# G-WIN Slim IP65 Panel PC

Intel® Celeron® Bay Trail-M N2930 1.83 GHz

P-CAP Touch

W10IB3S-GSH1(HB)
R10IB3S-GST2
R12IB3S-GSM2(HB)
R15IB3S-GSC3(HB)

User Manual

Version 1.3

CONTENTS

PREFACE

Copyright Notice

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Warranty

Our warranty guarantees that each of its products will be free from material and workmanship defects for a period of one year from the invoice date. If the customer discovers a defect, we will, at his/her option, repair or replace the defective product at no charge to the customer, provide it is returned during the warranty period of one year, with transportation charges prepaid. The returned product must be properly packaged in its original packaging to obtain warranty service. If the serial number and the product shipping data differ by over 30 days, the in-warranty service will be made according to the shipping date. In the serial numbers the third and fourth two digits give the year of manufacture, and the fifth digit means the month (e. g., with A for October, B for November and C for December).

For example, the serial number 1W14Axxxxxxxx means October of year 2014.

Customer Service

We provide a service guide for any problem by the following steps: First, visit the website of our distributor to find the update information about the product. Second, contact with your distributor, sales representative, or our customer service center for technical support if you need additional assistance.

You may need the following information ready before you call:

- Product serial number
- Software (OS, version, application software, etc.)
- Description of complete problem
- The exact wording of any error messages

In addition, free technical support is available from our engineers every business day. We are always ready to give advice on application requirements or specific information on the installation and operation of any of our products.

Advisory Conventions

Four types of advisories are used throughout the user manual to provide helpful information or to alert you to the potential for hardware damage or personal injury. These are Notes, Important, Cautions, and Warnings. The following is an example of each type of advisory.

NOTE:
A note is used to emphasize helpful information

IMPORTANT:
An important note indicates information that is important for you to know.

CAUTION/ ATTENTION
A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.

Une alerte d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.

WARNING!/ AVERTISSEMENT!
An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.

Un Avertissement de Choc Électrique indique le potentiel de chocs sur des emplacements électriques et comment éviter ces problèmes.

ALTERNATING CURRENT / MISE À LE TERRE!
The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.

Le symbole de Mise à Terre indique le risqué potentiel de choc électrique grave à la terre incorrecte.

Safety Information

WARNING! / AVERTISSEMENT!
Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Toujours débrancher le cordon d'alimentation du chassis lorsque vous travaillez sur celui-ci. Ne pas brancher de connections lorsque l'alimentation est présente. Des composantes électroniques sensibles peuvent être endommagées par des sauts d'alimentation. Seulement du personnel expérimenté devrait ouvrir ces chassis.

CAUTION/ATTENTION
Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

Toujours verifier votre mise à la terre afin d'éliminer toute charge statique avant de toucher la carte CPU. Les équipements électroniques moderns sont très sensibles aux décharges d'électricité statique. Toujours utiliser un bracelet de mise à la terre comme précaution. Placer toutes les composantes électroniques sur une surface conçue pour dissiper les charge, ou dans un sac anti-statique lorsqu'elles ne sont pas dans le chassis.

Safety Precautions

For your safety carefully read all the safety instructions before using the device. Keep this user manual for future reference.

- Always disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
- For pluggable equipment, the power outlet must be installed near the equipment and must be easily accessible.
- Keep this equipment away from humidity.
- Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
- The openings on the enclosure are for air convection and to protect the equipment from overheating.

CAUTION/ATTENTION
Do not cover the openings!
Ne pas couvrir les ouvertures!

- Before connecting the equipment to the power outlet make sure the voltage of the power source is correct.
- Position the power cord so that people cannot step on it. Do not place anything over the power cord.
- If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient over-voltage.
- Never pour any liquid into an opening. This could cause fire or electrical shock.
- Never open the equipment. For safety reasons, only qualified service personnel should open the equipment.
- All cautions and warnings on the equipment should be noted.

***Let service personnel to check the equipment in case any of the following problems appear:**
  o The power cord or plug is damaged.
  o Liquid has penetrated into the equipment.
  o The equipment does not work well or you cannot get it to work according to the user manual.
  o The equipment has been dropped and damaged.
  o The equipment has obvious signs of breakage.
- Do not leave this equipment in an uncontrolled environment where the storage temperature is below -20°C (-4°F) or above 60°C (140°F). It may damage the equipment.

CAUTION/ATTENTION
Use the recommended mounting apparatus to avoid risk of injury.
Utiliser l'appareil de fixation recommandé pour éliminer le risque de blessure.

WARNING!/ AVERTISSEMENT!
Only use the connection cords that come with the product.
When in doubt, please contact the manufacturer.
Utiliser seulement les cordons d'alimentation fournis avec le produit. Si vous doutez de leur provenance, contactez le manufacturier.

WARNING!/ AVERTISSEMENT!
Always ground yourself against electrostatic damage to the device.
Toujours vérifier votre mise à la terre afin que l'équipement ne se décharge pas sur vous.

- Cover workstations with approved anti-static material. Use a wrist strap connected to a work surface and properly grounded tools and equipment.
- Use anti-static mats, heel straps, or air ionizer for added protection.
- Handle electrostatic-sensitive components, PCB's and assemblies by the case or the edge of the board.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting and removing connectors or test equipment.
- Keep the work area free of non-conductive materials, such as ordinary plastic assembly aids and Styrofoam.
- Use filed service tools, such as cutters, screwdrivers, and vacuum cleaners that are conductive.
- Always put drivers and PCB's component side on anti-static foam.

Important Information

Countries/ Area	Symbol	This equipment complies with essential requirements of:
European Union	CE	Electromagnetic Compatibility Directive(2014/30/EU) Low Voltage Directive (2014/35/EU) Restrictions of the use of certain hazardous substances (RoHS) Directive (2011/65/EU)
USA	FC	FCC Part 15 Subpart B Regulations Class B

Federal Communications Commission Radio Frequency Interface Statement

This device complies with part 15 FCC rules.
Operation is subject to the following two conditions:
- This device may not cause harmful interference.
- This device must accept any interference received including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class "B" digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at him own expense.

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European Union

This equipment is in conformity with the requirement of the following EU legislations and harmonized standards. Product also complies with the Council directions.

Electromagnetic Compatibility Directive (2014/30/EU)
- EN55024: 2010/ A1: 2015
    - IEC61000-4-2: 2009
    - IEC61000-4-3: 2006+A1: 2007+A2: 2010
    - IEC61000-4-4: 2012
    - IEC61000-4-5: 2014
    - IEC61000-4-6: 2014
    - IEC61000-4-8: 2010
    - IEC61000-4-11: 2004
- EN55032: 2012/AC:2013
- EN61000-3-2:2014
- EN61000-3-3:2013

Low Voltage Directive (2014/35/EU)
- EN 60950-1:2006/A11:2009/A1:2010/A12:2011/ A2:2013

ABOUT THIS USER MANUAL

This User Manual provides information about using the Winmate® G-WIN Slim IP65 Panel PC (P-CAP) with Intel® Celeron® Bay Trail-M N2930 1.83 GHz processor. This User Manual applies to the G-WIN Slim IP65 Panel PC (P-CAP) – W10IB3S-GSH2, W10IB3S-GSH1(HB), R12IB3S-GSM2(HB), R15IB3S-GSC3(HB).

The documentation set for the G-WIN Slim IP65 Panel PC (P-CAP) provides information for specific user needs, and includes:

- **G-WIN Slim IP65 Panel PC (P-CAP) Quick Start Guide** - describes how to get the

  Panel PC up and running.

- **G-WIN Slim IP65 Panel PC (P-CAP) User Manual** – contains detailed description

  on how to use the Panel PC, its components and features.

NOTE:

Some pictures in this guide are samples and can differ from actual product.

Document Revision History

Version	Date	Note
1.0	10-Jan-2017	Initial documentrelease
1.1	10-Jul-2017	Revise product specifications
1.2	5-Mar-2018	Revise mechanical design of R10IB3S-GST2
1.3	10-Jul-2019	Revise specifications

INTRODUCTION

This chapter gives you product overview, describes features and hardware specification. You will find all accessories that come with the HMI device in the packing list. Mechanical dimensions and drawings included in this chapter.

CHAPTER 1: INTRODUCTION

Congratulations on purchasing Winmate® G-WIN Slim IP65 with P-CAP Panel PC. The elegantly designed, yet rugged, industrial grade G-WIN S65 series is designed for usability with brilliant true-flat screens, which offer superior readability and Projected Capacitive Multi-Touch (P-CAP) technology, available in 7", 10.1", and 15" options.

G-WIN Slim IP65 Panel PC operates on Intel® Celeron® Bay Trail-M N2930 1.83 GHz processor and supports Windows operating system. The Panel PC features Projected Capacitive Multi-Touch (P-CAP). These models are full IP 65 dustproof and waterproof and have M12 connectors.

1.1 Product Features

Winmate® G-WIN Slim IP65 with P-CAP Panel PC features:

- Intel® Celeron® Bay Trail-M N2930 1.83 GHz
- Fanless cooling system and Ultra-low power consumption
- Flat design
- M12 Waterproof connectors
- Full IP65
- 1 x LAN, 1 x RS232, 1 x USB 2.0

1.2 Package Contents

Carefully remove the box and unpack your HMI device. Please check if all the items listed below are inside your package. If any of these items are missing or damaged contact us immediately.

Standard factory shipment list:
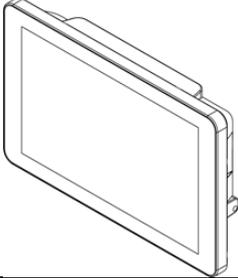
Panel PC	Quick Start Guide (Hardcopy)	Driver CD & User Manual
Varies by product specifications	91521110100P	9171111I103I
M12 Power Cable	**M12 Serial Interface Cable**	**M12 USB/ LAN Cable**
94J003L020K8	94G0123090Q0	94E0128040K0
I/O Protective Cap x 3		
60Y031131000		
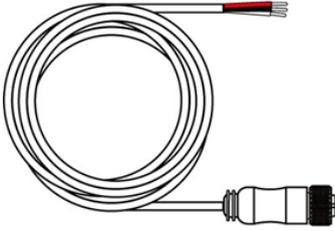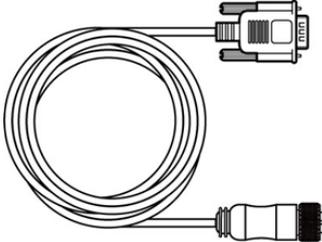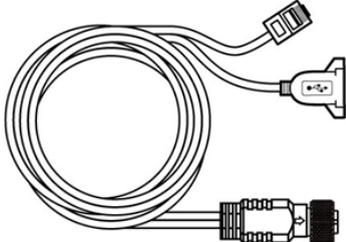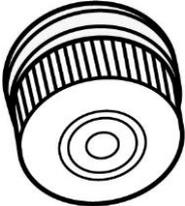
1.3 Schematics and Dimensions

W10IB3S-GSH1(HB)

Unit: mm
Dimensions: 263.28 x 173.6 x 40.2
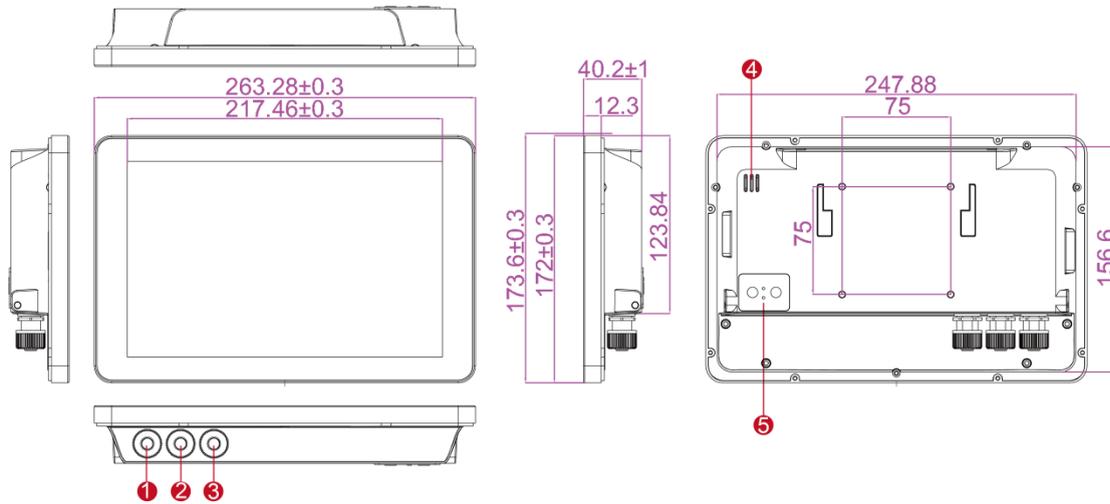
№	Description	№	Description
①	9-36V DC (M12 Type)	④	1 Watt Speaker
②	LAN, USB (M12 Type)	⑤	OSD Control Panel
③	RS232 (M12 Type)		

R10IB3S-GST2

Unit: mm
Dimensions: 252.41 x 197.8 x 43
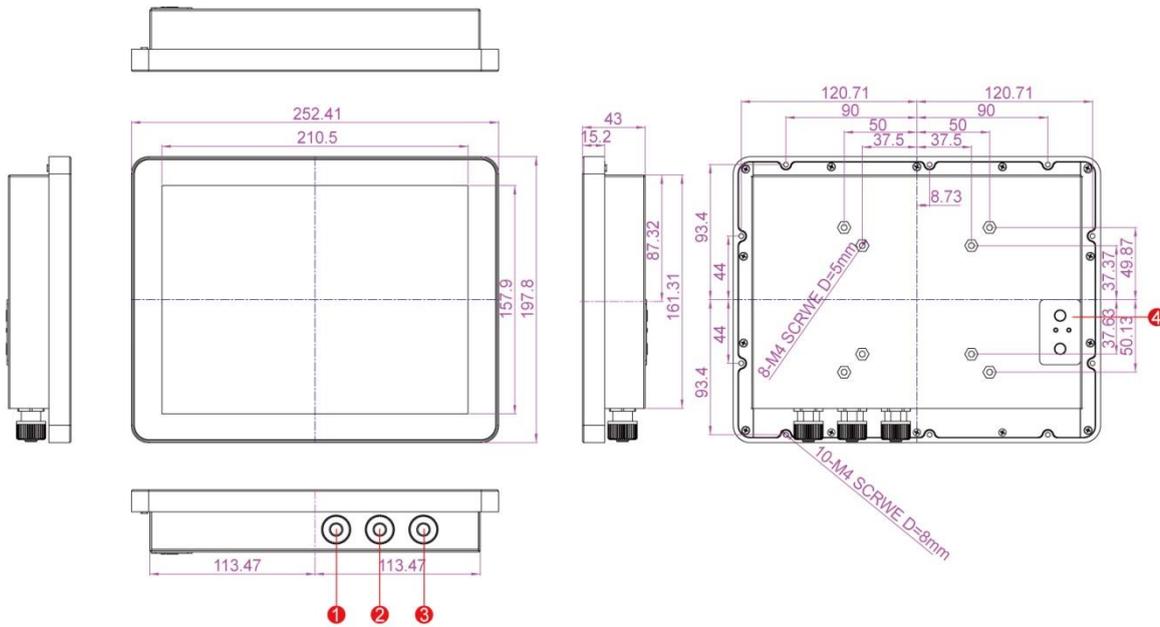
№	Description	№	Description
①	9-36V DC (M12 Type)	③	RS232 (M12 Type)
②	LAN, USB (M12 Type)	④	OSD Control Panel

R12IB3S-GSM2(HB)

Unit: mm
Dimensions: 296.2 x 226.7 x 45.5
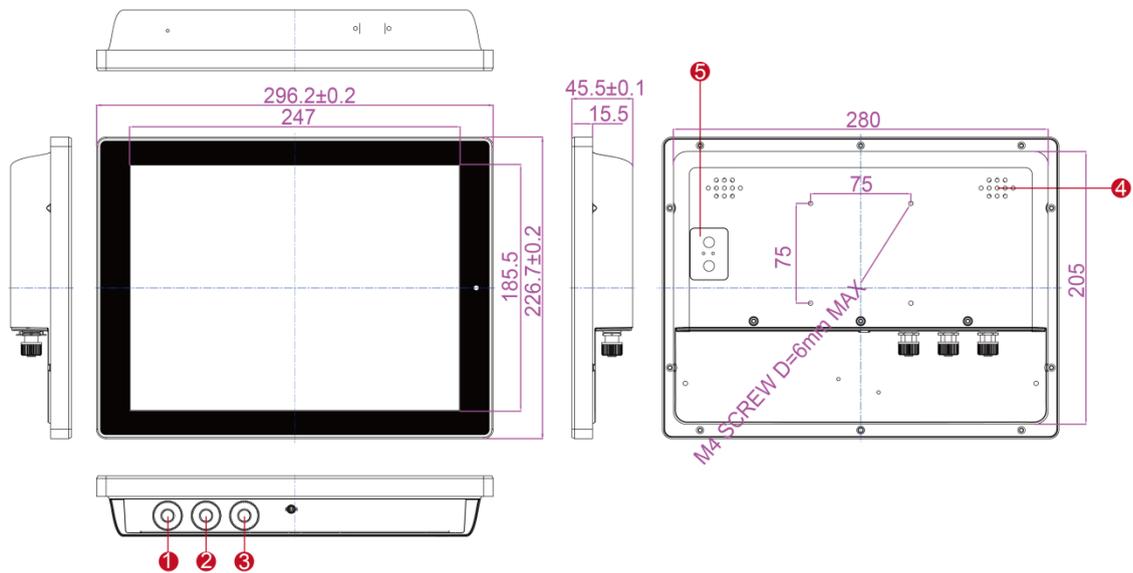
№	Description	№	Description
①	9-36V DC (M12 Type)	④	1 Watt Speaker
②	LAN, USB (M12 Type)	⑤	OSD Control Panel
③	RS232 (M12 Type)		

R15IB3S-GSC3(HB)

Unit: mm
Dimensions: 363.4 x 277.86 x 45.2
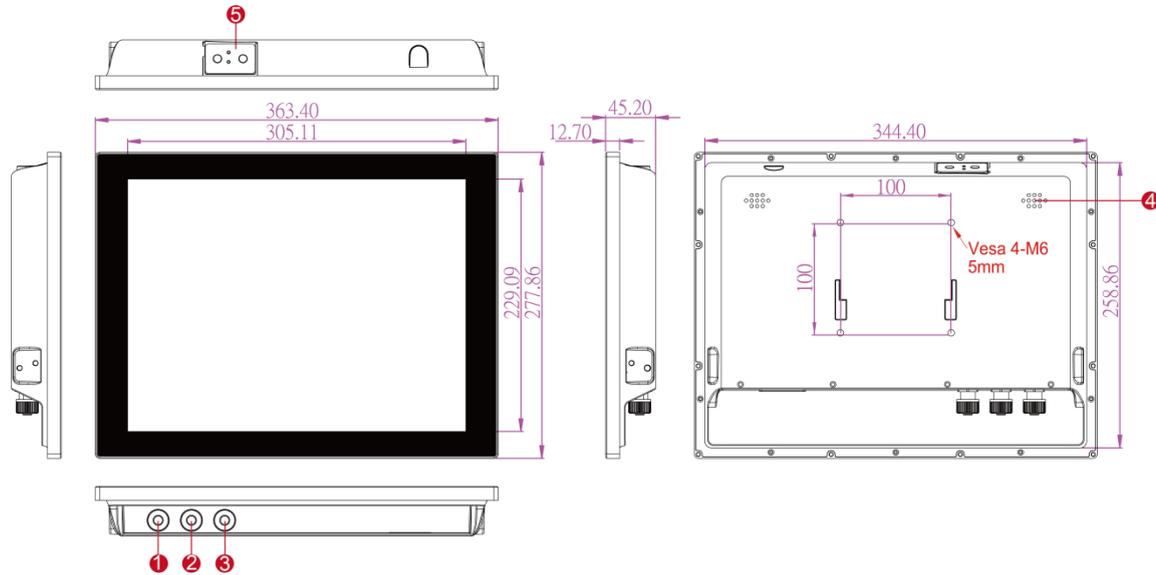
№	Description	№	Description
①	9-36V DC (M12 Type)	④	1 Watt Speaker
②	LAN, USB (M12 Type)	⑤	OSD Control Panel
③	RS232 (M12 Type)		

1.4 Physical Buttons and LED Indicators

Physical buttons and LED indicators (OSD Control Panel) located on the rear side of the Panel PC.
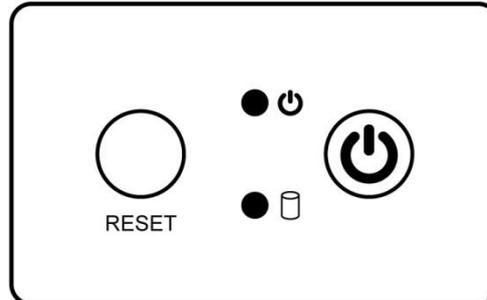
Physical Buttons

Icon	Button	Description
RESET	Reset	Press to reset the system
(power icon)	Power On/ Off	Press to power on or power off the device
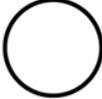
LED Indicators

LED Type	Status	Description
● (power icon)	On	Power is on
	Off	Power is off
● (storage icon)	Blinking	Storage activity (Data is being read or written)
	Off	System is idle

GETTING STARTED

This chapter tells you important information on power supply, adapter and precautions tips. Pay attention to power considerations.

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CHAPTER 2: GETTING STARTED

This chapter provides information on how to connect the HMI device to the source of power, connector pinouts and the guideline to turn on/off the HMI device.

2.1 Turning On and Off

2.1.1 Turning on Your Device

1. Remove the protective cap of the power connector.
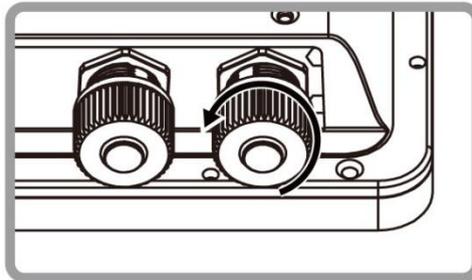
2. Connect power cable to the connector of your device. Make sure the cable fits to the connector, then tighten the O-ring (by turning clockwise) to secure the connection.
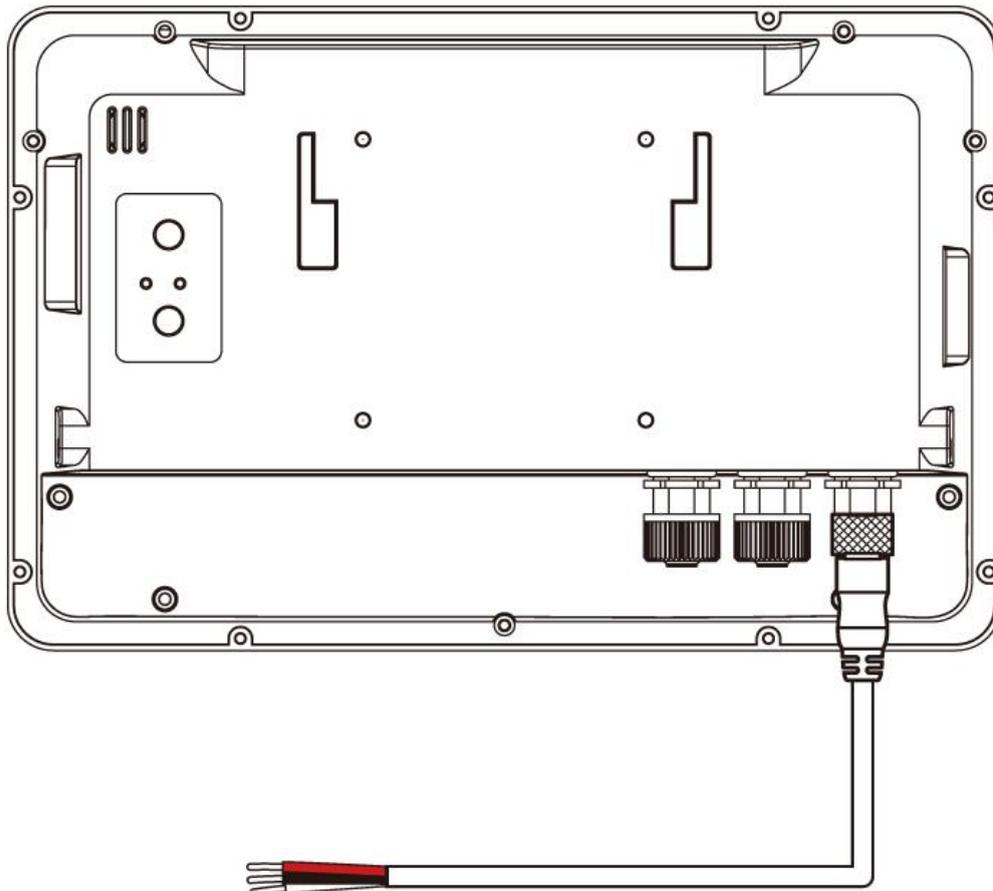
3. The device will boot automatically when powered on.

2.1.2 Turning off Your Device

Disconnect the power cord from the Panel PC to completely turn off the device.

2.2 Connecting to Other Devices

2.2.1 Diagram

The Panel PC features M12 type connectors with protective cap and has full IP65 rating. This Panel PC comes with various interfaces located on the bottom panel. All of these connectors have been shipped with protective caps. To ensure the waterproof function can work properly, make sure that the protective caps and have been securely tightened whenever the connectors are not used.
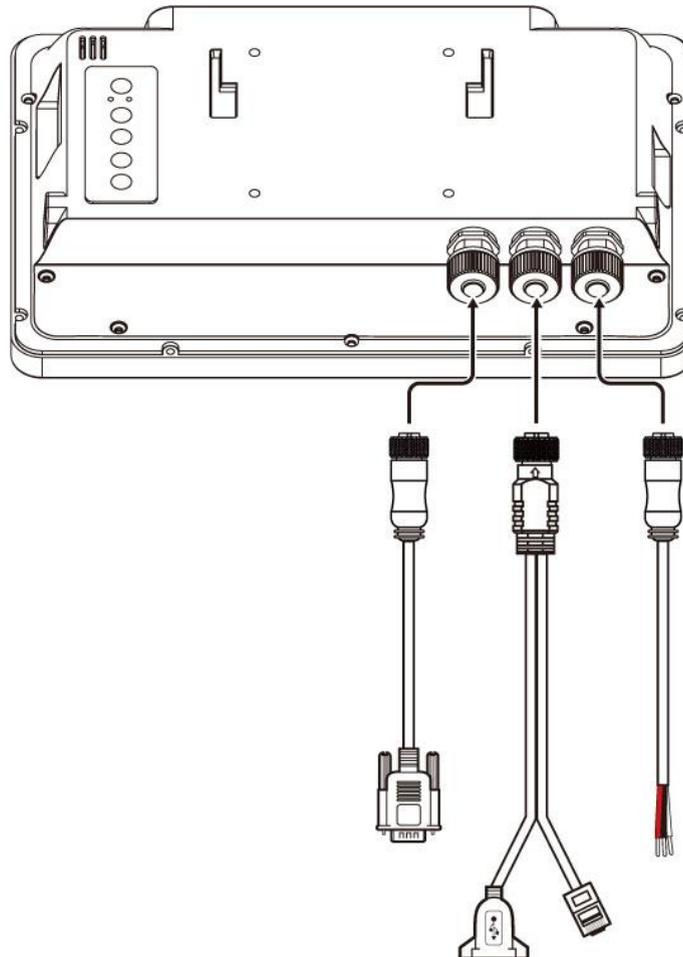
IMPORTANT

Please note that when reinstalling the protective cap, it must be fully tightened to ensure the unit is properly sealed to meet the IP65 enclosure rating.
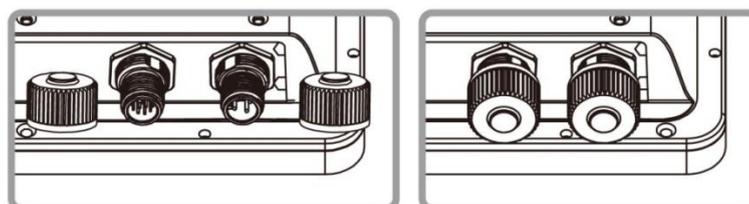
2.2.2 Connector Description

2.2.2.1 Power Input Connector

Panel PC has M12 type 3 pin male power input connector which accepts 12V DC power input. Use IP65 power cable to connect the Panel PC to the source of power.
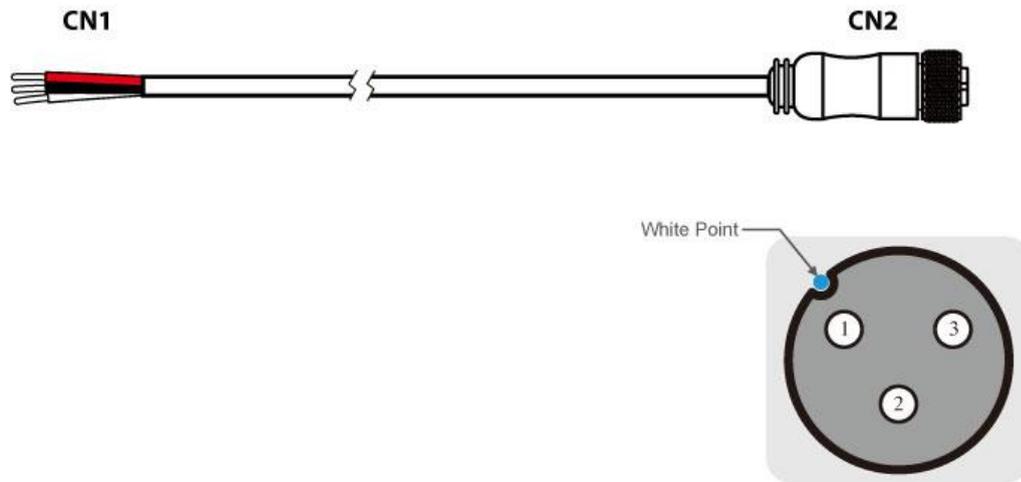
Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	VCC+	Red	⟷	CN2-1	VCC+	Red
CN1-2	GND	Black	⟷	CN2-2	GND	Black
CN1-3	VCC-	White	⟷	CN2-3	VCC-	White
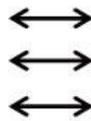
2.2.2.2 Serial Interface Connector

Panel PC has M12 type 10 pin male RS-232 connector. Use IP65 serial cable to connect the Panel PC to external devices.
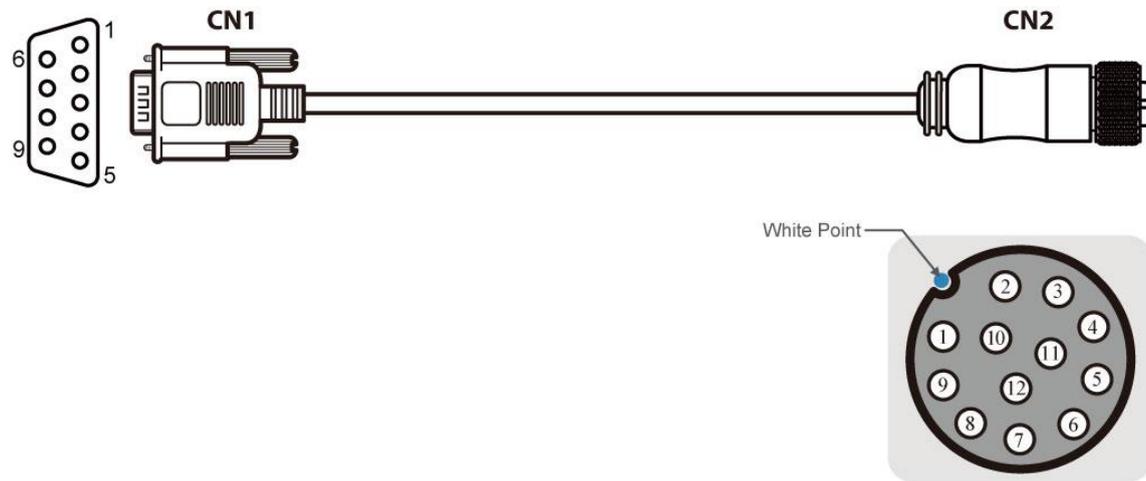
Pin No.	Symbols	Color		Pin No.	Symbols	Color
CN1-1	DCD	Green	←→	CN2-1	DCD	Green
CN1-6	DSR	Brown	←→	CN2-2	DSR	Brown
CN1-2	RXD	Red	←→	CN2-3	RXD	Red
CN1-7	RTS	Orange	←→	CN2-4	RTS	Orange
CN1-3	TXD	Blue	←→	CN2-5	TXD	Blue
CN1-8	CTS	White	←→	CN2-6	CTS	White
CN1-4	DTR	Purple	←→	CN2-7	DTR	Purple
CN1-9	RI	Yellow	←→	CN2-8	RI	Yellow
CN1-5	GND	Black	←→	CN2-9	GND	Black

2.2.2.3 Giga LAN + USB 2.0 Connector

Panel PC has M12 type 12 pin male Giga LAN and USB connector that supports two LAN and one USB 2.0.
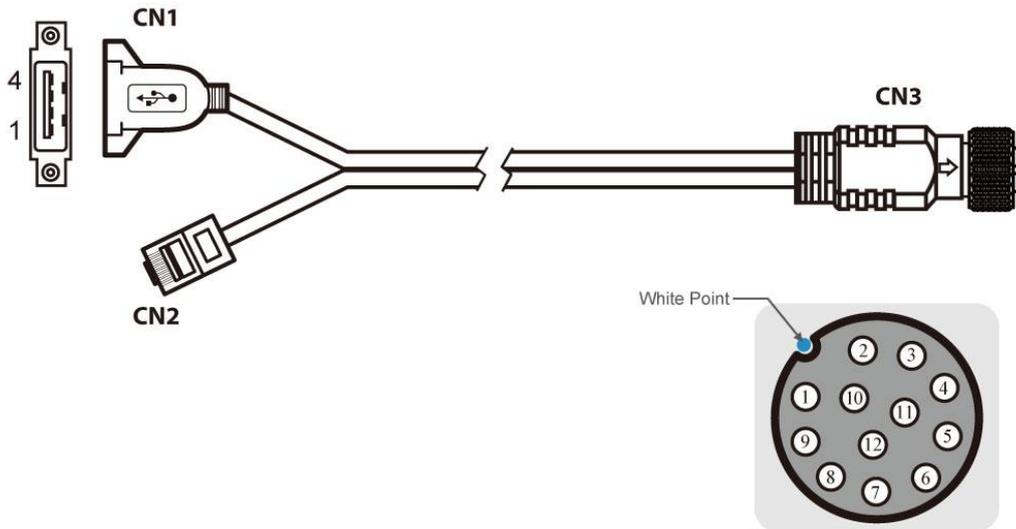
Pin No.	Symbols	Color		Pin No.	Symbols	Color	
CN3-1	VCC	RED	⟷	CN1-1	VCC	RED	
CN3-2	D-	WHITE	⟷	CN1-2	D-	WHITE	Twisted pairs
CN3-3	D+	GREEN	⟷	CN1-3	D+	GREEN	
CN3-4	GND	BLACK	⟷	CN1-4	GND	BLACK	
CN3-5	White/Orange		⟷	CN2-1	White/Orange		Twisted pairs
CN3-6	Orange		⟷	CN2-2	Orange		
CN3-7	White/Green		⟷	CN2-3	White/Green		Twisted pairs
CN3-8	Blue		⟷	CN2-4	Blue		
CN3-9	White/Blue		⟷	CN2-5	White/Blue		Twisted pairs
CN3-10	Green		⟷	CN2-6	Green		
CN3-11	White/Brown		⟷	CN2-7	White/Brown		Twisted pairs
CN3-12	Brown		⟷	CN2-8	Brown		

OPERATING THE DEVICE

3

This chapter provides detailed information on how to operate the device. If you have been using Android touch-screen Panel PCs before, the interface may look familiar. Sections include system settings parameters.

CHAPTER 3: OPERATING THE DEVICE

In this chapter you will find an instruction on how to operate the Panel PC.

3.1 Operating System

G-WIN Slim IP65 (P-CAP) Panel PC supports:

- Windows 10 IoT Enterprise
- Windows Embedded 8.1 Industry Pro
- Windows Embedded 8 Standard
- Windows Embedded Standard 7

IMPORTANT:
The device is shipped with the OS System according to your order.
Contact us if you have any questions regarding OS settings.

3.2 Multi-Touch

The touchpad supports the core gestures for Windows.

Gesture	Windows Usage	Gesture Action	Action
Tap/ Double-tap	Click / Double-click	Click or double-click	
Panning with Inertia	Scrolling	Drag one or two fingers up and down	
Selection/ Drag (left to right with one finger)	Mouse-drag/ Selection	Drag one finger left/right	
Zoom	Zoom (default to CTRL key + scroll wheel)	Move two fingers apart/ toward each other	
Rotate	No system default unless handled by Application (using WM_Gesture API)	Move two fingers in opposite directions *or* Use one finger to pivot around another	
Two-Finger tap	N/A - Exposed through Gesture API, used by Application discretion	Tap two fingers at the same time (where the target is the midpoint between fingers)	
Press and Hold	Right-click	Press, wait for blue-ring animation to complete, then release	
Flicks	Default: Pan Up/ Down/ Back, and Forward	Make quick drag gestures in the described direction	
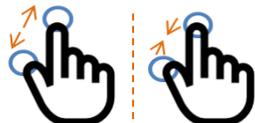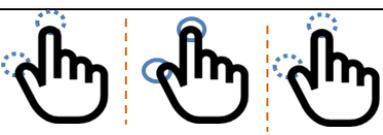
* Reference from Microsoft®

3.3 How to Enable Watchdog

To enable Watchdog, you need to download Winmate Watchdog utility. Find more information on Watchdog in "Watchdog Guide" that you can download from Winmate Download Center or File Share. Refer to the User Manual for more details.

To enable watchdog in Watchdog AP follow the instructions below:

1. On the right bottom side of the desktop screen, click [icon] **triangle button** to show hidden icons.

2. Click [W icon] icon to open Watchdog utility.
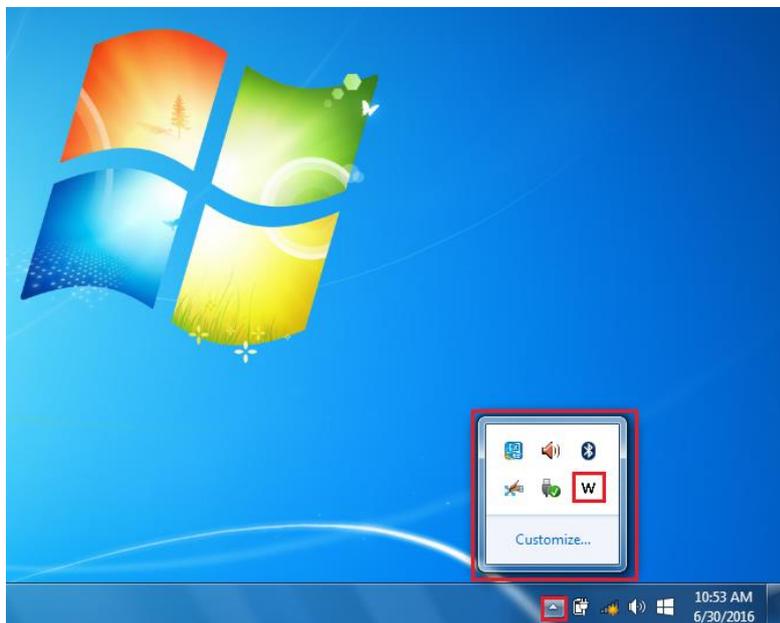
3. In Watchdog utility window set countdown time and periodically feed time, or disable watchdog.
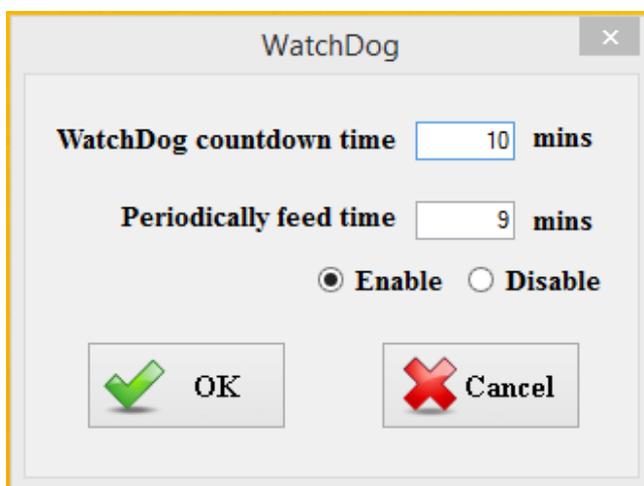
Example:

Every 10 min watchdog will monitor the system, in case any error occurs the system will restart automatically when the countdown time reaches 0.

Every 9 min watchdog timer will be reset to 10 min.

Settings	Description
Watchdog Countdown Time	The system automaticity restarts when this countdown time reaches zero. Default: 10 min
Periodically Feed Time	To set a cycle time to automatically reset watchdog timer. Default: 9 min
Enable / Disable	Enable or disable watchdog. Default: Enable

BIOS SETUP

BIOS Setup Utility is a program for configuration basic Input / Output system settings of the HMI for optimum use. This chapter provides information on how to use BIOS setup, its functions and menu.

CHAPTER 4: BIOS SETUP

4.1 When and How to Use BIOS Setup

To enter the BIOS setup, you need to connect an external USB keyboard, press **<Del>** key when the prompt appears on the screen during start up. The prompt screen shows only few seconds, you need to press **<Del>** key quickly. If the message disappears before your respond, restart the system by turning it OFF and ON, and enter the BIOS again.

IMPORTANT:
Updated BIOS version may be published after the manual released. Check the latest version of BIOS on the website.

Run BIOS setup utility for:
1. Error message on screen indicates to check BIOS setup
2. Restoring the factory default settings.
3. Modifying the specific hardware specifications
4. Necessity to optimize specifications

4.2 BIOS Functions

BIOS Navigation Keys

BIOS navigation keys for keyboard control are listed below.
The following keys are enabled during POST:

Key	Function
Del	Enters the BIOS setup menu.
F7	Display the boot menu. Lists all bootable devices that are connected to the system. With cursor ↑and cursor ↓and by pressing <ENTER>, select the device used for the boot.
Pause	Pressing the [Pause] key stops the POST. Press any other key to resume the POST.

The following Keys can be used after entering the BIOS Setup.

Key	Function
F1	General Help
F2	Previous Values
F3	Optimized Defaults
F4	Save & Exit
Esc	Exit
+/-	Change Opt.
Enter	Select or execute command
Cursor ↑	Moves to the previous item
Cursor ↓	Goes to the next item
Cursor ←	Moves to the previous item
Cursor →	Goes to the next item

NOTE:
You can press the F1, F2, F3, F4, –/+, and Esc keys by connecting a USB keyboard to your device.

4.2.1 Main Menu

When you enter BIOS setup, the first menu that appears on the screen is the main menu.It contains the system information including BIOS version, processor RC version, system language, time, and date.

Immediately after the **[DEL]** key is pressed during startup, the main BIOS setup menu appears:

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

  BIOS Information                                          Choose the system default
  BIOS Vendor                      American Megatrends      language
  Core Version                     5.010
  Compliancy                       UEFI 2.4; PI 1.3
  Project Version                  IB32V122 x64
  Build Date and Time              09/14/2015 11:05:27

  CPU Configuration
  Microcode Patch                  322

  Memory Information
  Total Memory                     4096 MB (LPDDR3)

  TXE Information
  Sec RC Version                   00.05.00.00             →←: Select Screen
  TXE FW Version                   01.00.04.1089           ↑↓: Select Item
                                                           Enter: Select
  System Language                  [English]               +/-: Change Opt.
                                                           F1: General Help
  System Date                      [Mon 09/14/2015]        F2: Previous Values
  System Time                      [11:43:54]              F3: Optimized Defaults
                                                           F4: Save & Exit
  Access Level                     Administrator           ESC: Exit



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

BIOS Setting	Description	Setting Option	Effect
System Language	Displays the system language. [English] is set up by default.	Adjustment of the language	Set the language in other language. The language in this device is English.
System Date/Time	This is current date setting. The time is maintained by the battery when the device is turned off.	Date and time changes.	Set the date in the format [mm/dd/yyyy]; The time in the format: [hh/mm/ss]
Access Level	The current user access settings	Changes to the level of access	Administrator is set up by the default

4.2.2 Advanced Menu

The advanced menu also uses to set configuration of the CPU and other system devices. There are sub menus on the left frame of the screen.

IMPORTANT:
Handle advanced BIOS settings page with caution. Any changes can affect the operation of your computer.

For items marked ► press **<Enter>** for more options.

Advanced Configuration and Power Interface (ACPI) settings allow to control how the power switch operates. The power supply can be adjusted for power requirements. You can use the screen to select options of ACPI configuration. A description of the selected items will appear on the right side of the screen.
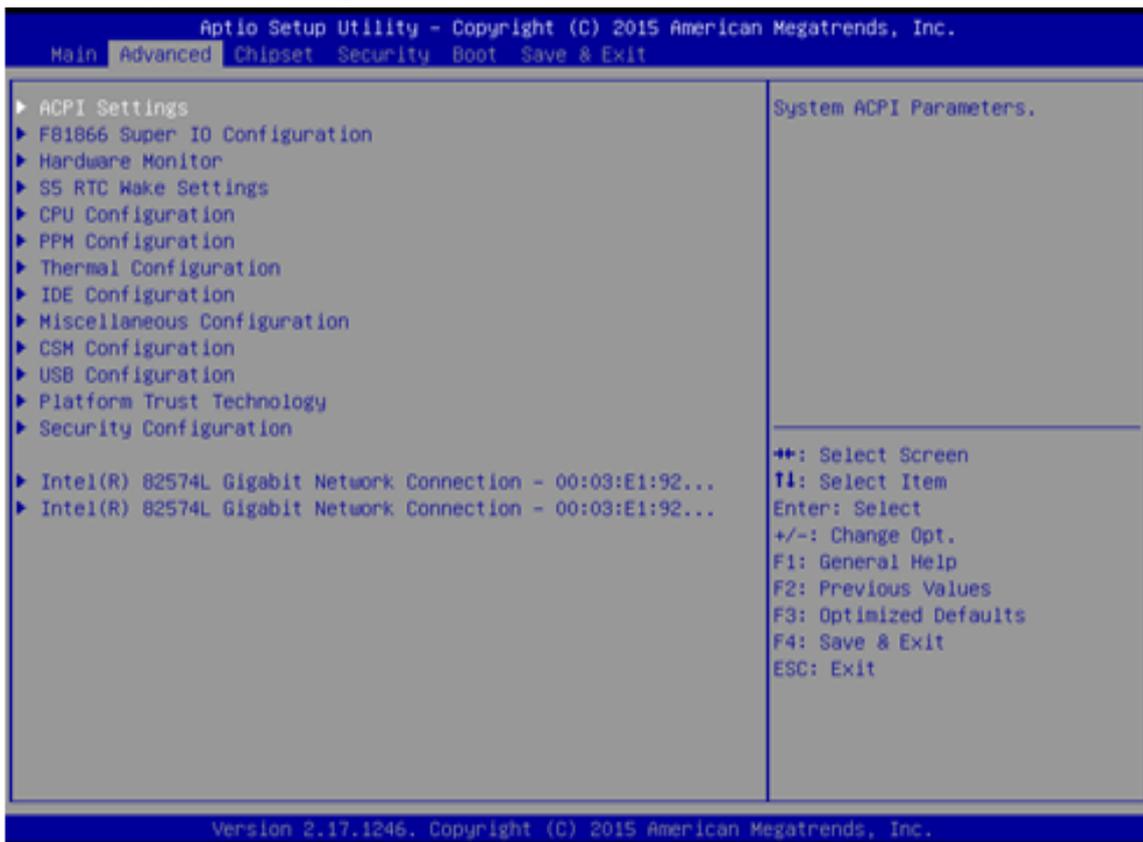
BIOS Setting	Description	Setting Option	Effect
ACPI Settings	Configures ACPI settings	Enter	Opens submenu
F81866 Super IO Configuration	Configures IO settings	Enter	Opens submenu
Hardware Monitor	Configures Hardware Monitor settings	Enter	Opens submenu
S5 RTC Wake Settings	Configures RTC Wake parameters	Enter	Opens submenu
CPU Configuration	Configures CPU settings	Enter	Opens submenu
PPM Configuration	Configures PPM settings	Enter	Opens submenu
Thermal Configuration	Configures Thermal Parameters	Enter	Opens submenu
IDE Configuration	Configures IDE Parameters	Enter	Opens submenu
Miscellaneous Configuration	Configures Miscellaneous Parameters	Enter	Opens submenu
CSM Configuration	Configures CSM Parameters	Enter	Opens submenu
USB Configuration	Configures USB Settings	Enter	Opens submenu
Platform Trust Technology	Configures Platform Trust Technology parameters	Enter	Opens submenu
Security Configuration	Configures Security parameters	Enter	Opens submenu

For items marked ► press **<Enter>** for more options.

4.2.2.1 ACPI Settings

Advanced Configuration and Power Interface (ACPI) settings allow to control how the power switch operates. The power supply can be adjusted for power requirements. You can use the screen to select options of ACPI configuration. A description of the selected items will appear on the right side of the screen.

```
                     Aptio Setup Utility – Copyright (C) 2014 American Megatrends, Inc.
       Advanced

  ACPI Settings

  Enable ACPI Auto Configuration       [Disabled]

  Enable Hibernation                   [Enabled]



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




                     Version 2.15.1236. Copyright (C) 2014 American Megatrends, Inc.
```
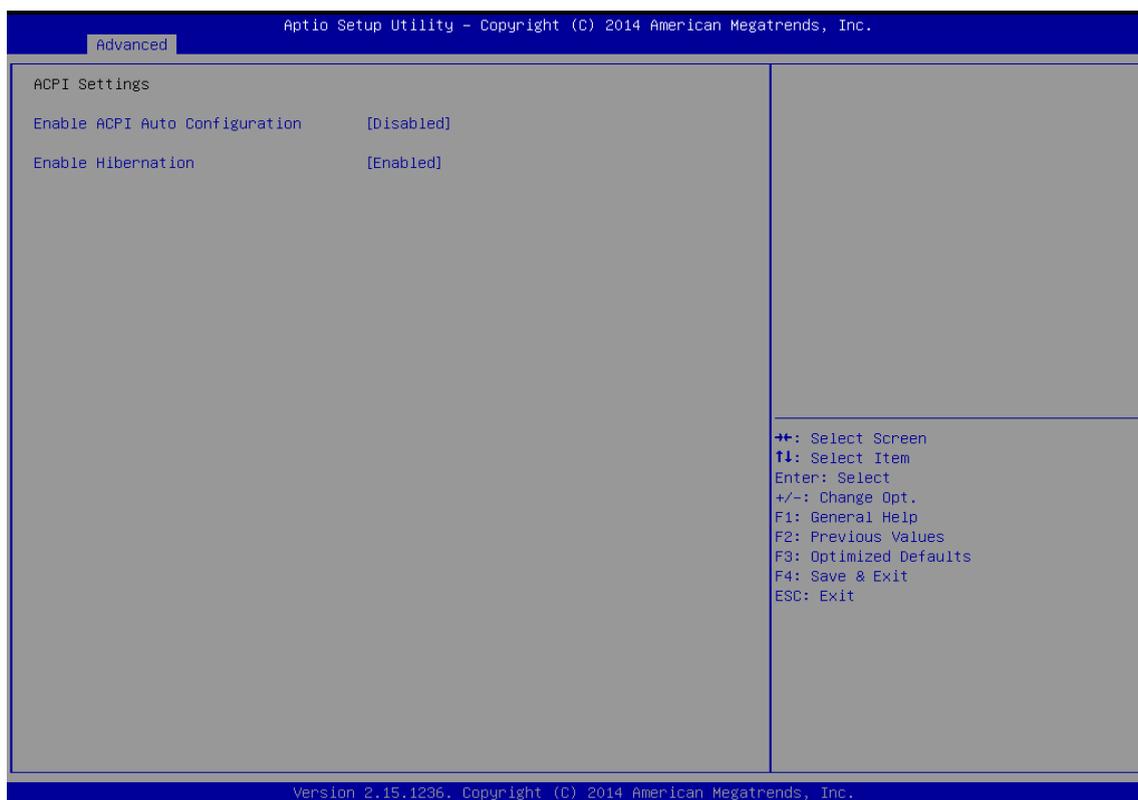
BIOS Setting	Description	Setting Option	Effect
Enable ACPI Auto Configuration	BIOS ACPI Auto Configuration	Enable/ Disable	Enables or Disables this function
Enable Hibernation	Control hibernation	Enable/ Disable	Enables or Disables this function

4.2.2.2 F81866 Super IO Configuration

You can use the screen to select options for Super IO Configuration, and change the value of the option selected. A description of the selected item appears on the right side of the screen.

For items marked with ►, please press **<Enter>** for more options.

4.2.2.2.1 Serial Port 1~5

Use these items to set parameters related to serial port 1~5.

```
              Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
        Advanced

          F81866 Super IO Configuration                            Set Parameters of Serial Port
                                                                   1 (COMA)
          Super IO Chip                       F81866
        ► Serial Port 1 Configuration
        ► Serial Port 2 Configuration
        ► Serial Port 3 Configuration
        ► Serial Port 4 Configuration
        ► Serial Port 5 Configuration
        ► GPIO Port Configuration
          Watch Dog Timer Select             [Disabled]


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



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

4.2.2.2.2 Watch Dog Time Select

You can either disable **Watch Dog Time Select**, or set up the time.Use **<Arrow>** keys to navigate and please press **<Enter>** to select the item.

```
              Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
        Advanced

          F81866 Super IO Configuration

          Super IO Chip                       F81866
        ► Serial Port 1 Configuration
        ► Serial Port 2 Configuration
        ► Serial Port 3 Configuration
        ► Serial Port 4 Configuration          ┌── Watch Dog Timer Select ──┐
        ► Serial Port 5 Configuration          │ Disabled                   │
        ► GPIO Port Configuration              │ 1 Min                      │
          Watch Dog Timer Select               │ 2 Min                      │
                                               │ 3 Min                      │
                                               │ 4 Min                      │
                                               │ 5 Min                      │
                                               │ 6 Min          →←: Select Screen
                                               │ 7 Min          ↑↓: Select Item
                                               │ 8 Min          Enter: Select
                                               │ 9 Min          +/-: Change Opt.
                                               │ 10 Min         F1: General Help
                                               └────────────────┘2: Previous Values
                                                                  3: Optimized Defaults
                                                                  F4: Save & Exit
                                                                  ESC: Exit



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

4.2.2.2.3 GPI0 Port Configuration

You can use the screen to change GPI0 Port setting. Use these items to set parameters related to **PIN3-PIN14 Control**.

```
            Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
          Advanced

     GPIO Port Configuration

     PIN 3 Control                    [Input]
     PIN 4 Control                    [Input]
     PIN 5 Control                    [Input]
     PIN 6 Control                    [Input]
     PIN 7 Control                    [Input]
     PIN 8 Control                    [Input]
     PIN 9 Control                    [Input]
     PIN 10 Control                   [Input]
     PIN 11 Control                   [Input]
     PIN 12 Control                   [Input]
     PIN 13 Control                   [Input]
     PIN 14 Control                   [Input]
                                                   →←: Select Screen
                                                   ↑↓: Select Item
                                                   Enter: Select
                                                   +/-: Change Opt.
                                                   F1: General Help
                                                   F2: Previous Values
                                                   F3: Optimized Defaults
                                                   F4: Save & Exit
                                                   ESC: Exit



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

4.2.2.3 Hardware Monitor

You can check PC Health Status parameters such as system temperature, fan speed etc.

```
            Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
          Advanced

     Pc Health Status

     System temperature1              : +28 C
     Fan1 Speed                       : N/A
     Fan2 Speed                       : N/A
     VIN1                             : +0.800 V
     VIN2                             : +12.144 V
     VIN3                             : +3.408 V
     VIN4                             : +5.160 V
     VCC3V                            : +3.424 V
     VSB3V                            : +3.424 V
     VSB5V                            : +5.208 V
     VBAT                             : +3.392 V
                                                   →←: Select Screen
                                                   ↑↓: Select Item
                                                   Enter: Select
                                                   +/-: Change Opt.
                                                   F1: General Help
                                                   F2: Previous Values
                                                   F3: Optimized Defaults
                                                   F4: Save & Exit
                                                   ESC: Exit



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

4.2.2.4 S5 RTC Wake Settings

Wake system from S5 enables or disables system wake on alarm event.
It allows you to wake up the system in a certain time.

```
          Aptio Setup Utility — Copyright (C) 2015 American Megatrends, Inc.
  Advanced

 Wake system from S5              [Disabled]           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)



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



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

4.2.2.4.1 Wake System from S5 with fixed time setting

Select **Fixed Time** to set the system to wake on the specified time.

Use Navigation Keys 	⬆ ⬇ 	to switch among the items: Day, Hour, Minute and Second. Type the desired value in the selected item.

For example: If you want the system to start up automatically at 15:30:30, the 10th day of each month, then you should enter 10, 15, 30, and 30 from top to bottom.
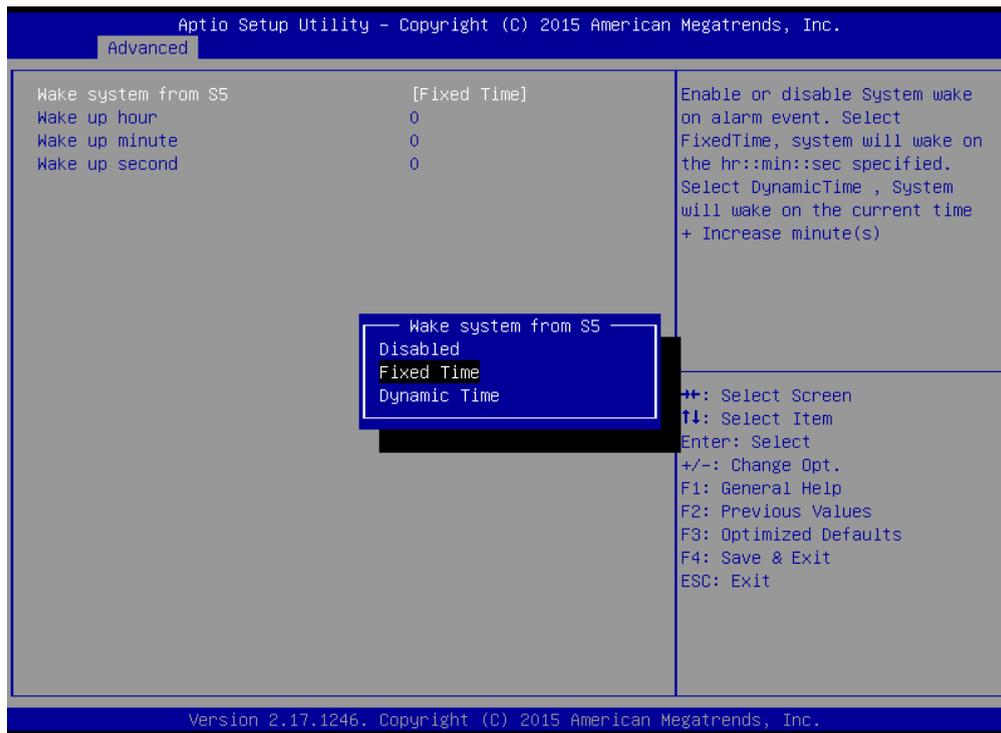
4.2.2.4.2 Wake system from S5 after dynamic time setting

Select **Dynamic Time** to set the system to wake on the current time + increase minute (s).

4.2.2.5 CPU Configuration

```
              Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
          Advanced

      CPU Configuration                                        Socket specific CPU Information

    ▶ Socket 0 CPU Information
    ▶ CPU Thermal Configuration

      CPU Speed                           1834 MHz
      64-bit                              Supported

      Limit CPUID Maximum                 [Disabled]
      Execute Disable Bit                 [Enabled]
      Intel Virtualization Technology     [Enabled]
      Power Technology                    [Energy Efficient]

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



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

BIOS Setting	Description	Setting Option	Effect
Socket CPU Information	This item contains socket specific CPU information.	Enter	Open sub-menu
CPU Thermal Configuration	Thermal control	Enter	Open sub-menu
Limit CPUID Maximum	Limits CPIID Maximum	Disabled/Enabled	Enable/Disable this function
Execute Disable Bit	Execute Disable Bit	Disabled/Enabled	Enable/Disable this function
Intel Virtualization Technology	Allows to run recent OS and applications	Enabled/Disabled	Enable/Disable this function
Power Technology	Control the performance and power management functions of the processors	Disabled	Disable this function
		Energy Efficient	Enable energy efficient mode

4.2.2.6 PPM Configuration

```
            Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
   Advanced

  PPM Configuration                                    Enable/Disable CPU C state
                                                       report to OS
  CPU C state Report                 [Enabled]
  Max CPU C-state                    [ C7]




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




            Version 2.17.1246. Copyright (C) 2015 American Megatrends, Inc.
```
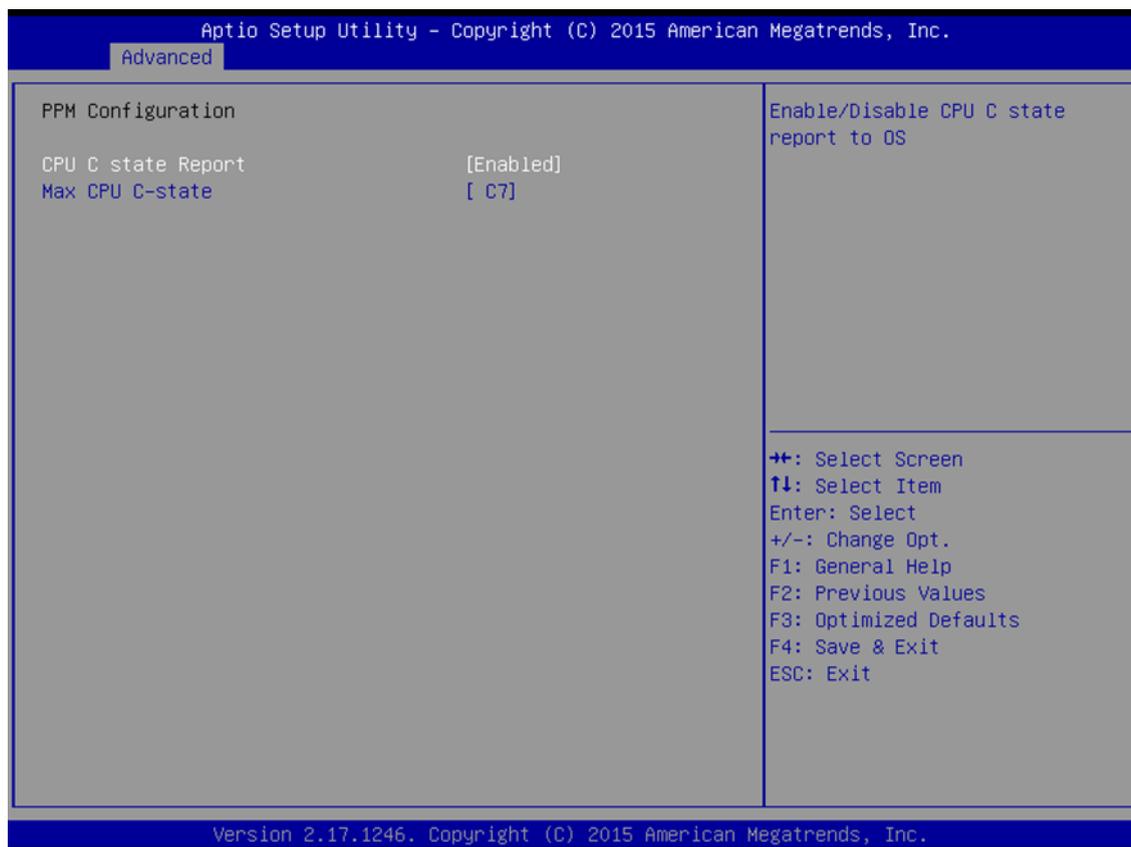
BIOS Setting	Description	Setting Option	Effect
CPU C State Report	Shows CPU C State Report	Enabled/ Disabled	Enable or Disable CPU C state report to OS
Max CPU C-State	Allows to enter power-saving mode in order to save energy	C1E, C3, C6, C7, Auto	Enable or Disable CPU C Max CPU S-Sate

4.2.2.7 Thermal Configuration

This menu allows controlling thermal settings of the computer. Refer to the descriptions on the top right side of the screen for detailed information about each setting.

```
              Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
    Advanced

    Thermal Configuration Parameters                          This value controls the
    Critical Trip Point                  [90 C]               temperature of the ACPI
    Passive Trip Point                   [85 C]               critical Trip Point in which
                                                              the OS will shut the system
                                                              off.




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



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

BIOS Setting	Description	Setting Option	Effect
Critical Trip Point	Specifies the temperature at which the OS will shut down the system	90C, 87C, 85C, 79C, 71C, 63C,55C,47C, 39C, 31C, 23C, 15C	Select the disable temperature for the system to shut down
Passive Trip Point	Specifies the temperature at which the OS will begin adjusting the processor	90C, 87C, 85C, 79C, 71C, 63C,55C,47C, 39C, 31C, 23C, 15C	Select the disable temperature for the system to start adjusting the processor

4.2.2.8 IDE Configuration

```
              Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
    Advanced

    IDE Configuration                                       Enable / Disable Serial ATA

    Serial-ATA (SATA)                  [Enabled]

    SATA Speed Support                 [Gen2]
    SATA Mode                          [AHCI Mode]

    Serial-ATA Port 0                  [Enabled]
    SATA Port0 HotPlug                 [Disabled]

    Serial-ATA Port 1                  [Enabled]
    SATA Port1 HotPlug                 [Disabled]
                                                            ─────────────────────────
    SATA Port0                                              →←: Select Screen
    SSE032GPTC0-S8 (32.0GB)                                 ↑↓: Select Item
                                                            Enter: Select
    SATA Port1                                              +/-: Change Opt.
    Not Present                                             F1: General Help
                                                            F2: Previous Values
                                                            F3: Optimized Defaults
                                                            F4: Save & Exit
                                                            ESC: Exit



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

BIOS Setting	Description	Setting Option	Effect
Serial- ATA (SATA)	Responsible for supporting chipset drives with SATA interface.	Enabled/ Disabled	Enable or disable this function
SATA Speed Support	Allows forcing the speed limit SATA II ports standard IDE / SATA-controller chipset.	Gen1	The maximum speed will be limited to 150 MB/s
		Gen2	The maximum speed will be limited to 300 MB/s
		Disabled	Disables manual configuration of SATA II ports (mode will be selected based on the specifications of connected drives)

SATA Mode	This option specifies the operation mode of modern IDE / SATA-controller chipset	[AHCI]	Selecting this option allows you to take full advantage of the extended host controller SATA II
		[IDE]	SATA controller will operate in a mechanism similar to a conventional IDE-controller
		[RAID]	Allows combining hard drives in RAID-arrays in order to improve the reliability of data storage, or to increase the speed.
Serial- ATA Port 0	The option turns on or off Port 0 of SATA channels of standard IDE / SATA-controller chipset.	Enabled/ Disabled	Turn on (Enabled) or turn off (Disabled) Port 0
SATA Port0 HotPlug	This feature that allows you to attach and remove a SATA Port0	Enabled/ Disabled	Enable or disable this function
Serial- ATA Port 1	The option turns on or off Port 1 of SATA channels of standard IDE / SATA-controller chipset.	Enabled/ Disabled	Turn on (Enabled) or turn off (Disabled) Port 1
SATA Port1 HotPlug	This feature that allows you to attach and remove a SATA Port1	Enabled/ Disabled	Enable or disable this function

4.2.2.9 Miscellaneous Configuration

4.2.2.9.1 OS Selection

This item allows users to select the proper Operating System.

```
           Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
     Advanced

 Miscellaneous Configuration                           OS Selection
 OS Selection                      [Windows 8.X]




                         ┌──── OS Selection ────┐
                         │ Windows 8.X          │
                         │ Windows 7            │
                         └──────────────────────┘      ──────────────────

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




           Version 2.17.1246. Copyright (C) 2015 American Megatrends, Inc.
```
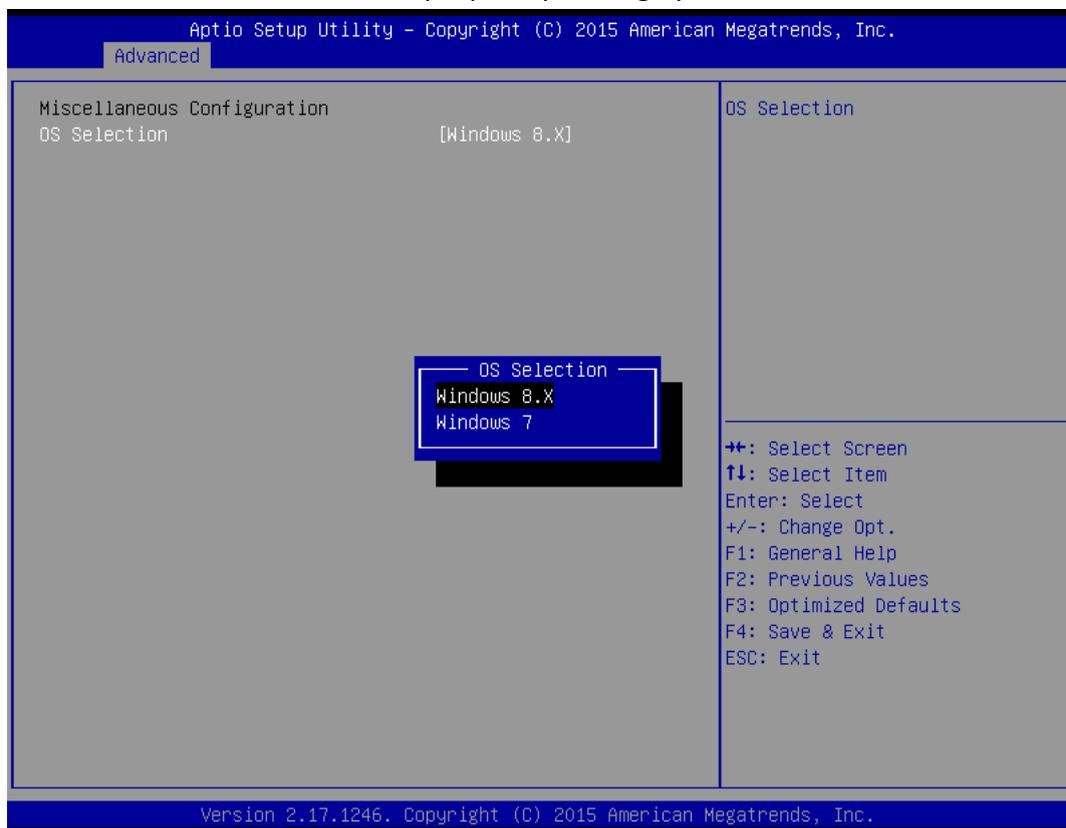
BIOS Setting	Description	Setting Option	Effect
Windows 8.X	Allows user to choose the proper OS.	Enter	Use Windows 8.X
Windows 7	Allows user to choose the proper OS.	Enter	Use Windows 7

IMPORTANT:
The device will be shipped with OS according to your order. BIOS OS Selection menu varies accordingly.

4.2.2.10 CSM Configuration

```
                  Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
        Advanced

   Compatibility Support Module Configuration                      Enable/Disable CSM Support.

   CSM Support                            [Enabled]

   CSM16 Module Version                   07.76

   GateA20 Active                         [Upon Request]
   Option ROM Messages                    [Force BIOS]

   Boot option filter                     [Legacy only]

   Option ROM execution

   Network                                [Legacy]          ↔: Select Screen
   Storage                                [Legacy]          ↑↓: Select Item
   Video                                  [Legacy]          Enter: Select
   Other PCI devices                      [UEFI]            +/−: Change Opt.
                                                            F1: General Help
                                                            F2: Previous Values
                                                            F3: Optimized Defaults
                                                            F4: Save & Exit
                                                            ESC: Exit




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

BIOS Setting	Description	Setting Option	Effect
CSM Support	The Compatibility Support Module (CSM) is a component of the UEFI firmware that provides legacy BIOS compatibility by emulating a BIOS environment, allowing legacy operating systems and some option ROMs that do not support UEFI to still be used.	Enabled/ Disabled	Enable or disable the Compatibility Support Module
GetaA20 Active	Activate GetaA20	Upon Request	Enable or disable this function
Option ROM Messages	Receiving ROM Messages Settings	Force BIOS	Set ROM messages parameters
Network	Specifies which Network option ROM is booted	UEFI	Only UEFI option ROMs are booted
		Legacy	
Storage	Specifies which Storage option ROM is booted	UEFI	Only UEFI option ROMs are booted
		Legacy	Only Legacy option ROMs are booted

Video	Specifies which Video option ROM is booted	UEFI	Only UEFI option ROMs are booted
		Legacy	Only Legacy option ROMs are booted
Other PCI Devices	Specifies which option ROM is booted for devices other than the network, storage or video	UEFI	Only UEFI option ROMs are booted
		Legacy	Only Legacy option ROMs are booted

4.2.2.11 USB Configuration
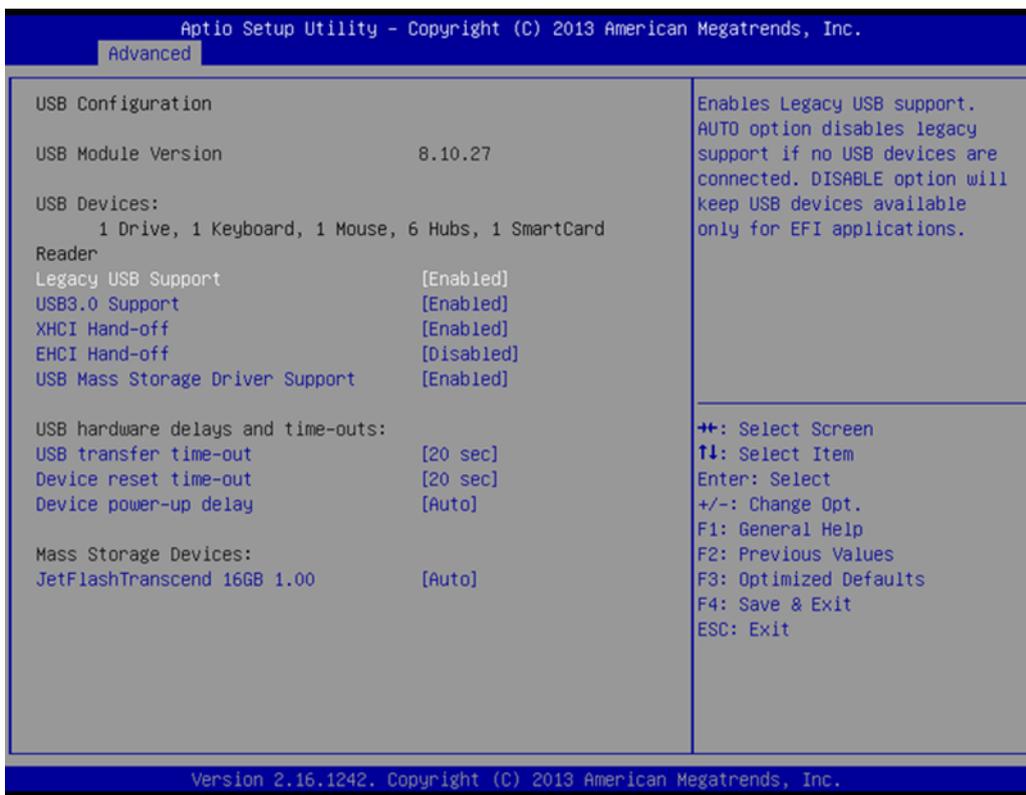
BIOS Setting	Description	Setting Option	Effect
Legacy USB Support	User can enable or disable USB port.	Disable	Will keep USB devices available only for EFI applications.
		Enable	Enable all the USB devices
USB 3.0 Support	User can enable or disable USB 3.0 (XHCI) controller support.	Enable	Enable USB 3.0 is enable
		Disable	USB 3.0 is disable
XHCI Hand-off	This is a workaround for OSs without XHCI hand-off support.	Disable	Disables this function
		Enable	Enables this function
EHCI Hand-off	This is a workaround for OSs without ECHI hand-off support.	Disable	Disables this function
		Enable	Enables this function
USB mass storage driver support	User can Enable or disable USB mass storage driver support.	Disable	Disables this function
		Enable	Enables this function
USB Transfer time-out	The time-out value for control, bulk, and interrupt transfers.	1 Sec 5 Sec 10 Sec 20 Sec	Depends on the time-out value
Device Reset time-out	USB mass storage device start unit command time-out.	10 Sec 20 Sec 30 Sec 40 Sec	Depends on the time-out value
Device power-up delay	Maximum time the device will take before it properly reports itself to the host controller.	Auto	Uses default value: for a root port it is 100 ms, for a Hub port the delay is taken from Hub descriptor

4.2.2.12 Platform Trust Technology

```
            Aptio Setup Utility - Copyright (C) 2015 American Megatrends, Inc.
   Advanced

                                                              Enable/Disable fTPM

   fTPM                              [Enabled]




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




            Version 2.17.1246. Copyright (C) 2015 American Megatrends, Inc.
```
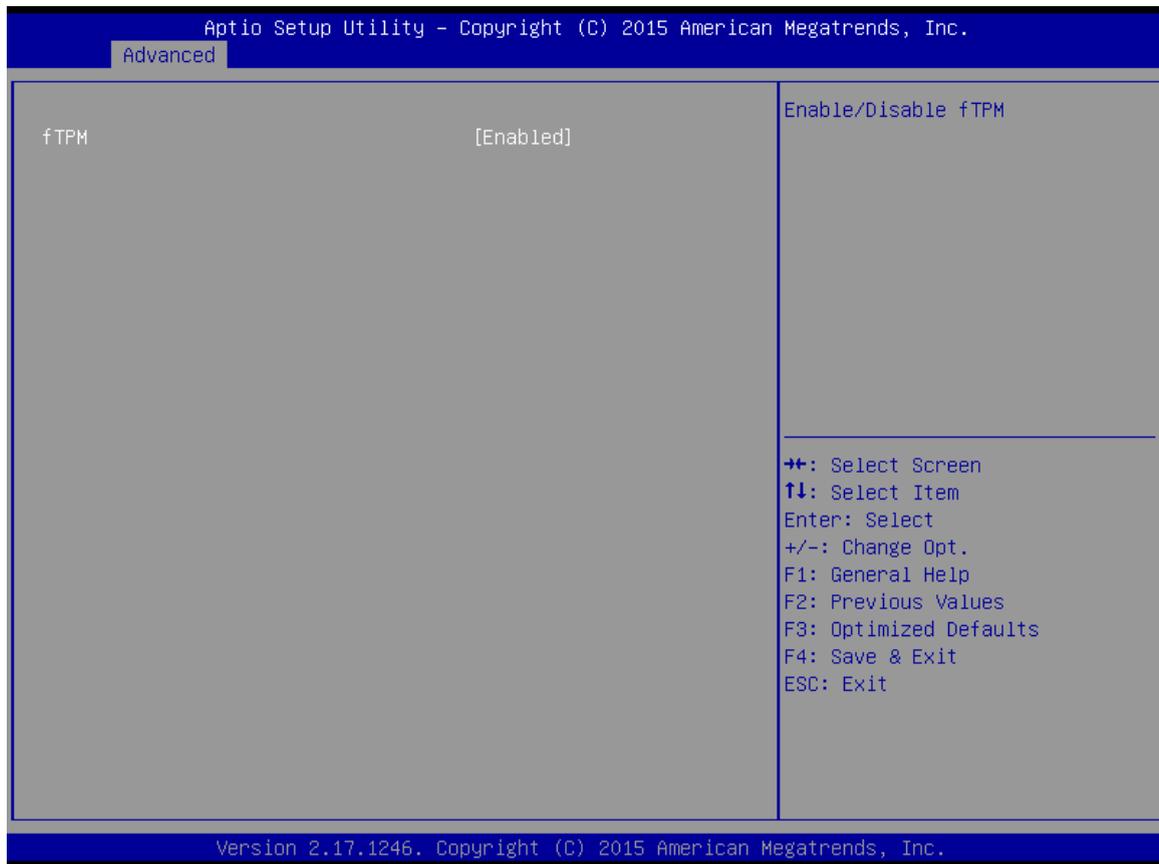
BIOS Setting	Description	Setting Option	Effect
fTPM	Trusted Platform Module parameters	Enabled/Disabled	Enables or disables this function

4.2.2.13 Security Configuration

```
                    Aptio Setup Utility – Copyright (C) 2015 American Megatrends, Inc.
        Advanced

    Intel(R) TXE Configuration
    TXE                              [Enabled]
    TXE HMRFPO                       [Disabled]
    TXE Firmware Update              [Enabled]
    TXE EOP Message                  [Enabled]
    TXE Unconfiguration Perform

    Intel(R) Anti-Theft Technology Configuration
    Intel(R) AT                      [Disabled]
    Intel(R) AT Platform PBA         [Disabled]
    Intel(R) AT Suspend Mode         [Disabled]

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

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

BIOS Setting	Description	Setting Option	Effect
TXE	Trusted Execution Technology parameters	Enabled/Disabled	Enables or disables this function
TXE HMRFPO	TXE HMRFPO parameters	Enabled/Disabled	Enables or disables this function
TXE Firmware Update	TXE Firmware Update parameters	Enabled/Disabled	Enables or disables this function
TXE EOP Message	TXE EOP Message parameters	Enabled/Disabled	Enables or disables this function
Intel ® AT	Intel ® AT parameters	Enabled/Disabled	Enables or disables this function
Intel ® AT Platform PBA	Intel ® AT Platform PBA parameters	Enabled/Disabled	Enables or disables this function

4.2.3 Chipset Menu

For items marked with ►, please press **<Enter>** for more options.

BIOS Setting	Description	Setting Option	Effect
High Precious Timer	Allow to set up High Precious Timer settings	Enabled/ Disabled	Enables/Disables this function
Restore AC Power Loss	This function allows to set up booting options after a power failure	Power on/ Power off	Boot automatically after a power failure
Serial IRQ Mode	When working with personal computer hardware, installing and removing devices, the system relies on interrupt requests. Interrupt request	Continuous	Allow user to set up desired IRQ Mode

4.2.4 Security Menu

In the Security menu, users can set administrator password, user password, and HDD security configuration.

```
          Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
           Main  Advanced  Chipset  Security  Boot  Save & Exit

          Password Description                              Set Administrator Password

          If ONLY the Administrator's password is set,
          then this only limits access to Setup and is
          only asked for when entering Setup.
          If ONLY the User's password is set, then this
          is a power on password and must be entered to
          boot or enter Setup. In Setup the User will
          have Administrator rights.
          The password length must be
          in the following range:
          Minimum length                    3
          Maximum length                   20
                                                           →←: Select Screen
                                                           ↑↓: Select Item
          Administrator Password                           Enter: Select
          User Password                                    +/-: Change Opt.
                                                           F1: General Help
                                                           F2: Previous Values
          HDD Security Configuration:                      F3: Optimized Defaults
          P0:ADATA XM13 3                                  F4: Save & Exit
                                                           ESC: Exit
        ▶ Secure Boot menu



          Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.
```

BIOS Setting	Description	Setting Option	Effect
Administrator Password	Displays whether or not an administrator password has been set.	Enter	Enter password
User Password	Display whether or not a user Password has been set.	Enter	Enter password

4.2.5 Boot Configuration

The Boot menu sets the sequence of the devices to be searched for the operating system. The bootable devices will be automatically detected during POST and shown here, allowing you to set the sequence that the BIOS uses to look for a boot device from which to load the operating system.
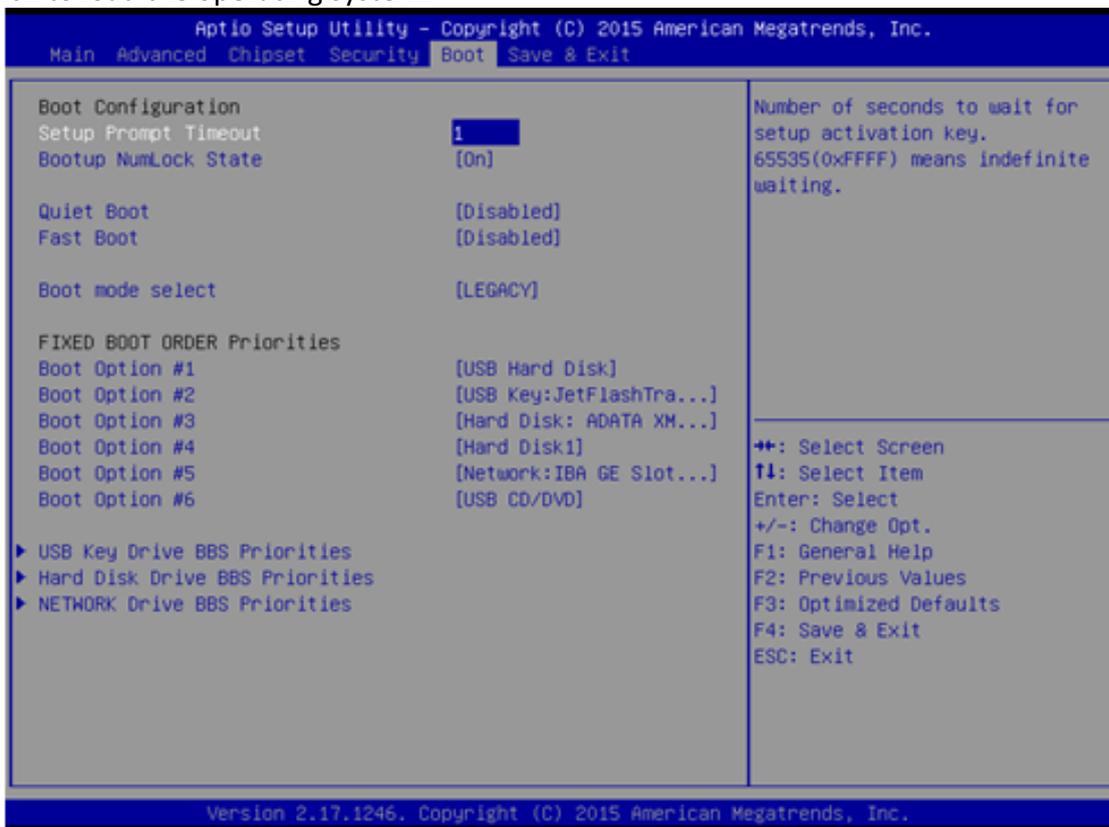
BIOS Setting	Description	Setting Option	Effect
Setup Prompt Timeout	Allows user to configure the number of seconds to stay in BIOS setup prompt screen.	Enter	Set the prompt timeout
Boot NumLock State	Enables or disables NumLock feature on the numeric keypad of the keyboard after the POST (Default: On).	On	Remains On
		Off	Remains OFF
Quite Boot	Determines if POST message or OEM logo (default = Black background) is displayed.	Disabled	Disables this function
		Enabled	Enables this function

Fast Boot	Enables or disables Fast Boot to shorten the OS boot process. (Default: Disabled).	Disabled	Disables this function
		Enabled	Enables this function
Boot Mode Select	Specifies which mode will be used for booting	Legacy	Only Legacy option is booted
		UEFI	Only UEFI option is booted
Boot Option #1~#6	Specifies the overall boot order from the available devices	Ex: Boot Option#1 (hard drive)	Hard drive as the first priority
USB Key Drive BBS Priorities	USB Key Drive BBS Priorities	Enter	Open sub-menu
Hard Disk Drive BBS Priorities	Hard Disk Drive BBS Priorities	Enter	Open sub-menu
Network Drive BBS Priorities	Network Drive BBS Priorities	Enter	Open sub-menu

4.2.6 Save & Exit

The Exit menu displays a way how to exit BIOS Setup utility. After finishing your settings, you must save and exit for changes to be applied.

```
            Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
     Main  Advanced  Chipset  Security  Boot  Save & Exit

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

     Save Options
     Save Changes
     Discard Changes

     Restore Defaults
     Save as User Defaults
     Restore User Defaults
                                                     ────────────────────────────
     Boot Override
     UEFI: Built-in EFI Shell                        ++: Select Screen
     P0: ADATA XM13 32GB                             ↑↓: Select Item
     UEFI: JetFlashTranscend 16GB 1.00               Enter: Select
                                                     +/-: Change Opt.
     Launch EFI Shell from filesystem device         F1: General Help
   ▶ Reset System with ME disable ModeMEUD000        F2: Previous Values
                                                     F3: Optimized Defaults
                                                     F4: Save & Exit
                                                     ESC: Exit



            Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.
```

BIOS Setting	Description	Setting Option	Effect
Save Changes and Exit	This saves the changes to the CMOS and exits the BIOS Setup program.	Enter <YES>	Save changes
Discard Changes and Exit	This exits the BIOS Setup without saving the changes made in BIOS Setup to the CMOS.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Save Changes and Reset	Reset the system after saving the changes.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu

Discard Changes and Reset	Reset system setup without saving any changes	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Save Changes	Save changes done so far to any of the setup options.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Discard Changes	Discard changes done so far to any of the setup options.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Restore Default	Restore/load default values for all the setup options.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Save as User Defaults	Save the changes done so far as User defaults.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu
Restore User Defaults	Restore the User Defaults to all the setup options.	Enter <YES>	Saves the changes
		Enter <NO>	Return to the BIOS Setup Main Menu

4.3 Using Recovery Wizard to Restore Computer

Note:
Before starting the recovery process, make sure to backup all user data.
The data will be lost after the recovery process.

To enable quick one-key recovery procedure:
- Plug-in the AC adapter to Bay Trail series computer. Make sure the computer stays plugged in to power source during the recovery process.
- Turn on the computer, and when the boot screen shows up, press the **F6** to initiate the Recovery Wizard.
- The following screen shows the Recovery Wizard. Click **Recovery** button to continue.

A warning message about data loss will show up. Make sure the data is backed up before recovery, and click **Yes** to continue.

Wait the recovery process to complete. During the recovery process, a command prompt will show up to indicate the percent of recovery process complete. The system will restart automatically after recovery completed.

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DRIVER INSTALLATION

This chapter describes hot to install drivers to the Panel PC.

5

CHAPTER 5: DRIVER INSTALATION

This chapter provides guideline to driver installations.

5.1 Chipset Driver

Step 1 Insert the CD that comes with the motherboard. Open the file document "Chipset Driver" and click "infinst_auto.exe" to install driver.
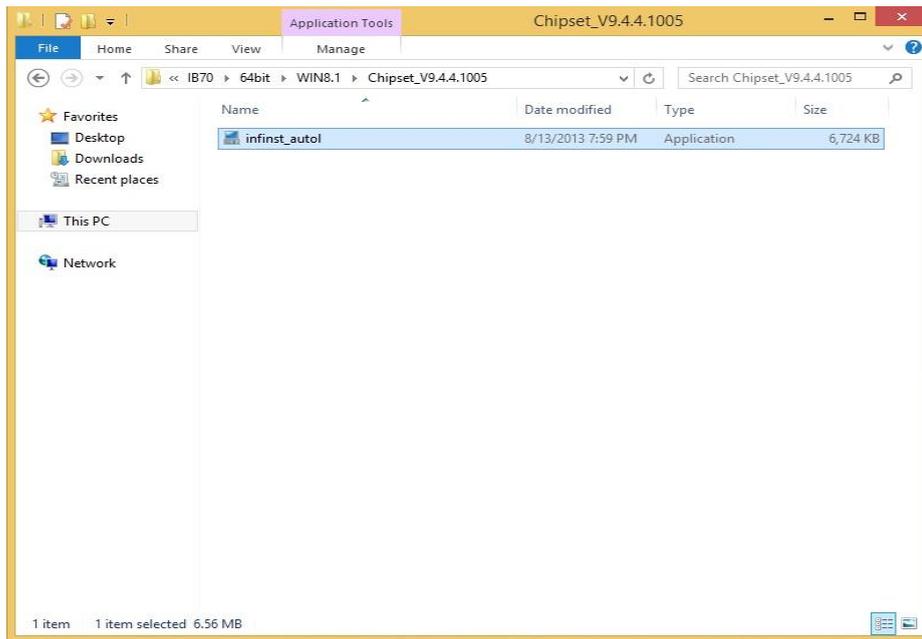

Step 2 Click **Next** to continue.

Step 3 Click **Yes** to agree the license terms.

Step 4 Click **Next** to install the driver.
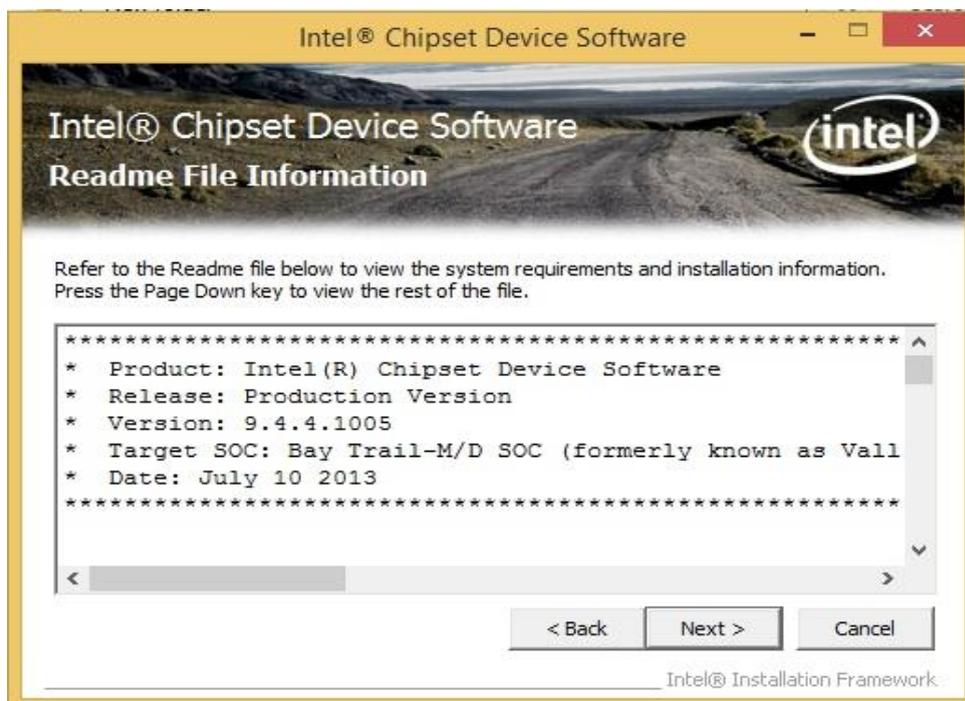
Step 5 Software setup progress window will appear, click **Next** to continue.

Step 6 Click **"Yes, I want to restart this computer now"** to finish the installation.

5.2 Graphic Driver

Step 1 Insert the CD that comes with the motherboard. Open the file document **"Graphics Driver"** and click **Setup** to execute the setup.

Step 2 Setup Welcome Window will appear, click **Next** to continue the process.
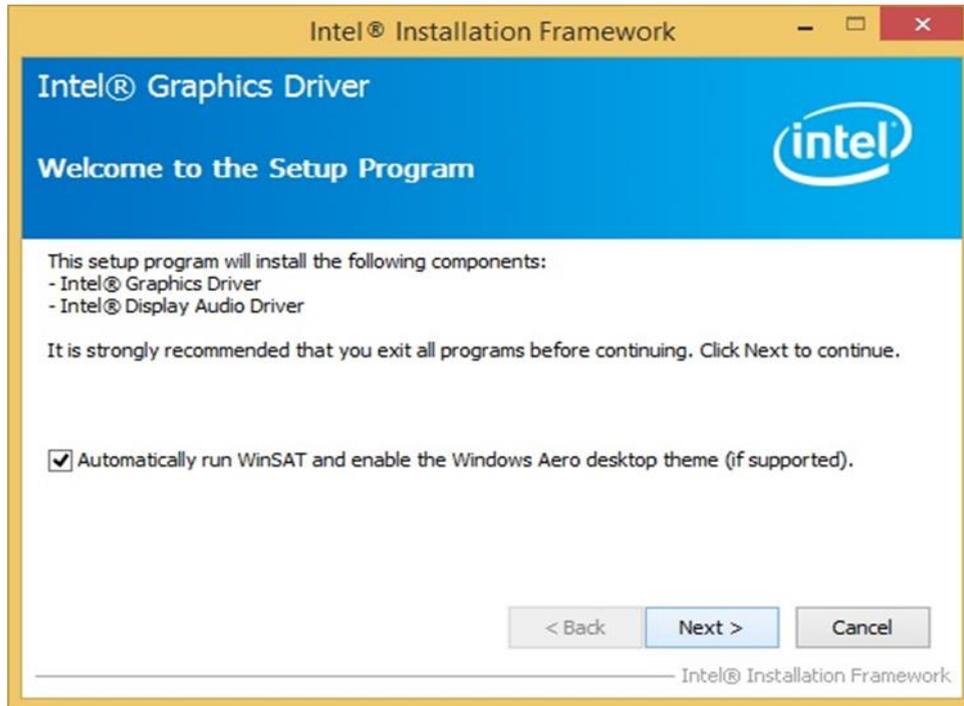
Step 3 Carefully read the license terms and click **Yes** to agree.

Step 4 Check Readme file information, and click **Next** to install driver.

Step 5 Click **Next** to continue.

Step 6 Windows Security window will appear, click **"Install this driver software anyway"** to continue.

Step 7 Setup Progress window will appear, click **Next** to continue the installation.

Step 8 Setup is complete, click **"Yes, I want to restart this computer now"** to finish the installation and restart the computer.

5.3 Intel Sideband Fabric Device (Intel MBI) Driver (Windows 8)

Step 1 Insert the CD that comes with the motherboard. Open the file document **"MBI"** and click **"Setup.exe"** to install the driver.
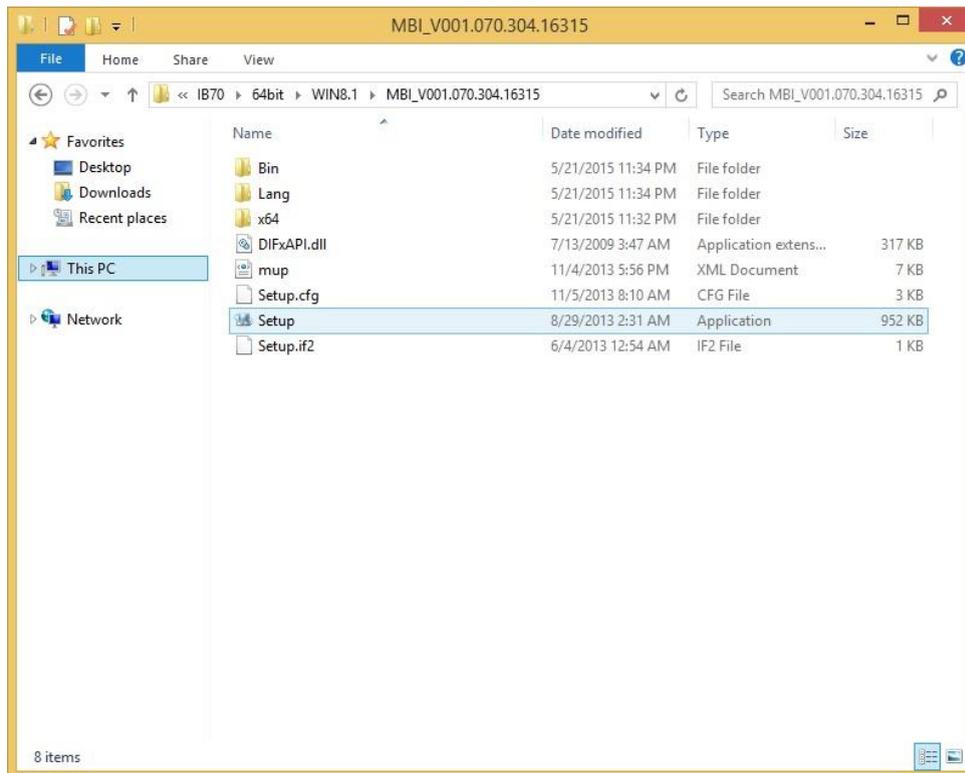
Step 2 Welcome to the setup program window will appear, click **Next** to start the installation.

Step 3 Carefully read the License Agreement terms and click **Yes** to agree.

Step 4 Setup progress will appear, please wait for the operations to be performed, then click **Next** to continue.

Step 5 The installation is complete, click "**Yes, I want to restart this computer now"** to finish and restart the computer.

5.4 Intel Trusted Engine Interface (Intel TXE) Driver

Step 1 Insert the CD that comes with the motherboard. Open the file document "TXE" and click "Setup TXE.exe" to install the driver.

Step 2 Welcome to the setup program window will appear, click **Next** to start the installation.

Step 3 Carefully read the license terms and click **Yes** to agree.

Step 4 Confirmation window will appear, click **Next** to continue the driver installation.

Step 5 Please wait while the product is being installed.

Step 6 The installation is complete, click **Finish** to complete the installation and restart the computer.

5.5 Intel Network Connections

User must confirm the type of operating system is being used before installing Intel Network Connections. Follow the steps below to complete the installation.

Step 1 Click "PROWin64.exe"
Step 2 Click **Yes** to start the installation.
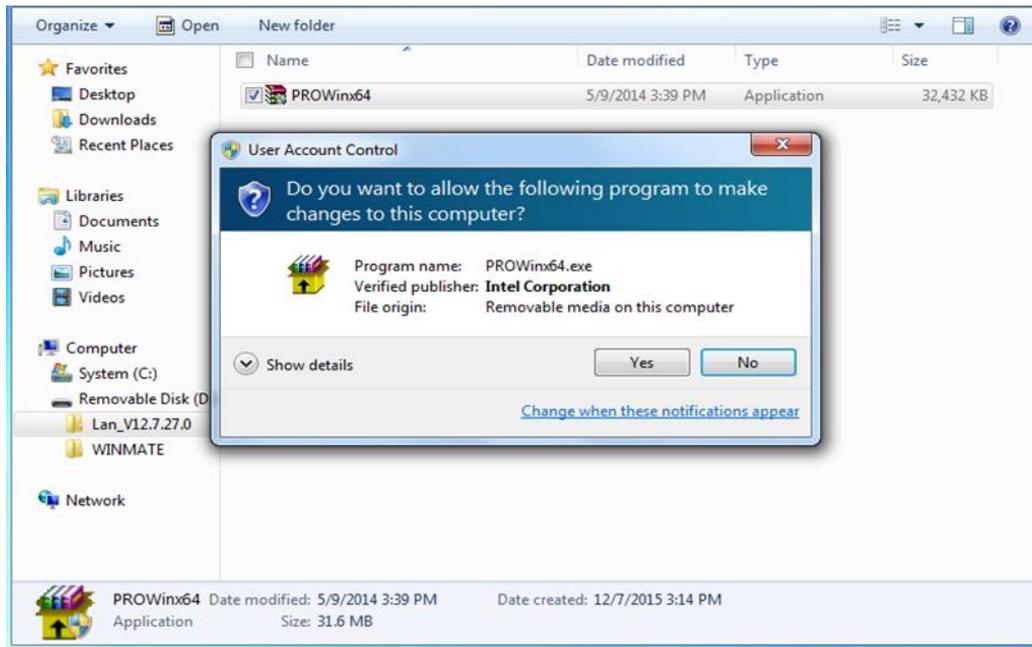
Step 3 Welcome window will appear, click **Next** to install the driver.
Step 4 In the program maintenance window you will see two options available. "Remove" is to remove Intel Networks Connections from your computer, and "Modify" is to make any changes. Choose **Modify** to continue.
Step 5 In the **Setup Options** window choose "**Intel® PRO Set for Windows® Device Manger**", "**Intel ® Network Connections SNMP Agent**" and "**Advanced Network Services**".
Step 6 The wizard is ready to begin installation, click **Install** to continue.
Step 7 Install wizard completed, click **Finish** to complete the installation.

5.6 Audio Driver

The ALC886 series are high-performance 7.1+2 channel high definition audio codecs that provide ten DAC channels for simultaneous support of 7.1 sound playback, plus 2 channels of independent stereo sound output (multiple streaming) through the front panel stereo outputs. The series integrates two stereo ADCs that can support a stereo microphone, and feature Acoustic Echo Cancellation (AEC), Beam Forming (BF), and Noise Suppression (NS) technology.

Step 1 Insert the CD that comes with the motherboard. Open the file document "Audio Driver" and click "Setup.exe" to install the driver.
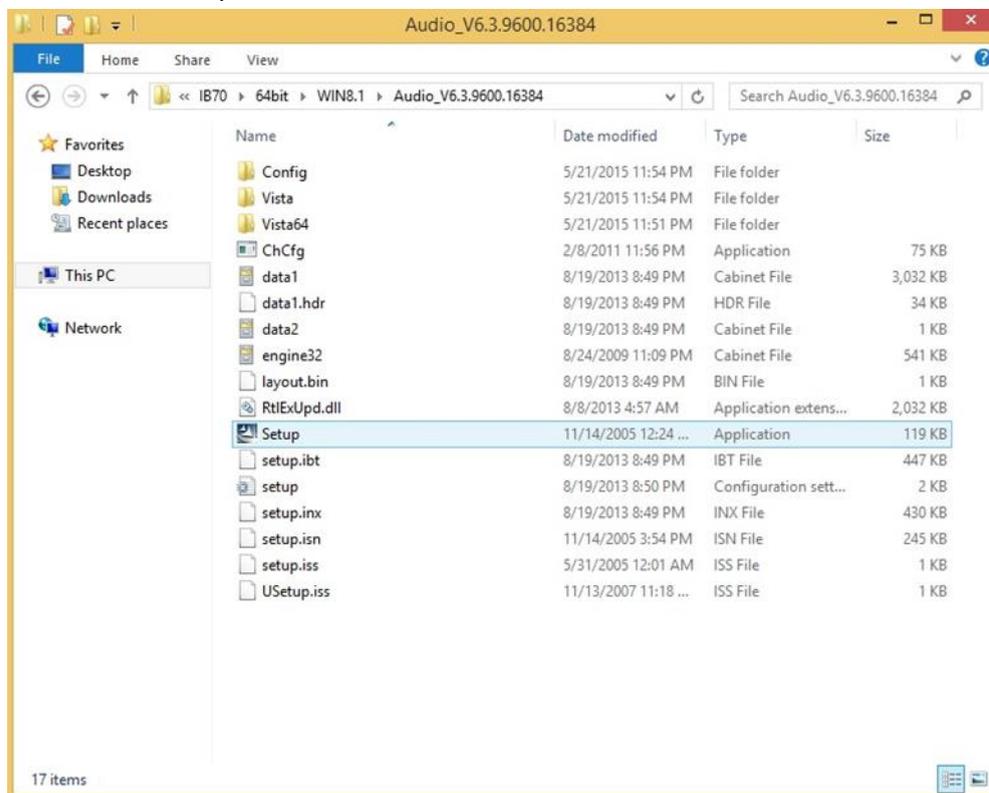
Step 2 Please wait while the InstalShield Wizard prepares the setup.

Step 3 Welcome window will appear, click **Next** to install the driver.

Step 4 It might take some time to configure new software installation. Please wait.

Step 5 Windows security will appear, click **Install** to install the audio driver.

Step 6 The installation is complete, select **"Yes, I want to restart my computer now"**, and click **Finish** to complete the installation.

5.7 USB 3.0 Driver (Windows 7)

This HMI features Intel Celeron ^{Bay} Trail-M N2930 CPU with the Intel® USB 3.0 extensible Host Controller. You need to install the Intel® USB 3.0 extensible Host Controller driver to enable the function.

NOTE:
If your operation system is Windows Embedded 8.1 Industry or Windows Embedded 8 Standard, you should skip the USB 3.0 driver installation.

Step 1 Locate the hard drive directory where the driver files are stored with the browser or the explore feature of Windows*.
Step 2 Double-click the **"Setup.exe"** from this directory.
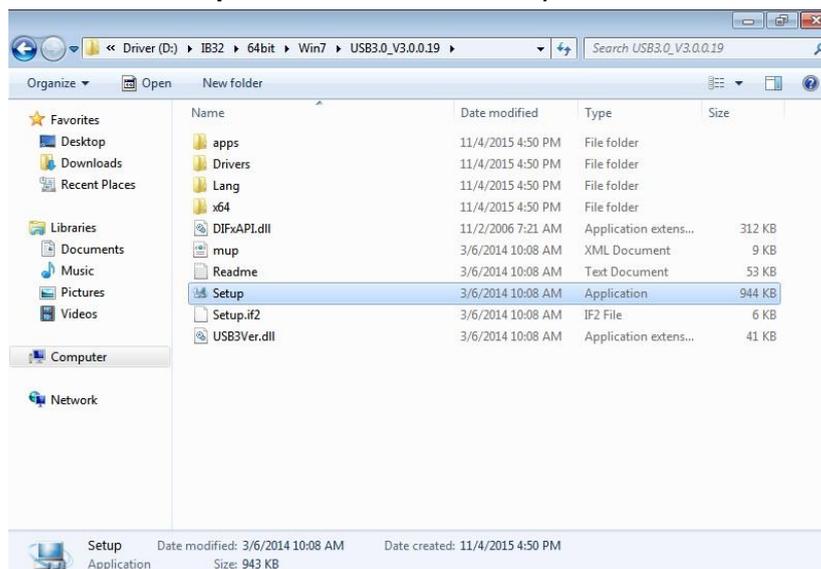
Step 3 Welcome window will appear, Click **Next** to install the driver.
Step 4 Carefully read the license terms and click **Yes** to agree.
Step 5 Review Readme file information and click **Next** to continue the installation.
Step 6 When the Setup Progress is complete click **Next** to continue.
Step 7 Click **"Yes, I want to restart this computer now"** to finish and then restart your computer.

5.8 Watchdog Driver

For more details about Winmate Watchdog, please download Watchdog Guide from Winmate Downloads Center:
http://dc.winmate.com.tw/_downloadCenter/2017/Embedded%20Computing/Watchdog%20Guide_IB_IH_IV_IK.pdf

Follow instructions below to install **Watchdog** driver.

1. Open the Driver CD (included in the package) and select **Watchdog** driver.
2. Check message and select **Install** to begin the installation.
3. Wait for installation to complete.
4. When installation is complete, press any key to close.
5. Open the Driver CD (included in the package) and select **Watchdog AP**.
6. Select **Next**.
7. The installed storage location is displayed, select **Next** to continue.
8. Select **Next** to start the installation.
9. Wait for installation to complete.
10. When installation is completed, select **Close** to close the window.

MOUNTING

This chapter provides step-by-step mounting
guide for all available mounting options.

6

CHAPTER 6: MOUNTING

This chapter provides mounting guide for all available mounting options. Pay attention to cautions and warning to avoid any damages.

WARNING! / AVERTISSEMENT!
Follow mounting instructions and use recommended mounting hardware to avoid the risk of injury.
Suivez les instructions de montage et d'utilisation recommandé le matériel de montage pour éviter le risque de blessure.

6.1 Cable Mounting Considerations

For a nice look and safe installation, make sure cables are neatly hidden behind the HMI device. Refer to Chapter 2, section 2.1 for the Cable Installation instruction.

WARNING! / AVERTISSEMENT!
Observe all local installation requirements for connection cable type and protection level.
Suivre tous les règlements locaux d'installations, de câblage et niveaux de protection.

WARNING! / AVERTISSEMENT!
Turn off the device and disconnect other peripherals before installation.
Éteindre l'appareil et débrancher tous les périphériques avant l'installation.

ALTERNATING CURRENT / MISE À LE TERRE!
To prevent electrical shock, the Safety Ground location on the rear must be bonded to the local earth ground through a minimum 12 AWG wire as short as possible
Pour éviter les chocs électriques, l'emplacement de la prise terre à l'arrière doit être lié à terre locale, à travers un 12 AWG minimum et aussi court que possible.

6.2 Safety Precautions

Observe the following common safety precautions before installing any electronic device:
   • Use separate, non-intersecting paths to route power and networking wires. If power wiring and device wiring paths must be crossed make sure the wires are perpendicular at the intersection point.
   • Keep the wires separated according to the interface. Wires that share similar electrical characteristics must be bundled together.
   • Do not bundle input wiring with output wiring. Keep them separate.
   When necessary, it is strongly advised that you label wiring to all devices in the system.

6.3 Mounting Guide

G-WIN Slim IP65 (P-CAP) devices come with different mounting options suitable for most of the industrial and commercial applications, including heavy duty and agricultural vehicles, forklifts. The main mounting approach is VESA mounting - very user-friendly in terms of installation. Refer to sub-sections below for more details.

CAUTION/ ATTENTION
Follow mounting instructions and use recommended mounting hardware to avoid the risk of injury.
Suivez les instructions de montage et d'utilisation recommandé le matériel de montage pour éviter le risque de blessure.

6.3.1 VESA Mounting

This device supports VESA Mounting and provides various types of mounting options to fit any industrial use or vehicle.

Size	VESA Plate
7", 10.1", 10.4", 12.1"	75x75 mm
10.4", 15"	100x100 mm

Mounting Instruction

Use Philips M4x5 screws to fix the desk stand to VESA holes on the back cover of the device.
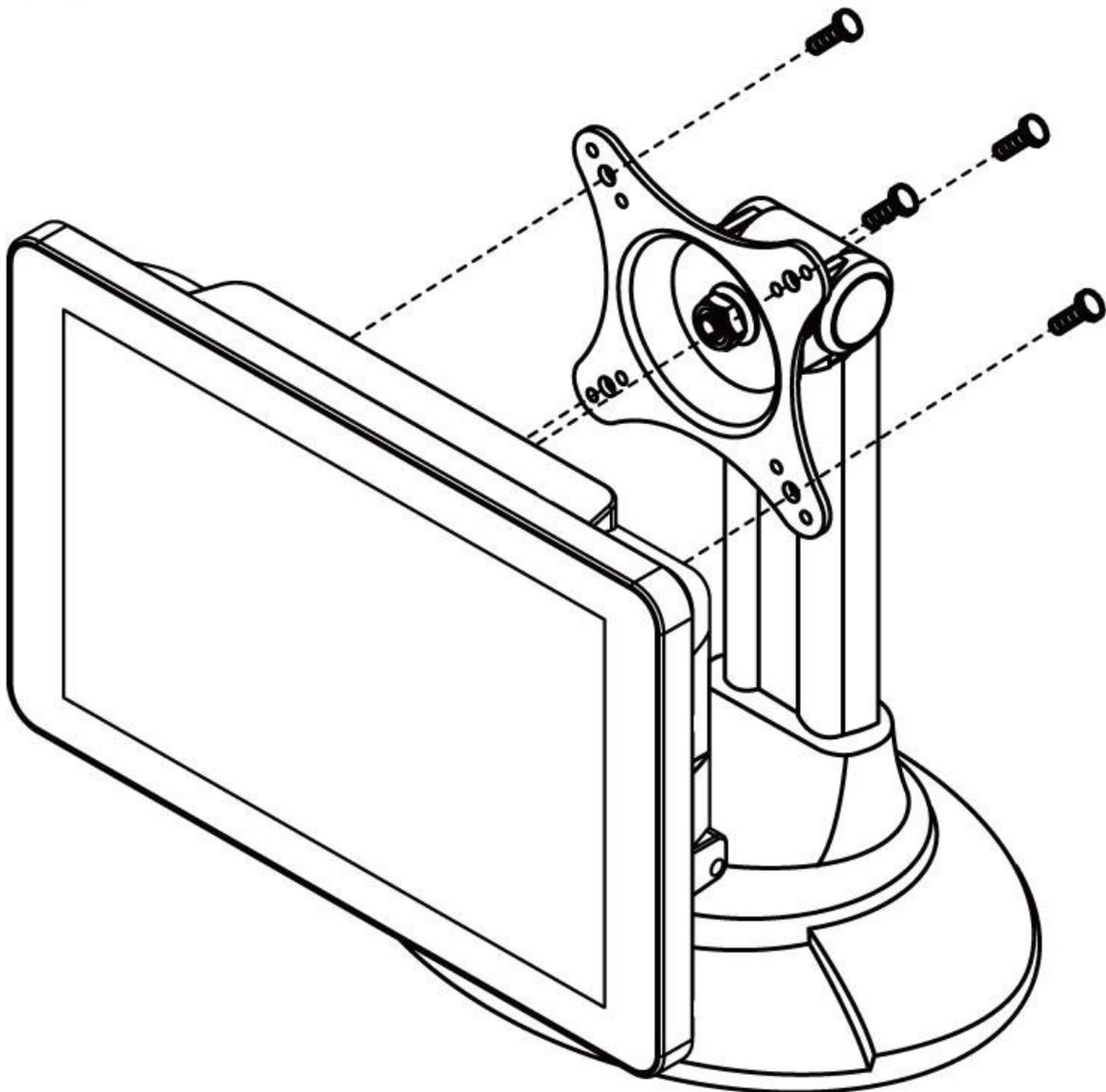

The picture is for demonstration purposes only. VESA Mounting accessories are not supplied by Winmate.

6.3.2 Panel Mounting

Panel Mount mounting solutions is suitable for many applications where Panel PC should be embedded. With this mounting solution flat surface leave no bezel in the front.

Size	Wall Cutout, mm	Screw Hole Diameter, mm
10.1"	249 x 157.6	M3x4
10.4"	227 x 174.5	M4x5
15"	345.4 x 260	M4x5
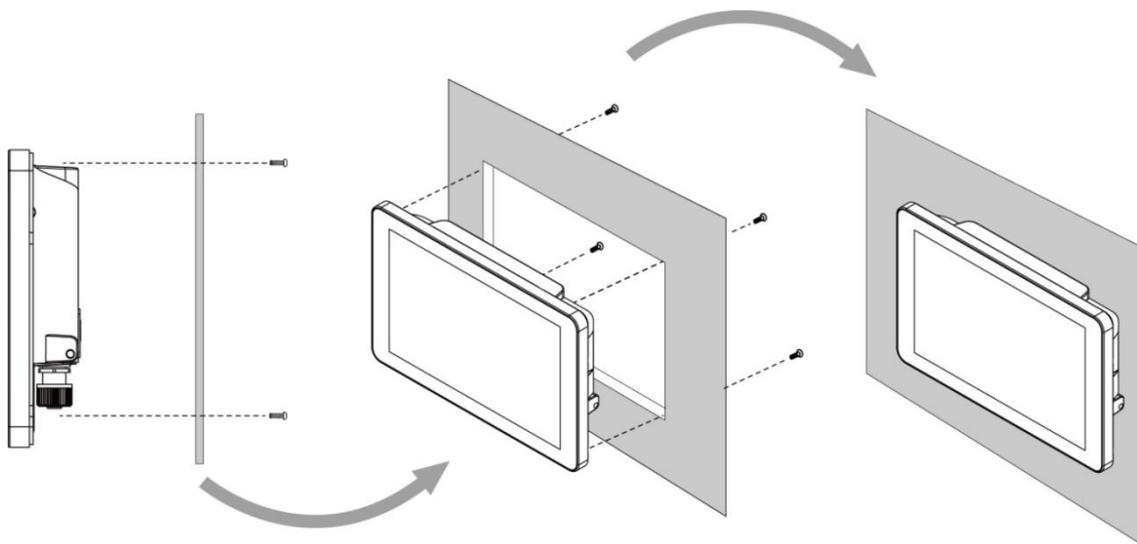
Mounting Instruction:

1. Prepare a fixture for the specific dimensions of the device.
2. Cut a hole on a sub frame or panel according to the cutout dimensions.
3. Install the device properly onto the cutout area of the sub frame or panel with the sides of the front bezel.
4. Fix the device to fixture with eight Phillips M3x4 screws.

TECHNICAL SUPPORT

This chapter includes pathway to technical support.

7

CHAPTER 7: TECHNICAL SUPPORT

This chapter includes pathway to technical support and Software Developing Kit (SDK). If any problem occurs fill in Problem Report Form enclosed and immediately contact us.

7.1 Software Developer Support

Winmate® provides Software Development Kit (SDK). The table below lists SDK provided by Winmate for Winmate® G-WIN Slim IP65 with P-CAP Panel PC with Intel® Celeron® Bay Trail-M N2930 processor:

Item	File Type	Description
1	SDK	Watchdog SDK
2	Utility	Watchdog Utility

To find the Drivers and SDK, please refer to the Driver CD that comes in the package or contact us. Also, you can download drivers from Winmate Download Center or Winmate File Share.

1.   Winmate Download Center
http://www.winmate.com.tw/ > Support > Download Center > G-WIN S65 PPC – Bay Trail

Or follow the link:
http://www.winmate.com/DownCenter/DownLoadCenter.asp?DownType=0912

7.2 Problem Report Form

G-WIN Slim IP65 (P-CAP)

Customer name:	
Company:	
Tel.:	Fax:
E-mail:	Date:

Product Serial Number: _____

Problem Description: Please describe the problem as clearly as possible. Detailed description of the occurred problem will allow us to find the best solution to solve the problem as soon as possible.

_____

_____

PRODUCT SPECIFICATIONS

This section includes product specifications.

Appendix

APPENDIX A: PRODUCT SPECIFICATIONS

Hardware Specifications

	Model Name			
	W10IB3S-GSH1(HB)	R10IB3S-GST2	R12IB3S-GSM2(HB)	R15IB3S-GSC3(HB)
Display				
Size/Type	10.1" TFT (Widescreen)	10.4"	12.1" TFT	15" TFT
Resolution	1024 x 600	1024 x 768	1024 x 768	1024 x 768
Brightness	420 nits (Optional 800 nits)	350 nits (Optional 1000 nits)	500 nits(Optional 1000 nits)	250 nits (Optional 1000 nits)
Contrast Ratio	500:1 (typ.)	1200:1 (typ.)	700:1 (typ.)	700:1 (typ.)
Viewing Angle	-75~80(H);-80~80(V)	-88~88(H); -88~88(V)	-80~80(H) ; -70~70(V)	-80~80(H);-70~70(V)
Max Colors	16.7M	16.2M	16.2M	16.2M(8bits)
Touch	Projected Capacitive	Projected Capacitive	Projected Capacitive	Projected Capacitive, Protection Glass (Optional), AG Coating (Optional)
System				
Processor	Intel® Celeron® Bay Trail-M N2930 1.83GHz	Intel® Celeron® Bay Trail-M N2930 1.83GHz	Intel® Celeron® Bay Trail-M N2930 1.83GHz	Intel® Celeron® Bay Trail-M N2930 1.83GHz
System Chipset	Intel® ATOM SoC Integrated	Intel® ATOM SoC Integrated	Intel® ATOM SoC Integrated	Intel® ATOM SoC Integrated
System Memory	2GB DDR3L 1600 SODIMM (max. 8GB)	2GB DDR3L 1600 SODIMM (max. 8GB)	2GB DDR3L 1600 SODIMM (max. 8GB)	2GB DDR3L 1600 SODIMM (max. 8GB)
Storage	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD	64GB mSATA SSD
Audio	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec	Realtek HD Audio Codec
LAN	Dual Intel® I210AT GbE LAN	Dual Intel® I210AT GbE LAN	Dual Intel® I210AT GbE LAN	Dual Intel® I210AT GbE LAN
Operating System	Windows 10/ 8/ 7	Windows 10/ 8/ 7	Windows 10/ 8/ 7	Windows 10/ 8/ 7
Input/ Output				
COM Port	1 x RS232 (M12 type) (Optional 422/485)	1 x RS232 (M12 type) (Optional 422/485)	1 x RS232 (M12 type) (Optional 422/485)	1 x RS232 (M12 type) (Optional 422/485)
USB Port	1 x USB 2.0 (M12 type)	1 x USB 2.0 (M12 type)	1 x USB 2.0 (M12 type)	1 x USB 2.0 (M12 type)
Ethernet	1 x 10/100/1000 LAN (M12 type)	1 x 10/100/1000 LAN (M12 type)	1 x 10/100/1000 LAN (M12 type)	1 x 10/100/1000 LAN (M12 type)
Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker

	Model Name			
	W10IB3S-GSH1(HB)	R10IB3S-GST2	R12IB3S-GSM2(HB)	R15IB3S-GSC3(HB)
Power Specifications				
Power Input	12V DC in	12V DC in	12V DC in	12V DC in
Power Consumption	20W	22W	24W	25W
Mechanical Specifications				
Cooling System	Fanless Design	Fanless Design	Fanless Design	Fanless Design
Mounting	VESA Mount, Panel Mount	VESA Mount, Panel Mount	VESA Mount	VESA Mount, Panel Mount
Environment Considerations				
Operating Temperature	-15°C to +55°C	-15°C to +55°C	-15°C to +55°C	-15°C to +55°C
Operating Humidity	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)
IP Rating	Full IP65	Full IP65	Full IP65	Full IP65
Shock Operating	40g for 11 ms, 300 m/s^2	40g for 11 ms, 300 m/s^2	40g for 11 ms, 300 m/s^2	40g for 11 ms, 300 m/s^2
Vibration Operating	1.48/1.98/2.24 g rms for XYZ/ 5-500Hz	1.48/1.98/2.24 g rms for XYZ/ 5-500Hz	1.48/1.98/2.24 g rms for XYZ/ 5-500Hz	1.48/1.98/2.24 g rms for XYZ/ 5-500Hz
Standards and Certification				
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC
Shock, Vibration	Comply with MIL-STD-810F/G for shock/ vibration	Comply with MIL-STD-810F/G for shock/ vibration	Comply with MIL-STD-810F/G for shock/ vibration	Comply with MIL-STD-810F/G for shock/ vibration