WLP-7F20 Series

User's Manual

Version V1.0

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

Acknowledgments

Greeting & Setup

Thank you for purchasing the WLP-7F20 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
2018/3/27	V1.0	First release	Eddie

Table of Contents

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 WLP-7F20 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 WLP-7F20 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.

System Overview

System Specification

CPU	6th Generation Intel® Core-I i5/i7 FCBGA1356 (15W Max) I5-6200U 2.3 GHz dual-core processor I7-6500U 2.6 GHz dual-core processor
Graphic	Intel® HD Graphics 520
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	External RS232/RS422/RS485 x 1(Set by BIOS, RS485 auto flow), RS232 x 1 Internal RS232 x 1 RS232 (Jumper 5V, 12V) x1
USB	External USB 3.0 x 4 (Type A, USB2.0 included) Internal USB 2.0(5V) pin head x 6,(one pin head co-layout with Half M-PCIe, one for ISO co-lay with Full M-PCIe, one for R/PCT touch with control, one for USB webcam with control)
WDT	Generates system reset; 256 segments, 0, 1, 2…255 sec/min.

BIOS

Brand: AMI

Flash ROM size: 128Mb
Support RTC wakeup /Wake on LAN /Power on after power failure/PnP/ACPI/RTC

Display Panel

Size	15″	16″	17″
Brand	TIANMA	AUO	AUO
Model	TM150TDSG70	G156XW01	G170ETN01.0
Resolution (pixel)	1024(H) x 768(V)	1366(H) x 768(V)	1280 (H) x 1024(V)
Number of Colors	16.2M	16.7M	16.7M
View Angle (H/V)	160/160	170/160	170/160
Brightness (cd/m2)	300	400	350
Contrast Ratio	600 : 1	500 : 1	1000 : 1
Interface	LVDS	LVDS	LVDS
Supply Voltage (V)	3.3	3.3	3.3
Backlight	LED	LED	LED
life time<Hrs>	30000	50000	30000
Operating temp.	-20~70℃	0~60℃	0~50℃

Size	19″	22″
Brand	AUO	AUO
Model	G190EG01	M215HTN01.1
Resolution (pixel)	1,280 (H) × 1024 (V)	SVGA (1920 x 1080)
Number of Colors	16.7 M	16.7 M
View Angle (H/V)	170/160	170/160
Brightness (cd/m2)	350	250
Contrast Ratio	1000 : 1	1000:1
Interface	LVDS 6-bit	LVDS 6 bits
Supply Voltage (V)	3.3	3.3
Backlight	LED	CCFL
life time<Hrs>	50000	30000
Operating temp.	0~80℃	0~50℃

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.

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.

Touch Screen: resistive or capacitive types

Type	5 wire Full Flat Res. touch	Projective Capacitive
Glove	Any type glove	No
Input Mode	**Point**: Finger or touch pen **Drag**: Finger	Finger P-Cap touch pen
Vandal	NA	NA
Interface	USB	USB
Light Transmission	80±5%	90±3%

Touch Controller

EETI EXC7700 microcontroller with USB interface and specific for 4, 5, 8 wire touch screen.

Storage

HDD	2.5" SATA HDD drive bay x 1 (with anti-vibration mechanism)
SATA DOM	2nd SATA connector pin7 with VCC_(+5V)

Expansion

Mini-PCIe / mSATA	52 pin card-edge type x2 support half/full size(full size with mSATA function)
M.2	Type E x 1

External I/O

USB	USB 3.0 x 4
COM	RS232 x 3, RS232/TTL (Jumper 5V, 12V) x 1
LAN	RJ-45 x 2 (Gigabit Ethernet)
Audio	3.5mm phone jack connector * 2 (Line-out, and Mic-in)
DVI output	DVI-I x 1

Power

Power	DC-In connector x 1 (Jack with locker)
Switch	Reset button
LED indicator on	Green: power On/Off Red: HDD status
Power Input	DC9V~32V

Power Adapter	AC 90 ~ 264V / 47 ~ 63 Hz / DC output 12V

Mechanical & Environmental

Material construction	Front bezel is Aluminum or SECC, others are SECC enclosure
Aluminum bezel Color	Black / Silver
Front Panel Protection	Res. Touch IP66 / P-CAP touch IP69K
ID design	Panel mount (default)
Operation Temperature	*12V DC Input 0~50℃ (IEC60068-2-56, air flow cooling)* *12V DC Input 0~40℃ (IEC60068-2-2, natural cooling)* *28V DC Input 0~42℃ (IEC60068-2-56, air flow cooling)* *28V DC Input 0~32℃ (IEC60068-2-2, natural cooling)*
Storage Temperature	-20~60℃
Operation Relative Humidity	10%~90%, non-condensing
Storage Relative Humidity	10%~90%, non-condensing
Mounting	Panel mount/VESA (75x75)

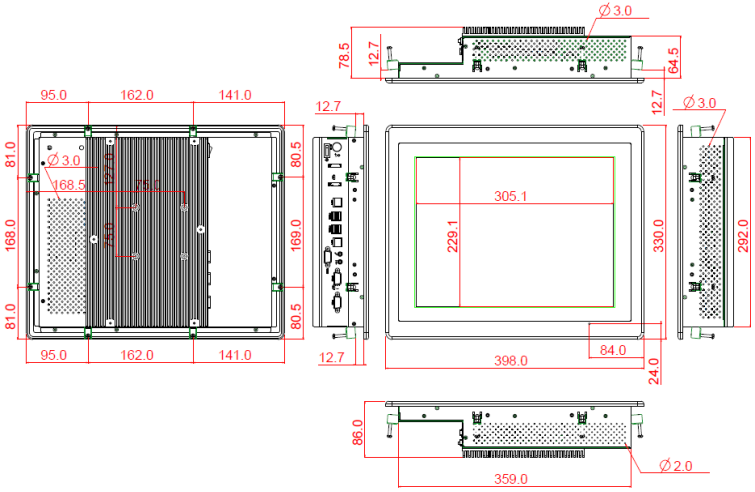
	Net Weight (Kg)	**Gross Weight (Kg)**
15”	5.5 kg	8.5 kg
16”	6.4 kg	9.2 kg
17”	8.3 kg	10.5 kg
19”	9.2 kg	12.4 kg
21”	10 kg	13.4 kg

Shock/Vibration/Drop

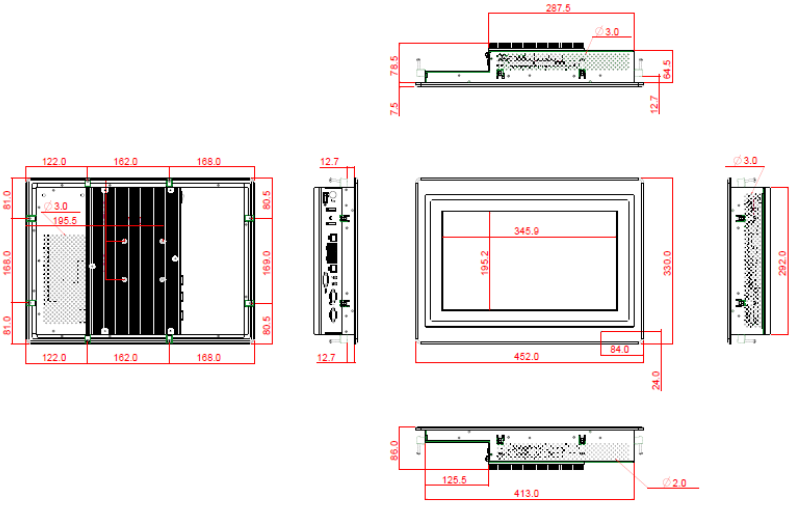
	Shock	*Vibration*	*Drop*
General	*Operating:* *Pulse shape : Half-sine waveform* *Impact acceleration : 15g* *Pulse duration : 11 ms* *Number of shocks : 18 shocks (3 shock for each ±axis)* *Orientation : ±X, ±Y and ±Z axes*	*Operating:* *5 ~ 500Hz ,* *Acceleration : 1.0G* *Sweep time : 15 minutes* *Number of cycle : 1 cycle for each axis* *Vibration axes : X, Y and Z*	*3 Feet height free drop still survive, (test surface: concrete, with packing)* *6 surfaces*

System View

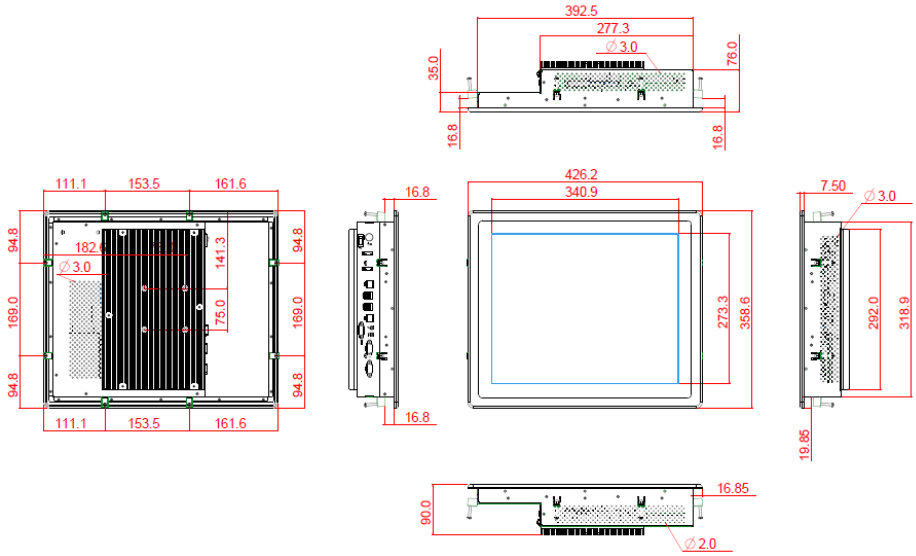
WLP-7F20-15 Outline Drawing (Panel Mount)



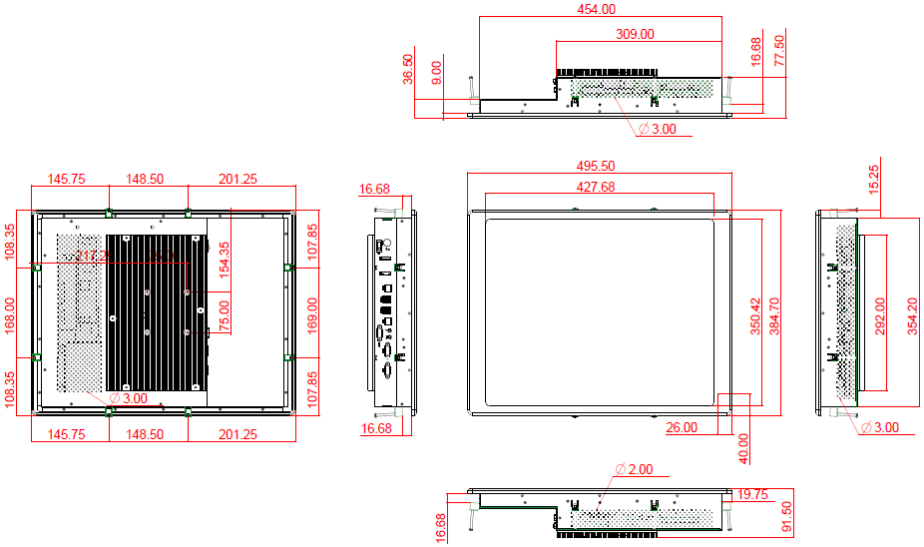
WLP-7F20-16 Outline Drawing (Panel Mount)



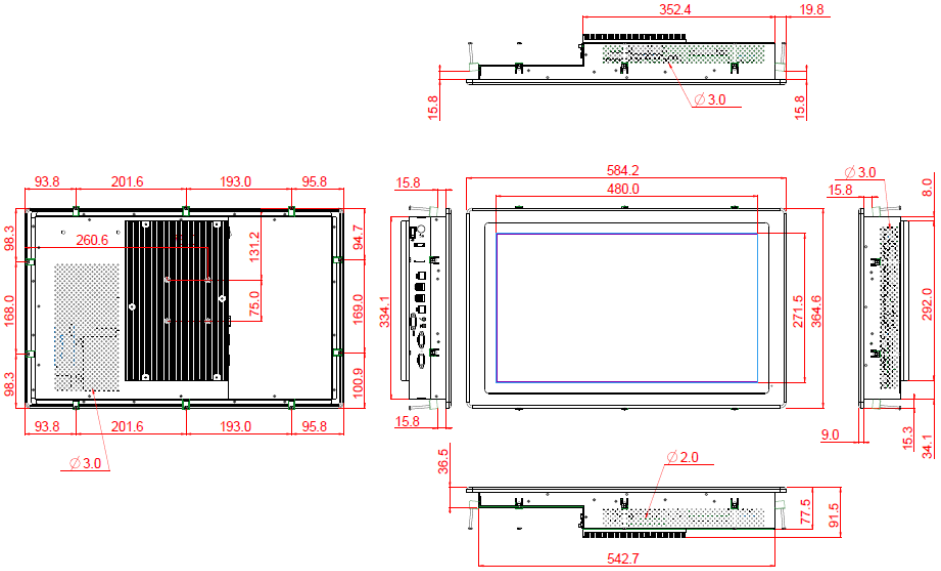
WLP-7F20-17 Outline Drawing (Panel Mount)



WLP-7F20-19 Outline Drawing (Panel Mount)



WLP-7F20-22 Outline Drawing (Panel Mount)



I/O connectors

Note: Share the same place with DVI output, DVI and VGA not simultaneously

VESA mount installation

Please use the supplied 4 x M4-L10 screws for VESA mounting. And as below VESA mounting holder is just a diagrammatic drawing. You can choose any standard VESA 75x75 mm mounting holder to mount our machine.

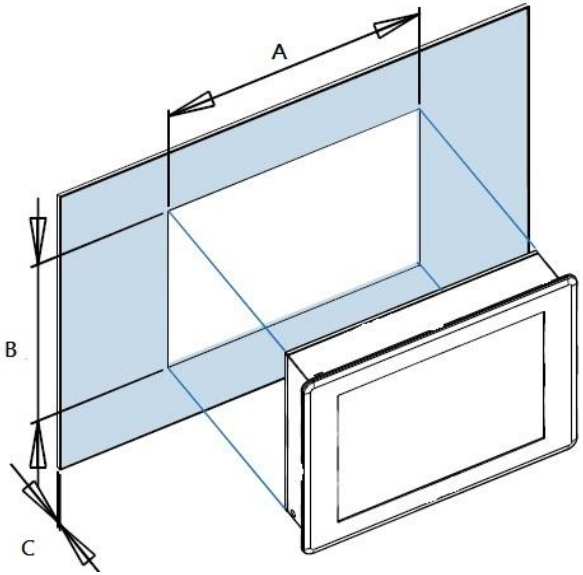
For use only with UL listed Wall Mount Bracket with minimum weight/load bearing capacity 10 Kg

Panel mount installation

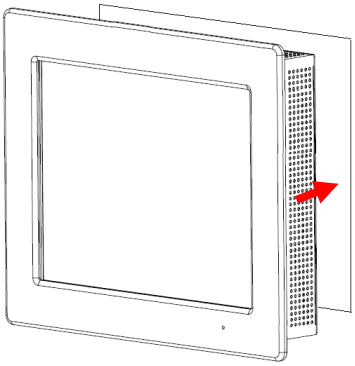
1. The Panel PC can be panel mounted and comes with brackets and screws for this purpose. The required cutout for panel mounting and maximum panel thickness is shown below.

	A	B	C
WLP-7F20-15	365	298	10
WLP-7F20-16	419	298	10
WLP-7F20-17	398	325	14
WLP-7F20-19	460	360	14
WLP-7F20-22	549	340	13

Unit: mm



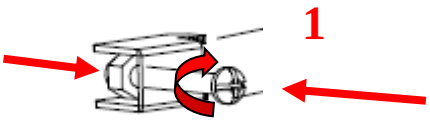
STEP 1

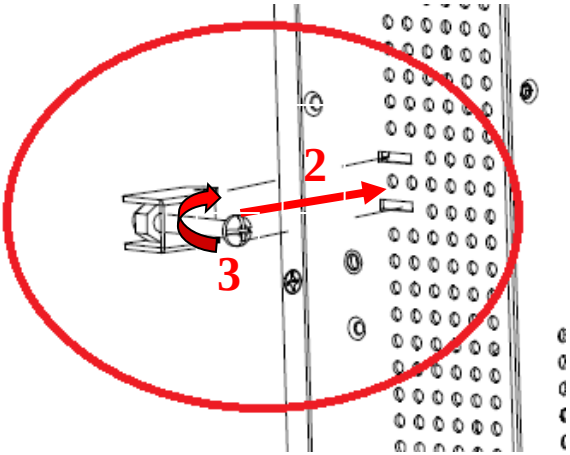


Panel Mount

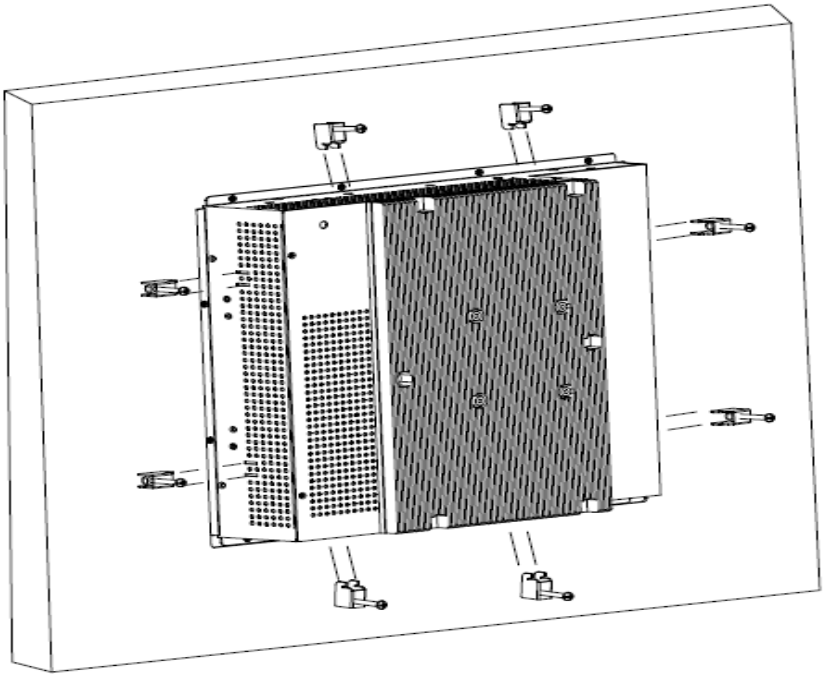
Put Panel PC on the fixture (Wall, Panel…..) from the front, with the sides of the front bezel shown on the outside.

STEP2





Use provided mounting kits to fix the Panel PC and the customer's fixture



Unpacking

After unpacking the shipping carton, you should find these standard items:

- The WLP-7F20 Panel PC series
- Accessory box including the followings:
  - AC-DC adapter x 1
  - AC power cord x 1
  - BKT;WALL MOUNT STD,SUS304, 1.2MM x 8

- SCREW BONNET; M4*6.5MM,MP-4(B) x 8
- SCR; STEEL,M4*L=45MM FH MS x 8
- DVD-ROM for drivers, utility, user manual(in PDF format)

Inspect all the items. If any item is damaged or missing, notify your dealer immediately.

Getting Started

This chapter tells you how to set up the system.

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 WLP-7F20 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 WLP-7F20 Panel PC

Method 2: Use the COM Port

By connecting another PC to the WLP-7F20 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 WLP-7F20 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 WLP-7F20 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 5 – Install Touch 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

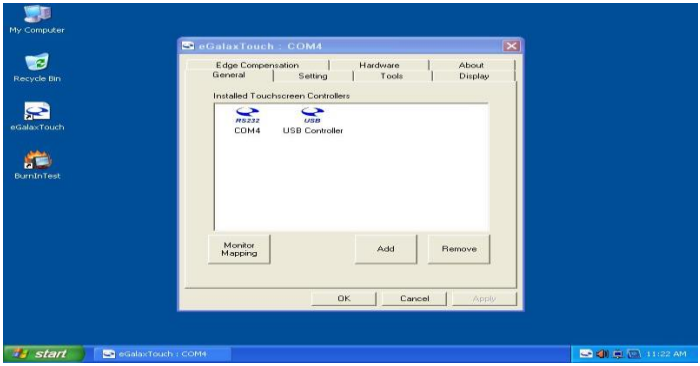
Step 5 – Install Touch Driver

1. Open fie of **touch**
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

Note:

eGalax Touch driver supports both resistive and capacitive touch screens, user can find 2 touch icons shown in utility, please set up touch screen by selecting the correlative one.

(USB controller: resistive touch screen, USB controller: capacitive touch screen)



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

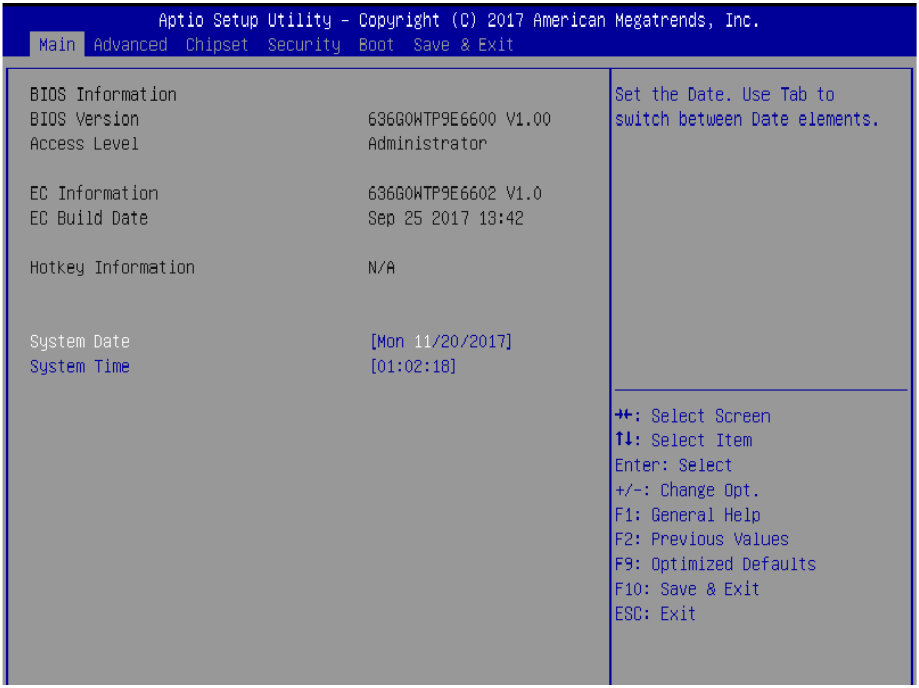
The AMI BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the AMI BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If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

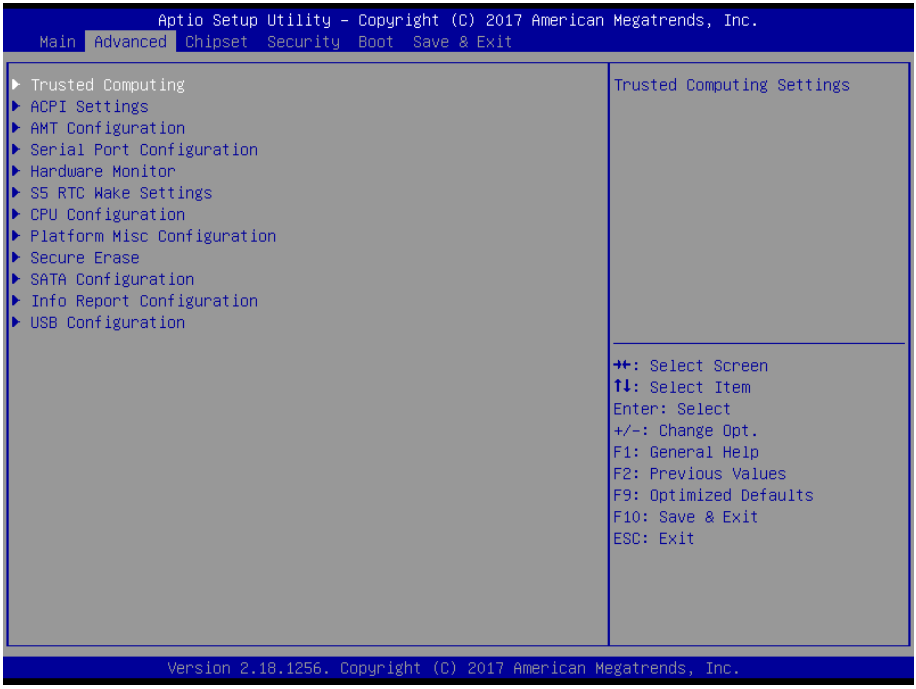
System Date

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.

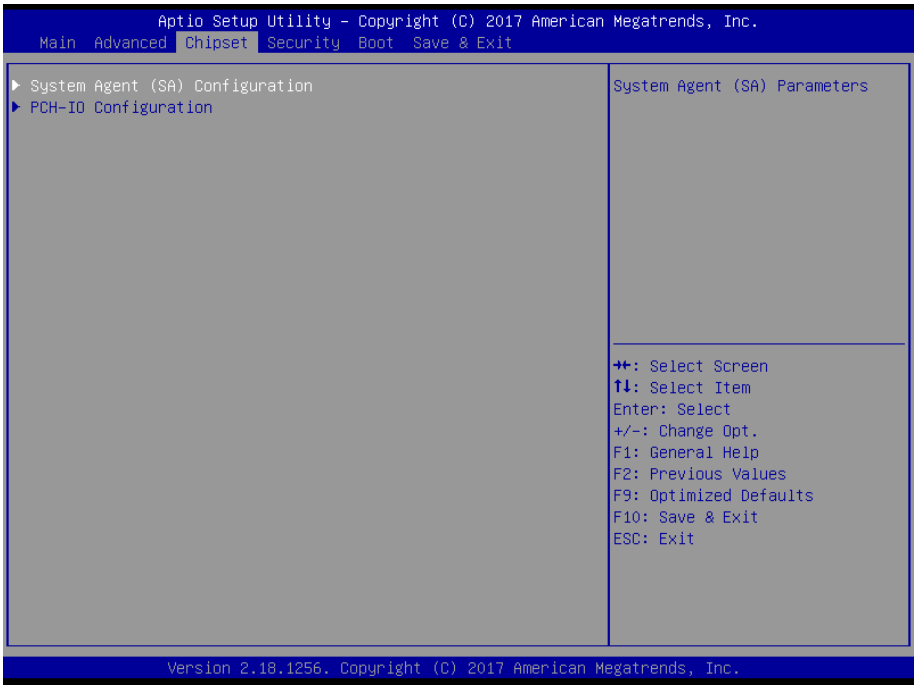
Device reset time-out

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



North Bridge

Config Intel IGD Settings.

South Bridge

High Precision Timer

Enable or Disable the High Precision Event Timer.

Audio Controller

Control Detection of the Azalia device.

Disabled = Azalia will be unconditionally disabled.

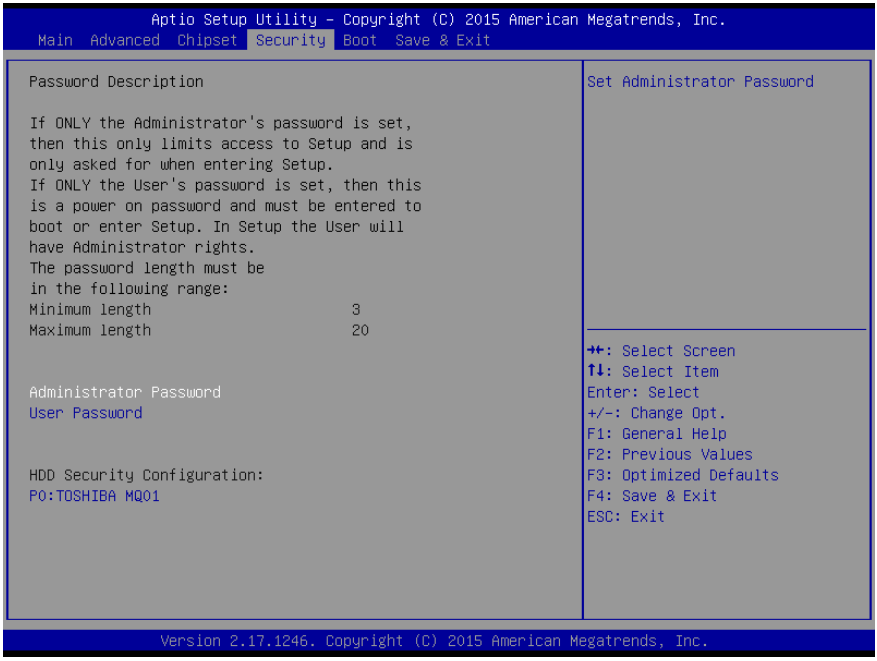
Enable = Azalia will be unconditionally Enabled.

Auto = Azalia will be enabled if present disabled otherwise.

Restore AC Power Loss

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

Security



Administrator Password

Set Administrator Password.

User Password

Set user Password.

P0 : TOSHIBA MQ01

HDD Security Configuration for selected drive.

Boot

Setup Prompt Timeout

Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Bootup Numlock State

Selects the keyboard NumLock state.

PXE Boot

PXE Network Boot Enable / Disable.

OS Selection

OS Selection.

Quiet Boot

Enable or disables Quiet Boot option.

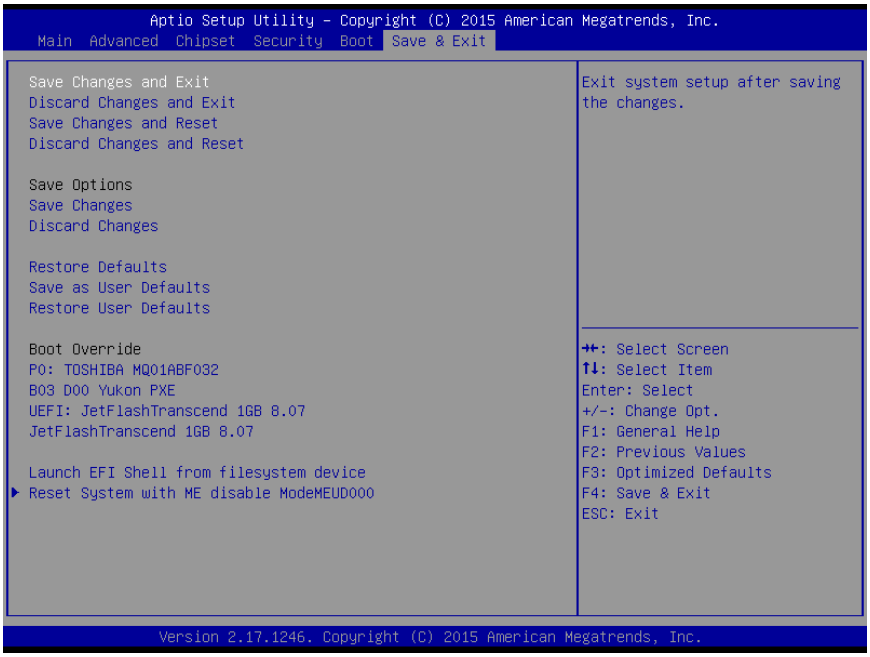
Boot Option #1

Sets the system boot order.

Boot Option #2

Sets the system boot order.

Save & Exit



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.

Boot Override

To *override* the *boot* device.

Launch EFI Shell From filesystem device

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

Reset System with ME disable ModeMEUD000

ME will runs into the temporary disable mode, Ignore if ME Ignition FWMEUD001.

Appendix

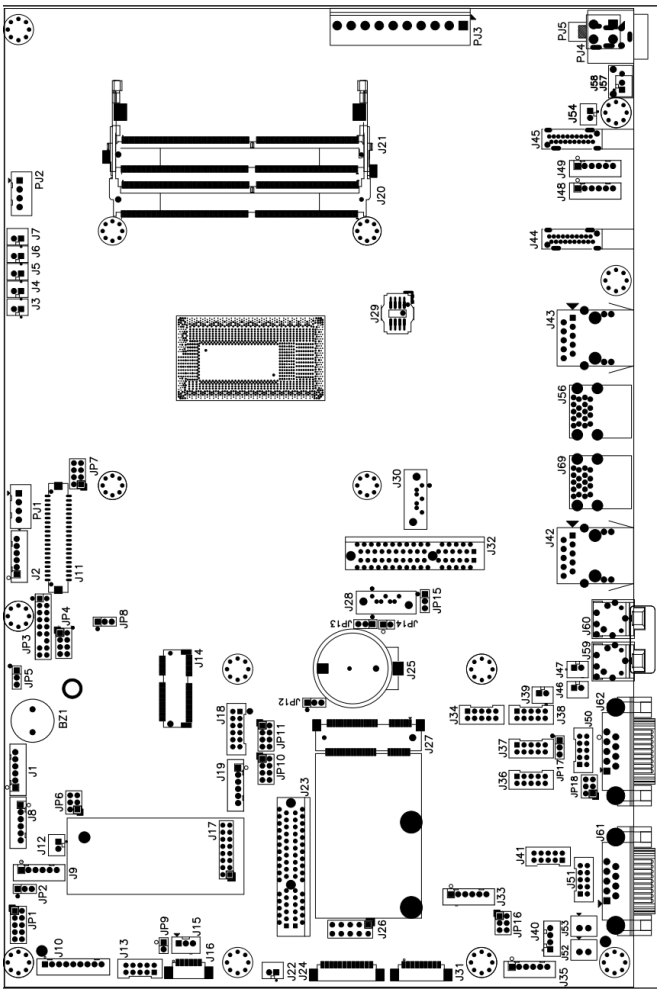
A. Jumper settings and Connectors

This appendix gives the definitions and shows the positions of jumpers, headers and connectors.

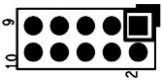
All of the configuration jumpers on WLP-7F20 series are in the proper position.

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

Jumper and Connector Definition Block



JP1 – Touch Panel Type Selection

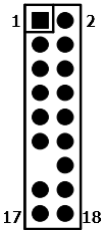


Description	Jumper Setting
3M type	***1-2, 3-4 (default)***
ELO type	5-6,7-8

JP2 – PCT / RES Touch Selection

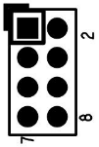
Description	Jumper Setting
PCT Touch	1-2
RES Touch	2-3

JP3 –TPM2.0



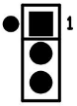
Pin #	Signal Description	Pin #	Signal Description
1	DEBUG_CLK	2	GND
3	LPC_FRAME#	4	SMBCLK
5	PLT_RST#	6	SMBDATA
7	LPC_AD3	8	LPC_AD2
9	+3.3VS	10	LPC_AD1
11	LPC_AD0	12	GND
NA	NA	14	PWRDWN#=SUS_STAT#
15	+3.3VSB	16	SERIRQ
17	GND	18	GND

● **JP4 – LVDS Power Selection**



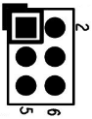
Description	Jumper Setting
+3.3VS(for 10″/12″/15″)	5-6, 7-8
+5VS(for 17″/19″)	***1-2, 3-4 (default)***

● **JP5 – Backlight Type Selection**



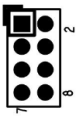
Description	Jumper Setting
Analog Inverter	1-2
PWM Inverter	2-3

● **JP6 – Sensor Selection**



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

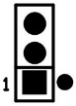
JP7 –Panel Resolution Selection



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

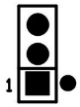
JP10 –GPO Settings

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

JP11 –GPI Settings

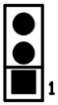
Description	Jumper Setting
Dry	On (1-2, 3-4, 5-6, 7-8 short)
Wet	Off (NA)

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

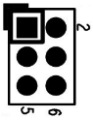
JP14 – RTC Register Clear Selection

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

JP15 – SATA / SATADOM Selection

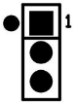
Description	Jumper Setting
SATA	***2-3(default)***
SATA DOM	1-2

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



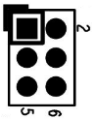
Description	Jumper Setting
5VS	1-2
12VS	3-4
RI#	***5-6(default)***

JP17 – COM4 Power Selection



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

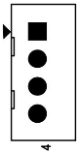
JP18 – COM2 RI# / 12VS / 5VS Selection



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

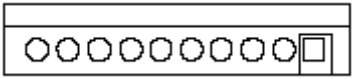
1.1 Connector Definition

PJ1 /PJ2 – HDD Power Connector



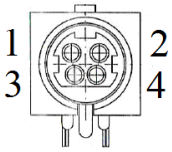
Pin #	Signal Description
1	+12VS
2	GND
3	GND
4	+5VS

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

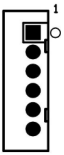


Pin #	Signal Description
1	DC In
2	DC In
3	GND
4	GND

PJ5 – Power Input Connector

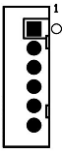
Pin #	Signal Description
1	GND
2	GND
3	DC In
4	DC In

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

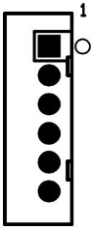
J3 – MB Heater Connector

Pin #	Signal Description
1	+12VSB
2	GND

J4, J5, J6, J7 – Panel Heater Connector

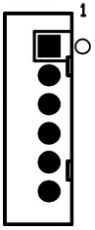
Pin #	Signal Description
1	+12VSB
2	GND

J8 – Internal USB 2.0 Pin Header for Webcam



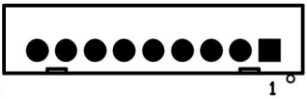
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

J9 – Internal USB 2.0 Pin Header for PCT Touch



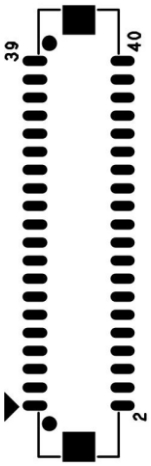
Pin #	Signal Description
1	+5VSB
2	+5VSB
3	Data -
4	Data +
5	GND
6	GND

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

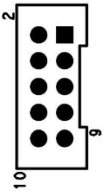


Pin #	Signal Description	Pin #	Signal Description
39	GND	40	GND
37	Ground	38	GND
35	A_TXD3+	36	B_TXD3+
33	A_TXD3-	34	B_TXD3-
31	GND	32	GND
29	A_CLK+	30	B_CLK+
27	A_CLK-	28	B_CLK-
25	GND	26	GND
23	A_TXD2+	24	B_TXD2+
21	A_TXD2-	22	B_TXD2-
19	GND	20	GND
17	A_TXD1+	18	B_TXD1+
15	A_TXD1-	16	B_TXD1-
13	GND	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

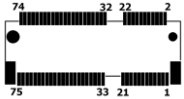
Pin #	Signal Description
1	PANEL_SENSOR
2	GND

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

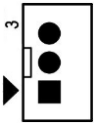
J14 – M.2 E_KEY



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

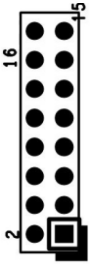


Pin #	Signal Description
3	+3.3V_ALWAYS
2	HEATER_LED#
1	ERROR_LED#

J16 – Light Sensor Connect

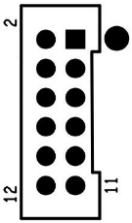
Pin #	Signal Description
1	+3.3VS
2	NC
3	Ground
4	SMBCLK
5	LIG_SEN_INT#
6	SMBDATA

J17 –TPM / ID-394



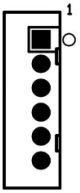
Pin #	Signal Description	Pin #	Signal Description
16	+3.3VSB	15	SUS_STAT#
14	SMB DATA	13	GND
12	SMB CLK	11	Debug CLK
10	CLKRUN#	9	LPC Frame#
8	+5VSB	7	LPC AD3
6	+3.3VS	5	LPC AD2
4	SERIRQ	3	LPC AD1
2	PLT reset#	1	LPC AD0

J18 – GPIO Connect



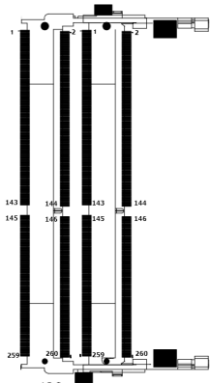
Pin #	Signal Description	Pin #	Signal Description
2	GEN_GPI1	1	GEN_GPO1
4	GEN_GPI2	3	GEN_GPO2
6	GEN_GPI3	5	GEN_GPO3
8	GEN_GPI4	7	GEN_GPO4
10	+5V	9	+5V
12	GND	11	GND

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

J22 – EC Reset connector

Pin #	Signal Description
1	WRST#
2	GND

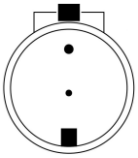
J23–PCIE X4 Slot for ISO Interface

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

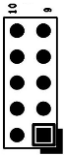
J24 – DICOM Connect

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

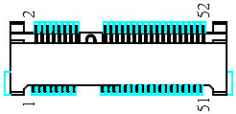


J26 – JTAG For EC



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

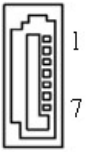
J27 – Mini PCI Express / mSATA Socket



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

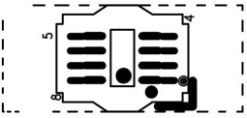
25	PERp0	26	GND
27	GND	28	+1.5VS
29	GND	30	SMB_CLK
31	PETn0	32	SMB_DATA
33	PETp0	34	GND
35	GND	36	USB_D-
37	GND	38	USB_D+
39	+3.3VSB	40	GND
41	+3.3VSB	42	Reserved
43	MSATA_ SEL1	44	Reserved
45	CL_CLK	46	Reserved
47	CL_ DATA	48	+1.5VS
49	Controller Link RST#	50	GND
51	MSATA_ SEL2	52	+3.3VSB

● **J28 – Standard SATA / SATA DOM Interface**



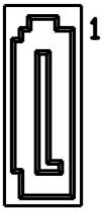
Pin #	Signal Description
1	Ground
2	Tx+
3	Tx-
4	Ground
5	Rx-
6	Rx+
7	Ground / +5VS

● **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

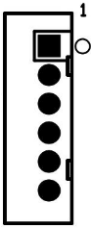
● **J31 – CAP Front Bezel Button**

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

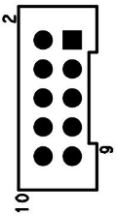
Pin #	Side B	Side A	Pin #	Side B	Side A
1	+12VS	RSVD	17	RSVD	RXN0
2	+12VS	+12VS	18	GND	GND
3	RSVD	+12VS	19	TXP1	RSVD
4	GND	GND	20	TXN1	GND
5	SMBCLK	RSVD	21	GND	RX1
6	SMBDATA	RSVD	22	GND	RX1
7	GND	RSVD	23	TXP2	GND
8	+3.3VS_PCIE	RSVD	24	TXN2	GND
9	RSVD	+3.3VS_PCIE	25	GND	RX2
10	+3.3VSB	+3.3VS_PCIE	26	GND	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



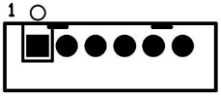
Pin #	Signal Description
1	+3.3VS
2	+5VS
3	SMBCLK
4	SMBDATA
5	GND
6	GND

J34 – Internal COM4 TTL Serial Port



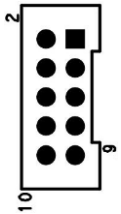
Pin #	Signal Description	Pin #	Signal Description
2	TTL_DSR#	1	TTL _DCD#
4	TTL _RTS#	3	TTL _SIN
6	TTL _CTS#	5	TTL _SOUT
8	TTL _RI#	7	TTL _DTR#
10	+5VS/+12VS	9	GND

J35 – PS2 KB/MS



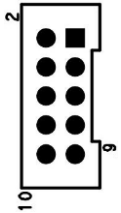
Pin #	Signal Description
1	KBDATA
2	MSDATA
3	Ground
4	+5VSB
5	KBCLK
6	MSCLK

J36 – Internal COM5 Serial Port



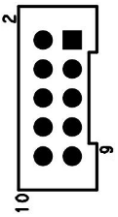
Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS	9	GND

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

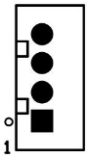


Pin #	Signal Description	Pin #	Signal Description
2	232_DSR#	1	232_DCD#
4	232_RTS#	3	232_SIN
6	232_CTS#	5	232_SOUT
8	232_RI#	7	232_DTR#
10	+5VS	9	GND

J39 – Internal MIC Connect

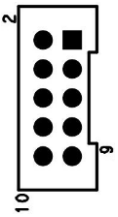
Pin #	Signal Description
1	MIC_R
2	MIC_L

J40 – Power / HDD LED



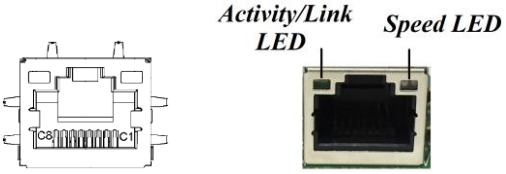
Pin #	Signal Description
1	SATA_LED#
2	+3.3VSB
3	+3.3VSB
4	PWR_LED#

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



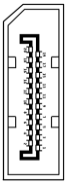
Activity/Link LED

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

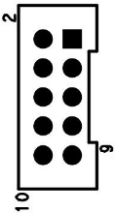


Pin #	Signal Description	Pin #	Signal Description
1	ML_LANE0+	11	GND
2	GND	12	ML_LANE3-
3	ML_LANE0-	13	CONFI G1
4	ML_LAN1+	14	CONGI G2
5	GND	15	AUX_CH+
6	ML_LAN1-	16	GND
7	ML_LANE2+	17	AUX_CH-
8	GND	18	HOT PLUG
9	ML_LANE2-	19	RETURN
10	ML_LANE3+	20	+3.3VS

J46, J47 – RIGHT / LEFT CH for Speaker.

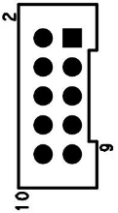
Pin #	Signal Description	
	J50 (RIGHT CH)	J51 (LEFT CH)
1	ROUT+	LOUT+
2	ROUT-	LOUT-

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

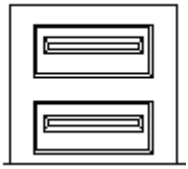
J52, J53 – Reading Light Connector

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

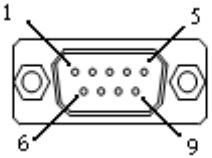
● **J58 – Reset Button**

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

● **J59 / J60 – External Audio Phone Jack**

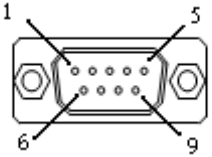
Audio Jack	Signal Description
J59	Line Out (stereo) Green
J60	Microphone (stereo) Pink

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

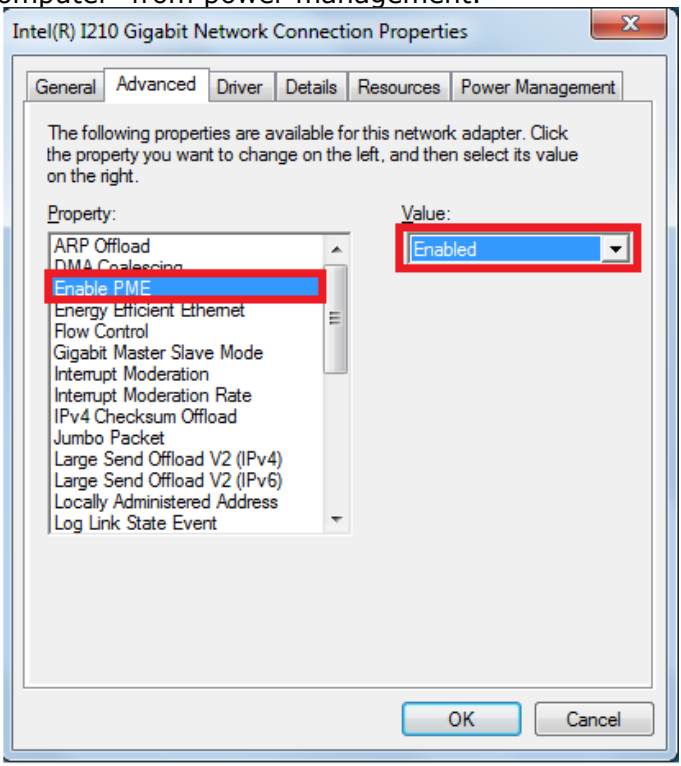


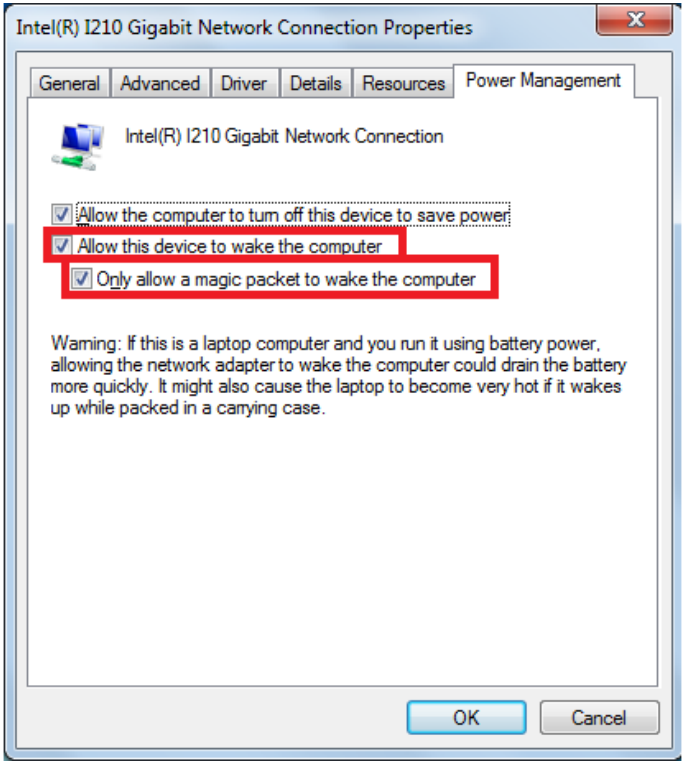
Pin #	Signal Description	Pin #	Signal Description
1	DCD	2	RXD
3	TXD	4	DTR
5	GND	6	DSR
7	RTS	8	CTS
9	RI#	10	--

B. Wake UP on LAN Function

Please make sure the AC power is ON before use the function.

1. Boot into OS (windows 7).
2. In start menu control panel System device manager Network adapters double click Intel I210AT Wake from Enable PME Item, select ”Allow the computer to turn off this device to save power”, “Allow this device to wake the computer” and “Only allow a magic packet to wake the computer” from power management.





Please shutdown system and wait for wake on LAN after finish these procedures