WTP-9E66 Series

User's Manual

Version V 1.0

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The information contained in this document is subject to change without any notices.

Acknowledgments

Greeting & Setup

Thank you for purchasing the WTP-9E66 Panel PC. We wish that this unit will be durable and reliable in providing your needs. Please follow the instructions below to ensure the unit continues to have high performance

Unpacking

After opening the carton, there will be a 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 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 Monitor display 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 open frame 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 Monitor display 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. Connect the unit to a power source with the same numerical value as spec. label 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 Monitor display 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 Monitor display unit in the presence of high moisture areas.
5. Do not install the Monitor display 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 Monitor display 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. Use only a dry soft cloth or clean room wiper when cleaning the LCD panel or touch screen surface. Use a soft cloth moistened with mild detergent to clean the display housing.
4. Remember to avoid having liquids seep into the internal components.

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 Monitor display 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. If any of the following situations occur turn the power source off and unplug the unit. Then contact a qualified service technician
   i. A liquid was spilled on the unit or objects have fallen into the unit.
   ii. The unit is soaked with liquids.
   iii. The unit is dropped or damaged.

iv. If smoke or strange odor is flowing out of the open frame unit.

v. If the power cord or plug is damaged.

vi. When the functions of the unit are dysfunctional.

4. When part replacement is needed. Make sure service technician uses 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.

Battery Installation

Follow below instructions and notice the caution for replacing and disposing of the RTC Lithium battery CR2032 for safety consideration.

CAUTION:

There is danger of explosion, if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instruction.

WEEE information

	For EU (European Union) member users: According to the WEEE (Waste Electrical and Electronic Equipment) Directive, do not dispose of this product as household waste or commercial waste. Waste electrical and electronic equipment should be appropriately collected and recycled as required by practices established for your country. For information on recycling of this product, please contact your local authorities, your household waste disposal service or the shop where you purchased the product.

The specification is subject to change without notice.

Version Change History

Date	Version	Description	Remark
2017/11/07	V1.0	First release	Ivy

How to Use This Manual

This manual is written for the system integrator, PC technician and knowledgeable PC end user. It describes how to configure your WTP-9E66 Panel PC to meet various operating requirements. The user's manual is divided into three chapters, with each chapter addressing a basic concept and operation of the server board.

Chapter 1: System Overview - presents what you have inside the box and gives you an overview of the product specifications and basic system architecture for the WTP-9E66 Panel PC.

Chapter 2: System Installation - describes how to set up the system.

Chapter 3: BIOS Setup Information - specifies the meaning of each setup parameter, how to get advanced BIOS performance and update to a new BIOS. Additionally, the POST checkpoint list will give you a guide for troubleshooting.

The contents of this manual are subject to change without prior notice. These changes will be incorporated in new editions of this manual.

Touch Chemical Resistance

Chemical Resistance

The active area of the touchscreen is resistant to the following chemicals when exposed for a period of one hour at a temperature of 70℉ (21℃) :

- **Industrial Chemicals:** Acetone, Methylene chloride, Methyl ethyl ketone, Isopropyl alcohol, Hexane, Turpentine, Mineral spirits, Unleaded Gasoline, Diesel Fuel, Motor Oil, Transmission Fluid, Antifreeze.
- **Food Service Chemicals:** Ammonia based glass cleaner, Laundry Detergents, Cleaners (Fantastic, Formula 409, Joy, etc.), Vinegar, Coffee, Tea, Grease, Cooking Oil, Salt.

Specifications

System

CPU	*FCBGA1356 6th generation Intel® Core i7/i5/i3 processor (15W max.)*
Chipset	*SoC*
VGA	*Intel® integrated HD Graphics 520 by CPU*
Audio	*Realtek ALC262 Audio Codec, 2+2 watts power amplifier*
LAN	*Intel i219LM x 1 (Vpro support) + i210AT x 1*
Memory	*Two 2133 MHz DDR4 SODIMM socket support dual Channel, non-ECC, up to 32GB*
I/O	*EC*
Serial ATA	*SATA 3, 600 MB/s transfer rate x 2*
Serial port	*RS232,422,485 x 1 /RS232 x 5*
USB	*External USB 3.0 x 2 (Type A), USB 2.0 x 2 (Type A)*
	Internal USB 2.0(5V) pin head x 4,
WDT	*Generates system reset; 256 segments, 0, 1, 2…255 sec/min.*

BIOS

Brand: AMI
Flash ROM size: 128M bit
Support RTC wakeup /Wake on LAN /Power on after power failure/PnP/ACPI/RTC
Touch Lock AP –please refer Appendix B

15” Display

Brand	***Tianma***
Resolution (pixel)	*1024x768 XGA*
Active Area (mm)	*304.128 (W) x 228.096 (V)*
Outline Dimensions (mm)	*326.5 (H) ×253.5 (V) ×11.8*
Pixel Pitch (mm)	*0.297*
Mode	*TN*
Number of Colors	*16.7M*
View Angle (H/V)	*160/160*
Brightness (cd/m2)	*300*
Contrast Ratio	*600:1*
Response Time (ms) (at 25°C)	*8*
Backlight	*LED*
Weight (g)	*1000*

19" Display

Brand	***AUO***
Resolution (pixel)	*SXGA 1280(x3) x 1024*
Model name	*G190EG01*
Active Area (mm)	*376.32 (H) x 301.06(V)*
Number of Colors	*16.7M*
View Angle (H/V)	*170 / 160*
Brightness (cd/m2)	*350*
Contrast Ratio	*1000:1*
Response Time (ms) (at 25°C)	*5*
Backlight	*LED*
Weight (g)	*1670*
life time<Hrs>	*50000*

22" Display

Brand	*AUO*
Resolution (pixel)	*1920 x 1080 (Full HD)*
Active Area (mm)	*476.64(H) x 268.11(V)*
Number of Colors	*16.7M*
View Angle (H/V)	*85 / 80*
Brightness (cd/m2)	*250*
Contrast Ratio	*1000:1*
Response Time (ms) (at 25°C)	*5*
Backlight	*LED*
Weight (g)	*1750*
life time<Hrs>	*30000*

Touch Screen

	ELO
Type	*5 wire RES*
Glove	*Any type glove*
Stylus	*No Limitation, can use any stylus*
Interface	*USB*
Light Transmission	*80±5%*
Hardness	*4H*
Glass thickness	*2.4mm*
Linearity	*X≦1.5%, Y≦1.5%*
Active area	*308.11x232.09mm*
Resolution	*4096x4096*
Lifetime	*490,000hours*

Storage
2.5" SATA drive bay x 1

Expansion slots
Mini-PCIe x 1
M.2 Type E x 1

External water/dust resistant I/O (rear side)

USB *1 x M12 8pin for USB 1/2*
1 x M12 8pin for USB 3/4
COM *1 x M12 8pin for COM 1/RS-232*
1 x M12 8pin for COM 2/RS-232/422/485
RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

LAN *1 x M12 8pin for LAN 1*
Power *1 x M12 5pin DC power connector*

Power

Power *DC-In connector x 1*
Power Input *DC9V~32V*
Power Adapter *AC 90 ~ 264V / 47 ~ 63 Hz / DC output 12V, IP67 (LV6)*

Power Consumption *9E66-15 53.8W (full loading) 1W (S3)*
9E66-19 69.2w (full loading) 1.6W (S3)
9E66-22 58.9W(full loading) 1.2W (S3)
Power ON/Off buttons at rear side

Mechanical & Environmental

Material construction *SUS304 stainless steel enclosure, chassis type Fanless cooling*
Water and dust protection *IP66 / NEMA4X*
Operation Temperature *12V DC Input 0~40℃ (IEC60068-2-56, air flow cooling)*

Storage Temperature *-20~60℃*
Operation Relative Humidity *10%~90%, non-condensing*
Storage Relative Humidity *10%~90%, non-condensing*

Dimensions

9E66-15	*395mm*	*309.5mm*	*58mm*
9E66-19	*458mm*	*386mm*	*64mm*
9E66-22	*557mm*	*348.5mm*	*58.5mm*

Net Weight

9E66-15	*8.4KG*
9E66-19	*11.5KG*
9E66-22	*12KG*

Gross Weight

9E66-15	*10.4KG*
9E66-19	*13.5KG*
9E66-22	*14KG*

Mounting *VESA (100x100 mmxmm), side mount (M6*2)*

Supported OS

Win 7, Win 7 Pro, Win8.1, Win 10

Options

1. *Wireless or Wireless and BT kit (2 ant)*
2. *Waterproof COM cable, cable length is 2 meters*
3. *Waterproof USB cable, cable length is 2 meters*
4. *Waterproof LAN cable, cable length is 2 meters*
5. *wall mount / table mount bracket (option)*
6. *SSD*
7. *Wireless or Wireless and BT kit (easy clean and Robust Antenna)*

Customization (by DRF)

1. *sunlight readable optical bonding*
2. *full flat PCT touch screen IP69K*
3. *1000 nit high brightness LCD*
4. *LCD Auto dimming*
5. *LCD Super dimming (Low brightness)*
6. *USB 3.0*
7. *Speaker*
8. *IP67*
9. *Second HD*
10. *Intel Core i7-6500U*
11. *2 External LAN*
12. *Barcode reader*
13. *COM+power 5V or 12V*
14. *SUS316 enclosure*

Packing list

1. *WTP-9E66-15, WTP-9E66-19, WTP-9E66-22*
2. *DVD-Title for driver and manual*
3. *Power adapter*
4. *Power cord*

Shock/Vibration/Drop

<table>
<tr><th></th><th>Shock</th><th>Vibration</th><th>Drop</th></tr>
<tr><td>General</td><td>Operating:
Pulse shape：Half-sine waveform
Impact acceleration：15g
Pulse duration：11 ms
Number of shocks：18 shocks (3 shock for each ±axis)
Orientation：±X, ±Y and ±Z axes</td><td>Operating:
5 ~ 500Hz , Acceleration：1.0G
Sweep time：15 minutes
Number of cycle：1 cycle for each axis
Vibration axes：X, Y and Z</td><td>According to ISTA Project 2A to determine a drop height in the following chart. (test surface: concrete, with packing)6 surfaces
<table>
<tr><th>Package-product Weight</th><th>Drop Height</th></tr>
<tr><td>21-40.99 lb (9.53-18.59kg)</td><td>32 in. (0.813 m)</td></tr>
</table>
</td></tr>
</table>

Regulatory *FCC, CE (EMC), VCCI class B*

Configurations:

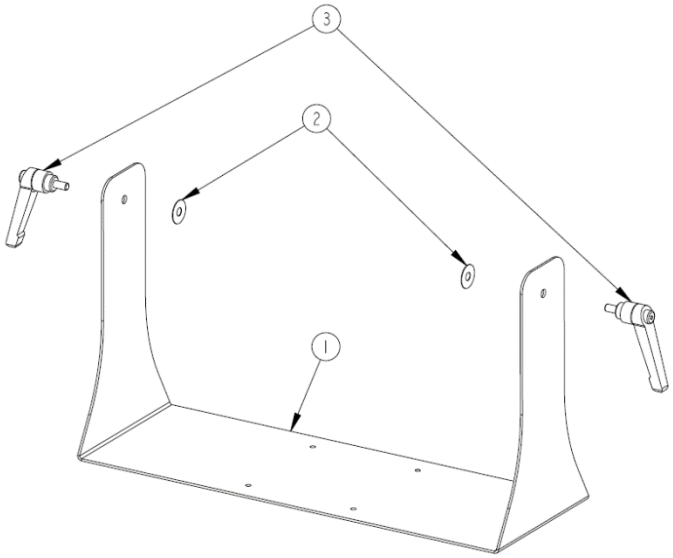
1. *WTP-9E66-15, Core i5-6200U CPU, 2.30GHz, 4G RAM, 500G HDD, 4 USB, 2 COM, 1 LAN*
2. *WTP-9E66-19, Core i5-6200U CPU, 2.30GHz, 4G RAM, 500G HDD, 4 USB, 2 COM, 1 LAN*
3. *WTP-9E66-22, Core i5-6200U CPU, 2.30GHz, 4G RAM, 500G HDD, 4 USB, 2 COM, 1 LAN*

Operation system:
1. *Windows 7 embedded, Windows 7 pro (64bit, 32 bit)*
2. *Windows 8 embedded, Windows 8 industrial (64bit)*
3. *Windows 10 (64bit)*

Table Stand Assemble Instruction

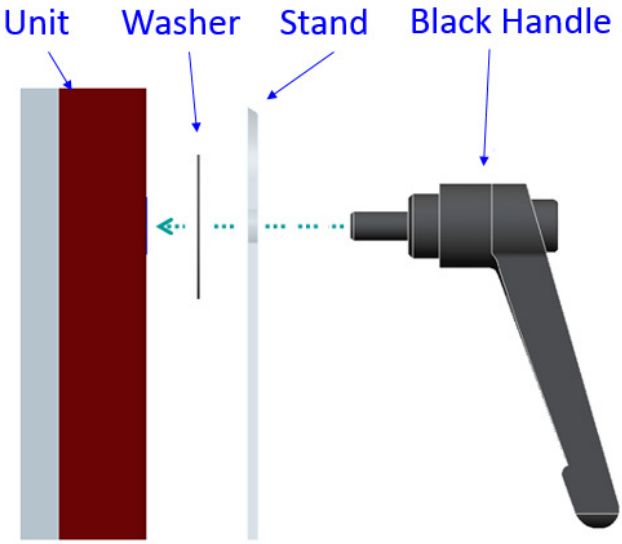
Step 1. Please check out the following parts before assemble.

No.	Item	Quantity
1	Table Stand	1
2	Black Silicone Washer	2
3	Black Handle	2

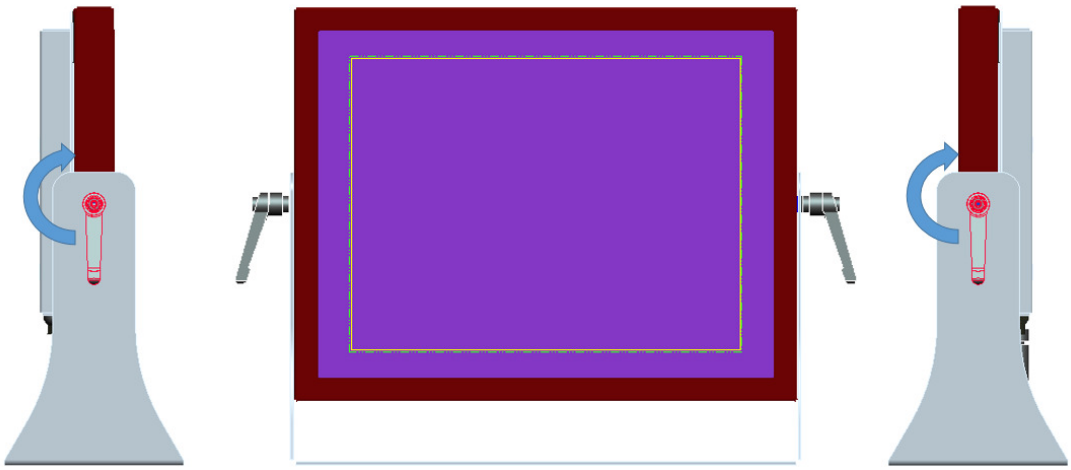


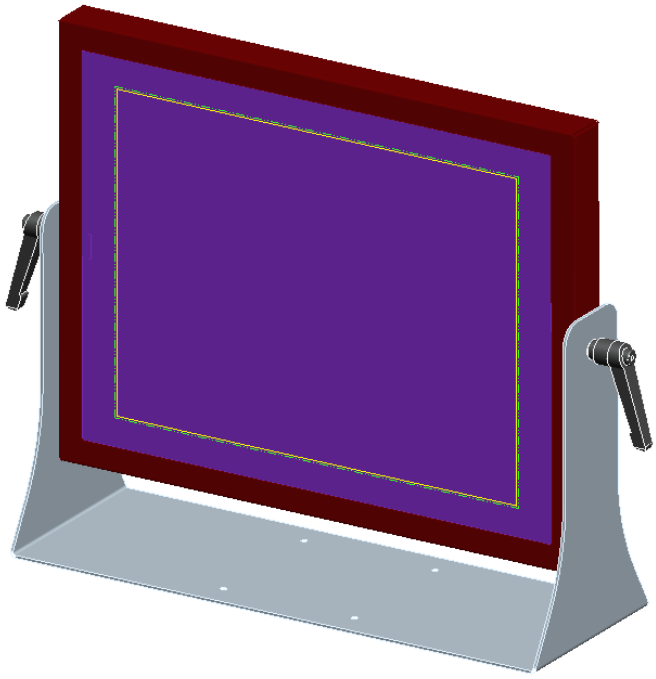
Step 2. Please follow the picture diagrams to assemble.

Explode View



1. Step 3. Please tighten the black handle in a clockwise direction.

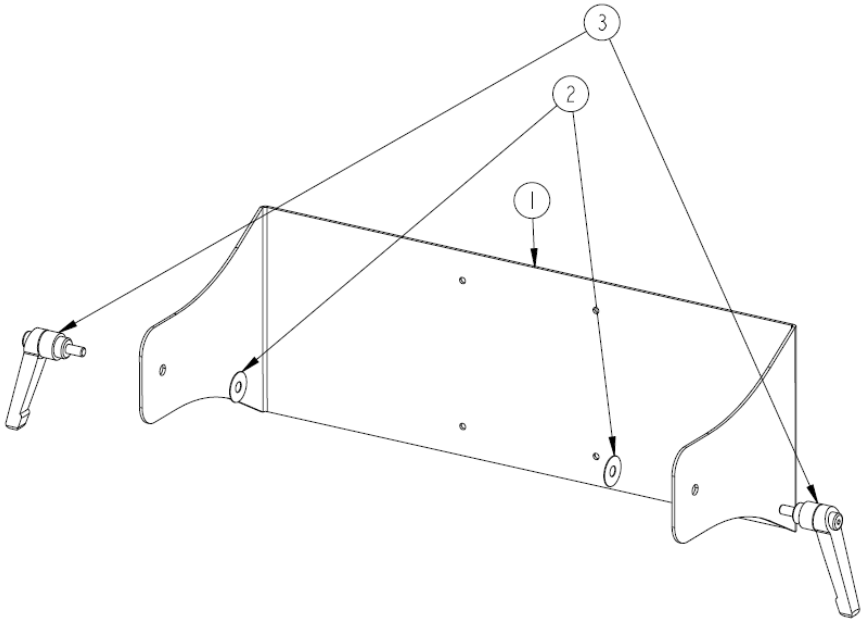




Wall Mount Stand Assemble Instruction

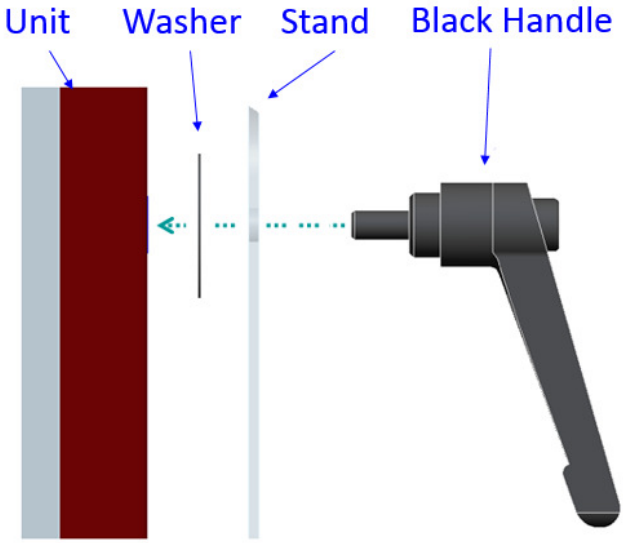
Step 1. Please check out the following parts before assemble.

No.	Item	Quantity
1	Wall Mount Stand	1
2	Black Silicone Washer	2
3	Black Handle	2



Step 2. Please follow the picture diagrams to assemble.

Explode View



Step 3. Please tighten the black handle in a clockwise direction.

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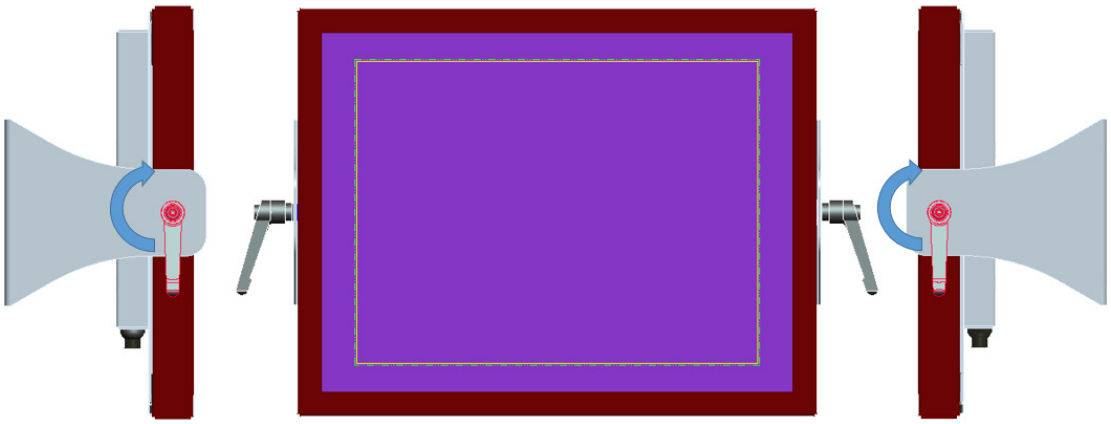
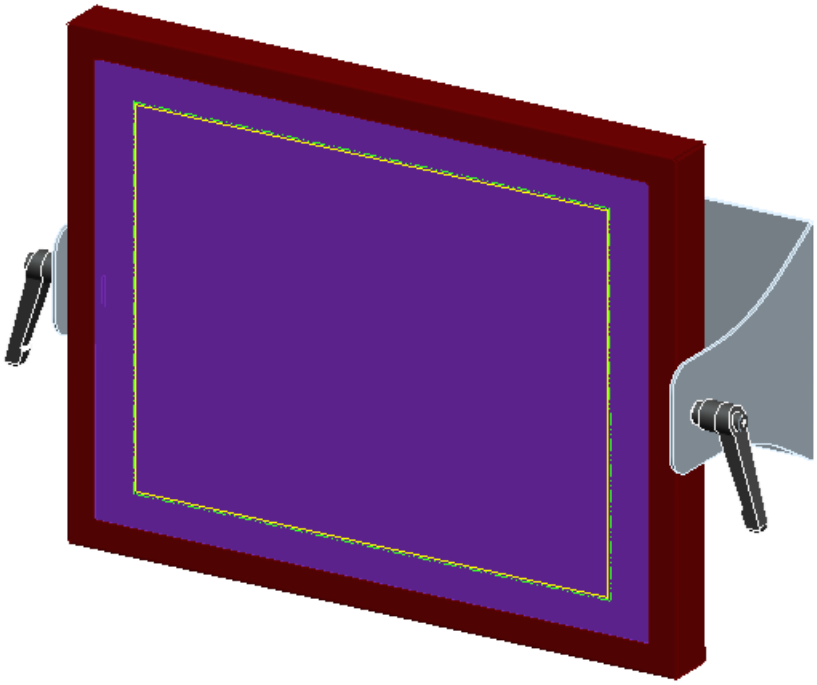
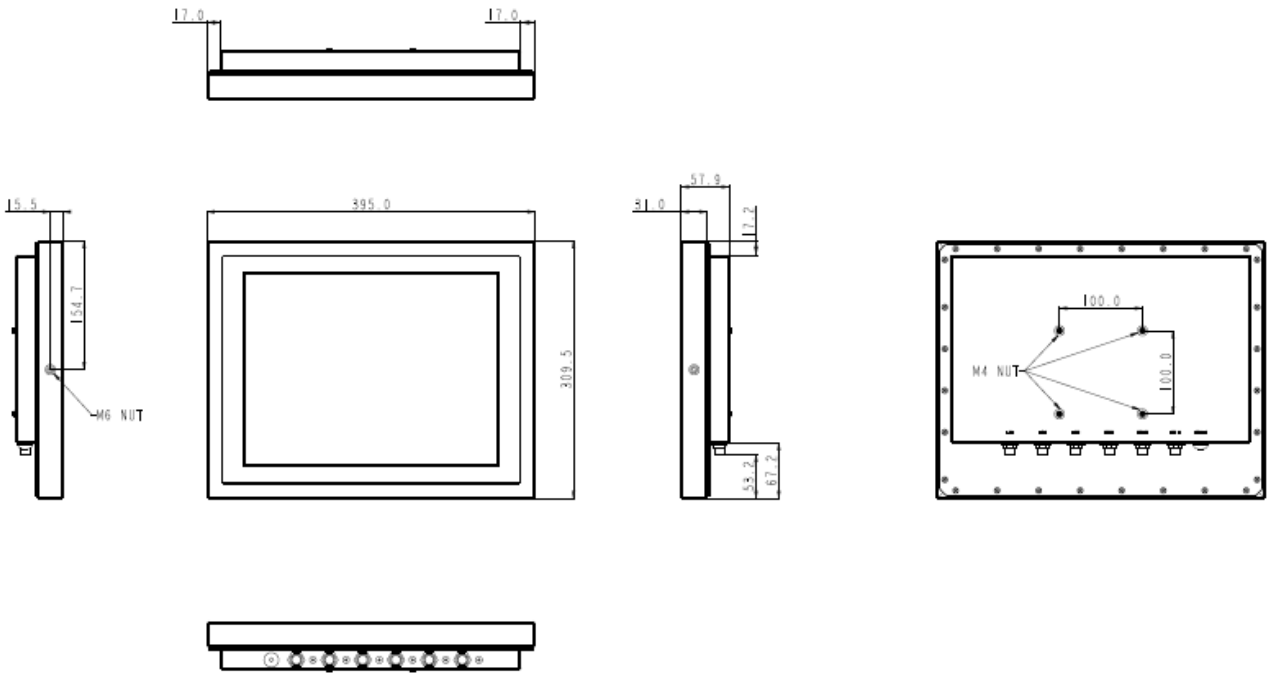


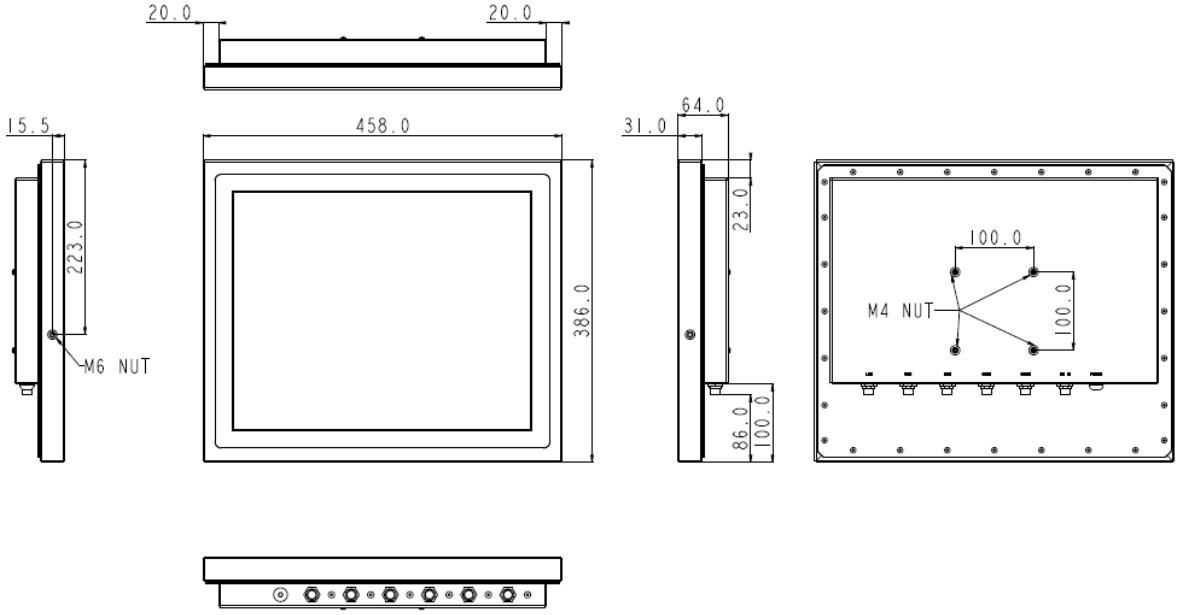


System View

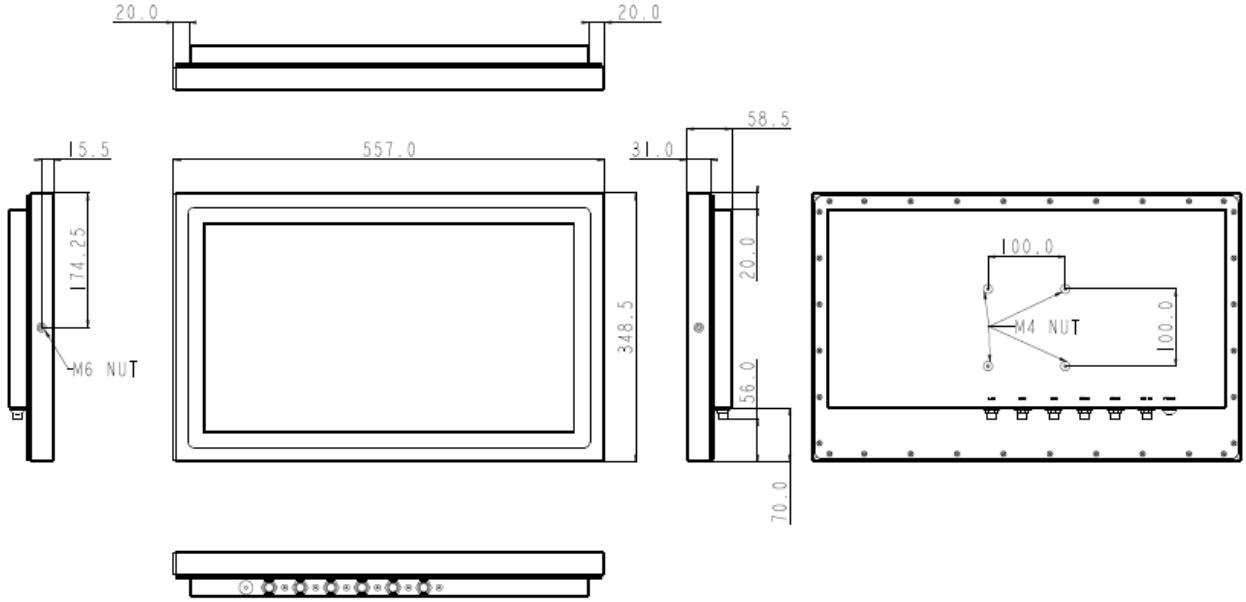
WTP-9E66-15 Outline Drawing



WTP-9E66-19 Outline Drawing



WTP-9E66-22 outline drawing



Setting up the System

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

CAUTION: Make sure that power to the system and each of the devices to be connected is switched OFF before plugging in the connectors.

1. Make any required external connections such as the keyboard, and mouse.
2. Plug the appropriate end of the power cord into the power connector of the system. Then plug the other end of the power cord to an electrical outlet.
3. Press the power switch of the system to turn on the system's power.
4. If necessary, run the BIOS SETUP program to configure the system (see Chapter 3).
5. Install the software drivers if necessary.

Installing System Software

Recent releases of operating systems from major vendors include setup programs, which load automatically and guide you through hard disk preparation and operating system installation. The guidelines below will help you determine the steps necessary to install your operating system on the Panel PC hard drive.

NOTE: Some distributors and system integrators may have already pre-installed system software prior to shipment of your Panel PC.

Installing software requires an installed HDD. Software can be loaded in the WTP-9E66 Panel PC using any of below methods:

Method 1: Use the Ethernet

You can use the Ethernet port to download software from the net to the HDD that has been pre-installed in WTP-9E66 Panel PC

Method 2: Use the COM Port

By connecting another PC to the WTP-9E66 Panel PC with an appropriate cable, you can use transmission software to transmit Operation System Software to the HDD that has been pre-installed in the WTP-9E66 Panel PC.

Method 3: Use a External CD-ROM

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

Then you can use the external CD-ROM to transmit the software to the HDD that has been pre-installed in the WTP-9E66 Panel PC

Installing the Drivers

After installing your system software, you will be able to set up the LAN, VGA, Audio and USB functions. All drivers are stored in a CD disc, which can be found in your accessory pack. The various drivers and utilities in the disc have their own text files that help users install the drivers and understand their functions.

Follow the sequence below to install the drivers:

Step 1 – Install Intel® INF Driver

Step 2 – Install Intel® VGA Driver

Step 3 – Install Intel® LAN Driver

Step 4 – Install Audio Driver

Step 1 – Install Intel® INF Driver

1. Open fie of **chipset**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

Step 2 –Install Intel® VGA Driver

1. Open fie of **VGA**
2. Select the OS folder your system is
3. Click on the **.exe** file located in the OS folder
4. Follow the instructions that the window shows
5. The system will help you install the driver automatically
6. Reboot system

Step 3 – Install Intel® LAN Driver

1. Open fie of **LAN**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

Step 4 – Install Audio Driver

1. Open fie of **LAN**
2. Click on the **setup.exe**
3. Follow the instructions that the window shows
4. The system will help you install the driver automatically
5. Reboot system

BIOS Setup Information

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.

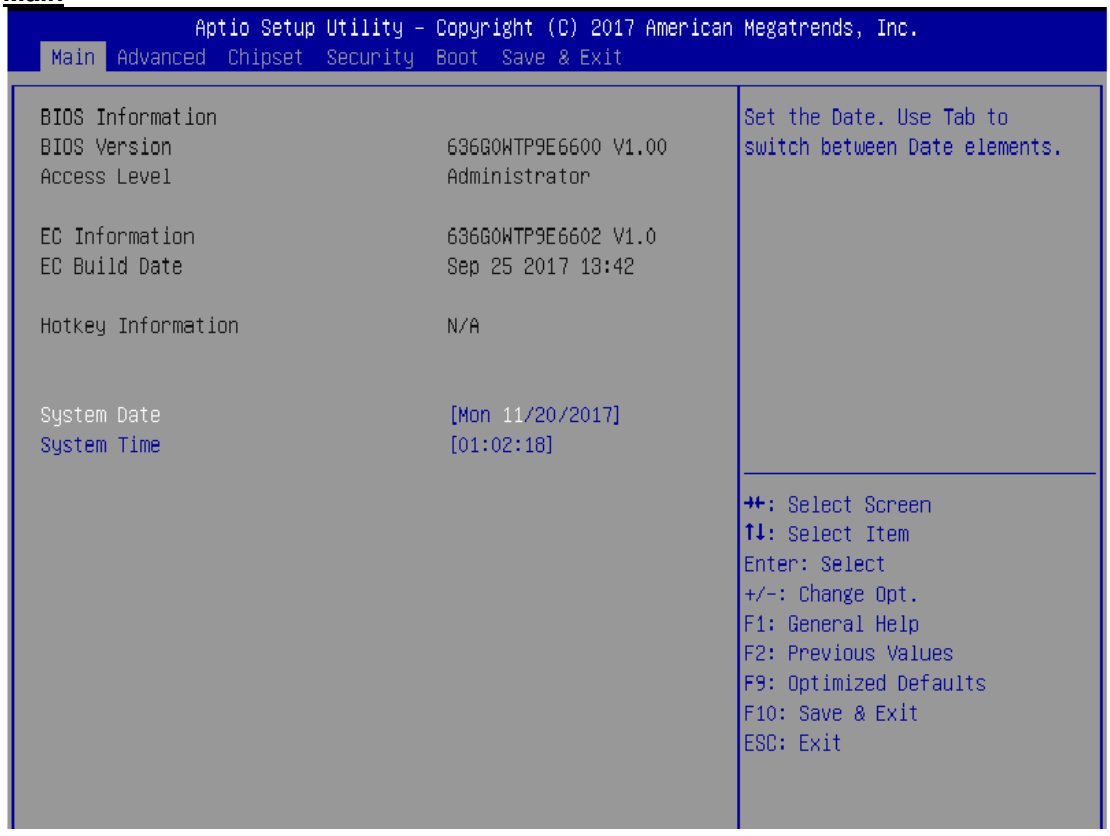
BIOS Setup

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

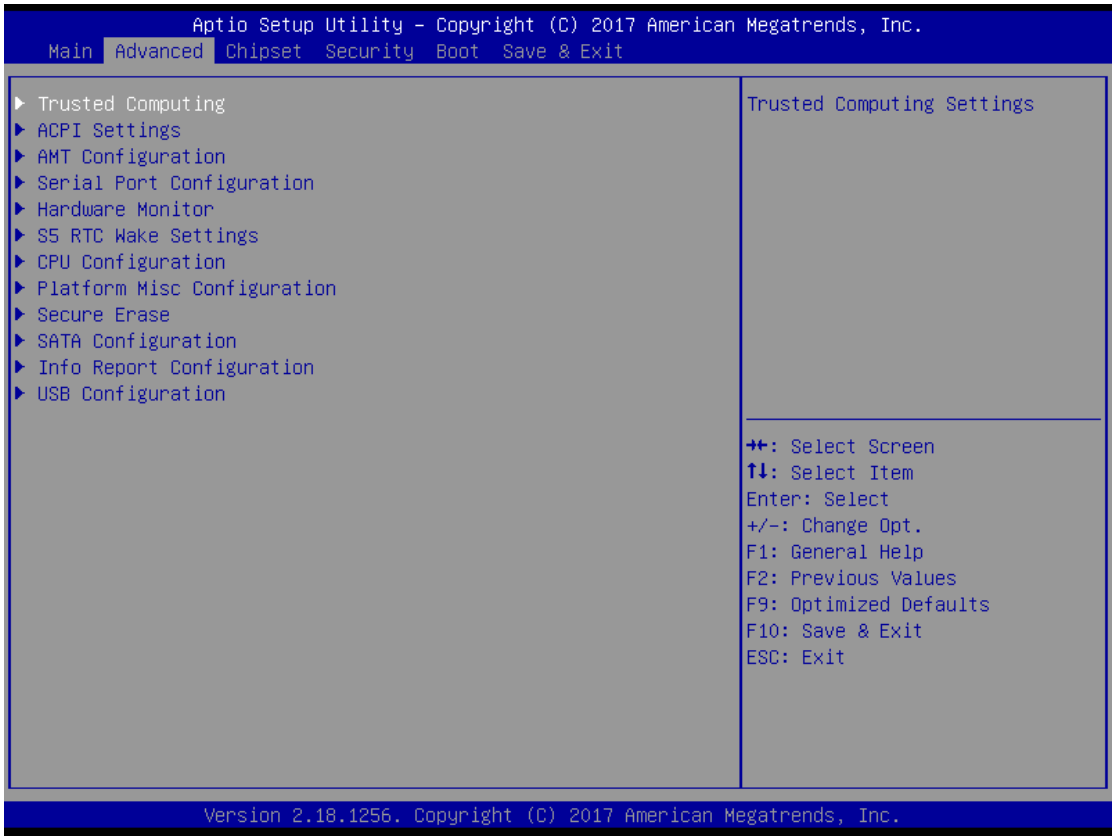
System Date

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

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.

AMT Configuration

Intel AMT

Enable/Disable Intel (R) Active Management Technology BIOS Extension. Note : iAMT H/W is always enabled. This option just controls the BIOS extension execution. If enabled, this requires additional firmware in the SPI device.

BIOS Hotkey Pressed

OEMFLag Bit 1: Enable/Disable BIOS hotkey press.

MEBx Selection Screen

OEMFLag Bit 2:Enable/Disable MEBx selection screen.

Hide Un-Configure ME Confirmation Prompt

OEMFlag Bit 6:Hide Un-Configure ME without password Confirmation Prompt.

Un-Configure ME

OEMFlag Bit 15:Un-Configure ME without password.

Serial Port Configuration

Serial Port 1 Configuration

Serial Port

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.

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

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

CPU Configuration Parameters

Active Processor Cores
Number of cores to enable in each processor package.
Intel Virtualization Technology
When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.
Intel(R) SpeedStemp(tm)
Allows more than tow frequency ranges to be supported.
Turbo Mode
Enable / Disable Turbo Mode.
Battery Mode Power Limit
Enable / Disable battery mode power limit function.

Platform Misc Configuration
Native PCIE Enable
PCI Express Native Support Enable/Disable. This feature is only available in Vista
Native ASPM
On enable, Vista will control the ASPM Support for the device. If disabled, the BIOS will

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

Secure Erase
Secure Erase mode
Change behavior of Secure Erase module . <Simulated> Causes the module to show the flow without actually erasing SSD, <Real> Causes the module to erase SSD.
Force Secure Erase
Force Secure Erase on next boot.

SATA Configuration
Enable or Disable SATA Device.
SATA Mode Selection
Determines how SATA controller(s) operate.
Software Feature Mask Configuration
RAID OROM/RST driver will refer to the SWFM configuration to enable or disable the storage features.

Serial-ATA Port 0
Enable / Disable Serial ATA Port 0.
Port 0
Enable or Disable SATA Port
HotPlug
Designates this port as hot Pluggable.
External SATA
External SATA Support
Spin Up Device
On an edge detect from 0 to 1, the PCH starts a COMRESET initialization sequence to the device.
SATA Device Type
Identify the SATA port is connected to Solid State Drive or Hard Disk Drive.
Topology
Identify the SATA Topology if it is Default or ISATA or Flex or DirectConnect or M2
Device Sleep

mSATA for RTD3.
SATA DEVSLEP Idle Timeout config
Enable/Disable SATA DTIO Config

Serial-ATA Port 1
Enable / Disable Serial ATA Port 0.
Port 0
Enable or Disable SATA Port
HotPlug
Designates this port as hot Pluggable.
External SATA
External SATA Support
Spin Up Device
On an edge detect from 0 to 1, the PCH starts a COMRESET initialization sequence to the device.
SATA Device Type
Identify the SATA port is connected to Solid State Drive or Hard Disk Drive.
Topology
Identify the SATA Topology if it is Default or ISATA or Flex or DirectConnect or M2
Device Sleep
mSATA for RTD3.
SATA DEVSLEP Idle Timeout config
Enable/Disable SATA DTIO Config

Serial-ATA Port 3
Enable / Disable Serial ATA Port 0.
Port 0
Enable or Disable SATA Port
HotPlug
Designates this port as hot Pluggable.
External SATA
External SATA Support
Spin Up Device
On an edge detect from 0 to 1, the PCH starts a COMRESET initialization sequence to the device.
SATA Device Type
Identify the SATA port is connected to Solid State Drive or Hard Disk Drive.
Topology
Identify the SATA Topology if it is Default or ISATA or Flex or DirectConnect or M2
Device Sleep
mSATA for RTD3.
SATA DEVSLEP Idle Timeout config
Enable/Disable SATA DTIO Config

Serial-ATA Port 4
Enable / Disable Serial ATA Port 0.
Port 0
Enable or Disable SATA Port
HotPlug
Designates this port as hot Pluggable.
External SATA
External SATA Support
Spin Up Device

On an edge detect from 0 to 1, the PCH starts a COMRESET initialization sequence to the device.

SATA Device Type

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

Topology

Identify the SATA Topology if it is Default or ISATA or Flex or DirectConnect or M2

Device Sleep

mSATA for RTD3.

SATA DEVSLEP Idle Timeout config

Enable/Disable SATA DTIO Config

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.

USB hardware delays and time-outs:

USB Transfer Time-out

The Time-out value for control, Bulk, and Interrupt transfers.

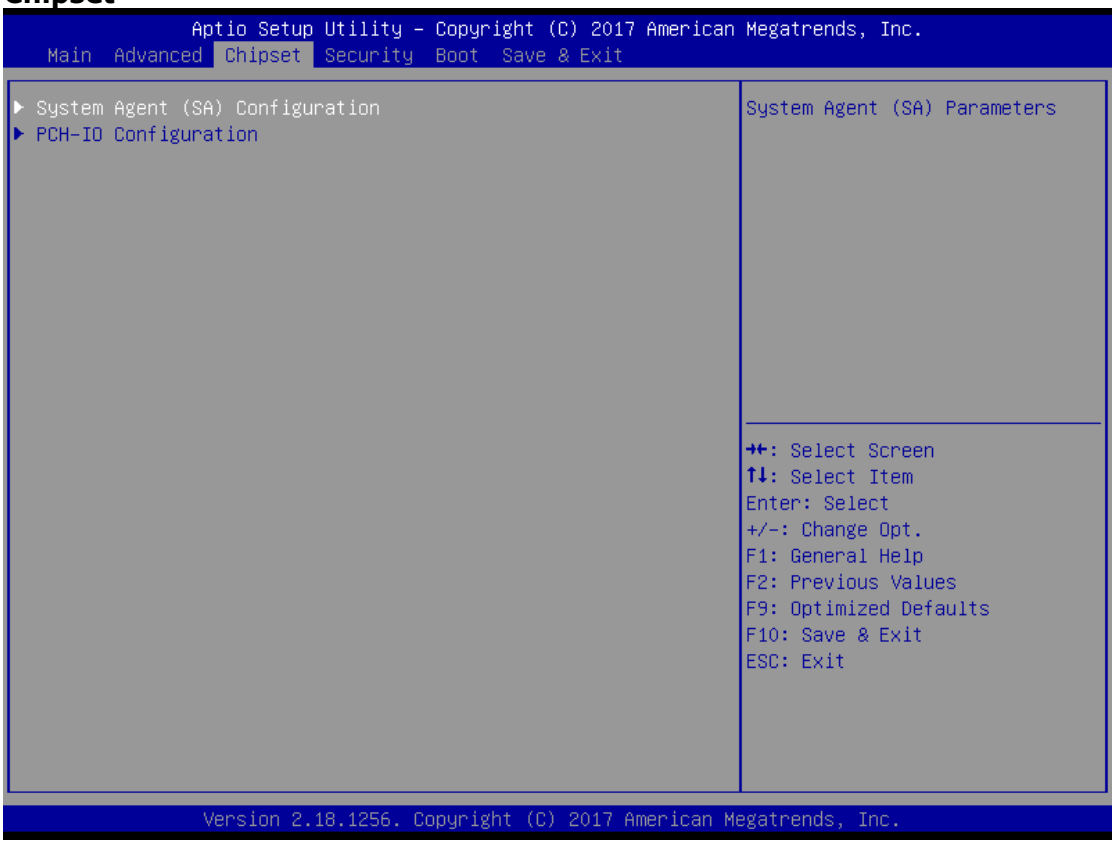
Device reset time-out

USB mass storage device Start Unit command time-out

Device power-up delay

Maximun time the device will take before it properly reports itself to the Host Controller. 'Auto' uses default value: for a Root port the delay is taken from Hub descriptor.

Chipset



System Agent (SA) Configuration

System Agent (SA) Parameters.

VT-d

VT-d capability

Graphics Configuration

Graphics Turbo IMON Current

Graphics Turbo IMON current values supported(14-31)

Skip Scaning of External Gfx Card

If Enable, it will not scan for external Gfx Card on PEG and PCH PCIE Ports

Primary Display

Select which of IGFX/PEG/PCI Graphics device should be Primary Display or Select SG for Switchable GFX.

Internal Graphics

Keep IGFX enabled based on the setup options

GTT Size

Select the GTT Size

Aperture Size

Select the Aperture Size Note : Above 4GB MMIO BIOS assignment is automatically enabled when selecting 2048MB aperture. To use this feature , please disable CSM Support.

DVMT Pre-Allocated

Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

DVMT Total Gfx Mem

Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

Memory Configuration

Memory configuration Parameters

PCH-IO Configuration

PCI Express Configuration

PCI Express Configuration settings

USB Configuration

USB Precondition

Precondition work on USB host controller and root ports for faster enumeration. PCI Express Configuration settings

XHCI Disable Compliance Mode

Options to disable Compliance Mode. Default is FALSE to not disable Compliance Mode. Set TRUE to disable Compliance Mode.

USB Port Disable Override

Selectively Enable/Disable the corresponding USB port from reporting a Device Connection to the controller..

HD Audio

Control Detection of the HD-Audio device.\n\nDisabled = HDA will be unconditionally disabled\n\nEnabled = HDA will be unconditionally enabled\n\nAuto = HDA will be enabled if present, disabled otherwise.

PCH LAN Controller

Enable or disable onboard NIC

DeepSx Power Policies

Configure the DeepSx Mode Configuration

Wake on LAN

Enable or disable integrated LAN to wake the system.(The wake ON LAN cannot be disabled if ME is on at SX state.)

SLP_LAN# Low on DC Power

Enable/Disable SLP_LAN# Low on DC power.

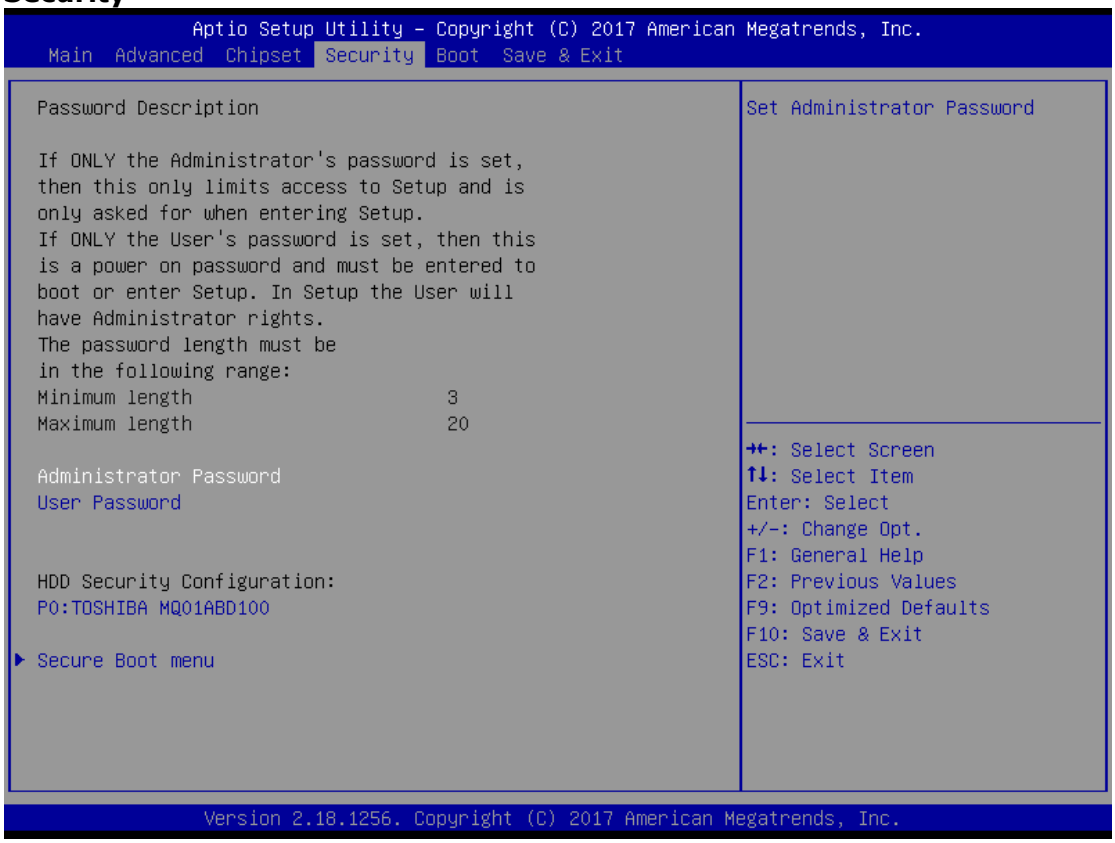
Wake on WLAN Enable

Enable/Disable PCI Express Wireless LAN to wake the system.

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.

P3 : TS64GSSD370

HDD Security Configuration for selected drive.

Secure Boot menu

Secure Boot

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

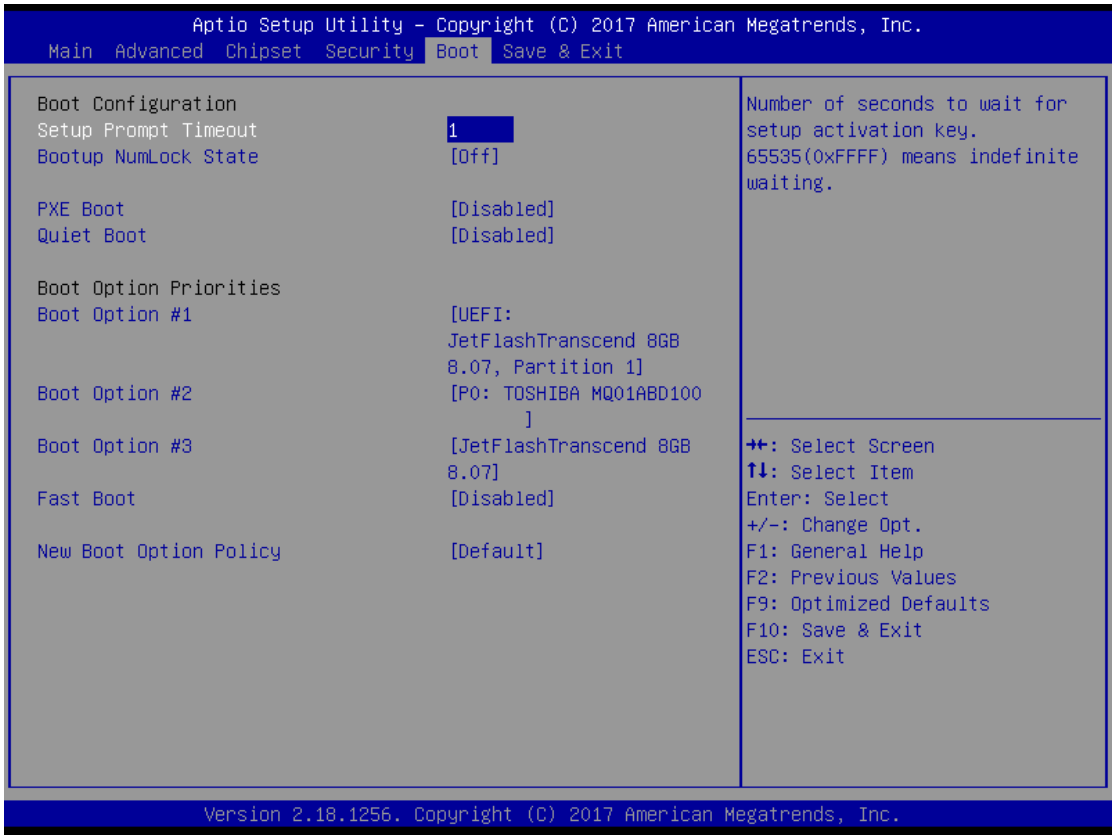
Secure Boot Mode

Secure Boot mode selector. 'Custom' Mode enables users to change Image Execution policy and manage Secure Boot keys.

Key Management

Enables experienced users to modify Secure Boot variables

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
PXE Network Boot Enable / Disable.

Quiet Boot
Enable or disables Quiet Boot option.

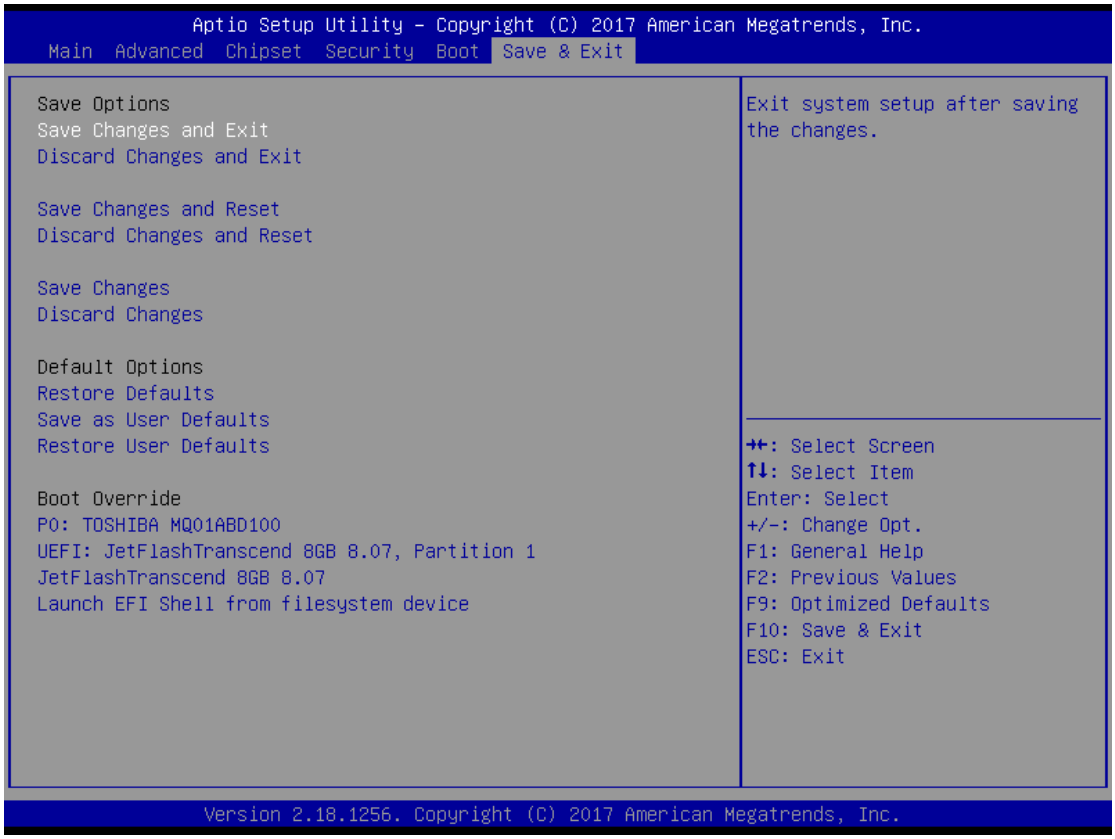
Boot Option #1
Sets the system boot order.

Boot Option #2
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.

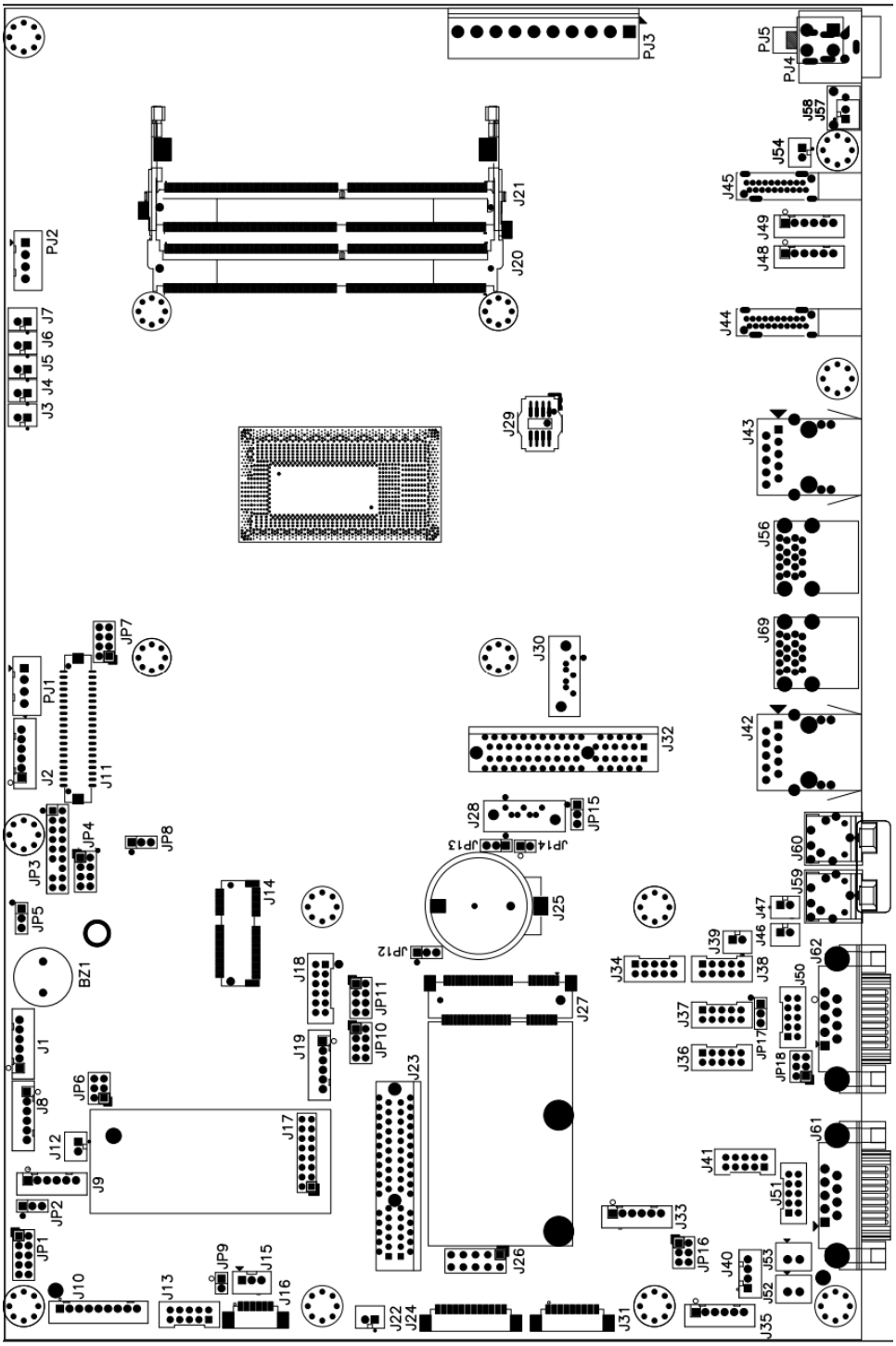
Restore User Defaults
Restore the User Defaults to all the setup options.

Appendix

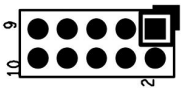
A. Jumper settings and Connectors

This appendix gives the definitions and shows the positions of jumpers, headers and connectors. All of the configuration jumpers on WTP-9E66 are in the proper position.

Jumper and Connector Definition Block

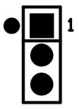


JP1 – Touch Panel Type Selection



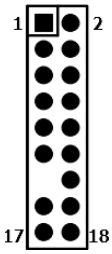
Description	Jumper Setting
3M type	***1-2, 3-4 (default)***
ELO type	5-6,7-8

JP2 – PCT/RES Touch Selection



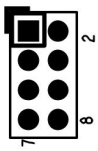
Description	Jumper Setting
PCT Touch	1-2
RES Touch	2-3

JP3 –TPM2.0



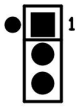
Pin #	Signal Description	Pin #	Signal Description
1	DEBUG_CLK	2	GND
3	LPC_FRAME#	4	SMBCLK
5	PLT_RST#	6	SMBDATA
7	LPC_AD3	8	LPC_AD2
9	+3.3VS	10	LPC_AD1
11	LPC_AD0	12	GND
NA	NA	14	PWRDWN#=SUS_STAT#
15	+3.3VSB	16	SERIRQ
17	GND	18	GND

JP4 – LVDS Power Selection



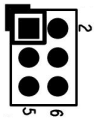
Description	Jumper Setting
+3.3VS(for 10”/12”/15”)	5-6, 7-8
+5VS(for 17”/19”)	***1-2, 3-4 (default)***

JP5 – Backlight Type Selection



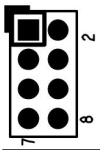
Description	Jumper Setting
Analog Inverter	1-2
PWM Inverter	2-3

JP6 – Sensor Selection



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

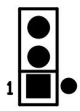
JP7 –Panel Resolution Selection



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

JP8 – Backlight control level Selection



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

JP9 – Heater Test Selection

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

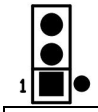
JP10 –GPO Settings

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

JP11 –GPI Settings

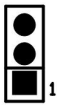
Description	Jumper Setting
Dry	On (1-2, 3-4, 5-6, 7-8 short)
Wet	Off (NA)

JP12 – mSATA/MPCIe Selection



Description	Jumper Setting
MPCI-e	***1-2 (default)***
mSATA	2-3

JP13 – CMOS Clear Selection

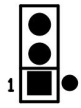


Description	Jumper Setting
Normal Open	***1-2 (default)***
CMOS Clear	2-3

JP14 – RTC Register Clear Selection

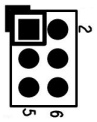
Description	Jumper Setting
Normal	***Open (default)***
RTC Register Clear	1-2

JP15 – SATA / SATADOM Selection



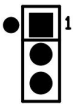
Description	Jumper Setting
SATA	***2-3(default)***
SATA DOM	1-2

JP16 – COM1 RI# / 12VS / 5VS Selection



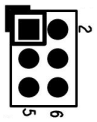
Description	Jumper Setting
5VS	1-2
12VS	3-4
RI#	***5-6(default)***

JP17 – COM4 Power Selection



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

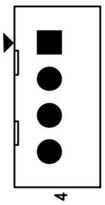
JP18 – COM2 RI# / 12VS / 5VS Selection



Description	Jumper Setting
5VS	1-2
12VS	3-4
RI#	***5-6(default)***

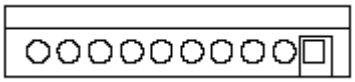
1.1 Connector Definition

PJ1 /PJ2 – HDD Power Connector



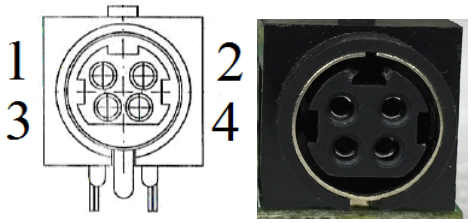
Pin #	Signal Description
1	+12VS
2	GND
3	GND
4	+5VS

PJ3 – Battery Connector



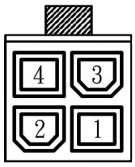
Pin #	Signal Description
1	BATT+
2	BATT+
3	BATT+
4	BATT_T
5	BATT_CLK
6	BATT_DAT
7	BATT_EN#
8	Ground
9	Ground
10	Ground

PJ4 – Power Jack



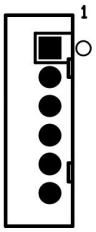
Pin #	Signal Description
1	DC In
2	DC In
3	GND
4	GND

- **PJ5 – Power Input Connector**



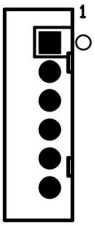
Pin #	Signal Description
1	GND
2	GND
3	DC In
4	DC In

J1, J48, J49 – Internal USB 2.0 Pin Header



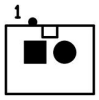
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

J2 – LCD Inverter Wafer Header



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

- **J3 – MB Heater Connector**

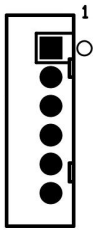


Pin #	Signal Description
1	+12VSB
2	GND

- **J4, J5, J6, J7 – Panel Heater Connector**

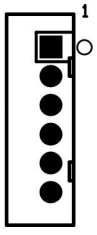
Pin #	Signal Description
1	+12VSB
2	GND

- **J8 – Internal USB 2.0 Pin Header for Webcam**



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

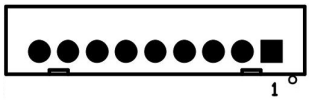
- **J9 – Internal USB 2.0 Pin Header for PCT Touch**



Pin #	Signal Description
1	+5VSB
2	+5VSB

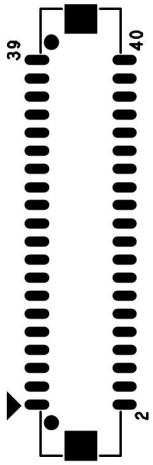
3	Data -
4	Data +
5	GND
6	GND

J10 – 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

J11 – LVDS Interface



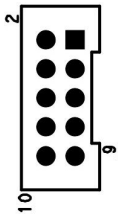
Pin #	Signal Description	Pin #	Signal Description
39	GND	40	GND
37	Ground	38	GND
35	A_TXD3+	36	B_TXD3+
33	A_TXD3-	34	B_TXD3-
31	GND	32	GND
29	A_CLK+	30	B_CLK+
27	A_CLK-	28	B_CLK-
25	GND	26	GND
23	A_TXD2+	24	B_TXD2+
21	A_TXD2-	22	B_TXD2-
19	GND	20	GND
17	A_TXD1+	18	B_TXD1+

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

J12 – Panel Temp Sensor Connector

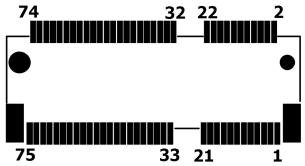
Pin #	Signal Description
1	PANEL_SENSOR
2	GND

J13 – 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

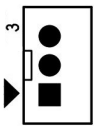
J14 – M.2 E_Key



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(I)(0/3.3V)
39	GND	40	CLINK DATA (I/O)
41	PERP0	42	CLINK CLK(I/O)
43	PERN0	44	COEX3(I/O)(0/1.8V)
45	GND	46	COEX2(I/O)(0/1.8V)
47	REFCLKP0	48	COEX1(I/O)(0/1.8V)
49	REFCLKN0	50	SUSCLK(32kHz)(I)(0/3.3V)
51	GND	52	PERST0#(0/3.3V)
53	CLKREQ0#(I/O)(0/3.3V)	54	BT_DISABLE2#(I)(0/3.3V)
55	PEWAKE0#(I/O)(0/3.3V)	56	W_DISABLE1#(I)(0/3.3V)
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		

J15 – Heater Error / Heating LEDs

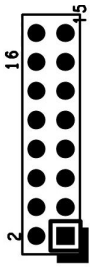


Pin #	Signal Description
3	+3.3V_ALWAYS
2	HEATER_LED#
1	ERROR_LED#

J16 – Light Sensor Connect

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

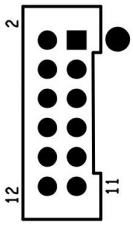
J17 –TPM / ID-394



Pin #	Signal Description	Pin #	Signal Description

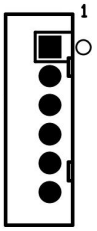
16	+3.3VSB	15	SUS_STAT#
14	SMB DATA	13	GND
12	SMB CLK	11	Debug CLK
10	CLKRUN#	9	LPC Frame#
8	+5VSB	7	LPC AD3
6	+3.3VS	5	LPC AD2
4	SERIRQ	3	LPC AD1
2	PLT reset#	1	LPC AD0

J18 – 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

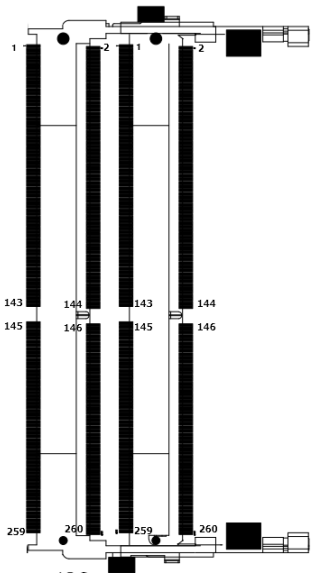
J19 – WRDM Pin Header



Pin #	Signal Description
1	GND

2	232_EC_SIN
3	GND
4	232_EC_SOUT
5	+5V_ALWAYS
6	+3.3V_DSW

- **J20 / J21 – DDR4 SO-DIMM Interface**



J20→ H5.2mm

J21→ H9.2mm

Pin	Front	Pin	Back	Pin	Front	Pin	Back	Pin	Front	Pin	Back	Pin	Front	Pin	Back
1	VSS	2	VSS	67	DQ29	68	VSS	133	A1	134	EVENT_n, NF	199	DM5_n/ DBI5_n	200	DQS5_t
3	DQ5	4	DQ4	69	VSS	70	DQ24	135	VDD	136	VDD	201	VSS	202	VSS
5	VSS	6	VSS	71	DQ25	72	VSS	137	CK0_t	138	CK1_t/NF	203	DQ46	204	DQ47
7	DQ1	8	DQ0	73	VSS	74	DQS3_c	139	CK0_c	140	CK1_c/NF	205	VSS	206	VSS
9	VSS	10	VSS	75	DM3_n/ DM3_n	76	DQS3_t	141	VDD	142	VDD	207	DQ42	208	DQ43
11	DQS0_c	12	DM0_n/ DM10_n	77	VSS	78	VSS	143	PARITY	144	A0	209	VSS	210	VSS
13	DQS0_t	14	VSS	79	DQ30	80	DQ31	145	BA1	146	A10/AP	211	DQ52	212	DQ53
15	VSS	16	DQ6	81	VSS	82	VSS	147	VDD	148	VDD	213	VSS	214	VSS
17	DQ7	18	VSS	83	DQ26	84	DQ27	149	CS0_n	150	BA0	215	DQ49	216	DQ48
19	VSS	20	DQ2	85	VSS	86	VSS	151	WE_n/ A14	152	RAS_n/ A16	217	VSS	218	VSS
21	DQ3	22	VSS	87	CB5/NC	88	CB4/NC	153	VDD	154	VDD	219	DQS6_c	220	DM6_n/ DBI6_n
23	VSS	24	DQ12	89	VSS	90	VSS	155	ODT0	156	CAS_n/ A15	221	DQS6_t	222	VSS
25	DQ13	26	VSS	91	CB1/NC	92	CB0/NC	157	CS1_n	158	A13	223	VSS	224	DQ54
27	VSS	28	DQ8	93	VSS	94	VSS	159	VDD	160	VDD	225	DQ55	226	VSS
29	DQ9	30	VSS	95	DQS8_c	96	DM8_n/ DBI_n/NC	161	ODT1	162	CS/ CS2_n/NC	227	VSS	228	DQ50
31	VSS	32	DQS1_c	97	DQS8_t	98	VSS	163	VDD	164	VREFCA	229	DQ51	230	VSS
33	DM1_n/DBI_n	34	DQS1_t	99	VSS	100	CB6/NC	165	C1, CS3_n, NC	166	SA2	231	VSS	232	DQ60
35	VSS	36	VSS	101	CB2/NC	102	VSS	167	VSS	168	VSS	233	DQ61	234	VSS
37	DQ15	38	DQ14	103	VSS	104	CB7/NC	169	DQ37	170	DQ36	235	VSS	236	DQ57
39	VSS	40	VSS	105	CB3/NC	106	VSS	171	VSS	172	VSS	237	DQ56	238	VSS
41	DQ10	42	DQ11	107	VSS	108	RESET_n	173	DQ33	174	DQ32	239	VSS	240	DQS7_c
43	VSS	44	VSS	109	CKE0	110	CKE1	175	VSS	176	VSS	241	DM7_n/ DBI7_n	242	DQS7_t
45	DQ21	46	DQ20	111	VDD	112	VDD	177	DQS4_c	178	DM4_n/ DBI4_n	243	VSS	244	VSS
47	VSS	48	VSS	113	BG1	114	ACT_n	179	DQS4_t	180	VSS	245	DQ62	246	DQ63
49	DQ17	50	DQ16	115	BG0	116	ALERT_n	181	VSS	182	DQ39	247	VSS	248	VSS
51	VSS	52	VSS	117	VDD	118	VDD	183	DQ38	184	VSS	249	DQ58	250	DQ59
53	DQS2_c	54	DM2_n/ DBI2_n	119	A12	120	A11	185	VSS	186	DQ35	251	VSS	252	VSS
55	DQS2_t	56	VSS	121	A9	122	A7	187	DQ34	188	VSS	253	SCL	254	SDA
57	VSS	58	DQ22	123	VDD	124	VDD	189	VSS	190	DQ45	255	VDDSPD	256	SA0
59	DQ23	60	VSS	125	A8	126	A5	191	DQ44	192	VSS	257	VPP	258	VTT
61	VSS	62	DQ18	127	A6	128	A4	193	VSS	194	DQ41	259	VPP	260	SA1
63	DQ19	64	VSS	129	VDD	130	VDD	195	DQ40	196	VSS				
65	VSS	66	DQ28	131	A3	132	A2	197	VSS	198	DQS5_c				

● J22 – EC Reset connector

Pin #	Signal Description
1	WRST#
2	GND

J23–PCIE X4 Slot for ISO Interface

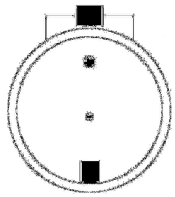
Pin #	Side B	Side A	Pin #	Side B	Side A
1	+5VSB	+3.3VSB	17	Ground	USBPN
2	+5VSB	+3.3VSB	18	LPC_UART24M	Ground
3	+5VSB	+3.3VSB	19	Ground	Ground
4	+5VSB	+3.3VSB	20	Ground	Ground
5	+5VSB	+3.3VSB	21	Ground	Ground
6	+5VSB	+3.3VSB	22	Ground	Ground
7	Ground	Ground	23	PCIE_RXN	Ground
8	LPC_AD0	+5VS	24	PCIE_RXP	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

J24 – DICOM Connect

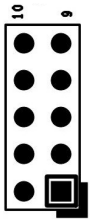
Pin #	Signal Description
1	ASIC_RST#
2	+3.3VS

3	+3.3VS
4	CSC_DET#
5	SCK_OUT
6	SDA_OUT
7	GND
8	SPI_PROG
9	SPI_CLK
10	SPI_DO
11	SPI_DI
12	SPI_CS

- **J25 – Battery Socket**

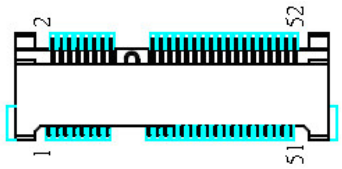


- **J26 – JTAG For EC**



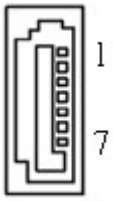
Pin #	Signal Description	Pin #	Signal Description
10	Reserved	9	GND
8	Reserved	7	+3.3V
6	Reserved	5	+3.3V
4	C2D	3	GND
2	GND	1	+3.3V

J27 – Mini PCI Express / mSATA Socket



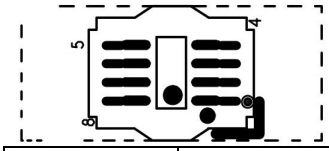
Pin #	Signal Description	Pin #	Signal Description
1	WAKE#	2	+3.3VSB
3	Reserved	4	GND
5	Reserved	6	+1.5VS
7	CLKREQ#	8	Reserved
9	GND	10	Reserved
11	REFCLK-	12	Reserved
13	REFCLK+	14	Reserved
15	GND	16	Reserved
17	Reserved	18	GND
19	Reserved	20	Reserved
21	GND	22	PERST#
23	PERn0	24	+3.3VSB
25	PERp0	26	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	MSATA_ SEL1	44	Reserved
45	CL_CLK	46	Reserved
47	CL_ DATA	48	+1.5VS
49	Controller Link RST#	50	GND
51	MSATA_ SEL2	52	+3.3VSB

J28 – Standard SATA / SATA DOM Interface



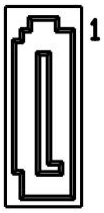
Pin #	Signal Description
1	Ground
2	Tx+
3	Tx-
4	Ground
5	Rx-
6	Rx+
7	Ground / +5VS

J29 – 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

J30 – Standard SATA Interface



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

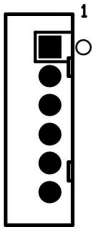
J31 – CAP Front Bezel Button

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

J32–PCIE X4 Slot Interface

Pin #	Side B	Side A	Pin #	Side B	Side A
1	+12VS	RSVD	17	RSVD	RXN0
2	+12VS	+12VS	18	GND	GND
3	RSVD	+12VS	19	TXP1	RSVD
4	GND	GND	20	TXN1	GND
5	SMBCLK	RSVD	21	GND	RX1
6	SMBDATA	RSVD	22	GND	RX1
7	GND	RSVD	23	TXP2	GND
8	+3.3VS_PCIE	RSVD	24	TXN2	GND
9	RSVD	+3.3VS_PCIE	25	GND	RX2
10	+3.3VSB	+3.3VS_PCIE	26	GND	RX2
11	PCIE_WAKE#	PLT_RST#	27	TXP3	GND
12	PCIE_CLKRQ#	GND	28	TXN3	GND
13	GND	CLKP	29	GND	RX3
14	TXP0	CLKN	30	RSVD	RX3
15	TXN0	GND	31	RSVD	GND
16	GND	RXP0	32	GND	RSVD

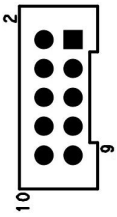
J33 – SMBus Pin Header



Pin #	Signal Description
1	+3.3VS
2	+5VS
3	SMBCLK
4	SMBDATA

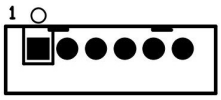
5	GND
6	GND

J34 – Internal COM4 TTL Serial Port



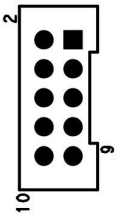
Pin #	Signal Description	Pin #	Signal Description
2	TTL_DSR#	1	TTL _DCD#
4	TTL _RTS#	3	TTL _SIN
6	TTL _CTS#	5	TTL _SOUT
8	TTL _RI#	7	TTL _DTR#
10	+5VS/+12VS	9	GND

J35 – PS2 KB/MS



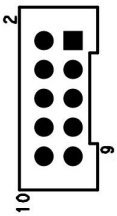
Pin #	Signal Description
1	KBDATA
2	MSDATA
3	Ground
4	+5VSB
5	KBCLK
6	MSCLK

J36 – Internal COM5 Serial Port



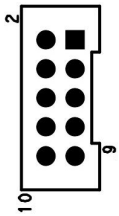
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS	9	GND

J37 – Internal COM4 Serial Port



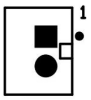
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS	9	GND

J38 – Internal COM3 Serial Port



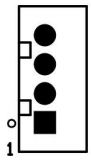
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS	9	GND

J39 – Internal MIC Connect



Pin #	Signal Description
1	MIC_R
2	MIC_L

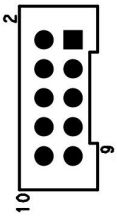
J40 – Power / HDD LED



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

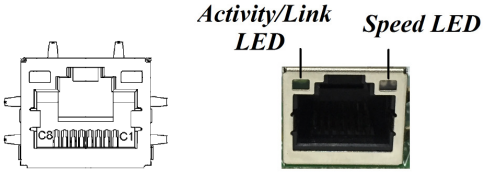
4	PWR_LED#

J41 – Internal COM6 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	+5VS/+12VS	9	GND

J42 / J43 –External RJ45 Ethernet Port



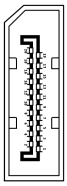
Activity/Link LED

Status	Description
OFF	No Link
Blinking	Data Activity
ON	Link

Speed LED

Status	Description
OFF	10 Mbps
Green	100 Mbps
Orange	1 Gbps

● J44,J45 – DisplayPort Interface

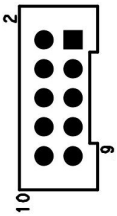


Pin #	Signal Description	Pin #	Signal Description
1	ML_LANE0+	11	GND
2	GND	12	ML_LANE3-
3	ML_LANE0-	13	CONFI G1
4	ML_LAN1+	14	CONGI G2
5	GND	15	AUX_CH+
6	ML_LAN1-	16	GND
7	ML_LANE2+	17	AUX_CH-
8	GND	18	HOT PLUG
9	ML_LANE2-	19	RETURN
10	ML_LANE3+	20	+3.3VS

● J46, J47 – RIGHT / LEFT CH for Speaker.

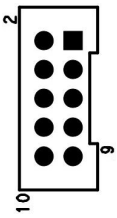
Pin #	Signal Description	
	J50 (RIGHT CH)	J51 (LEFT CH)
1	ROUT+	LOUT+
2	ROUT-	LOUT-

J50 – Internal COM2 Serial Port



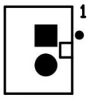
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS/+12VS	9	GND

J51 – Internal COM1 Serial Port



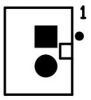
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS/+12VS	9	GND

J52, J53 – Reading Light Connector



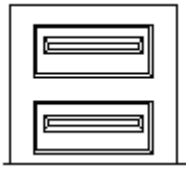
Pin #	Signal Description
1	+12VSB
2	GND

J54 – Power Switch connect



Pin #	Signal Description
1	Power ON
2	GND

J55,J56 – USB3.0 Port

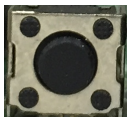


Pin #	Signal Description	Pin #	Signal Description
1	+5V	10	+5V
2	Data1-	11	Data2-
3	Data1+	12	Data2+
4	GND	13	GND
5	SSRX1-	14	SSRX2-
6	SSRX1+	15	SSRX2+
7	GND	16	GND
8	SSTX1-	17	SSTX2-
9	SSTX1+	18	SSTX2+

J57 – Reset Connector

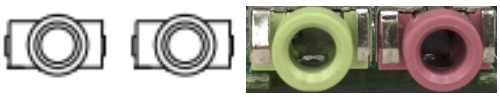
Pin #	Signal Description
1	SYS_RESET#
2	GND

J58 – Reset Button



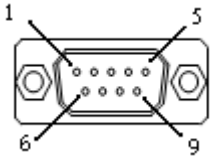
Pin #	Signal Description
1	SYS_RESET#
2	GND
3	GND
4	GND

J59 / J60 – External Audio Phone Jack



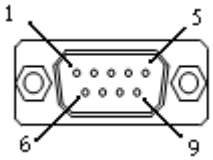
Audio Jack	Signal Description
J59	Line Out (stereo) Green
J60	Microphone (stereo) Pink

J61 – 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#	--	--

J62 – 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. Touch Lock AP User's Manual

1. API Prerequisites

1.1 Obtaining the AP and Related Documentation

This Touch Lock Tools Application Program (AP) and related documentation are available for whom has signed and returned a copy of the AP Licensing Agreement to Wincomm. Contact Wincomm account manager if you require a copy of the software.

1.2 Touch Lock Tools AP Requirement

This Touch Lock Tools AP is supported under the following operating systems and Wincomm product platforms:

Operating system: Microsoft™ Windows XP pro 32bit / 64bit, Microsoft™ Windows XP embedded 32bit / 64bit, Microsoft™ Windows 7 pro 32bit / 64bit, Microsoft™ Windows 7 embedded standard 32bit / 64bit.

Product platforms: WLP-7B20.

2. The Touch Lock Tools AP Program

2.1 Overview

The following instructions assume that you have obtained the Touch Lock Tools AP software, and have a working knowledge of the operating system on which you are installing the AP files. If you are in any doubt about the installation procedures, please contact your account manager to get the help.

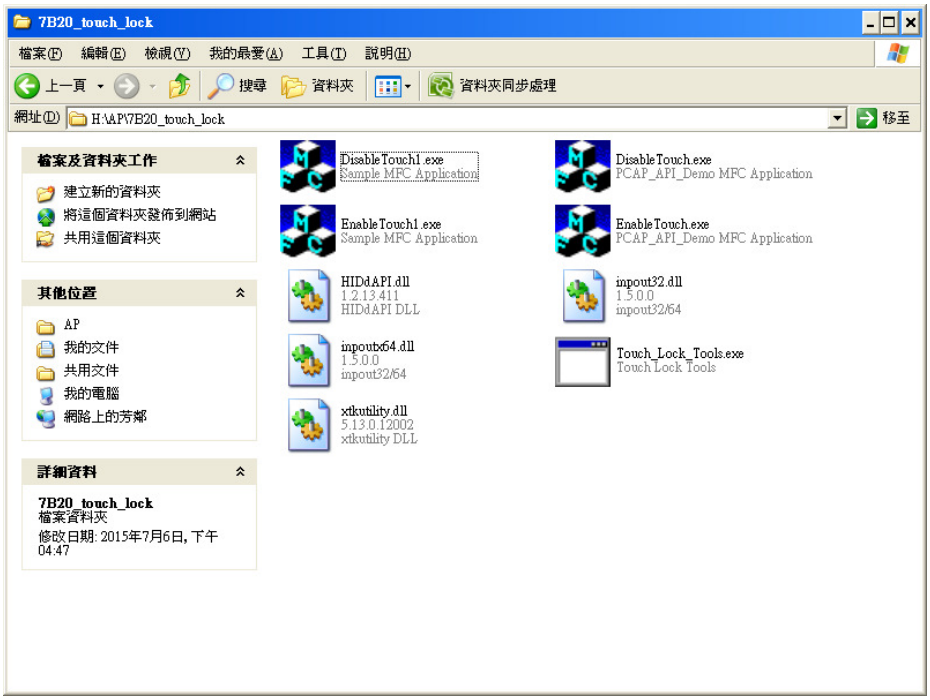
2.2 API use procedure

2.2.1 If Touch Lock Tools is enable, touch panel will lock by set unit times (default: 20 seconds).

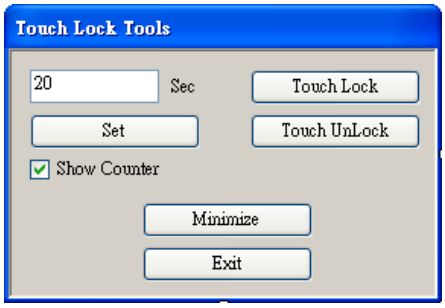
2.3 Run Program

2.3.1 Confirm that the system has been installed Microsoft Visual C++ 2008 Redistributable and Microsoft .NET Framework 2.0.

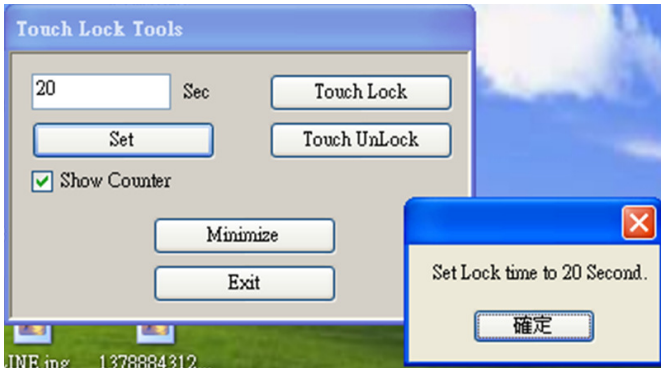
2.3.2 Run "Touch_Lock_Tools.exe" to running program as follow:



2.3.3 You can see the Touch Lock Tools form and min keyboard as below.

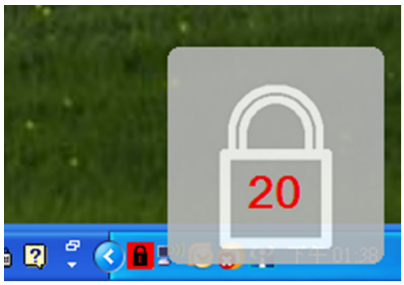


2.3.4 You can change touch lock timer (range 1-100 / 1-99 means 1-99 seconds / 100 means always lock). By set value in textbox and click “Set” button. If setting success, it will show message as follow.

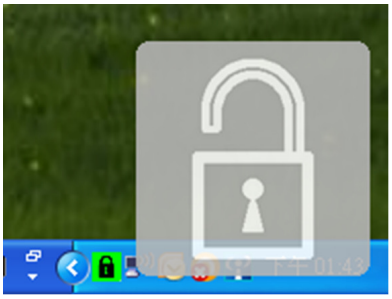


If setting timer value error, it will show error message as follow.

2.3.5 If touch lock is enable, you will see the timer in the lower right corner of the screen, and icon in task bar will become red .



2.3.6 If timer countdown to zero, touch will unlock automatically, and icon in task bar will become green.



2.3.7 If you don't want to see the counter, you can uncheck the show counter option.

2.3.8 When you click “Minimize” button, the form will concealed below Task Bar.

2.3.9 When you click “Exit” button, program will disable WDT and close.

3. Getting Help

If assistance is required when running the AP, please contact your account manager.