
59	NA	60	NA
61	NA	62	NA
63	NA	64	NA
65	NA	66	NA
67	NC	68	RSVD / SUS_CLK
69	M2_PEDET	70	+3.3VS
71	GND	72	+3.3VS
73	GND	74	+3.3VS
75	GND		

J14 – Standard SATA / SATA DOM Interface

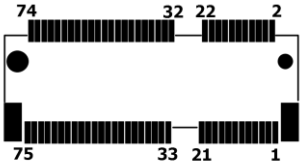


Pin #	Signal Description
1	Ground
2	Tx+
3	Tx-
4	Ground
5	Rx-
6	Rx+
7	Ground / +5VS

J15 – MB Heater Connector

Pin #	Signal Description
1	+12VSB
2	GND

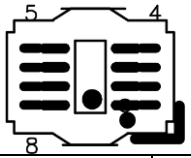
J16 – M.2 E_KEY



Pin #	Signal Description	Pin #	Signal Description
1	GND	2	+3.3V
3	USB_D+	4	+3.3V
5	USB_D-	6	RSVD
7	GND	8	NC
9	NC	10	NC
11	NC	12	NC
13	NC	14	NC
15	NC	16	RSVD
17	NC	18	GND
19	NC	20	NC
21	NC	22	NC
23	NC	24	NA
25	NA	26	NA
27	NA	28	NA
29	NA	30	NA
31	NA	32	NC
33	GND	34	NC
35	PETP0	36	NC
37	PETN0	38	CLINK Reset
39	GND	40	CLINK DATA

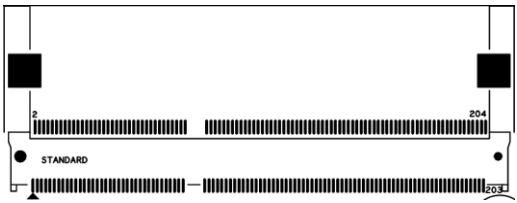
41	PERP0	42	CLINK CLK
43	PERN0	44	RSVD
45	GND	46	RSVD
47	REFCLKP0	48	RSVD
49	REFCLKN0	50	NC / SUSCLK
51	GND	52	PERST0#
53	CLKREQ0#	54	BT_DISABLE2#
55	PEWAKE0#	56	W_DISABLE1#
57	GND	58	NC
59	NC	60	NC
61	NC	62	NC
63	GND	64	NC
65	NC	66	RSVD
67	NC	68	RSVD
69	GND	70	RSVD
71	NC	72	+3.3V
73	NC	74	+3.3V
75	GND		

- **J17 – BIOS Socket**



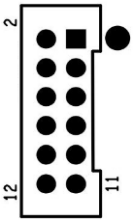
Pin #	Signal Description	Pin #	Signal Description
1	CS0#	5	MOSI
2	MISO	6	SCLK
3	WP	7	HOLD
4	GND	8	+3.3VS

- **J18 – DDR3L SODIMM**



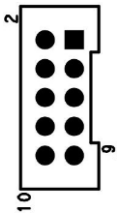
Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol	Pin	Symbol
1	VREFDQ	69	DQ27	137	DQS4	2	VSS	70	DQ31	138	VSS
3	VSS	71	VSS	139	VSS	4	DQ4	72	VSS	140	DQ38
5	DQ0	73	CKE0	141	DQ34	6	DQ5	74	NC	142	DQ39
7	DQ1	75	VDD	143	DQ35	8	VSS	76	VDD	144	VSS
9	VSS	77	NC	145	VSS	10	DQS0#	78	NC	146	DQ44
11	DM0	79	BA2	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

- **J19 – GPIO Connect**



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

J20 – 80 Port



Pin #	Signal Description	Pin #	Signal Description
1	LPC_AD0	2	+5VS
3	LPC_AD1	4	+3.3VS
5	LPC_AD2	6	L80HLAT
7	LPC_AD3	8	L80LLAT
9	GND	10	GND

J21 – PCIE X4 Slot for ISO Interface

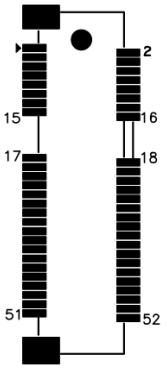
Pin #	Side B	Side A	Pin #	Side B	Side A
1	+5VSB	+3.3VSB	17	Ground	USBPN
2	+5VSB	+3.3VSB	18	LPC_UART24M	Ground
3	+5VSB	+3.3VSB	19	Ground	Ground
4	+5VSB	+3.3VSB	20	Ground	Ground
5	+5VSB	+3.3VSB	21	Ground	Ground
6	+5VSB	+3.3VSB	22	Ground	Ground
7	Ground	Ground	23	PCIE_RXN	Ground
8	LPC_AD0	+5VS	24	PCIE_RXP	ISOCOM_GPO2
9	LPC_AD1	+5VS	25	Ground	ISOCOM_GPO3
10	LPC_AD2	+3.3VS	26	Ground	PCIE1_CLKRQ#
11	LPC_AD3	ISOCOM_GPO1	27	PCIE_TXN	Ground
12	LPC_FRAME#	USB_PWREN	28	PCIE_TXP	Ground
13	PLT_RST#	Ground	29	Ground	PCIE1_CLKN
14	SERIRQ	Ground	30	PCIE_WAKE#	PCIE1_CLKP
15	Ground	Ground	31	Ground	Ground
16	UARTCLK_24M	USBPP	32	Ground	Ground

J22 – Light Sensor Connect

Pin #	Signal Description
1	+3.3VS
2	NC
3	Ground
4	SMBCLK
5	LIG_SEN_INT#

6	SMBDATA

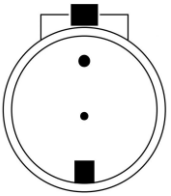
J23 – Mini PCI Express



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	NC / CL_CLK	46	Reserved

47	NC / CL_ DATA	48	+1.5VS
49	NC / Controller Link RST#	50	GND
51	Reserved	52	+3.3VSB

J24 – Battery Socket



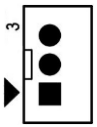
J25 – PCIE X1 Slot

Pin #	Side B	Side A	Pin #	Side B	Side A
1	+12VS	RSVD	10	+3.3VSB	+3.3VS_PCIE
2	+12VS	+12VS	11	PCIE_WAKE#	PCIE_RST#
3	+12VS	+12VS	12	RSVD	GND
4	GND	GND	13	GND	CLKP
5	SMBCLK	RSVD	14	TXP0	CLKN
6	SMBDATA	RSVD	15	TXN0	GND
7	GND	RSVD	16	GND	RXP0
8	+3.3VS_PCIE	RSVD	17	RSVD	RXN0
9	RSVD	+3.3VS_PCIE	18	GND	GND

J26 – CAP Front Bezel Button

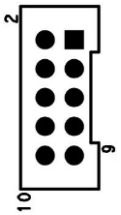
Pin #	Signal Description
1	+5VS_TOUCH
2	+3.3V_TOUCH
3	KP_SCL
4	KP_SDA
5	PWR_LED#
6	KP_P_LED
7	SATA_LED#
8	GND
9	GND

J27 – Heater Error / Heating LEDs



Pin #	Signal Description
3	+3.3V_ALWAYS
2	HEATER_LED#
1	ERROR_LED#

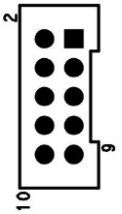
J28 – Internal COM3 Serial Port



Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#

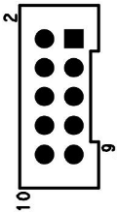
10	NA / +5VS	9	GND

J29 – Internal COM4 TTL Serial Port



Pin #	Signal Description	Pin #	Signal Description
2	DSR#	1	DCD#
4	RTS#	3	SIN
6	CTS#	5	SOUT
8	RI#	7	DTR#
10	NA / +5VS	9	GND

J30 – Internal COM4 Serial Port



Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	NA / +5VS	9	GND

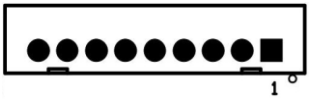
J31 – Power / HDD LED

Pin #	Signal Description
1	SATA_LED#
2	+3.3VSB
3	+3.3VSB
4	PWR_LED#

J32 – PoE LAN

Pin #	Signal Description
1	GND
2	MDIP0
3	MDIN0
4	MDIP1
5	MDIP2
6	MDIN2
7	MDIN1
8	MDIP3
9	MDIN3

J33 – Mechanical Hotkey



Pin #	Signal Description
1	PWR_SW#
2	+3.3VSB
3	VOL+_BTN#
4	VOL-_BTN#
5	GND
6	BLKT+_BTN#
7	BLKT-_BTN#
8	+3.3VSB
9	PWRLED#

J34 – Internal MIC Connect

Pin #	Signal Description
1	MIC_R/ MIC_L
2	GND

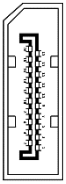
J35, J36 –LEFT / RIGHT CH for Speaker.

Pin #	Signal Description	
	J36 (LEFT CH)	J35 (RIGHT CH)
1	LOUT+	ROUT+
2	LOUT-	ROUT-

J37, J38 – Reading Light Connector

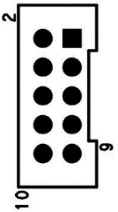
Pin #	Signal Description
1	+12VSB
2	GND

J39,J40 – DisplayPort Interface



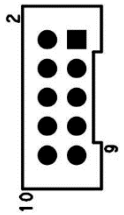
Pin #	Signal Description	Pin #	Signal Description
1	ML_LANE0+	11	GND
2	GND	12	ML_LANE3-
3	ML_LANE0-	13	CONFI G1
4	ML_LAN1+	14	CONGI G2
5	GND	15	AUX_CH+
6	ML_LAN1-	16	GND
7	ML_LANE2+	17	AUX_CH-
8	GND	18	HOT PLUG
9	ML_LANE2-	19	RETURN
10	ML_LANE3+	20	+3.3VS

J41 – Internal COM1 Serial Port



Pin #	Signal Description		
	RS-232	RS-422	RS-485
1	232_DCD#	TX D-	DATA-
2	232_DSR#	--	--
3	232_SIN	TX D+	DATA+
4	232_RTS#	--	--
5	232_SOUT	RX D+	--
6	232_CTS#	--	--
7	232_DTR#	RX D-	--
8	232_RI#	--	--
9	GND	GND	GND
10	NC / +5VS	NC / +5VS	NC / +5VS

J42 – Internal COM2 Serial Port



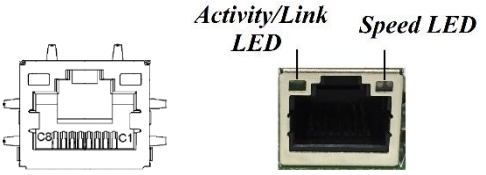
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	NA / +5VS	9	GND

J43 – Power Switch connect

Pin #	Signal Description
1	Power ON

2	GND

J44 / J45 –External RJ45 Ethernet Port



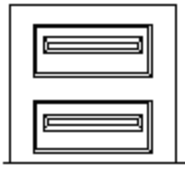
Activity/Link LED

Status	Description
OFF	No Link
Blinking	Data Activity
ON	Link

Speed LED

Status	Description
OFF	10 Mbps
Green	100 Mbps
Orange	1 Gbps

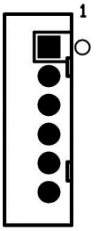
J46 – USB3.0 Port



Pin #	Signal Description	Pin #	Signal Description
1	+5V	10	+5V
2	Data1-	11	Data2-
3	Data1+	12	Data2+
4	GND	13	GND
5	SSRX1-	14	SSRX2-
6	SSRX1+	15	SSRX2+
7	GND	16	GND

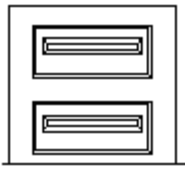
8	SSTX1-	17	SSTX2-
9	SSTX1+	18	SSTX2+

J47 / J48 – Internal USB 2.0 Pin Header



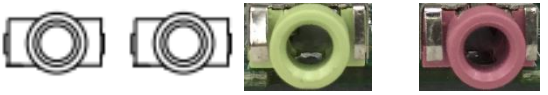
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

J49 – USB2.0 connector



Pin #	Signal Description	Pin #	Signal Description
1	+5VSB	5	+5VSB
2	Data1-	6	Data2-
3	Data1+	7	Data2+
4	GND	8	GND

J50 / J51 – External Audio Phone Jack

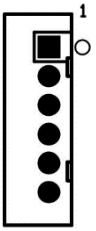


Audio Jack	Signal Description
J50	Line Out (stereo) Green
J51	Microphone (stereo) Pink

J52 – Reset Connector

Pin #	Signal Description
1	SYS_RESET#
2	GND

J53 – Internal USB 2.0 Right-angle Pin Header

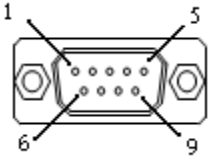


Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

J54 – Reset Button

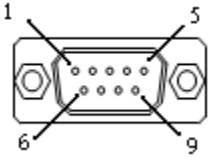
Pin #	Signal Description
1	SYS_RESET#
2	GND
3	GND
4	GND

J55 – External COM1 Connector



Pin #	Signal Description		
	RS-232	RS-422	RS-485
1	DCD	TX D-	DATA-
2	RXD	TX D+	DATA+
3	TXD	RX D+	--
4	DTR	RX D-	--
5	GND	--	--
6	DSR	--	--
7	RTS	--	--
8	CTS	--	--
9	RI#	--	--

J56 – External COM2 Connector



Pin #	Signal Description	Pin #	Signal Description

1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI#	10	--

B. 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

C. How to disable battery when system hang up -WMP-155

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.

D. 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

E. 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	Only install L type stand to VESA 100*100mm holes
Application using	Desktop stand