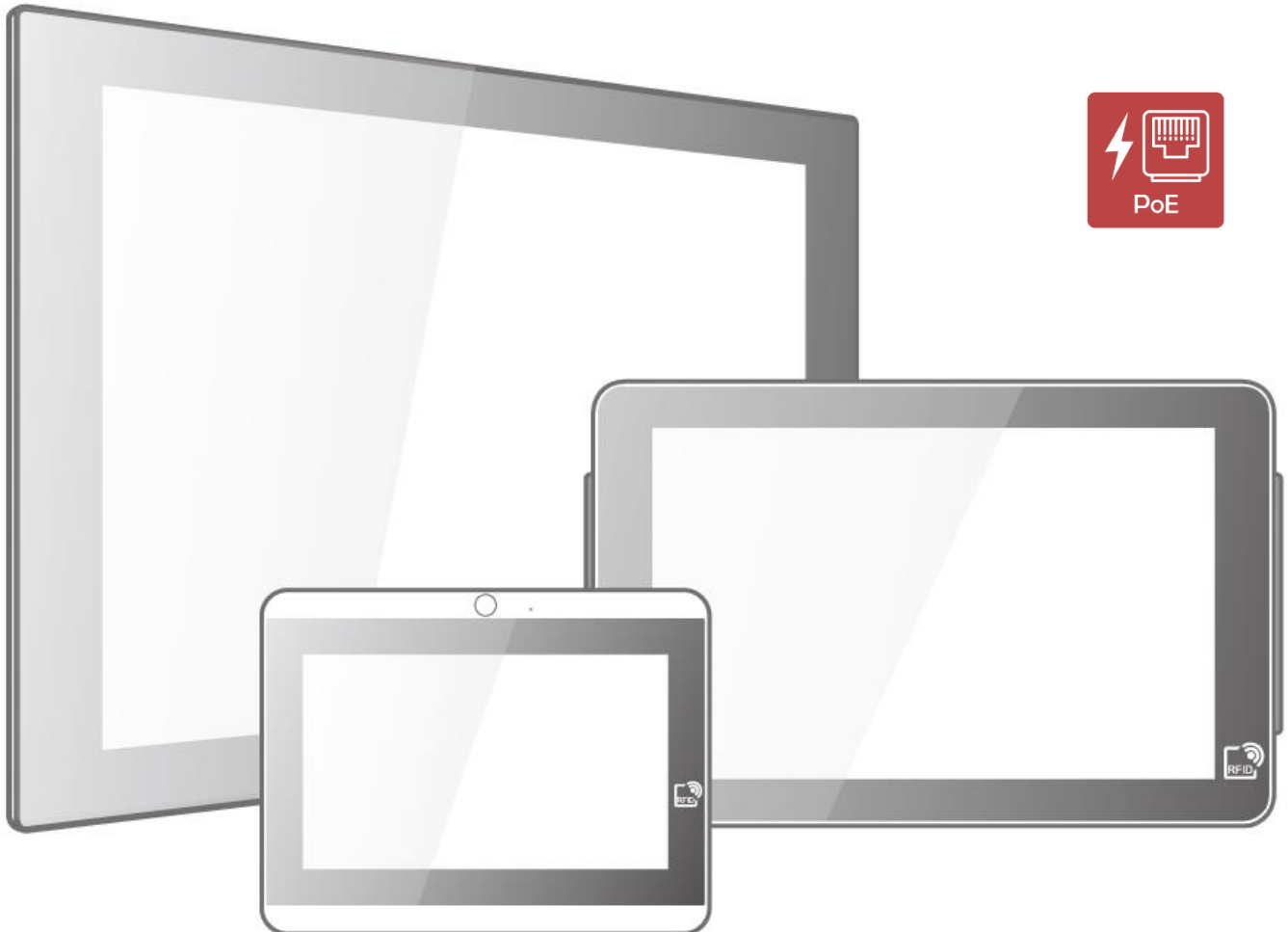# WINMATE

7"/ 10.1"/ 15"
S Series HMI

Intel® Celeron® Bay Trail-M N2930, 1.83 GHz

Model No. W07IB3S-PCO1-POE
W07IB3S-PCO1AC-POE
W10IB3S-PCH2-POE
W10IB3S-PCH2AC-POE
W10IB3S-PCH2LB
R15IB3S-PCC3-POE

User Manual

Please read these instructions carefully before using this product, and save this manual for future use.

Contents

Preface

Copyright Notice

No part of this document may be reproduced, copied, translated, or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the prior written permission of the original manufacturer.

Trademark Acknowledgement

Brand and product names are trademarks or registered trademarks of their respective owners.

Disclaimer

We reserve the right to make changes, without notice, to any product, including circuits and/or software described or contained in this manual in order to improve design and/or performance. We assume no responsibility or liability for the use of the described product(s) conveys no license or title under any patent, copyright, or masks work rights to these products, and make no representations or warranties that these products are free from patent, copyright, or mask work right infringement, unless otherwise specified. Applications that are described in this manual are for illustration purposes only. We make no representation or guarantee that such application will be suitable for the specified use without further testing or modification.

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 1W18Axxxxxxxx means October of year 2018.

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 A Caution alert indicates potential damage to hardware and explains how to avoid the potential problem.
Attention Une alerte d'attention indique un dommage possible à l'équipement et explique comment éviter le problème potentiel.

Warning! An Electrical Shock Warning indicates the potential harm from electrical hazards and how to avoid the potential problem.
Avertissement! Un Avertissement de Choc Électrique indique le potentiel de chocs sur des emplacements électriques et comment éviter ces problèmes.

Alternating Current! The Protective Conductor Terminal (Earth Ground) symbol indicates the potential risk of serious electrical shock due to improper grounding.
Mise à le terre ! Le symbole de Mise à Terre indique le risqué potential de choc électrique grave à la terre incorrecte.

Safety Information

Warning! 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.
Avertissement! 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 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.
Attention 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.

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.
- Do not cover the openings.
- 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.
- 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 Use the recommended mounting apparatus to avoid risk of injury.
Attention Utiliser l'appareil de fixation recommandé pour éliminer le risque de blessure.

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

Warning! Always ground yourself against electrostatic damage to the device.
Avertissement! 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.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before connecting 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 that are conductive.
- Always put drivers and PCB's component side on anti-static foam.

General Guideline

It is recommended to reboot the device when some functions are defect or inactive. If it still can't solve the problems please contact your dealer or agent.

Replaceable Batteries

If am equipment is provided with a replaceable battery and if replacement by an incorrect type could result in an explosion (For example with some lithium batteries), the following applies:
- The battery is placed in an OPERATOR ACCESS AREA, there shall be a marking close to the battery or a statement in both the operating and the servicing instructions;

- If the battery is placed elsewhere in equipment, there shall be a marking close to the battery or a statement in the servicing instructions.

These marking or statement shall include the following or similar text:

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

Attention Risque d'explosion si la batterie est remplacée par un type incorrect. Jetez les piles usagées conformément aux instructions.

Important Information

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.

EC Declaration of Conformity

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 EN 55022: 2010 Class B
  - IEC61000-4-2: 2009
  - IEC61000-4-3: 2006+A1: 2007+A2: 2010
  - IEC61000-4-4: 2012
  - IEC61000-4-5: 2014
  - IEC61000-4-6: 2013
  - IEC61000-4-8: 2010
  - IEC61000-4-11: 2004
- EN55022: 2010/AC:2011
- 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® Series HMI. This User Manual applies to the S Series HMI.

The documentation set for the S Series HMI with Intel® Celeron® Bay Trail-M N2930 processors provides information for specific user needs, and includes:

- **S Series HMI User Manual** – contains detailed description on how to use the HMI device, its components and features.
- **S Series HMI Quick Start Guide** - describes how to get the HMI up and running.

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

Document Revision History

Version	Date	Note
1.0	12-Jul-2019	Initial document release.
1.1	25-Nov-2019	Add W10IB3S-PCH2LB.
1.2	20-Jan-2020	Add Replaceable Batteries precaution.
1.3	26-Feb-2020	Revise mechanical design of W10IB3S-PCH2LB.

Chapter 1: Introduction

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

1.1 Introduction

Congratulations on purchasing Winmate® S Series HMI. Winmate multi-touch S Series HMI is suitable for home automation and room management systems. Flat surface is easy-to-clean and delivers aesthetically pleasing look for any interior. The device provides real time update for booking status and available schedule, or performs as a synchronous display in meetings.

S Series HMI run on   Intel® Celeron® N2930 processor and support Windows 10 IoT, Windows Embedded 8.1 Industry Pro, Windows Embedded 8Standard, Windows 7 Pro for Embedded Systems, and Windows Embedded Standard 7– WS7P. For easy, quick and cost effective network installations both models support PoE. These models sealed with front IP 65 dust and water proof, and IP22 on the back side. Optional HF RFID 13.56 MHz is especially useful in access control applications.

S Series HMI support an exceptional feature - LED light bar. With the help of red, green, blue and orange LED indicators you can see the status of the machine or processes afar. It significantly reduces power consumption by keeping the display turned off.

The S Series HMI is suitable for home automation and room management systems. Flat surface is easy-to-clean and delivers aesthetically pleasing look for any interior. By connecting to centralized database, it can provide real time update for booking status and available schedule, or perform as a synchronous display in meetings. Optional RFID reader is especially useful in access control applications.

1.2 Product Features

Winmate® S Series HMI features:

- 7/ 10.1/ 15-inch TFT LCD
- Projected capacitive multitouch screen
- Intel® Celeron® Bay Trail-M N2930, 1.83 GHz
- 1 x USB 3.0, 1 x USB 2.0, 1 x RS-232/422/485
- 1 x RJ45 - 10/100/1000 Mbps (LAN), 1 x RJ45 - 10/100/1000 Mbps (LAN/ PoE)
- PoE IEEE 802.3at (25 W), IEEE 802.3af (15 W)
- Fanless cooling system and ultra-low power consumption
- Front IP65 water and dust proof, rear IP22
- Light design for machine automation, smart factory and IoT applications

1.3 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:
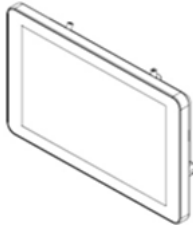
- **HMI Device**

  Varies by product specifications

- **Quick Start Guide (Hardcopy)**

  Part No. 9152111I1140

- **Driver CD & User Manual**

  Part No. 9171111I101Y
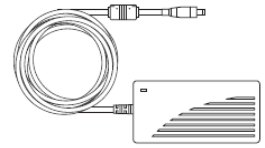
- **AC Adapter (12V/ 50W)**

  Part No. 922D050W12VA
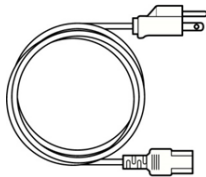
- **Power Cord**

  Varies by country

- **3 pin Terminal Block to DC Jack**

  Part No. 94J602G030K0

  VESA Screws

  Part No. 82111E240400

Package may include optional accessories based on your order:
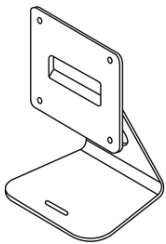
VESA Desk Stand PCVS-V1
Part No. 99KK00A0000E
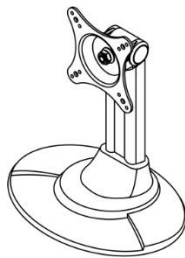
VESA Desk Stand LA-100
Part No. 9B0000000128
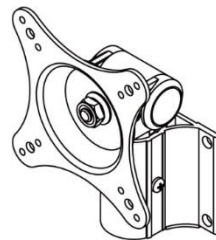
VESA Wall Mount Bracket LA-106
Part No. 9B0000000412
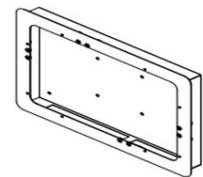
Front Side Wall Mount PCFW-V1
Part No. 99KK00A0000C
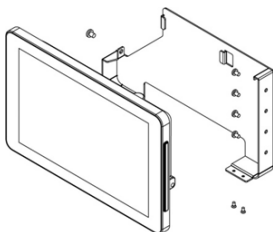
Glass Wall Mount Kit Right: PCGM-V2R Left: PCGM-V2L
Part No. 99KN00A00010 (Right)
Part No. 99KN00A00011 (Left)

External USB Cable

Part No. 948018102100

1.4 Mechanical Dimensions

This section describes appearance, connectors' layout and mechanical dimensions of S Series HMI. Notice that this is a simplified drawing and some components are not marked in detail. Please contact our sales representative if you need further product information.

7-inch, W07IB3S-PCO1-POE/ W07IB3S-PCO1AC-POE

Unit: mm
Dimensions:189.4 x 145.4 x 36.1
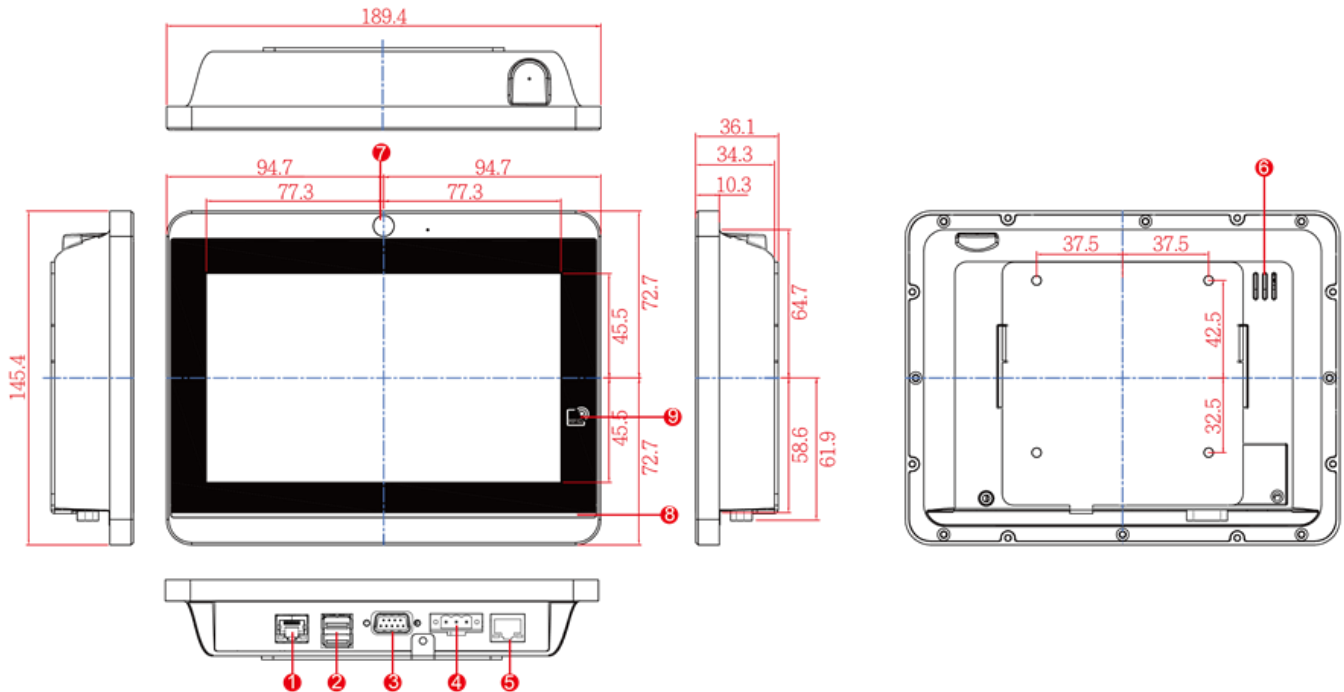
No.	Description	No.	Description
①	RJ-45 (LAN)	⑥	1 Watt Speaker
②	USB 3.0, USB 2.0	⑦	2MP Front Camera (Optional)
③	RS-232	⑧	RGB LED Light Bar (W07IB3S-PCM1AC only)
④	3 Pin Terminal Block 12V DC	⑨	HF RFID Reader (Optional)
⑤	RJ-45 (LAN/ PoE)		

10.1-inch, W10IB3S-PCH2-POE/ W10IB3S-PCH2AC-POE

Unit: mm
Dimensions:263.48 x 172 x 35.7

№	Description	№	Description
①	GPIO (Optional)*	⑥	RJ-45 (LAN/ PoE)**
②	RJ-45 (LAN)	⑦	2MP Front Camera (Optional)
③	USB 2.0, USB 3.0	⑧	HF RFID Reader (Optional)
④	RS-232/422/485	⑨	LED Status Light Bar (W10IB3S-PCH2AC-PoE only)
⑤	3 Pin Terminal Block12V DC (Phoenix Type)	⑩	1 Watt Speaker

Note 1 : Digital I/O is an optional connector and may not be present in your model.
Note 2 :Power Device (PD): IEEE 802.3at (25 W)

10.1-inch, W10IB3S-PCH2LB

Unit: mm
Dimensions:263.48 x 172 x 35.7

№	Description	№	Description
①	RJ-45 (LAN)	⑤	RJ-45 (LAN/ PoE)**
②	USB 2.0, USB 3.0	⑥	All-Around LED Status Light Bar
③	RS-232/422/485	⑦	HF RFID Reader (Optional)
④	3 Pin Terminal Block12V DC (Phoenix Type)	⑧	1 Watt Speaker

Note 1 :Power Device (PD): IEEE 802.3at (25 W)

15-inch, R15IB3S-PCC3-POE

Unit: mm
Dimensions:363.4 x 277 x 86 x 44.5

№	Description	№	Description
①	RJ-45 (LAN)	⑥	Digital I/O (Optional)
②	USB 3.0 x 1 , USB 2.0 x 1	⑦	HF RFID Reader (Optional)
③	RS232/422/485	⑧	LED Status Light Bar (Optional)
④	12V DC Terminal Block 12V DC	⑨	1 Watt Speaker x 2
⑤	RJ-45 (LAN/ PoE)		

1.5 Physical Buttons and LED Indicators

Physical buttons and LED indicators located on the rear side of the HMI (Only for 15").
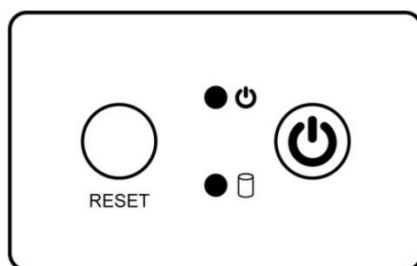
Physical Buttons		
Icon	**Button**	**Description**
 RESET	Reset	Press to reset the system
(power icon)	Power On/ Off	Press to power on or power off the device

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

1.6 Connector Description
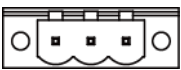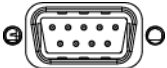
Terminal interfaces are located on the bottom side of the HMI device.

Note:
Notice that input and output connectors vary by product size and specifications.

Terminal interfaces description:

Item	Description
(RJ45 icon)	**RJ45** – Connects HMI device to Ethernet network. Supports PoE for power transmission in network equipment, via network UTP cable, together with data.
(Terminal Block icon)	**Terminal Block 3 Pin –** Provides power to the HMI device, accepts 12V DC. *Example: AC cord or DC power supply. If both are provided, choose only one.*
(RS-232 icon)	**RS-232/422/485 –** Connects external devices to HMI device. *Example: A barcode reader or scanner to HMI device.*
(USB icon)	**USB 3.0, USB 2.0**- Connects USB 3.0/ USB 2.0 compatible devices to HMI device. *Example: A printer to HMI device.*
(GPIO icon)	**GPIO** - Connects the HMI device to specific GPIO pins to control it with a software program. *Example: A door key lock system to HMI device.*

Chapter 2: Getting Started

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

2.1 Powering On

2.1.1 AC Adapter Components
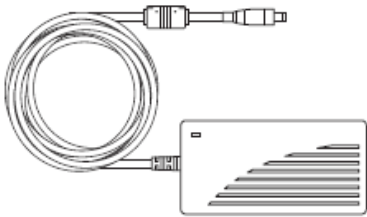
- **AC Adapter**
- **Power Cord**
- **3 Pin Terminal Block to DC Jack**

Safety Precautions:
- Do not use the adapter in a high moisture environment
- Never touch the adapter with wet hands or foot
- Allow adequate ventilation around adapter while using
- Do not cover the adapter with paper or other objects that will reduce cooling
- Do not use the adapter while it is inside a carrying case
- Do not use the adapter if the cord is damaged
- There are NO serviceable parts inside
- Replace the unit if it is damaged or exposed to excess moisture

While using the AC Adapter always:
- Plug-in the power cord to easy accessible AC outlet
- Plug-in the AC adapter to a grounded outlet

Alternating Current ! This product must be grounded. Use only a grounded AC outlet. Install the additional PE ground wire if the local installation regulations require it. *If you do not use a grounded outlet while using the device, you may notice an electrical tingling sensation when the palms of your hands touch the device.*

Mise à le terre ! Ce produit doit être mis à la terre. Utiliser seulement un cordon d'alimentation avec mise à la terre. Si les règlements locaux le requiert, installer des câbles de mise à la terre supplémentaires. *Si vous n'utilisez pas une prise d'alimentation avec mise à la terre, vous pourriez remarquer une sensation de picotement électrique quand la paume de vos mains touche à l'appareil.*

2.1.2 Power Considerations

The HMI device operates on external DC power. Use the AC adapter included in the package.

Caution Use only the AC adapter included in your package (Rating: Output 12 V/ 6.6A). Using other AC adapters may damage the device.

Attention Utiliser seulement le convertisseur AC avec votre appareil (Puissance: Sortie 12 V/ 6.6A). Utilizer d'autres convertisseurs pourraient endommager l'appareil.

2.1.3 Connecting the Power

Installation Instruction:

1. Connect a 3-pin terminal block to the HMI connector.
2. Connect the other side of the terminal block to the AC adapter.
3. Connect the AC adapter to the power cord.
4. Plug in the power cord to a working AC wall outlet. The device will boot automatically.
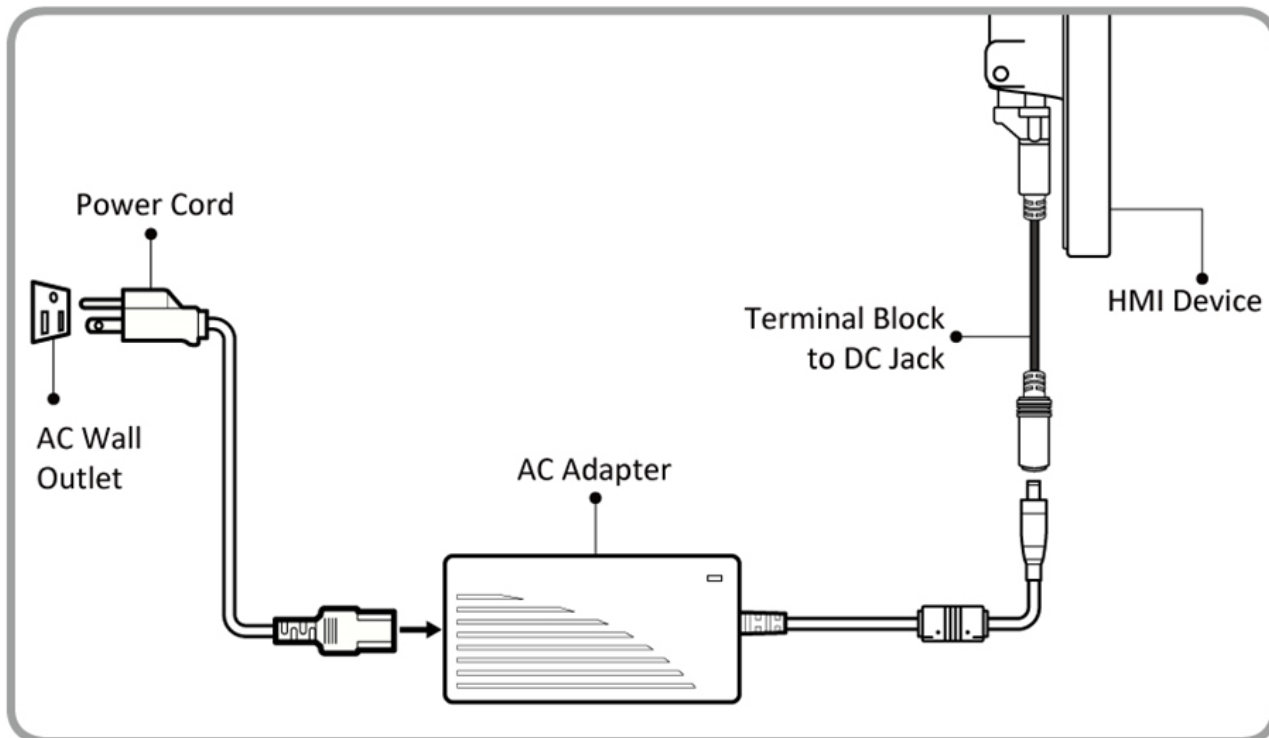
Note:
Based on the model, terminal block connector may be located either on the bottom or on the rear side of the HMI device.

Note:
Power cords vary in appearance by region and country.

2.2 Connector Description

2.2.1 Power Input Connector

The DC power source input of the panel PC is a 3 pin terminal block connector that supports 12V DC power input.

Pin assignment and connector description of terminal block connector.
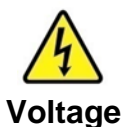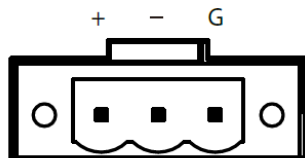
Voltage

Minimum Voltage 11.4V
Maximum Voltage 12.6V
Maximum Current 4.2A

2.2.2 Ethernet Connector

The HMI device has one RJ45 10/100/1000 Mbps Ethernet interface (LAN)for connecting to the internet and one RJ45 10/100/1000 Mbps Ethernet interface (LAN or PoE based on your order).

Pin assignment and connector description of RJ45 connector.
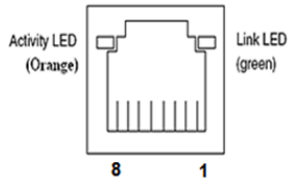
Pin №	Signal Name	Pin №	Signal Name
1	TX1+	2	TX1-
3	TX2+	4	TX2-
5	TX3+	6	TX3-
7	TX4+	8	TX4-

Important:
PoE Rating 48V 0,6A
Power Device (PD): IEEE 802.3at (25 Watt)

2.2.3 Serial Port Connector

The S Series HMI has one serial port connector to connect your HMI to external devices such as mouse, modem or printer. You can configure serial port settings via jumpers located on the motherboard.

Pin assignment and connector description of serial port connector.
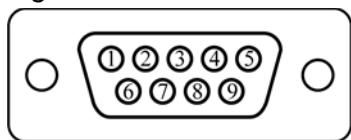
Default setting: RS-232

Pin №	*RS-232	RS-422	RS-485
1	DCD	TxD-	D-
2	RXD	TxD+	D+
3	TXD	RxD+	NC
4	DTR	RxD-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

2.2.4 USB Connector

The HMI device has one USB 2.0 and one USB 3.0 connectors. Use USB 2.0 and USB 3.0 connector to connect your HMI device to other USB 2.0/ USB 3.0 compatible devices.

Pin assignment and connector description of USB connector.
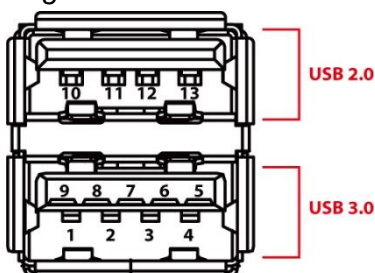
Pin №	Signal Name	Pin №	Signal Name
1	+5V	2	USB_D-
3	USB_D+	4	GND
5	STDA_SSRX-	6	STDA_SSRX+
7	GND_DRAIN	8	STDA_SSTX-
9	STDA_SSTX+	10	+5V
11	USB_D-	12	USB_D+
13	GND		

2.2.5 GPIO Connector

Notice that GPIO is an optional connector and may not be present in your model.

Pin №	Signal Name	Pin №	Signal Name
1	GND	2	DI0
3	DI1	4	DI2
5	DI3	6	DO0
7	DO1	8	DO2
9	DO3	10	VCC

2.3 Configuring Serial Port Setting

Serial port COM1 can be configured for RS-232, RS-422 or RS-485.Jumpers are located on the motherboard. You need to open the housing in order to access the jumpers.

Caution It is recommended to use factory jumper settings. Opening the housing when it is sealed may damage the device and its parts.
Attention Il est recommandé d'utiliser la configuration d'usine de cavalier. Ouvrir le chassis lorsqu'ilestscellépeut endommagél'appareil et ses pièces.

Note: A pair of needle nose pliers may be helpful when working with jumpers. If you have any doubts about the best hardware configuration for your application, contact your local distributor or sales representative before you make any changes. Generally, you simply need a standard cable to make most connections.

The jumper setting diagram is shown below. When the jumper cap is placed on both pins, the jumper is SHORT. The illustration below shows a 3-pin jumper; pins 1 and 2 are short. If you remove the jumper cap, the jumper is OPEN.
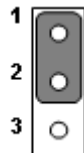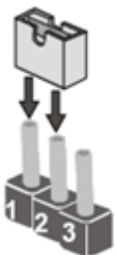
PIN 1-2 SHORT
PIN 3 OPEN

The picture below shows RS-232/422/485 (J8/J9) jumper setting.
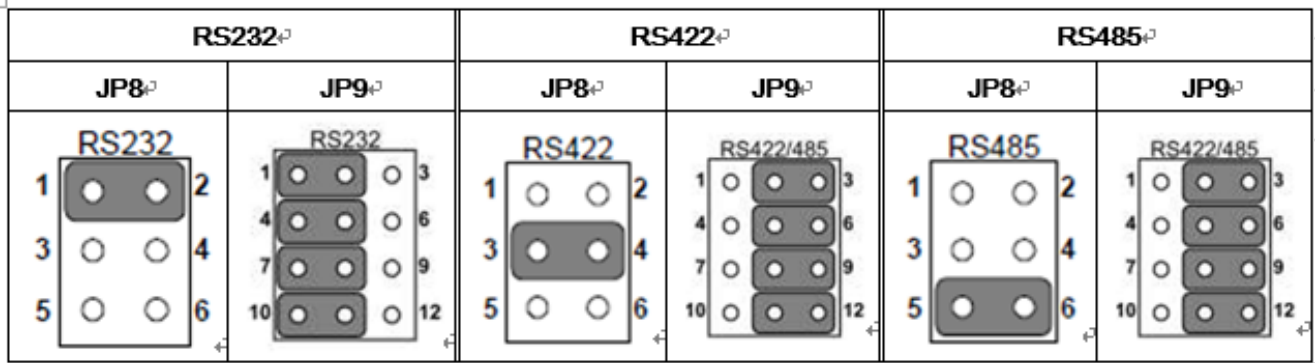
Example: To makeRS-232 Settings, set the Jumper 8 Pin 1-2 to the SHORT position, and Jumper 9 Pin1-2, 4-5, 7-8, 10-11 to the SHORT position.

2.4 Turning On and Off the Device

The unit is configured to **Power ON** when is connected to the power source.

You can **Turn OFF** the HMI device with the Windows power settings.
To shut down the device:

1. Tap **Start** [icon]>**Shut down**.
2. Wait for your HMI device to completely turn off before disconnecting the power cord (if necessary).

Chapter 3: Mounting

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

3.1 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.

Caution Observe all local installation requirements for connection cable type and protection level.

Attention Suivre tous les règlements locaux d'installations, de câblage et niveaux de protection.

Caution Turn off the device and disconnect other peripherals before installation.

Attention Éteindre l'appareil et débrancher tous les périphériques avant l'installation.

Alternating Current! 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

Mise à le terre! 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.

3.2 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.

3.3 Mounting Guide

S Series HMI devices come with different mounting options suitable for most of the industrial and commercial applications. The main mounting approach is rear mount - very user-friendly in terms of installation. Refer to sub-sections below for more details.

Caution Follow mounting instructions and use recommended mounting hardware to avoid the risk of injury.

Attention Suivez les instructions de montage et d'utilisation recommandé le matériel de montage pour éviter le risque de blessure.

3.3.1 Panel Mount

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

Size	Wall Cutout	Screw
7"	249 x 157.6 mm	M3 x 4mm
10.1"	249 x 157.6 mm	M3x4 mm
15"	345.4 x 260 mm	M6x4 mm

Installation 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 screws.
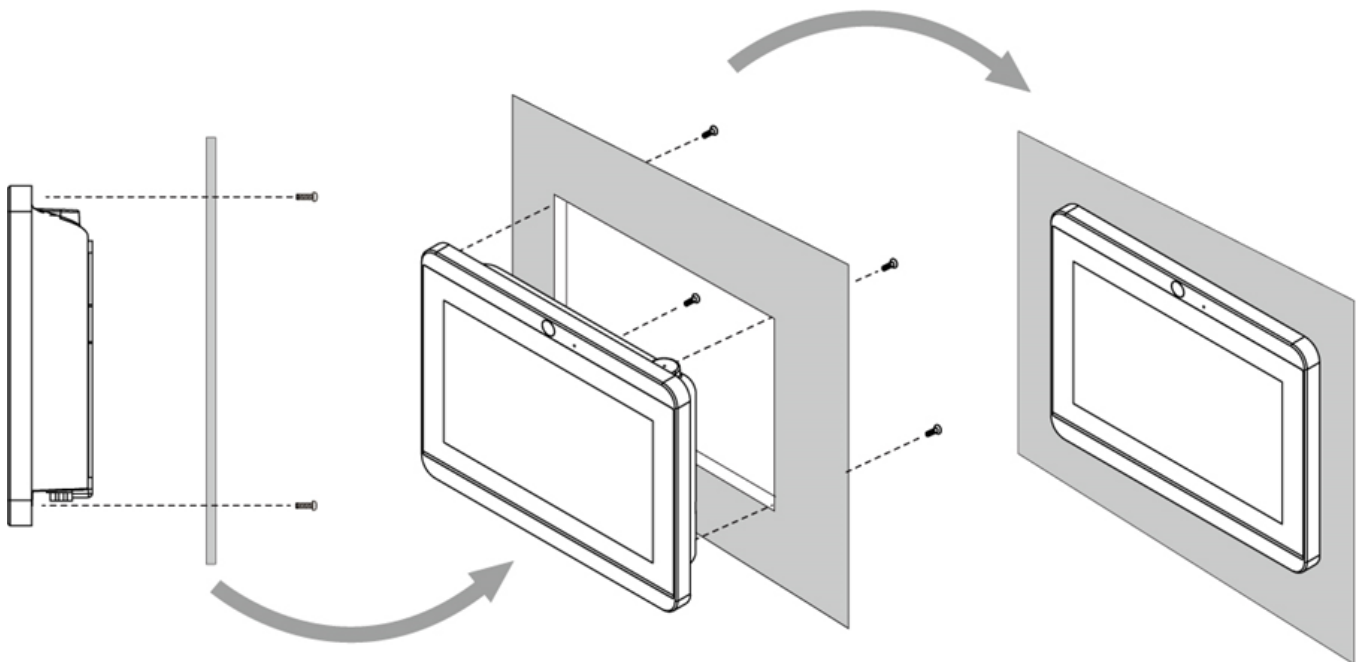
Note:

Make sure that the eight holes on gasket can fit in the mounting holes on the device.

3.3.2 VESA Mount

3.3.2.1 VESA Desk Stand PCVS-V1

The S Series HMI device can be installed on a desk with the stand. You can purchase desk stand as an optional accessory.

Model Name PCVS-V1
Part No. 99KK00A0000E

Installation Instruction

Use provided Philips M4x5 screws to fix the desk stand to VESA holes on the back cover of the device.
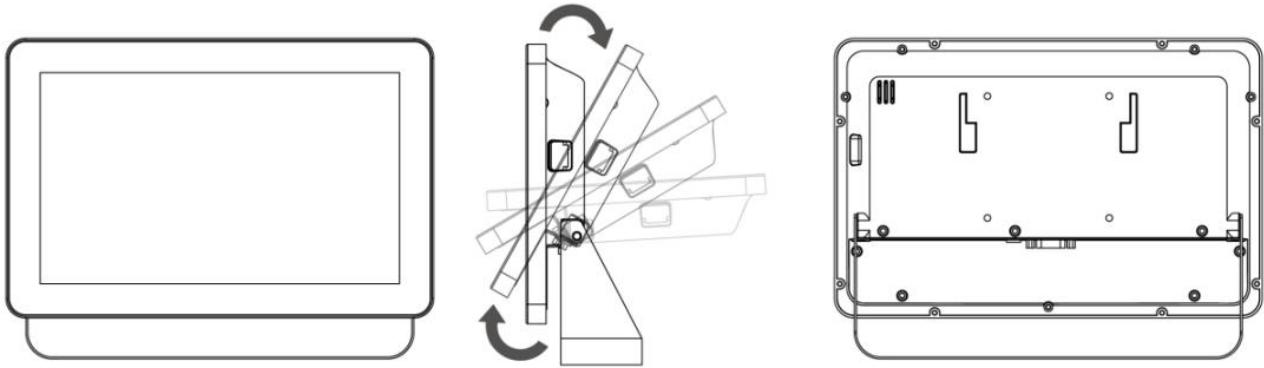
Dimensions
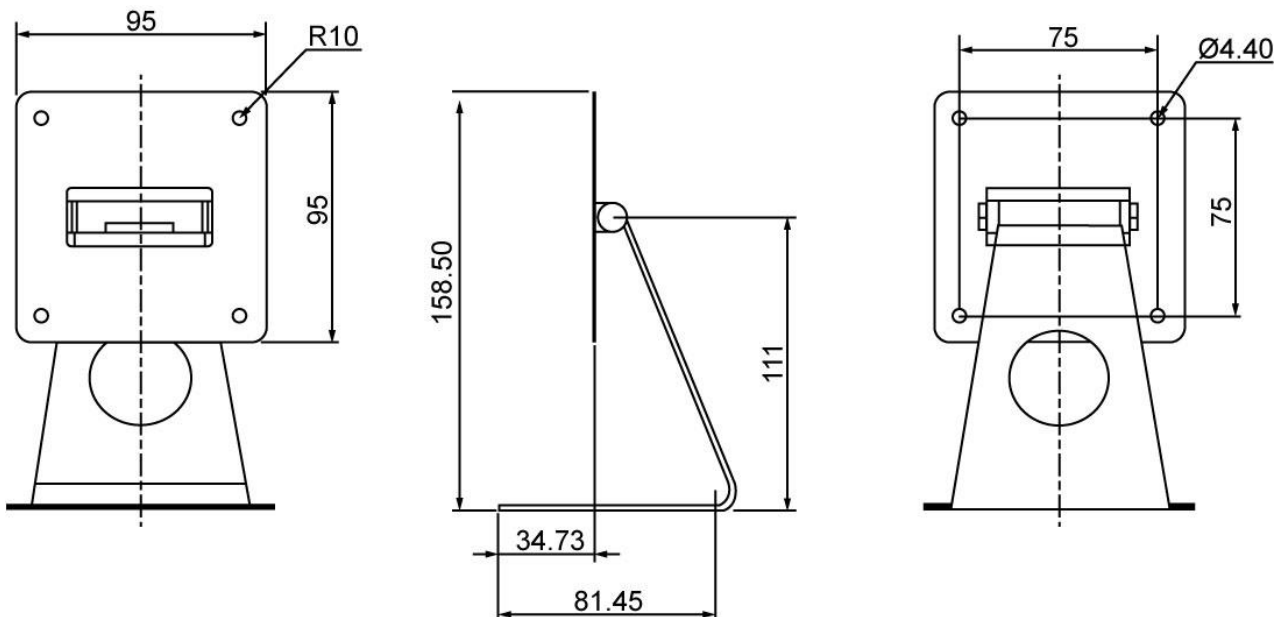
3.3.2.2 VESA Desk Stand LA-100

The S Series HMI device can be installed on a desk with the stand. You can purchase desk stand as an optional accessory.

Model Name: LA-100
Part No. 9B0000000128

Installation Instruction
Use provided Philips M4x5 screws to fix the desk stand to VESA holes on the back cover of the device.
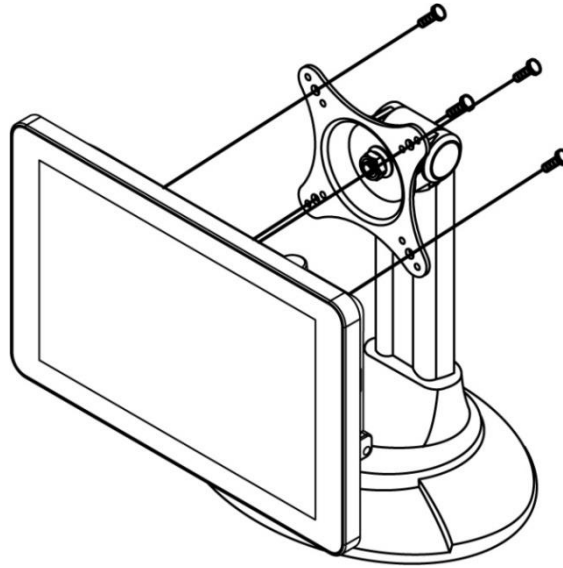
Dimensions
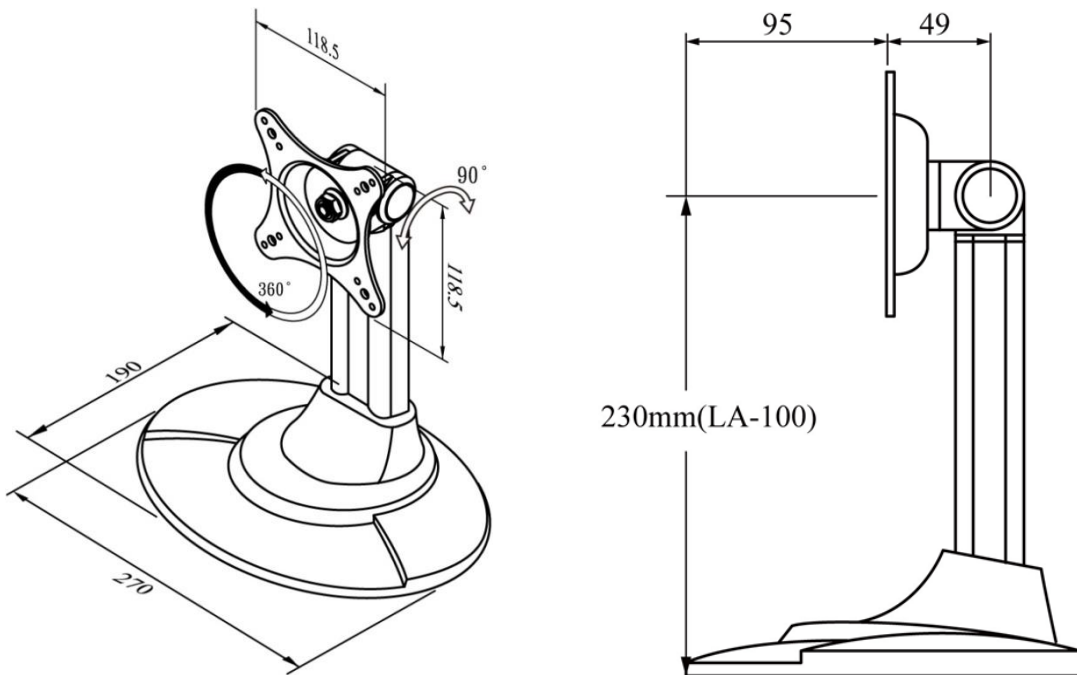
3.3.2.3 VESA Wall Mount Bracket LA-106

The S Series HMI device can be installed on a desk with the stand. You can purchase desk stand as an optional accessory.

Model Name LA-106
Part No. 9B0000000412

Installation Instruction
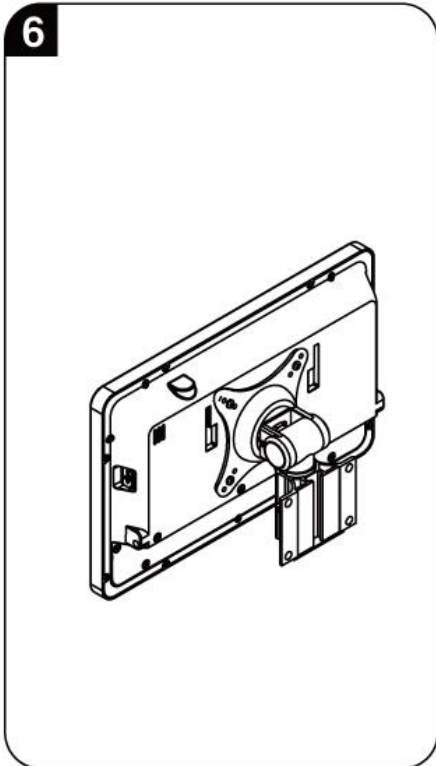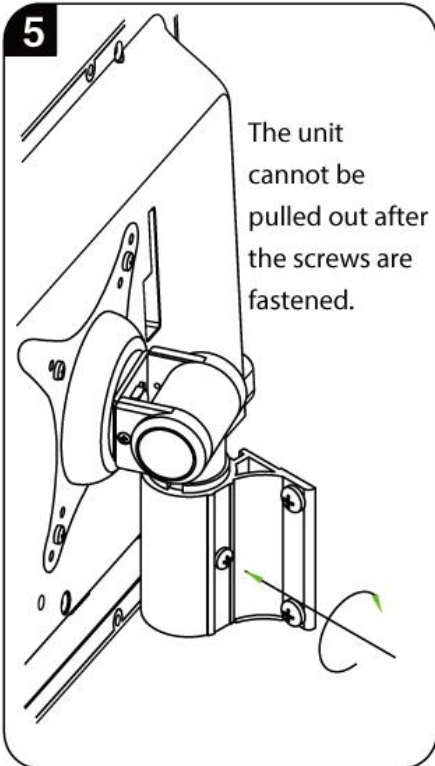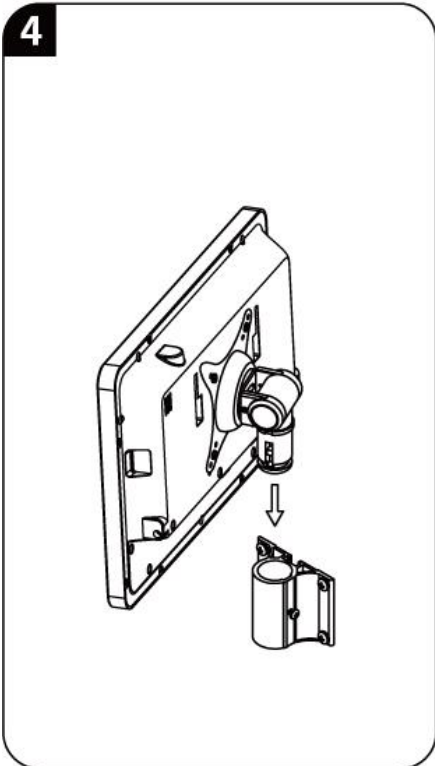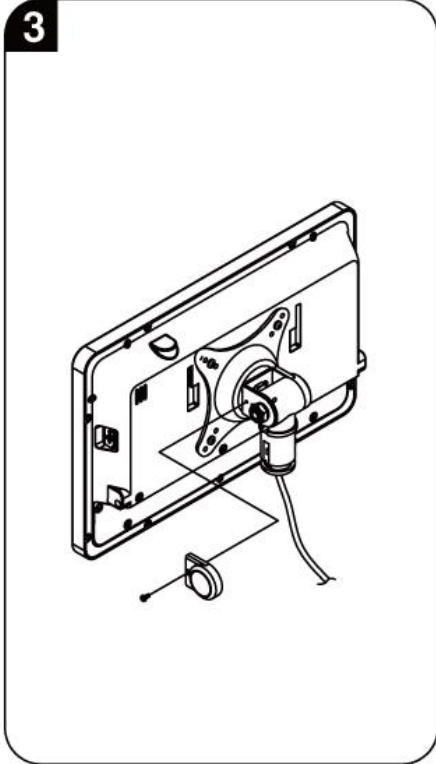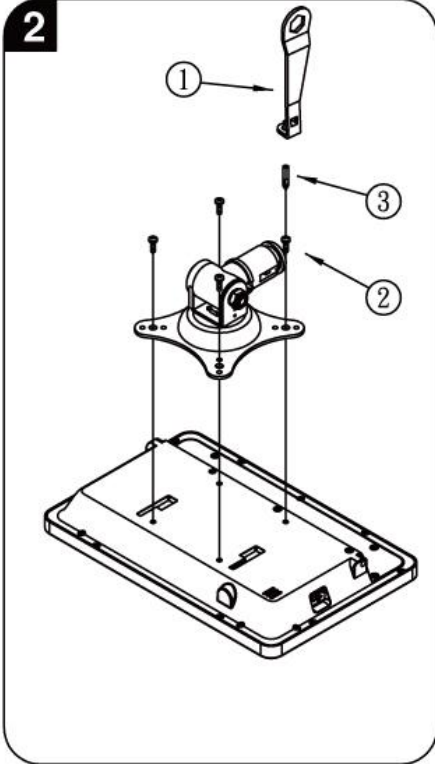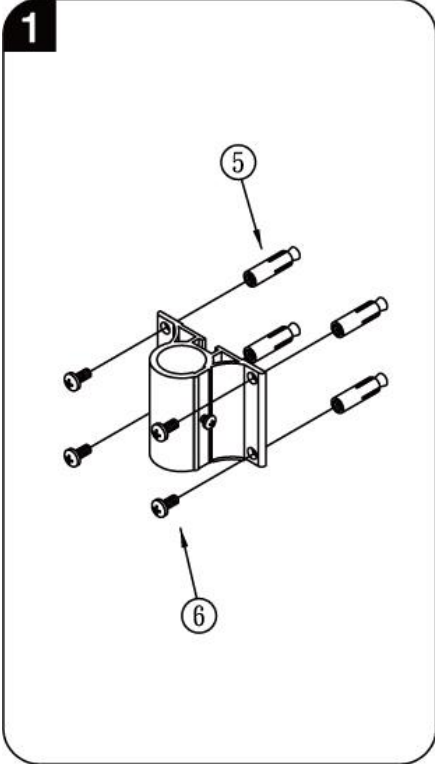
Accessories
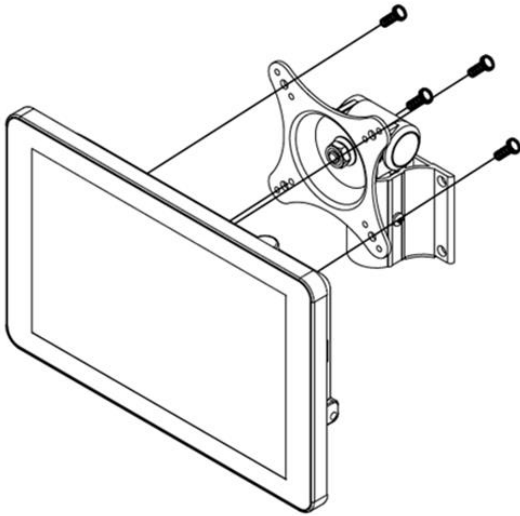
①		=1
②		4X18=4
		4X10=4
⑤ (expansion bolt)	11X35=4 ③	=1
⑥ (screw for wall)	1/4X16=4 ④ (screw for wood board)	5X20=4

Dimensions
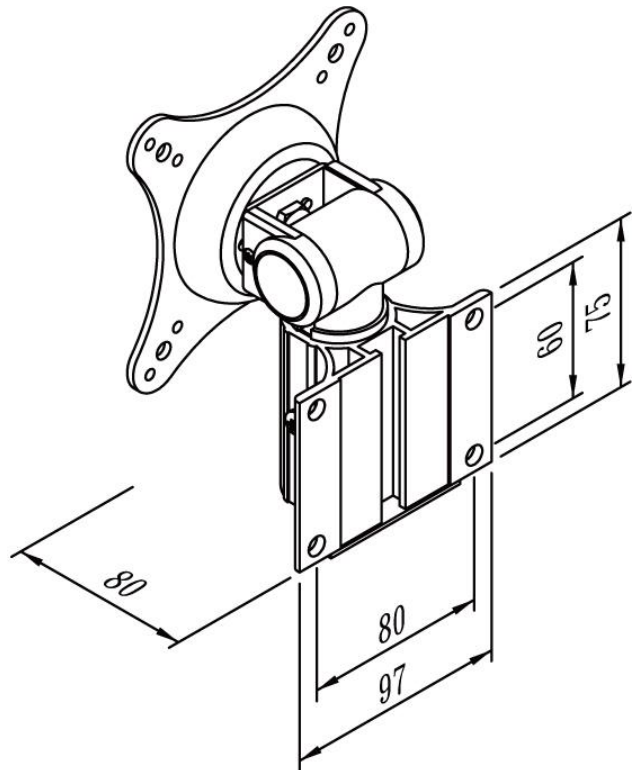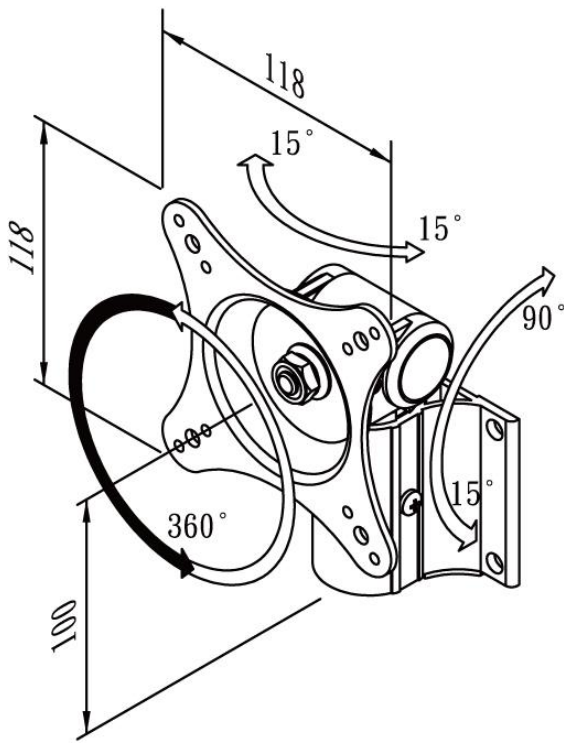
3.3.3 Front Side Wall Mount

The Front Side Wall Mount is only available for 10.1" S Series HMI. You can purchase Front Side Wall Mount Bracket from Winmate.

Model Name PCFW-V1
Part No. 99KK00A0000C
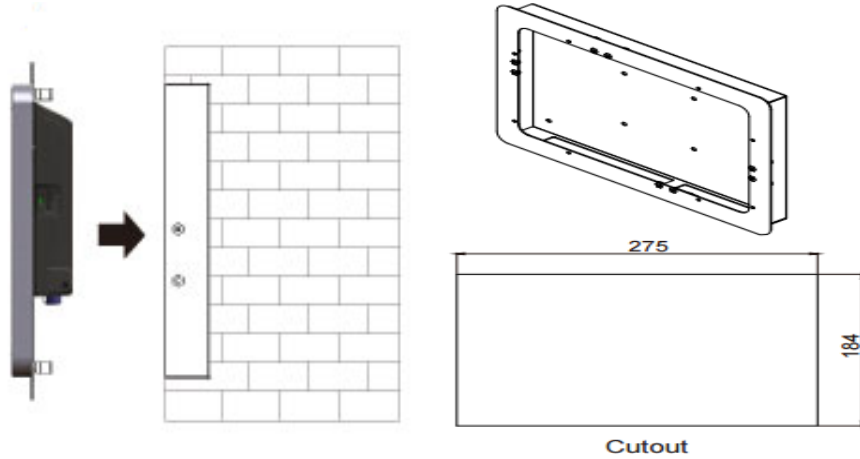
Mounting Instruction

1. Cut a hole in the wall according to the cutout dimensions.
2. Attach the bezel with clips to the device; fix the bezel with Philips M4x5 screws.
3. Connect the device to the power source with the power cord.
4. Install the device properly onto the in-wall cut-out area;
    fix the device using the clips.
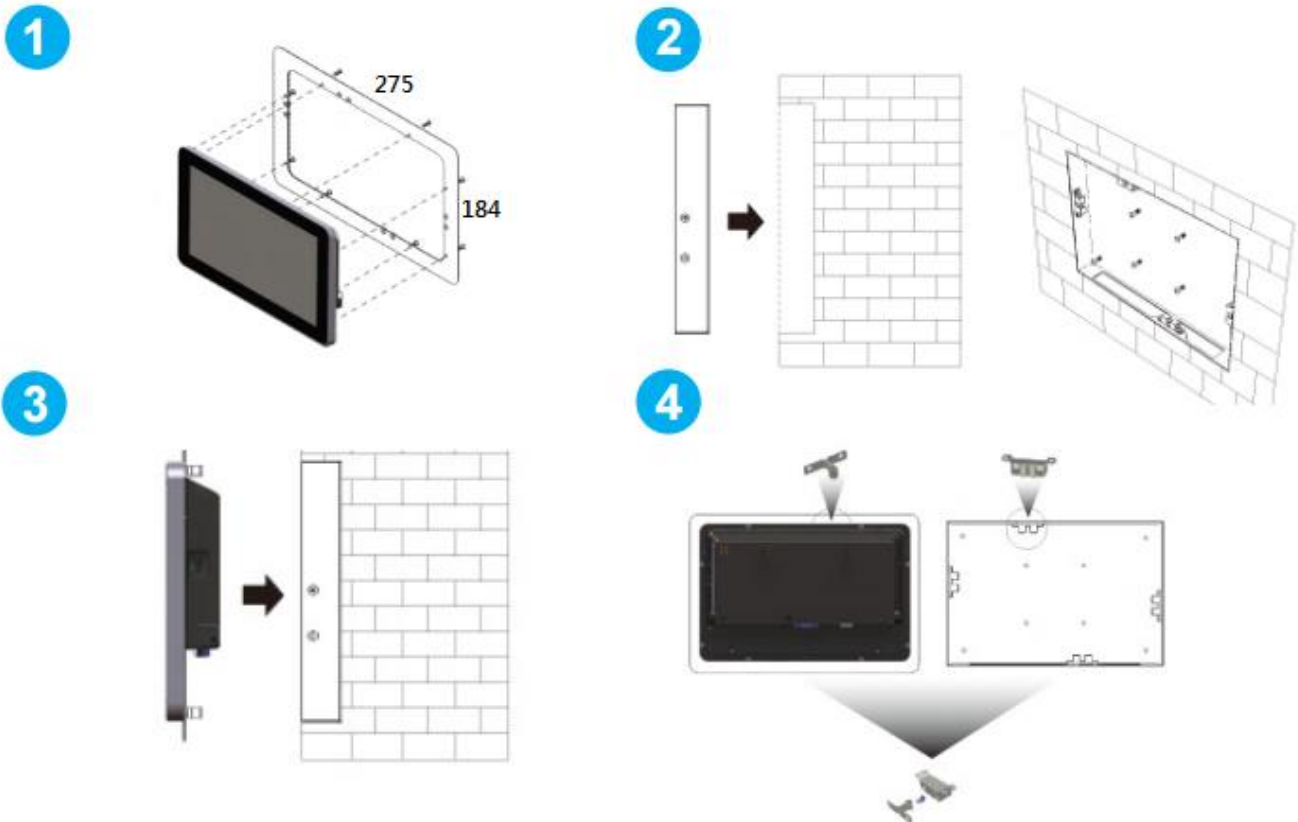
Dimensions
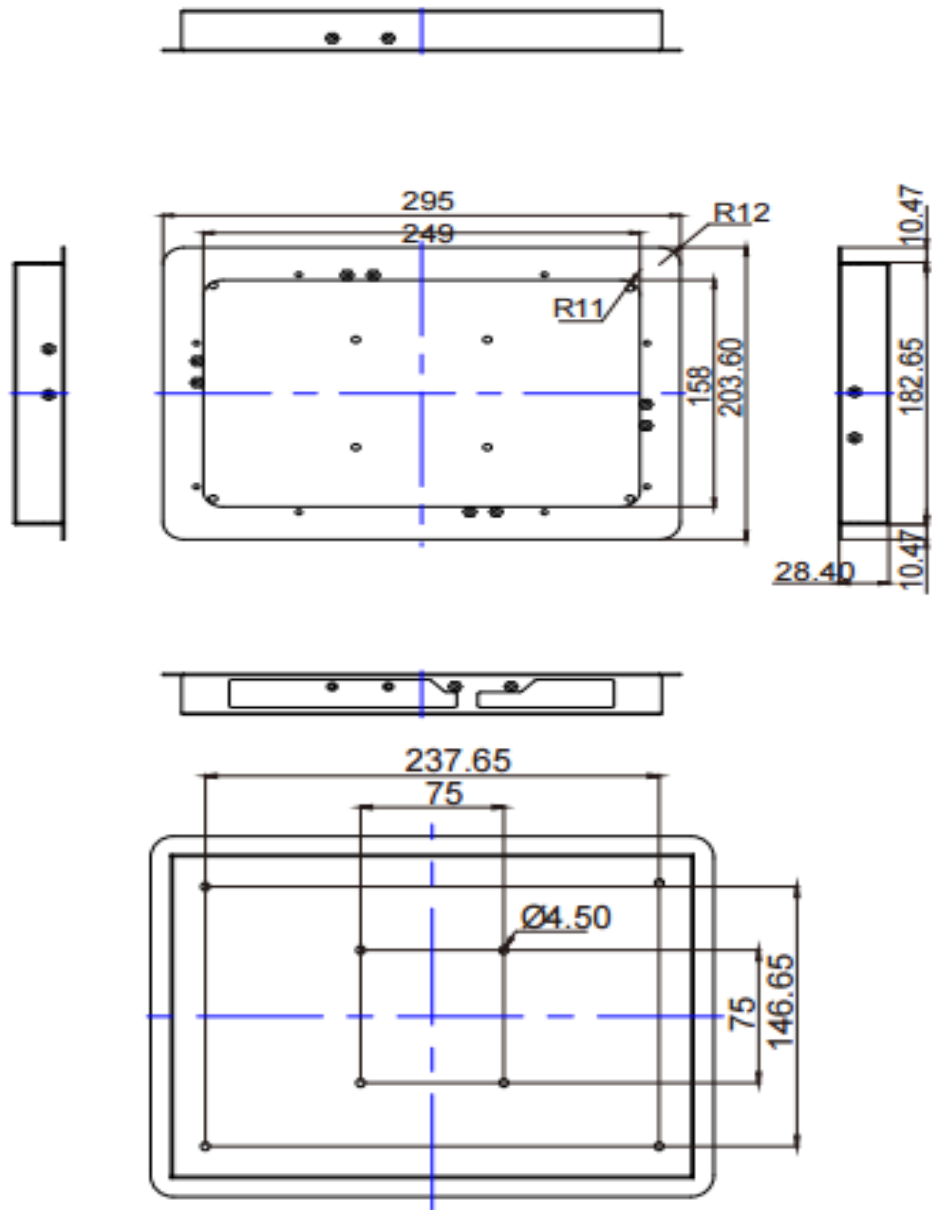
3.3.4 Glass Wall Mount

The Glass Wall Mounting is only available for 10.1" S Series HMI. The HMI device can be installed in a glass wall either from right side or from the left. You can purchase Winmate Glass Wall Mount Kit as an optional accessory.

Right Side
Model Name: PCGM-V2R
Part Number:
99KN00A00010

Left Side
Model Name: PCGM-V2L
Part Number:
99KN00A00011
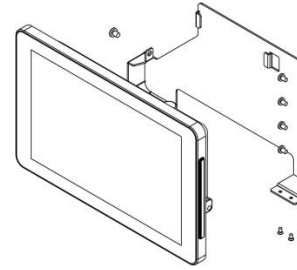
Mounting Instruction

1. Insert glass wall mount plate into the opening inside the glass door.
2. Screw the glass wall mount plate to the glass door.
3. Insert the HMI device onto the glass wall mount plate.
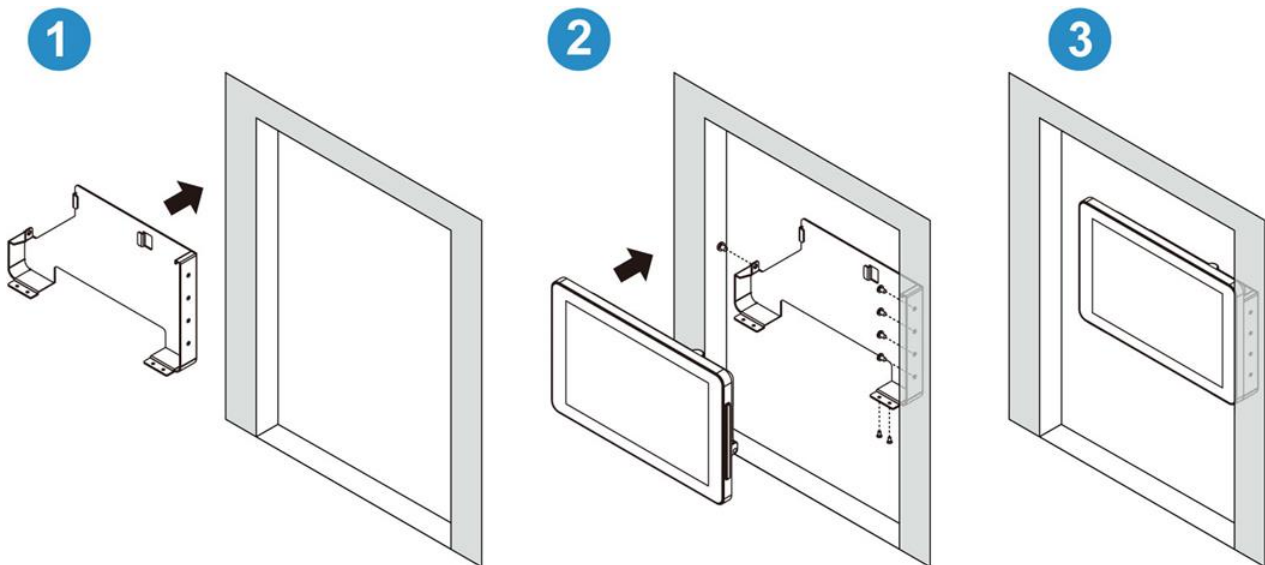
Dimensions of the 10.1" unit and mounting plate
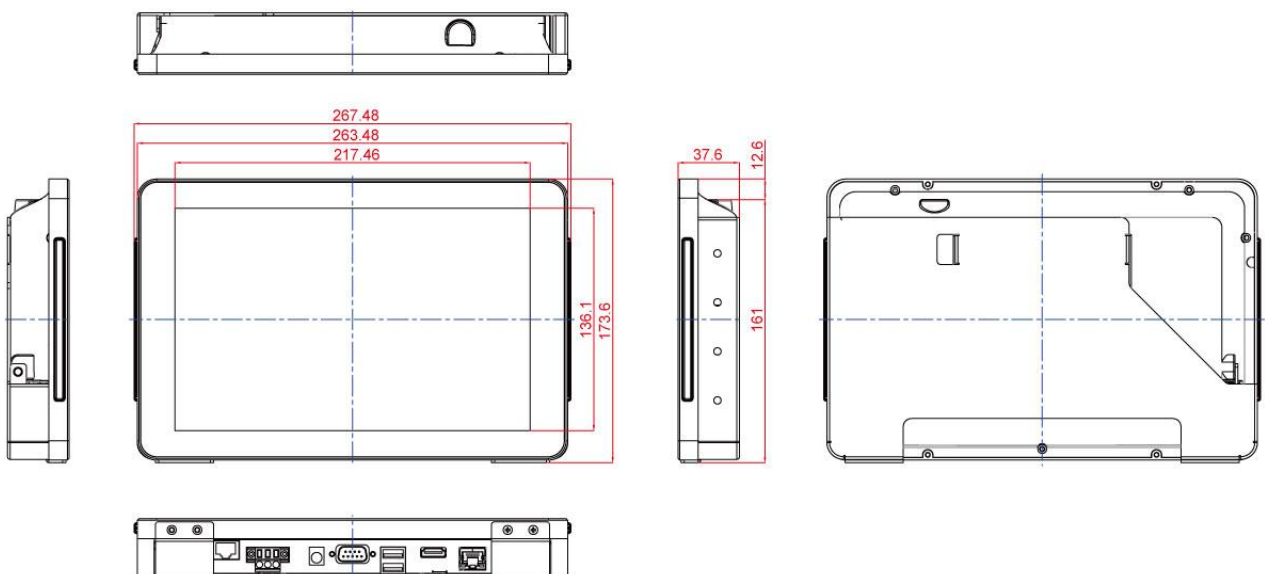
Chapter 4: Operating the Device

In this chapter you will find instructions on how to operate the HMI device.

4.1 Operating System

S Series HMI support several versions of Windows OS: Windows 10 IoT, Windows Embedded 8.1 Industry Pro, Windows Embedded 8 Standard, Windows 7 Pro for Embedded Systems, and Windows Embedded Standard 7– WS7P.

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

4.2 System Settings

4.2.1 Hot Tab Menu

1. Double-click the Hot Tab icon on the Windows desktop.
2. The Hot Tab main menu will appear on the screen as shown below.
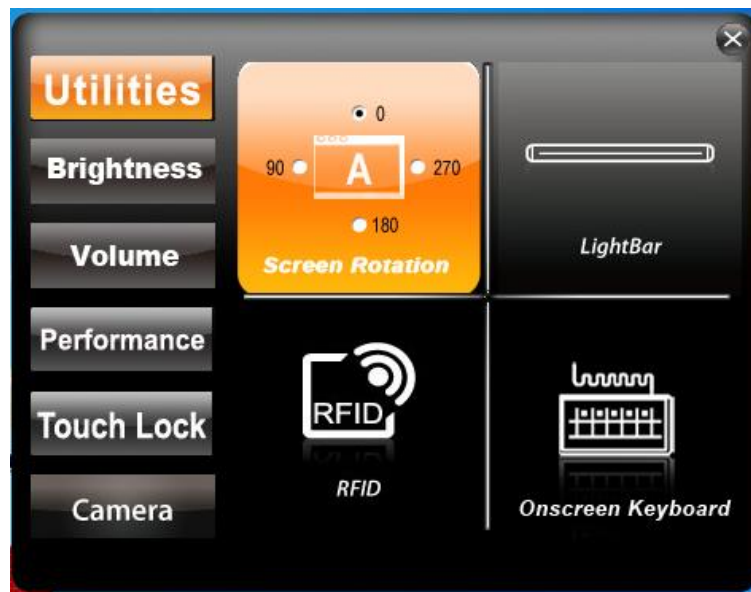
> **Note:**
> RFID and LED Light Bar are optional features and may not be present in your model.

4.2.2 Utilities

Utilities category allows automatically changing orientation from landscape to portrait mode or rotating the desktop to a different degree as 0°,90°, 180°, and 270°.
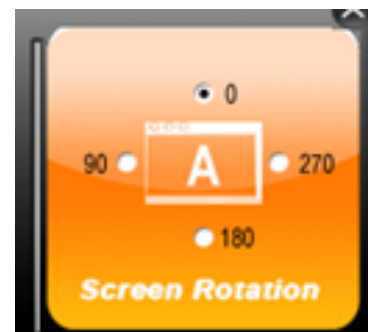
4.2.3 Brightness

Tap **Brightness** button to show current brightness level.

To **reduce** the brightness, drag by touch to the **left**.
To **enhance** the brightness, drag by touch to the **right**.
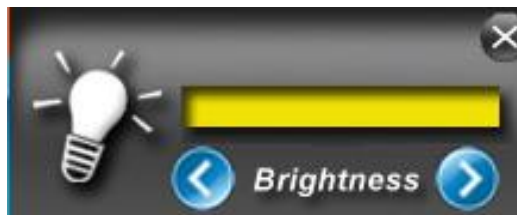
Tap **Close** to save the changes and exit the interface.

4.2.4 Volume

Tap **Volume** button to show your current volume level.

To **decrease** the volume, drag by touch to the **left**.
To **increase** the volume, drag by touch to the **right**.

4.2.5 LED Light Bar

Notice that LED Light Bar is an optional feature for S Series HMI and may not be present in your device.

Tap **Light Bar** to access the LED light bar control panel, and select Red / Green / Blue/ Orange color to be displayed on the LED Bar.
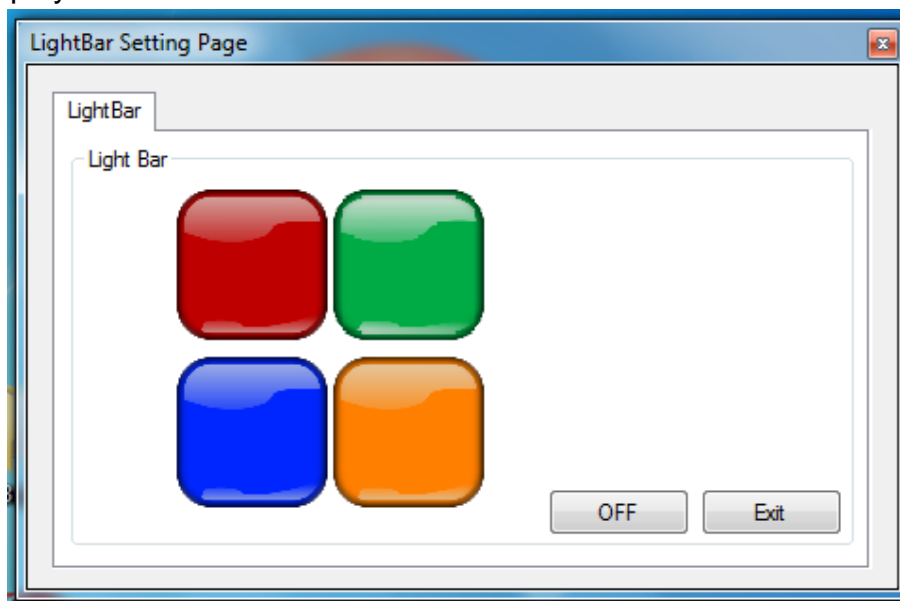
4.2.6 Performance

User can adjust the performance level of the HMI device. There are four options available:

- Extreme performance
- Office Document
- High performance
- Power Saving

4.2.7 Touch Lock

To **LOCK** touch screen, double-click the Hot Tab icon on the Windows desktop, and tap Touch Lock.

To **UNLOCK** the touch screen, tap button to the **right**.

4.3 Using HF RFID Reader

Notice that HF RFID Reader is an optional feature for 10.1" S Series HMI and may not be present in your device. HF RFID is commonly used for ticketing, payment, and data transfer applications.

4.3.1 HF RFID Reader Location

The RFID Reader is located on the bottom right front side of the HMI device. The COM Port setting in RFID Reader is "**COM 14**"

To enable the HF RFID Reader feature, perform the following procedure:
1. Launch RF Scan application.
2. Tap on **Connect**, and the setting utility will show up as below:
3. Tap on the **ON** button.
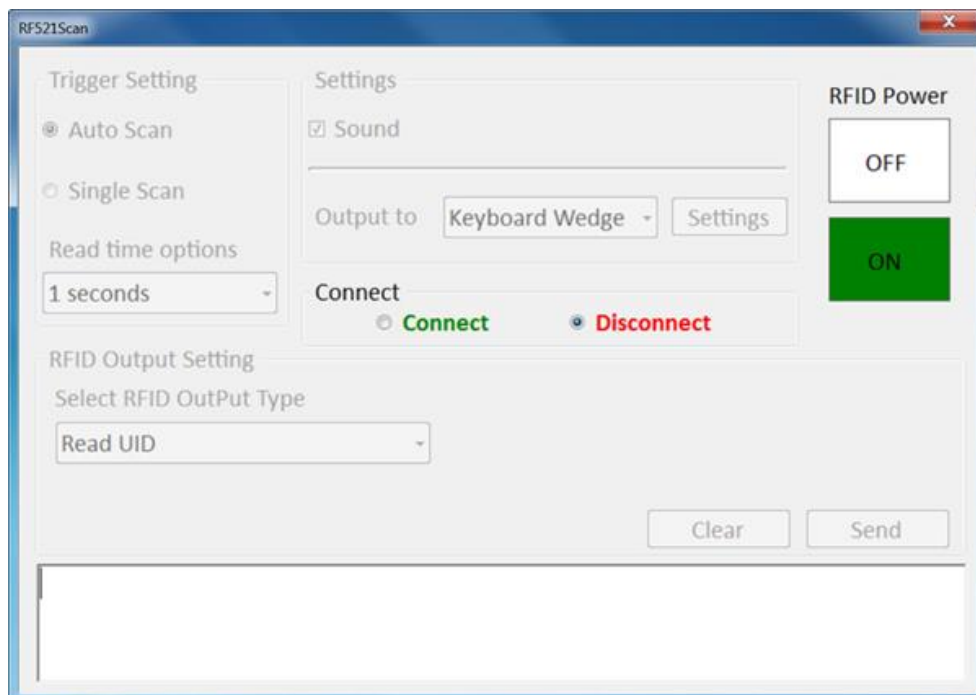
To scan the card, bring it close to the right bottom front side of device with RFID icon.
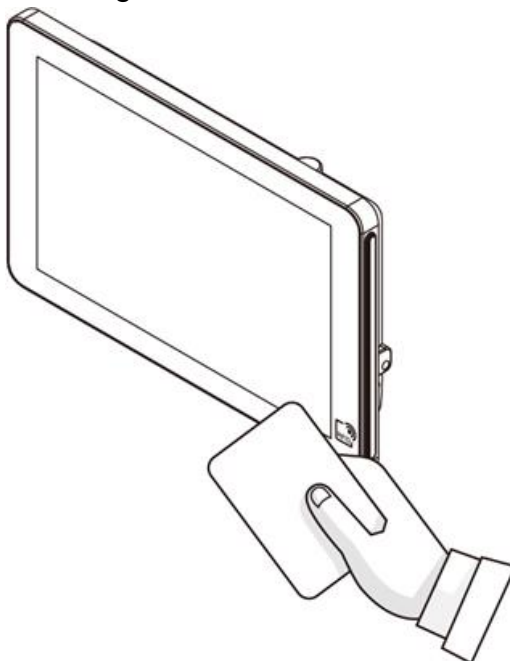
Tap on the **Disconnect** button to stop the connection with built-in HF RFID reader.

4.3.2 Trigger Setting

- **Auto Scan**

   The default setting for RFID trigger is Auto Scan. Under this setting, the RFID Reader will always be ready to scan tags.
   1. When the RFID tag is detected from RFID antenna, the data will be read automatically.
   2. User can define the RFID scanning frequency from the drop-down menu shown as below. The frequency can be from 1 second to 9 seconds.
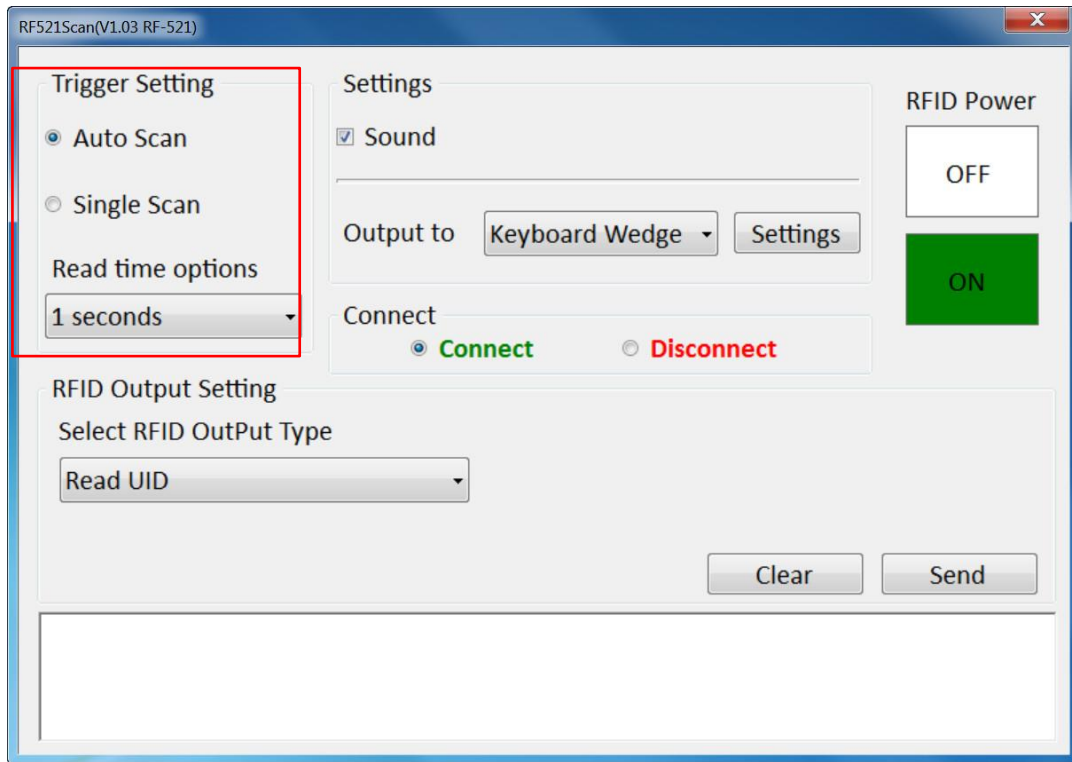
- **Single Scan**
  User can also define the RFID Reader scanning as **Single Scan**. Under this setting, the RFID Reader will be triggered only when user click on "Send".

4.3.3 Settings

- **Sound**
  The **Sound** check box defines whether a beep sound will come with the data scanning.

- **Output**
  This setting defines the output type of the scanned data.

Two options are available:

- **Keyboard Wedge**
  Under this setting, the data scanned is sent like keyboard data. The scanned data can be output directly to the demo area below this window, or user can also open other utility, such as Office Word or Notepad files, for data input.

  Note: notice that the input method should support the scanned character.

User can also tap on the **Settings** button for further details settings.

Item	Description
Prefix	User can type in this field to define the characters BEFORE the data scanned.
Suffix	User can type in this field to define the characters AFTER the data scanned.
Append Enter	The check box user can defines to append an "Enter" which is followed by the characters.
Append TAB	The check box user can defines to append an "TAB" which is followed by the characters.
Regex Filter	Press on "Presets…" button, user can define how many characters to show after the data scanned.
Replace	User can define specific characters to be replaced with preferred characters automatically. When the characters defined in **Regex Substitution** is scanned, the data will be replaced with the one filled in **Replace with.**
Reset to default	User can remove all the set up and back to default mode.

- **SDK**

    For users following SDK for software porting, the scanned data can also be output with the format needed.
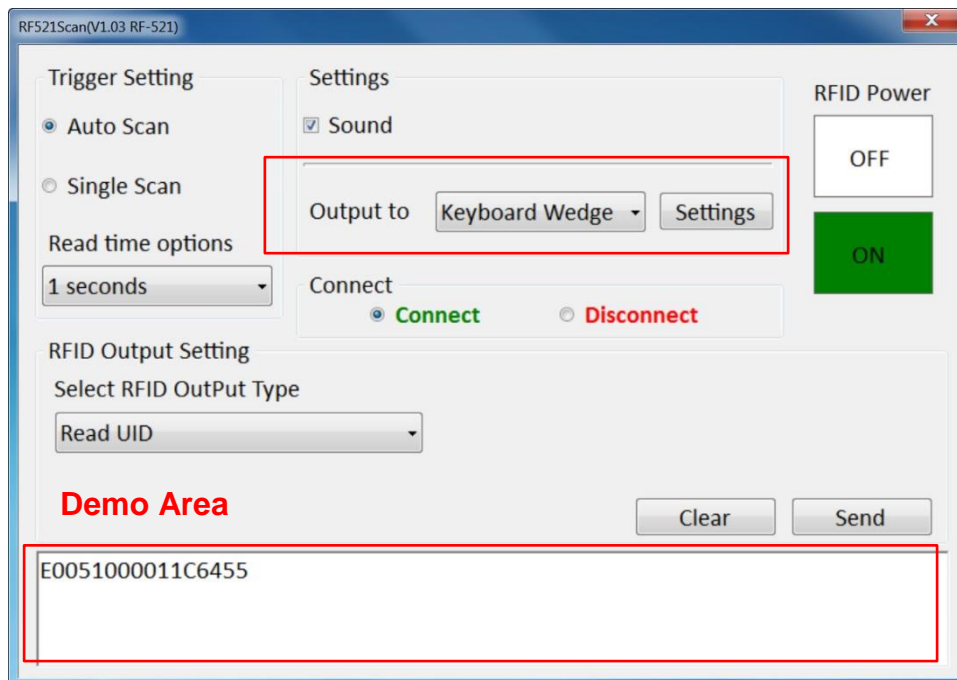
4.3.4 RFID Output Settings

Select RFID Output Type
The default setting for built-in HF RFID Reader is to **Read UID**. For some applications, user might need to read or write further block data; the drop-down menu under this section can do this change.
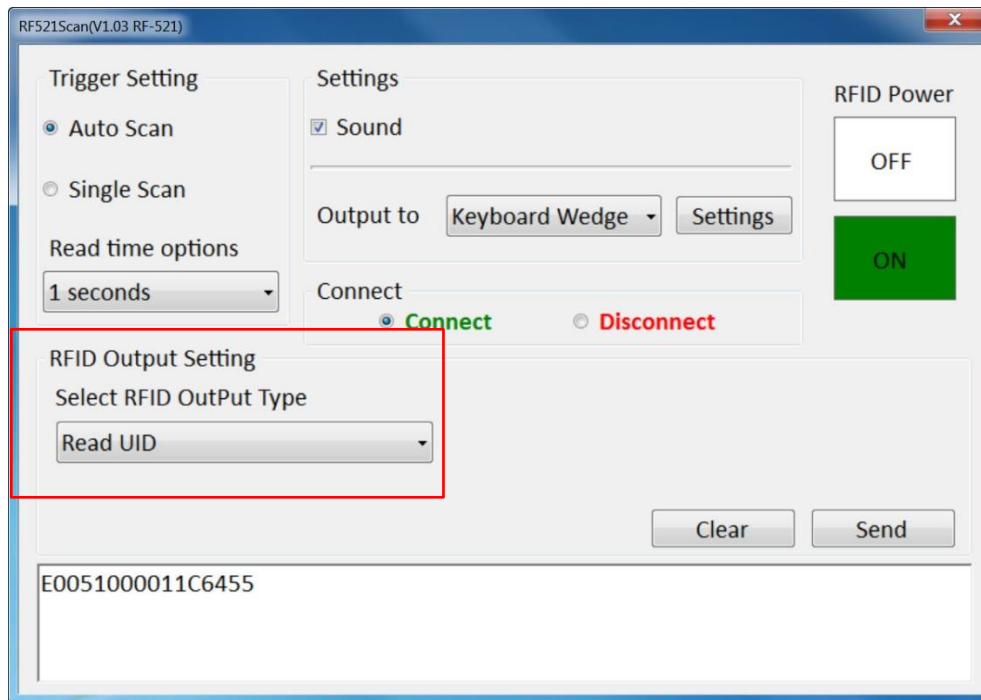
4.3.5 Writing Mode

Refer to the RFID Porting Guide SDK to configure Writing Mode parameters.

4.4 Using Front Camera

Notice that 2MP Front Camera is an optional feature for 10.1" S Series HMI and may not be present in your device.

Note:
You camera screen may differ from the pictures in thus user manual.

4.4.1 Opening the Camera

Perform one of the following to open the camera:
1. Press the **F1** key.
2. Tap then double-tap to display the HotTab screen. Select **Camera**.

The Camera Screen
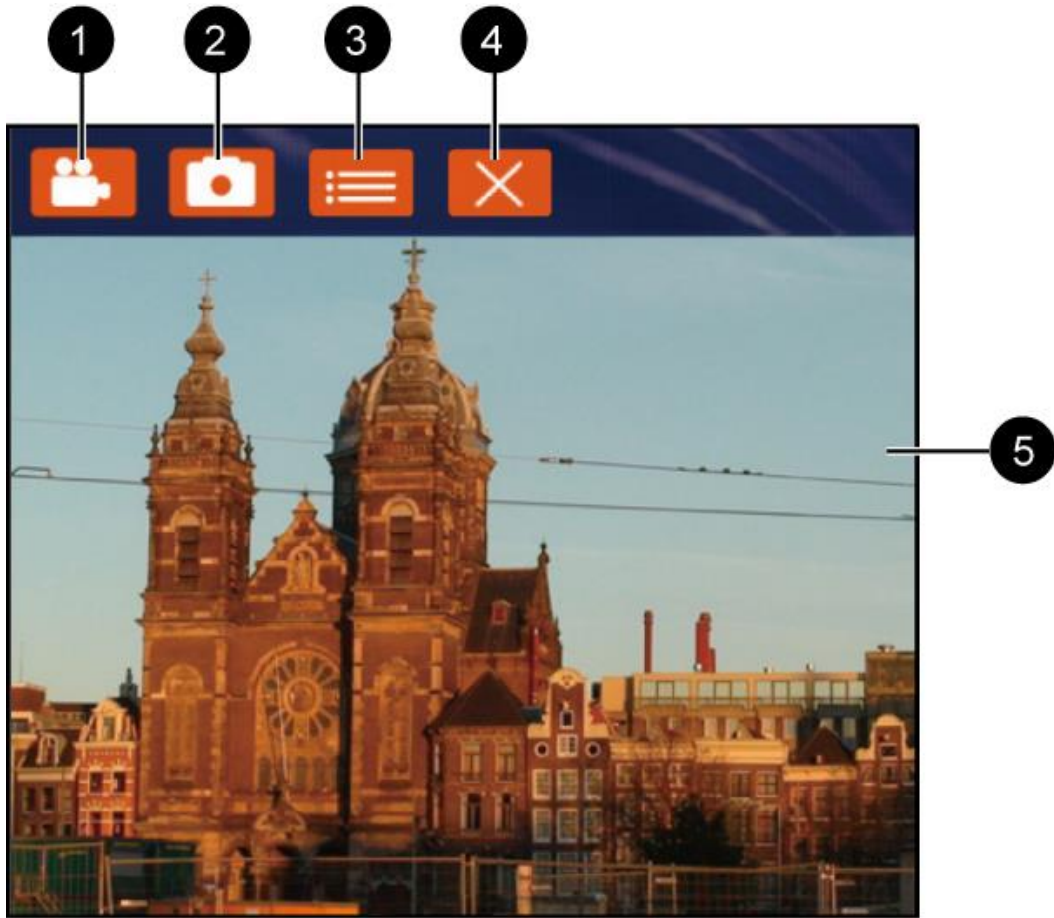
No	Item	Description
1	Video	Tap to record videos
2	Photo	Tap to capture photos
3	Settings	Tap to select the destination folder to save captured photos and videos, enable preview, and select picture resolution and quality
4	Close	Tap to close the camera
5	Capture Screen	Shows the object to capture

4.4.2 Shooting Photos

1. Open the Camera.

2. Focus on the object.

3. Tap [camera icon] to capture the object.

4. By default, the photo preview is displayed briefly on the screen.

The preview screen automatically closes after 3 seconds. Alternatively, do one of the following:

- Tap [trash icon] to delete the photo and return to the camera screen.

- Tap [return icon] to close the preview and return to the camera screen.

4.4.3 Recording Videos

1. Open the Camera.

2. Focus on the object.

3. Tap [icon] to record the video. The video recording screen appears.

4. Tap [icon] to stop recording and return to the camera screen.

5. To playback the video, browse for the video file and play using a media player application on your device.

4.4.4 Camera Settings

1. Tap [icon] to open the setting page.

2. Modify necessary settings.

No	Item	Description
1	Preview Setting	Check one of the check boxes to show the preview screen right after capturing a photo. • **Show Preview**: Check this box and enter the preview duration on **Close preview after**. When the duration ends, the preview screen will automatically close. • **Always Show Preview**: When this box is checked, the preview screen will only close when you tap the return button ([icon]).
2	Picture Save	Tap this button to browse for the folder directory where you want to save captured photos.
3	Video Save Folder	Tap this button to browse for the folder directory where you want to save recorded videos.
4	Picture Resolution	Select the picture resolution: • **640 x 480** • **1600 x 1200**
5	Picture Quality	Select the picture quality: **Low**, **Medium**, **High**, **Best**.

3. When settings are complete, tap **OK** to apply and save changes.

4.5 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. Refer to the Ch.7, "Technical Support" for more details.

To enable watchdog in Watchdog AP follow the instructions below:

1. On the right bottom side of the desktop screen, click ▲ **triangle button** to show hidden icons.
2. Click W icon to open Watchdog utility.
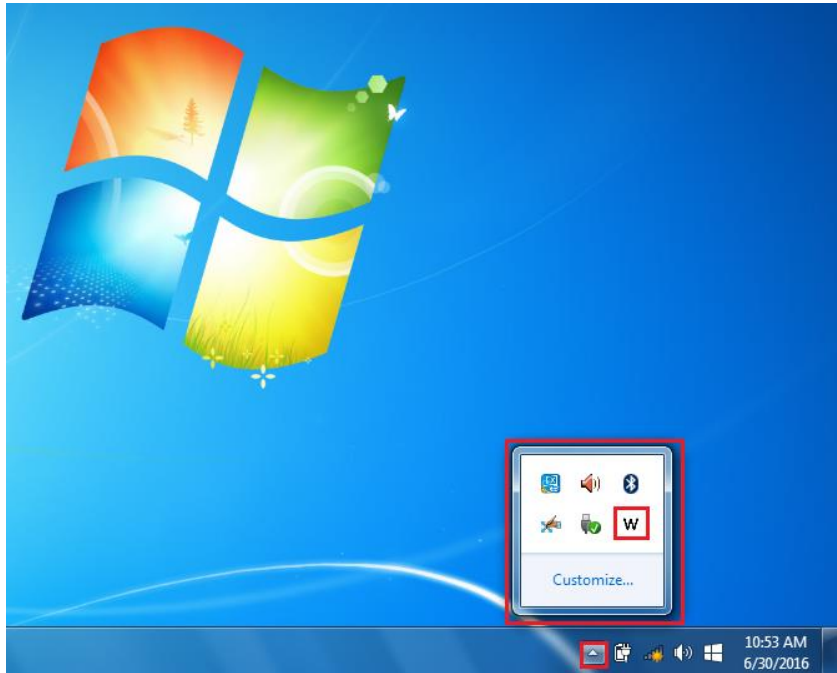
3. In Watchdog utility window set countdown time and periodically feed time, or disable watchdog.
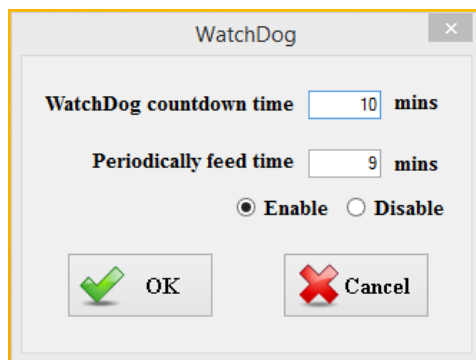
Example:
Every 10 min watchdog will monitor the system, in case any error occurs the system will restart automatically when the countdown time reaches 0. Every 9 min watchdog timer will be reset to 10 min.

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*

Chapter 5: 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.

5.1 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

5.2 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.

5.3 BIOS Settings

5.3.1 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

```
           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.
```

appears:

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

5.3.2 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.

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

► ACPI Settings                                          System ACPI Parameters.
► F81866 Super IO Configuration
► Hardware Monitor
► S5 RTC Wake Settings
► CPU Configuration
► PPM Configuration
► Thermal Configuration
► IDE Configuration
► Miscellaneous Configuration
► CSM Configuration
► USB Configuration
► Platform Trust Technology
► Security Configuration

► Intel(R) 82574L Gigabit Network Connection - 00:03:E1:92...
► Intel(R) 82574L Gigabit Network Connection - 00:03:E1:92...
                                                         →←: 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
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.

5.3.2.1 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

5.3.2.2 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.

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.
```

Watch Dog Time Select

You can either disable **Watch Dog Timer** or set up the time.Use **<Arrow>** keys to navigate and please press **<Enter>**to select the item.
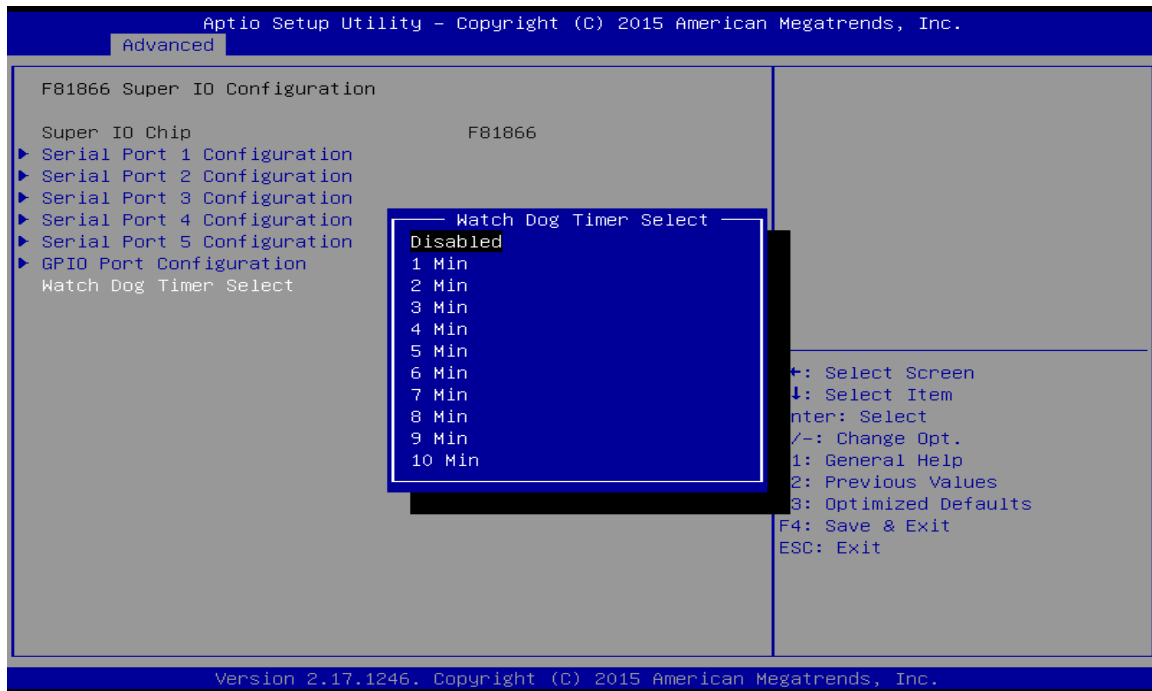
GPI0 Port Configuration

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

5.3.2.3 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.
```

5.3.2.4 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



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```

Wake System from S5 with fixed time setting

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

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.

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

   Wake system from S5                [Fixed Time]              Enable or disable System wake
   Wake up hour                       0                         on alarm event. Select
   Wake up minute                     0                         FixedTime, system will wake on
   Wake up second                     0                         the hr::min::sec specified.
                                                                Select DynamicTime , System
                                                                will wake on the current time
                                                                + Increase minute(s)
                        ┌─── Wake system from S5 ───┐
                        │ Disabled                  │
                        │ Fixed Time                │
                        │ Dynamic Time              │          →←: 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.
```

Wake system from S5 after dynamic time setting

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

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

   Wake system from S5                [Dynamic Time]            Enable or disable System wake
   Wake up minute increase            1                         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)

                        ┌─── Wake system from S5 ───┐
                        │ Disabled                  │
                        │ Fixed Time                │          →←: Select Screen
                        │ Dynamic Time              │          ↑↓: 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.
```

5.3.2.5 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

5.3.2.6 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

5.3.2.7 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

5.3.2.8 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 to300 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 controllerwill 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

5.3.2.9 Miscellaneous Configuration

OS Selection

This item allows users to select the proper Operating System.
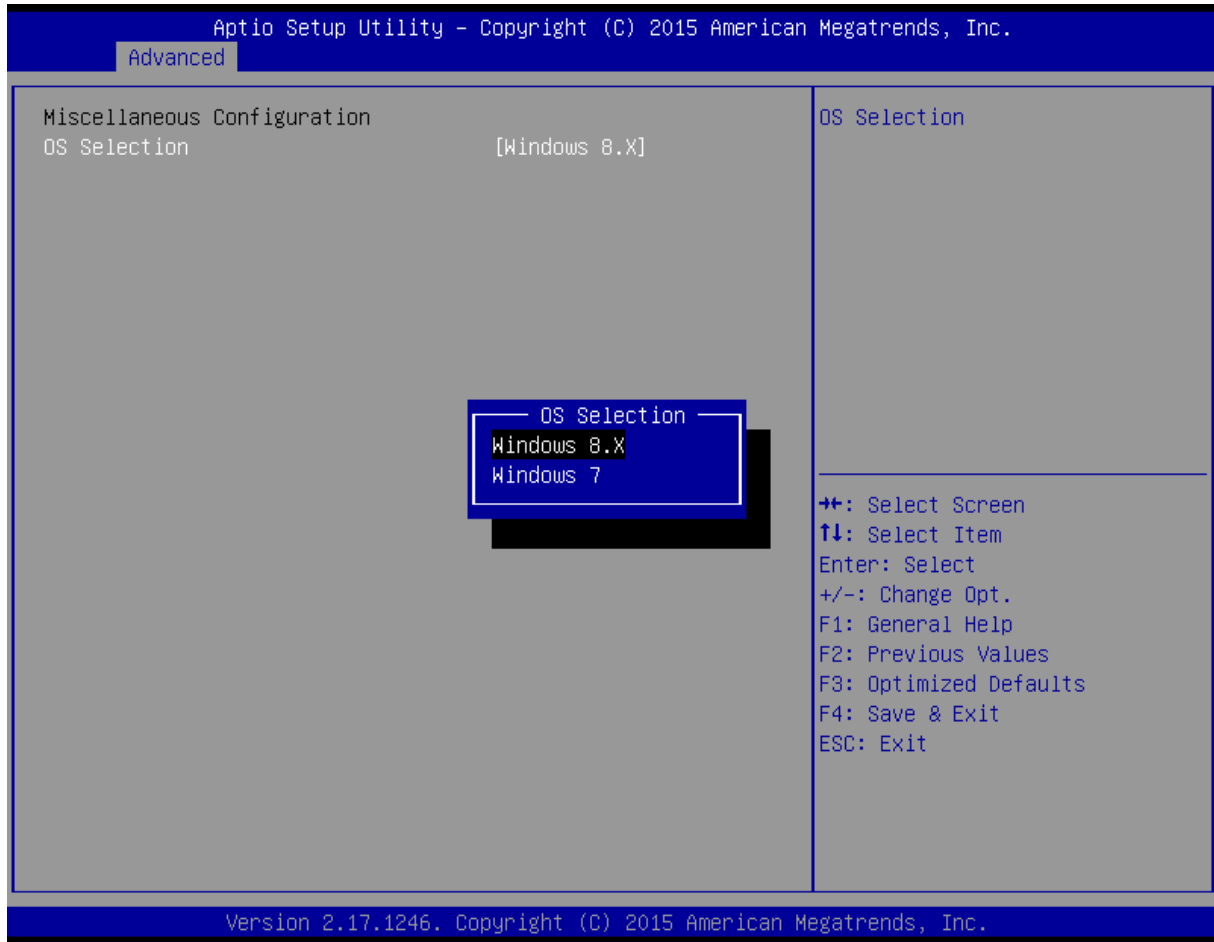
BIOS Setting	Description	Setting Option	Effect
Windows 8.X	Allows user to choose the proper OS.	Enter	Use Windows 8.X
Windows 7	Allows user to choose the proper OS.	Enter	Use Windows 7

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

5.3.2.10 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



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```

BIOS Setting	Description	Setting Option	Effect
CSM Support	The Compatibility Support Module is a component of the UEFI firmware that provides legacy BIOS compatibility by emulating a BIOS environment, allowing legacy OS 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

5.3.2.11 USB Configuration

```
                    Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.
        Advanced

  USB Configuration                                          Enables Legacy USB support.
                                                             AUTO option disables legacy
  USB Module Version              8.10.27                    support if no USB devices are
                                                             connected. DISABLE option will
  USB Devices:                                               keep USB devices available
        1 Drive, 1 Keyboard, 1 Mouse, 6 Hubs, 1 SmartCard   only for EFI applications.
  Reader
  Legacy USB Support              [Enabled]
  USB3.0 Support                  [Enabled]
  XHCI Hand-off                   [Enabled]
  EHCI Hand-off                   [Disabled]
  USB Mass Storage Driver Support [Enabled]

  USB hardware delays and time-outs:                         →←: Select Screen
  USB transfer time-out           [20 sec]                   ↑↓: Select Item
  Device reset time-out           [20 sec]                   Enter: Select
  Device power-up delay           [Auto]                     +/-: Change Opt.
                                                             F1: General Help
  Mass Storage Devices:                                      F2: Previous Values
  JetFlashTranscend 16GB 1.00     [Auto]                     F3: Optimized Defaults
                                                             F4: Save & Exit
                                                             ESC: Exit

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

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

5.3.2.12 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

5.3.3 Chipset Menu

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

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

  ▶ USB Configuration                                USB Configuration Settings
  ▶ PCI Express Configuration

    High Precision Timer           [Enabled]
    Restore AC Power Loss          [Power Off]

    Serial IRQ Mode                [Continuous]



                                                   ↔: 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
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

5.3.4 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
                                                      Enter: Select
   Administrator Password                             +/-: Change Opt.
   User Password                                      F1: General Help
                                                      F2: Previous Values
                                                      F3: Optimized Defaults
   HDD Security Configuration:                        F4: Save & Exit
   P0:ADATA XM13 3                                    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

5.3.5 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.

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

       Boot Configuration                                        Number of seconds to wait for
       Setup Prompt Timeout              1                       setup activation key.
       Bootup NumLock State              [On]                    65535(0xFFFF) means indefinite
                                                                 waiting.
       Quiet Boot                        [Disabled]
       Fast Boot                         [Disabled]

       Boot mode select                  [LEGACY]

       FIXED BOOT ORDER Priorities
       Boot Option #1                    [USB Hard Disk]
       Boot Option #2                    [USB Key:JetFlashTra...]
       Boot Option #3                    [Hard Disk: ADATA XM...]
       Boot Option #4                    [Hard Disk1]            ++: Select Screen
       Boot Option #5                    [Network:IBA GE Slot...]  ↑↓: Select Item
       Boot Option #6                    [USB CD/DVD]            Enter: Select
                                                                 +/-: Change Opt.
     ▶ USB Key Drive BBS Priorities                              F1: General Help
     ▶ Hard Disk Drive BBS Priorities                            F2: Previous Values
     ▶ NETWORK Drive BBS Priorities                              F3: Optimized Defaults
                                                                 F4: Save & Exit
                                                                 ESC: Exit


                Version 2.17.1246. Copyright (C) 2015 American Megatrends, Inc.
```
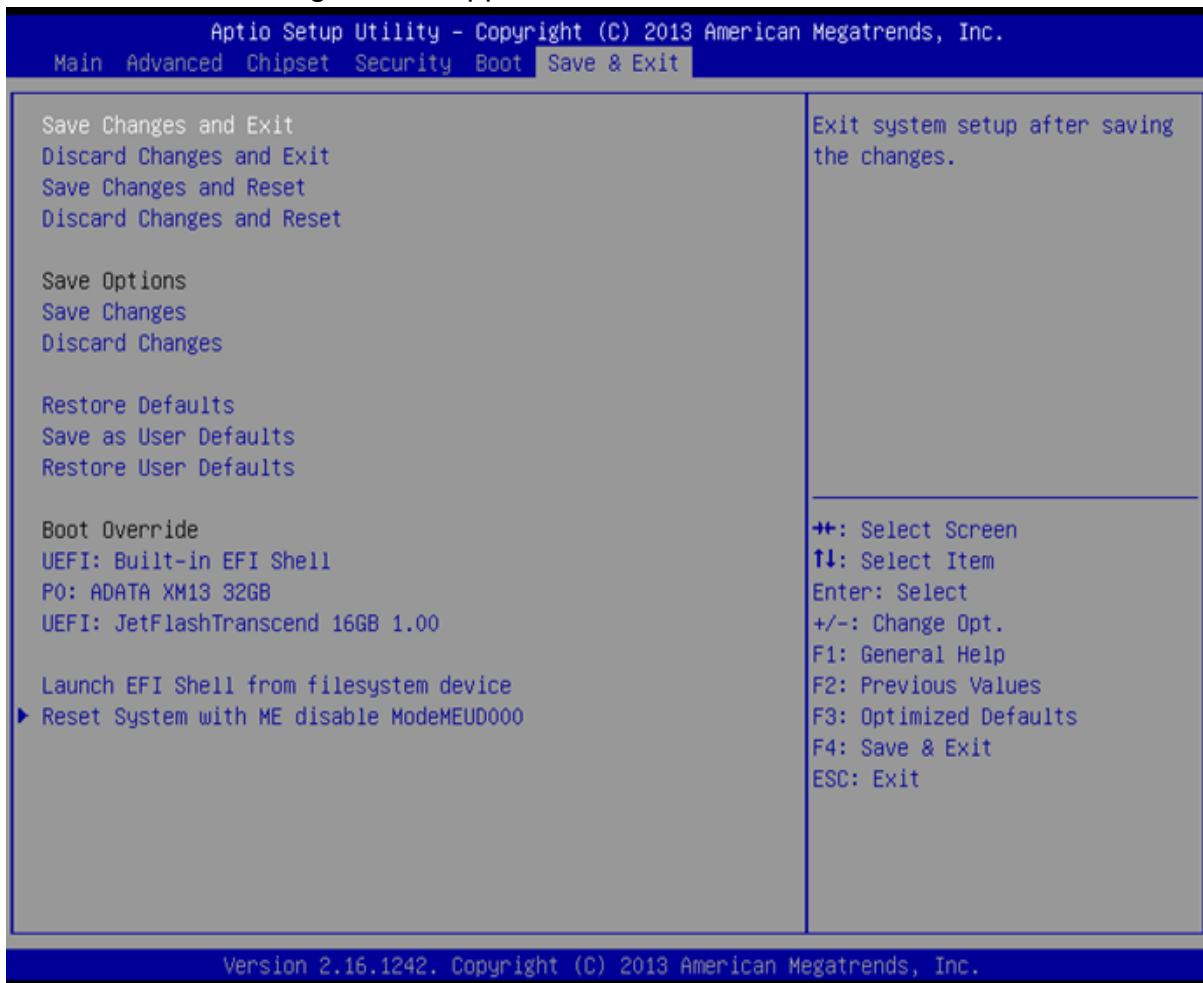
BIOS Setting	Description	Setting Option	Effect
Setup Prompt Timeout	Allows user to configure the number of seconds to stay in BIOS setup prompt screen.	Enter	Set the prompt timeout
Boot NumLock State	Enables or disables NumLock feature on the numeric keypad of the keyboard after the POST (Default: On).	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

5.3.6 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                                      →←: Select Screen
     UEFI: Built-in EFI Shell                           ↑↓: Select Item
     P0: ADATA XM13 32GB                                Enter: Select
     UEFI: JetFlashTranscend 16GB 1.00                  +/-: Change Opt.
                                                        F1: General Help
     Launch EFI Shell from filesystem device           F2: Previous Values
   ▶ Reset System with ME disable ModeMEUD000           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

5.4 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.

Chapter 6: Driver Installation

This chapter describes how to install all necessary drivers.

6.1 Installing 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.
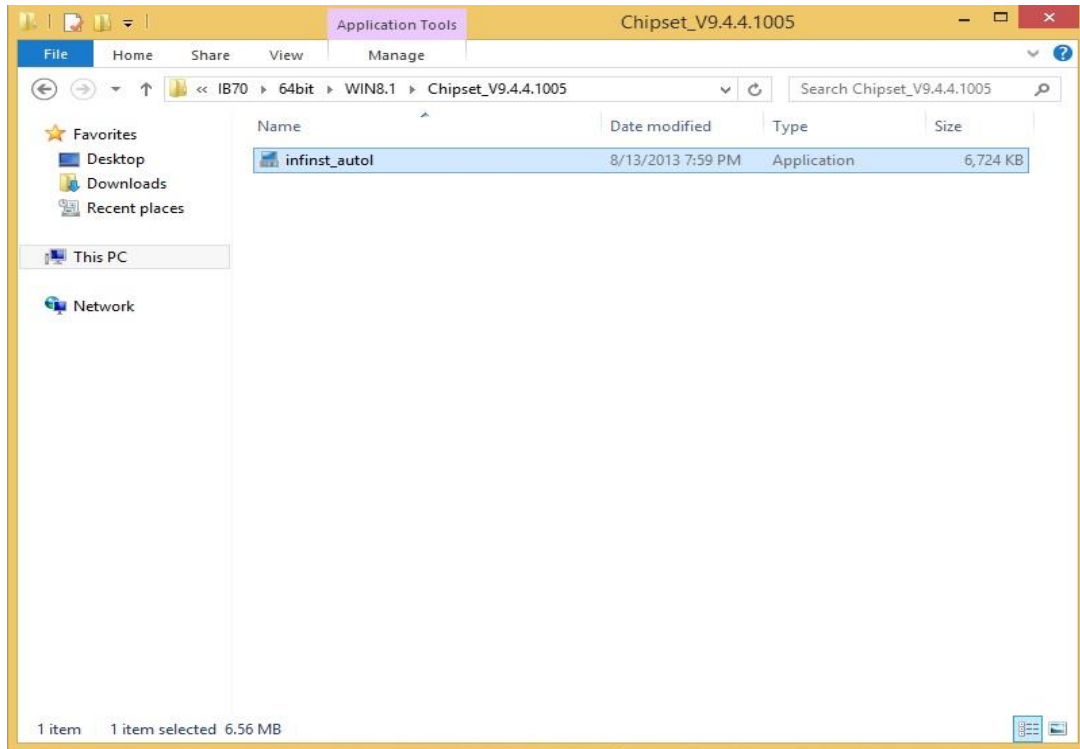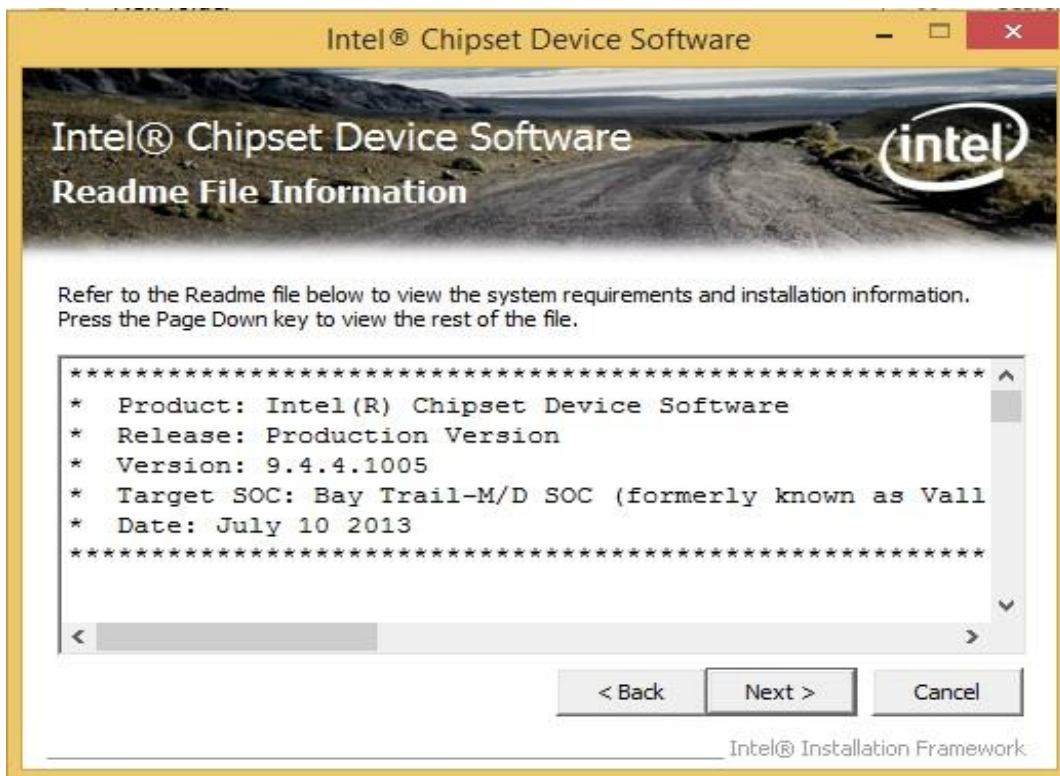

Step 2 Click **Next** to continue.

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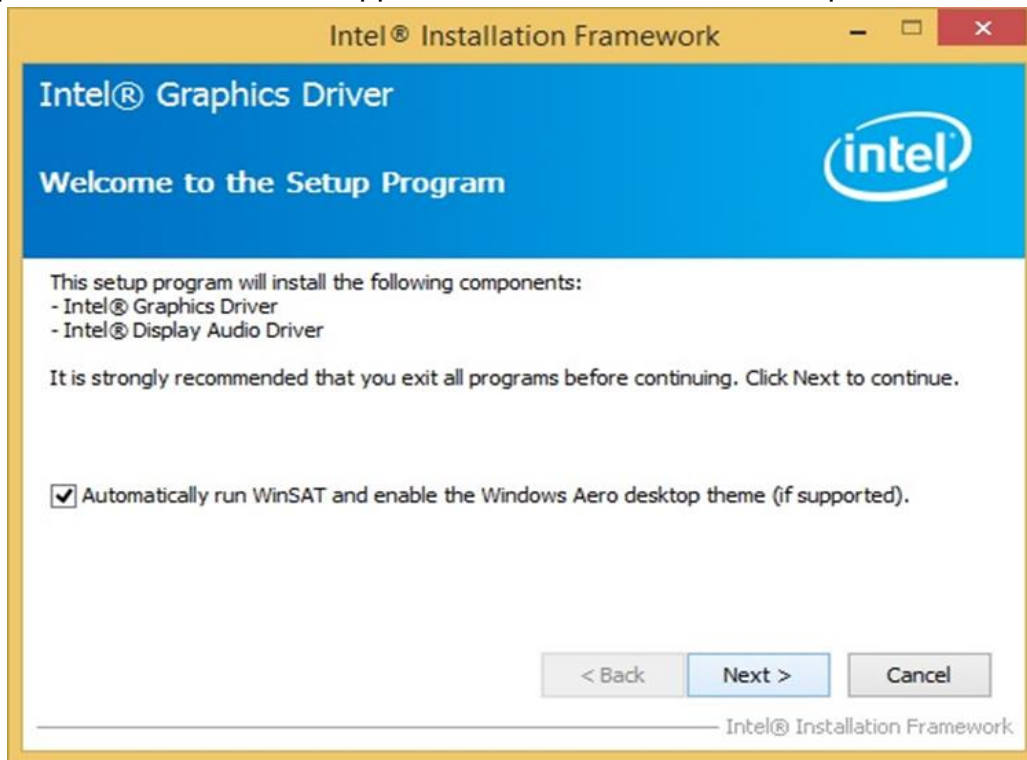

Step 4 Click **Next** to install the driver.

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.

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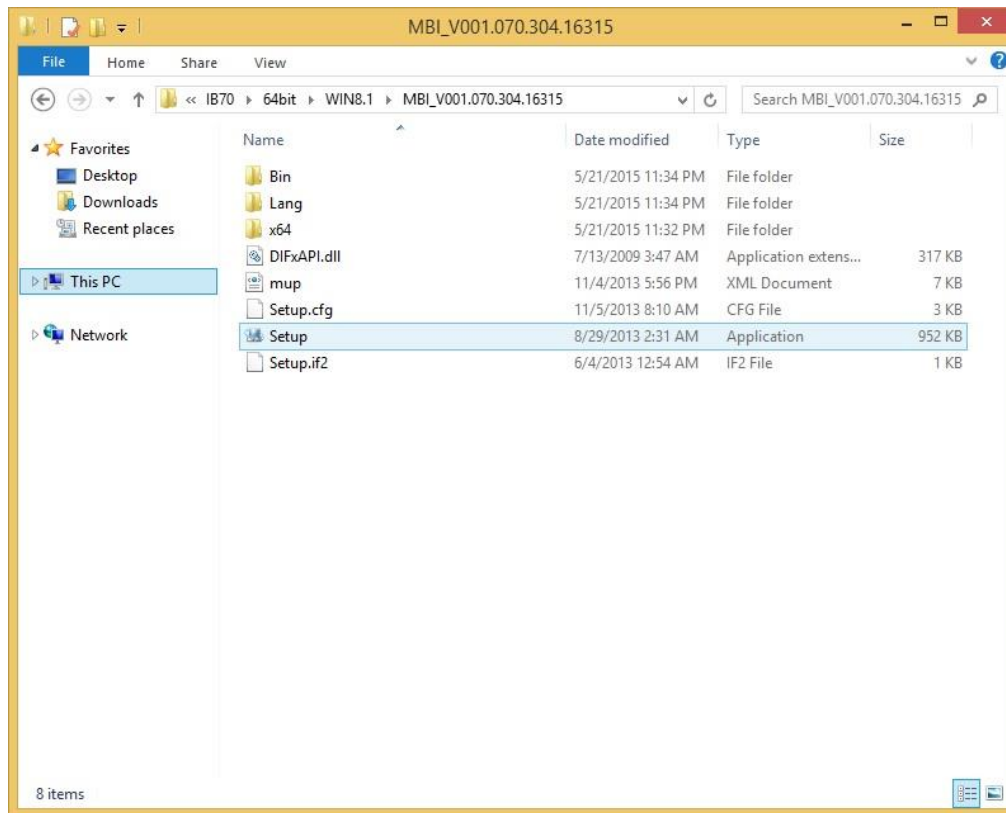
Step 7 Setup Progress window will appear, click **Next** to continue the installation.

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

6.3 Installing Intel Sideband Fabric Device (Intel MBI) Driver

Only for Windows 8.1.

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.

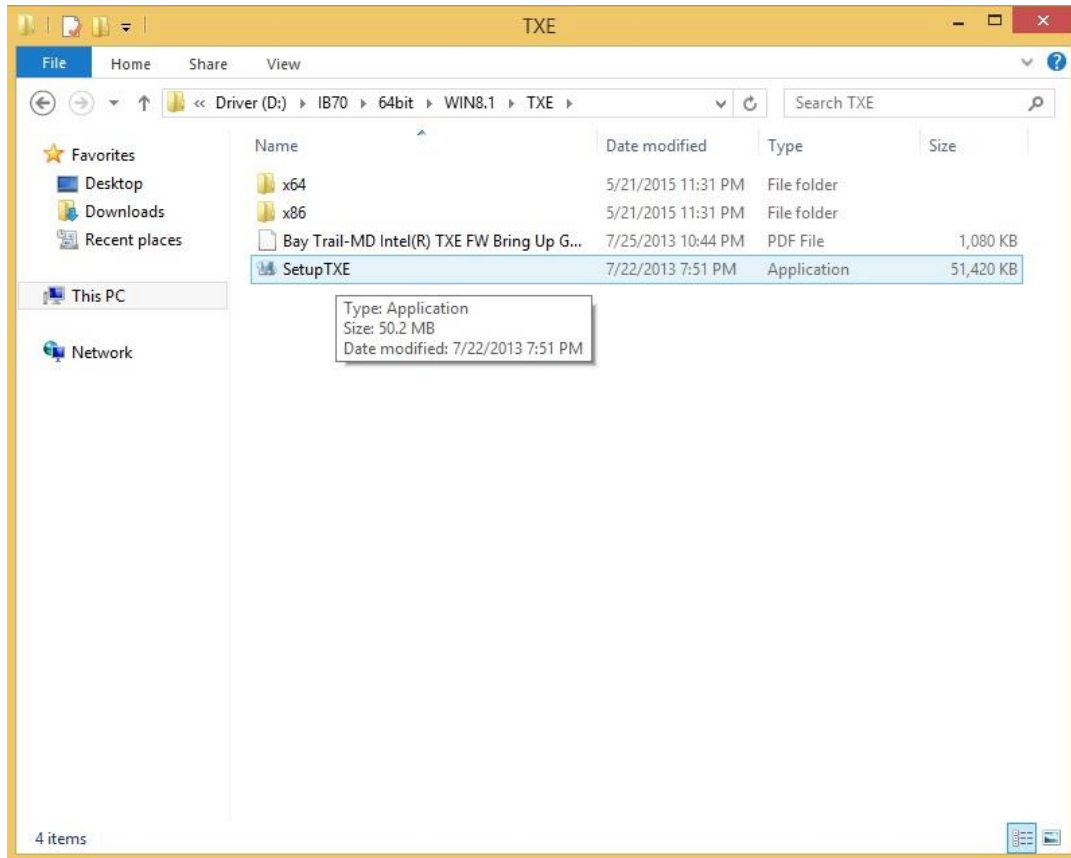**Step 3** Carefully read the License Agreement terms and click **Yes** to agree.

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.

6.4 Installing 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.

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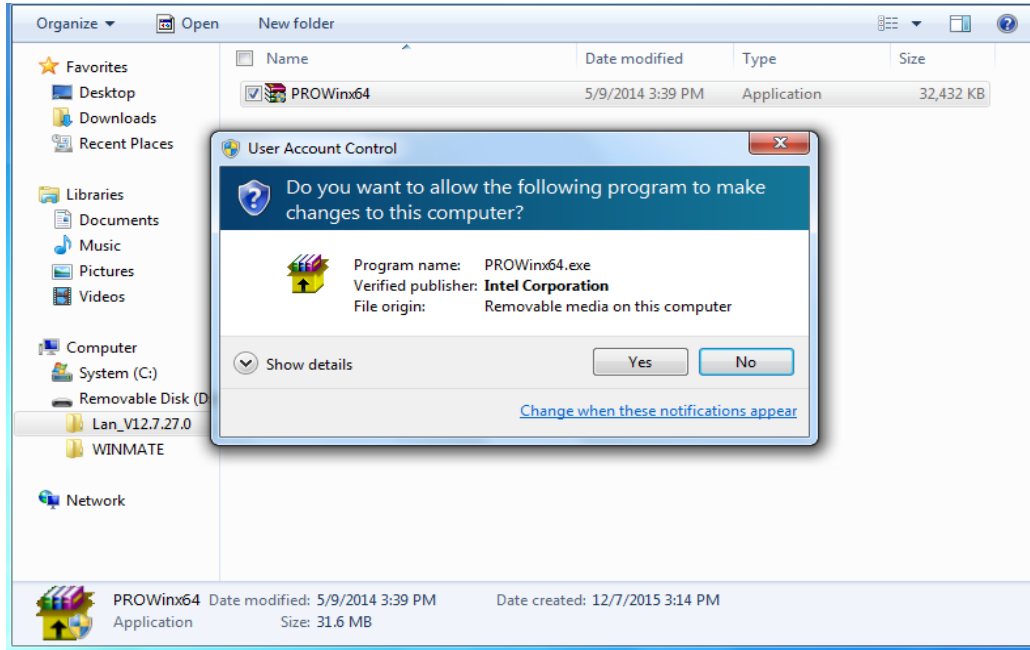
Step 3 Welcome window will appear, click **Next** to install the driver.

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.

6.6 Installing 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.
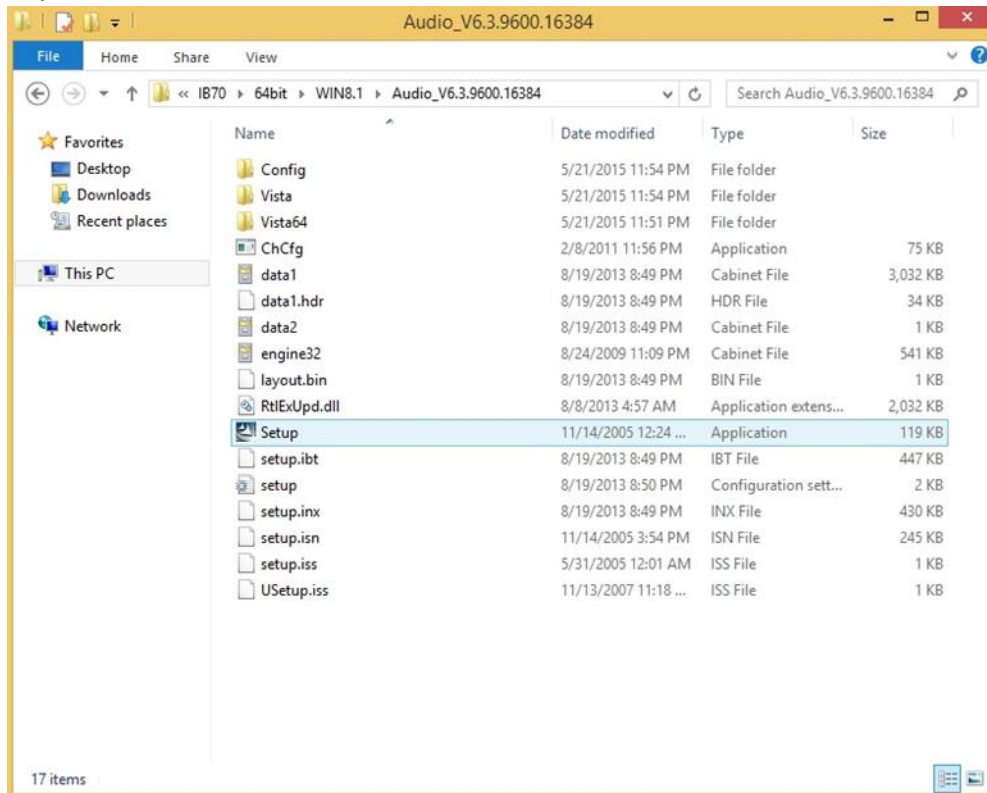
Step 2 Please wait while the Install Shield Wizard prepares the setup.
Step 3 Welcome window will appear, click **Next** to install the driver.
Step 4 It might take some time to configure new software installation. Please wait.
Step 5 Windows security will appear, click **Install** to install the audio driver.
Step 6 The installation is complete, select **"Yes, I want to restart my computer now"**, and click **Finish** to complete the installation.

6.7 Installing USB 3.0 Driver

Only for Windows 7.

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.

This HMI features Intel Celeron ^{Bay} Trail-M N2930CPU 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.

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.
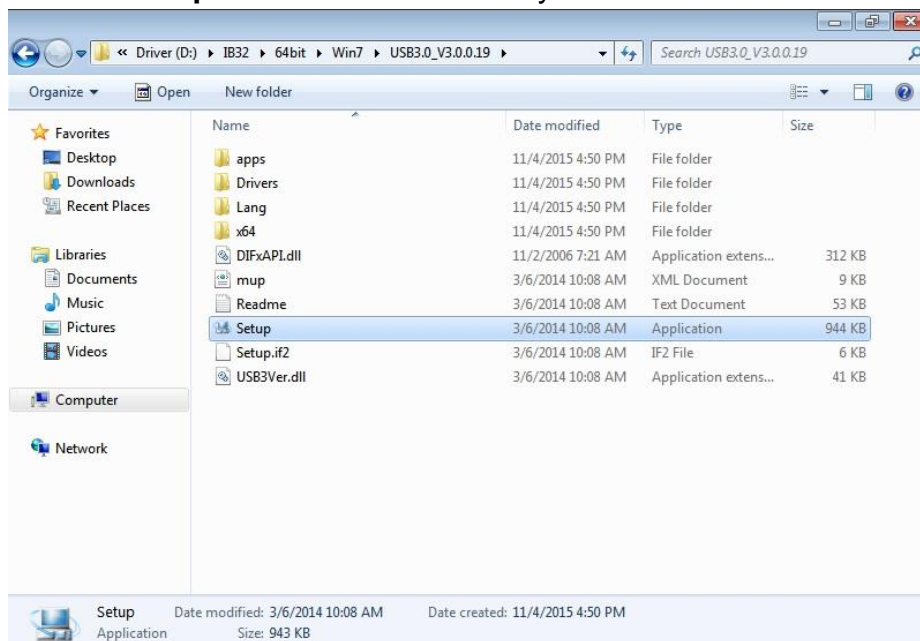
Step 3 Welcome window will appear, Click **Next** to install the driver.
Step 4 Carefully read the license terms and click **Yes** to agree.
Step 5 Review Readme file information and click **Next** to continue the installation.
Step 6 When the Setup Progress is complete click **Next** to continue.
Step 7 Click **"Yes, I want to restart this computer now"** to finish and then restart your computer.

Chapter 7: Technical Support

This chapter includes the directory for technical support. 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.

7.1 Introduction

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.

Winmate provides the following Drivers for S Series HMI:

Item	Type	Description
1	SDK	Digital I/O SDK
2	SDK	Watchdog SDK
3	Porting Guide	LED Light Bar Porting Guide
4	Porting Guide	RFID Porting Guide
5	Utility	Watchdog Utility

To download drivers and SDK, go to https://www.winmate.com/ > Support > Download Center

7.2 Problem Report Form

If any problem occurs fill in problem report form enclosed and immediately contact us.

S Series HMI

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.

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Appendix

Appendix A: Product Specifications

	Model Name					
	W07IB3S-PCO1-POE	W07IB3S-PCO1AC-POE	W10IB3S-PCH2-POE	W10IB3S-PCH2AC-POE	W10IB3S-PCH2LB	R15IB3S-PCC3-POE
Display						
Size/ Type	7" TFT (Wide)	7" TFT (Wide)	10.1" TFT (Wide)	10.1" TFT (Wide)	10.1" TFT (Wide)	15"
Resolution	1024 x 600	1024 x 600	1280 x 800	1280 x 800	1280 x 800	1024 x 768
Brightness	1000 nit	1000 nit	350 nit	350 nit	350 nit	250 nit
Contrast Ratio	500:1 (typ.)	500:1 (typ.)	800:1 (typ.)	800:1 (typ.)	800:1 (typ.)	700:1 (typ.)
Viewing Angle	-75~75(H);-75~70(V)	-75~75(H);-75~70(V)	-85~85(H);-85~85(V)	-85~85(H);-85~85(V)	-85~85(H);-85~85(V)	-80~80(H);-70~70(V)
Max Colors	16.7M	16.7M	16.7M	16.7M	16.7M	16.2M/262k
Touch	PCAP	PCAP	PCAP, AG Coating (Optional)	PCAP, AG Coating (Optional)	PCAP, AG Coating (Optional)	PCAP, AG Coating (Optional)
System Specifications						
Processor	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz	Intel® Celeron® Bay Trail-M N2930, 1.83 GHz
Chipset	Intel® Atom™ SoC Integrated	Intel® Atom™ SoC Integrated	Intel® Atom™ SoC Integrated	Intel® Atom™ SoC Integrated	Intel® Atom™ SoC Integrated	Intel® Atom™ SoC Integrated
Memory	2 GB DDR3L-1600 SODIMM (max 8 GB)	2 GB DDR3L-1600 SODIMM (max 8 GB)	2 GB DDR3L-1600 SODIMM (max 8 GB)	2 GB DDR3L-1600 SODIMM (max 8 GB)	2 GB DDR3L-1600 SODIMM (max 8 GB)	2 GB DDR3L-1600 SODIMM (max 8 GB)
Storage	1 x M.2 SSD (Default 64GB)	1 x M.2 SSD (Default 64GB)	1 x M.2 SSD (Default 64GB)	1 x M.2 SSD (Default 64GB)	1 x M.2 SSD (Default 64GB)	1 x M.2 SSD (Default 64GB)
LAN Chipset	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE	Intel® I210-AT GbE
OS	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise	Windows Embedded Standard 7, Windows 7 Pro for Embedded Systems Windows, Embedded 8.1 Industry Pro, Windows 10 IoT Enterprise
Audio						
Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker	1 x 1 Watt Speaker
User Controls						
LED Light Bar	N/A	RGB Light Bar	N/A	RGB Light Bar	All-Around RGB Light Bar	N/A
HF RFID Reader	HF RFID Reader (Optional)	HF RFID Reader (Optional)	HF RFID Reader (Optional)	HF RFID Reader (Optional)	HF RFID Reader (Optional)	HF RFID Reader (Optional)
Software						
Utility	Hottab	Hottab	Hottab	Hottab	N/A	Hottab

	Model Name					
	W07IB3S-PCO1-POE	W07IB3S-PCO1AC-POE	W10IB3S-PCH2-POE	W10IB3S-PCH2AC-POE	W10IB3S-PCH2LB	R15IB3S-PCC3-POE
Input / Output Connectors						
Power	3-pin terminal block	3-pin terminal block	3-pin terminal block	3-pin terminal block	3-pin terminal block	3-pin terminal block
Ethernet	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/PoE)	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/PoE	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/ PoE	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/PoE	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/PoE	1 x RJ 45-10/100/1000 Mbps (LAN) , 1 x RJ 45-10/100/1000 Mbps (LAN/PoE
USB Port	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0	1 x USB 3.0, 1 x USB 2.0
Serial Port	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485
GPIO	GPIO (Optional)	GPIO (Optional)	GPIO (Optional)	GPIO (Optional)	N/A	GPIO (Optional)
Power Specifications						
Power Input	12V DC	12V DC	12V DC	12V DC	12V DC	12V DC
PoE	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)	Power Device: IEEE 802.3at (25 W), IEEE 802.3af (15 W)
PoE Rating	48V 0,6A	48V 0,6A	48V 0,6A	48V 0,6A	48V 0,6A	48V 0,6A
Power Consumption	15 W	15 W	19 W	19 W	19 W	23 W
Mechanical Specifications						
Dimensions	189.4 x 145.4 x 36.1 mm	189.4 x 145.4 x 36.1 mm	263.28 x 171 x 35.7 mm	263.28 x 171 x 35.7 mm	263.28 x 171 x 35.7 mm	363.40 x 277.86 x 44.50 mm
Mounting	Panel mount, VESA 75x75	Panel mount, VESA 75x 75	Panel mount, VESA 75x75, Front Mount	Panel mount, VESA 75x75, Front Mount	Panel mount, VESA 75x75, Front Mount	Panel mount, VESA 100x100
Cooling	Fanless	Fanless	Fanless	Fanless	Fanless	Fanless
Environment Considerations						
Operating Temp.	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C
Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing	10% to 90% (non-condensing	10% to 90% (non-condensing	10% to 90% (non-condensing	10% to 90% (non-condensing
IP Rating	Front: IP65, Full: IP22	Front: IP65, Full: IP22	Front: IP65, Full: IP22	Front: IP65, Full: IP22	Front: IP65, Full: IP22	Front: IP65, Full: IP22
Certification						
Safety	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

Appendix B: HF RFID Reader Specifications

The HF RFID Reader of this device supports the following card type.

HF RFID Standard	Purpose
ISO-14443 A	Standard for MIFARE technology, which used in smart cards and proximity cards
ISO-15693	Standard for tracking items

Appendix C: LED Light Bar Adjustment

Note: PoE Hub requires the power of more than 25 Watt.

This section describes how to adjust LED Light Bar with RS-232 settings.

Baud Rate	9600
Data Bits	8
Parity:	None
Stop Bits	1

Reading Version

NO.	Function	Length	Command	Index	Checksum(*1)	Note
1	Part Number Reading	0x04	0xA0	0x00	0x5c	Return ASCII Part Number(Stable 12 codes)
2	Part Name Reading	0x04	0xA0	0x01	0x5b	Return ASCII Part Name (Stable 30 codes)

1: Checksum is 2's complement of sum of length and all messages.

Example:

BIOS BOM Part No.	93I30000WN0A
BIOS Part Name	IBMC100-LED000000-000-VV100-WN

PC command 0x04 0xA0 0x00 0x5C Target Board Return 93I30000WN0A	**PC command** 0x04 0xA0 0x01 0x5b Target Board Return IBMC100-LED000000-000-VV100-WN

Reading Function

	PC command					VRD				
NO.	Function	Length	Command	index	CKS(*1)	Length	index	Data	CKS(*1)	supplement
1	LED_RED	0x04	0x60	0x10	0x8C	0x04	0x10	0x00-0xFF	0xEC~0xED	Default 0xFF
2	LED_GREEN	0x04	0x60	0x11	0x8B	0x04	0x11	0x00-0xFF	0xEB~0xEC	Default 0xFF
3	LED_BLUE	0x04	0x60	0x12	0x8A	0x04	0x12	0x00-0xFF	0xEA~0xEB	Default 0xFF

1: Checksum is 2's complement of sum of length and all messages.

Reply Value :

ACK	3 C F1	Set Success
NSP	3 B F2	Not Success

1: Checksum is 2's complement of sum of length and all messages.

Setting Function

NO.	Function	Length	Command	index	Value	Checksum(*1)	Supplement
1	Load Default	0x05	0x40	0x21	0x00	0x9A	
2	LED_RED	0x05	0x61	0x10	0x00-0xFF	0x8A~0x8B	Default 0xFF
3	LED_GREEN	0x05	0x61	0x11	0x00-0xFF	0x89~0x8A	Default 0xFF
4	LED_BLUE	0x05	0x61	0x12	0x00-0xFF	0x88~0x89	Default 0xFF
5	LED_ALL	0x05	0x61	0x13	0x00-0xFF	0x87~0x88	Default 0xFF

Reply Value :

ACK	3 C F1	Set Success
NSP	3 B F2	Not Success

1: Checksum is 2's complement of sum of length and all messages.

Appendix D: Changing Screen Resolution

If you plug HDMI cable from this device to an external display, touch resolution will be influenced by the external display.

Follow instructions below how to adjust touch resolution.
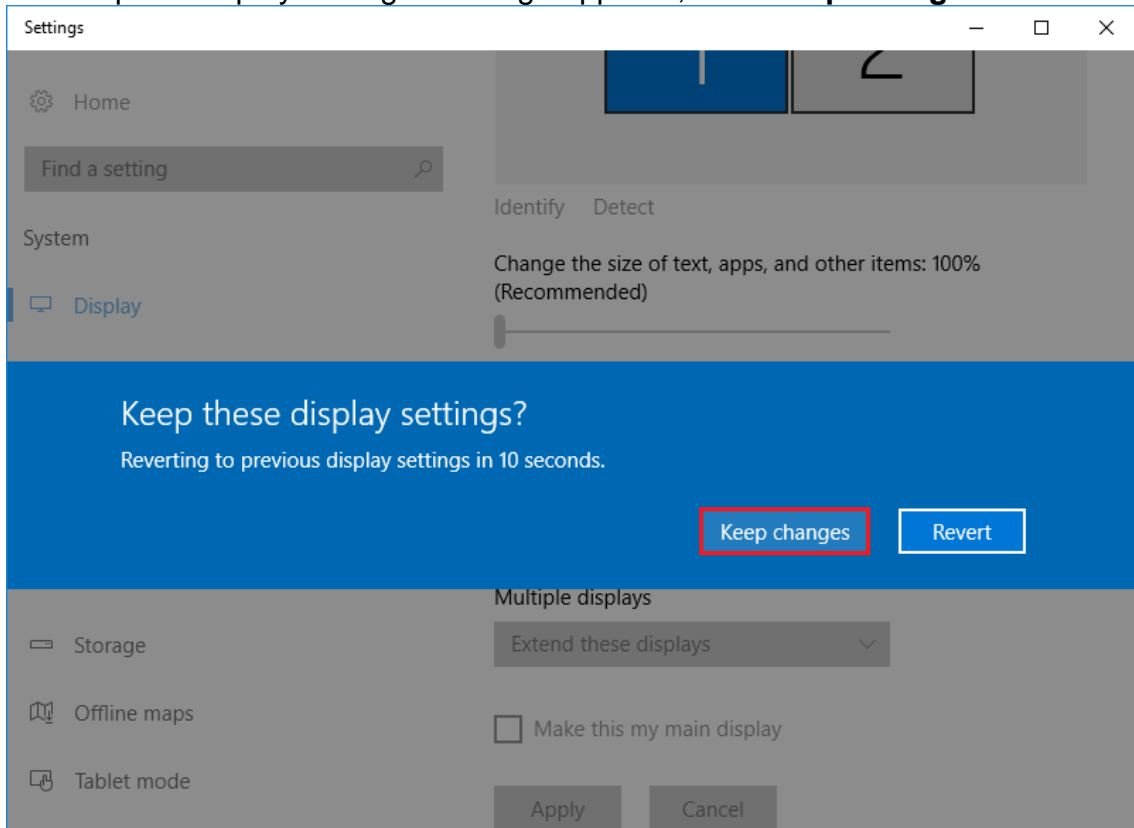
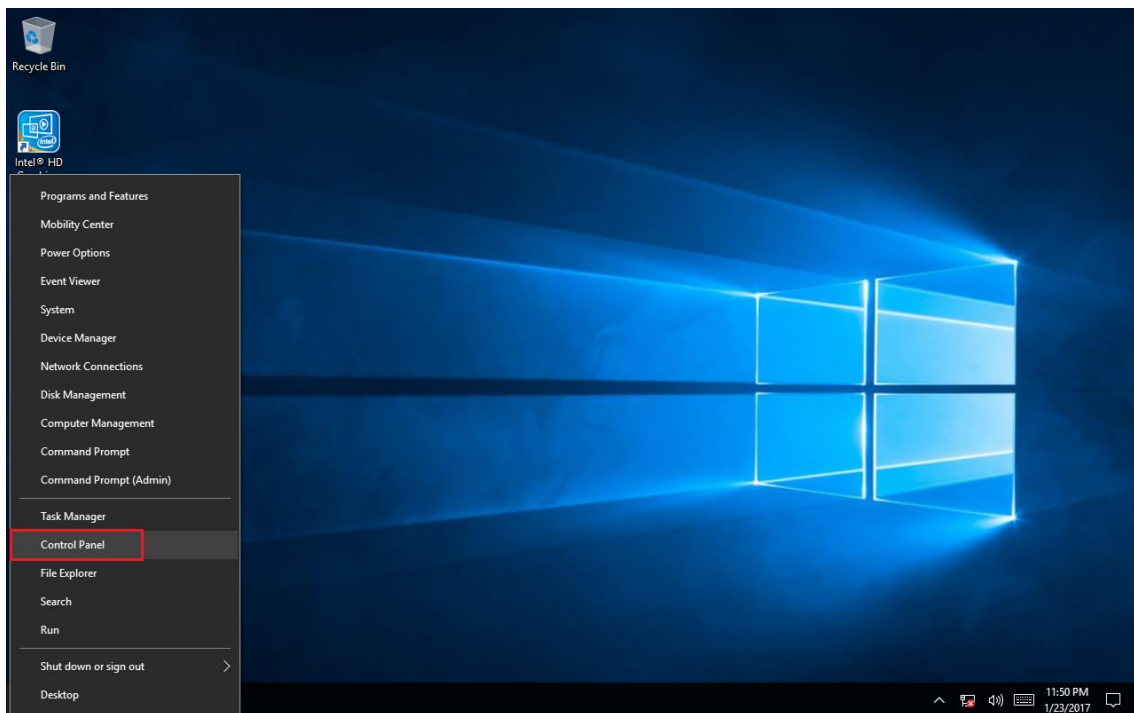1. Right-click mouse on the desktop, select **Display Settings**.
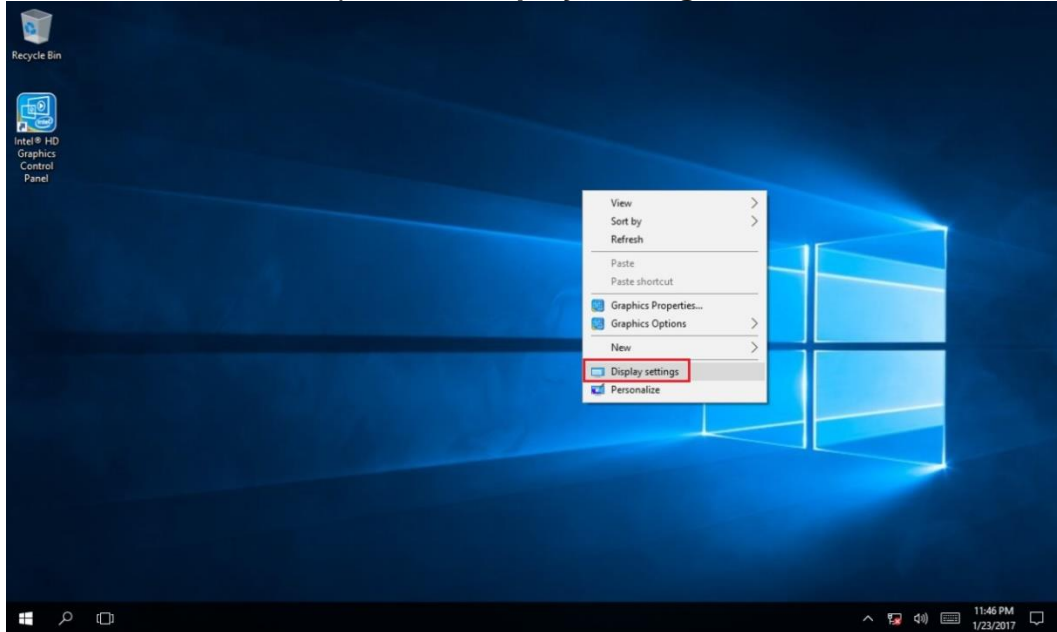
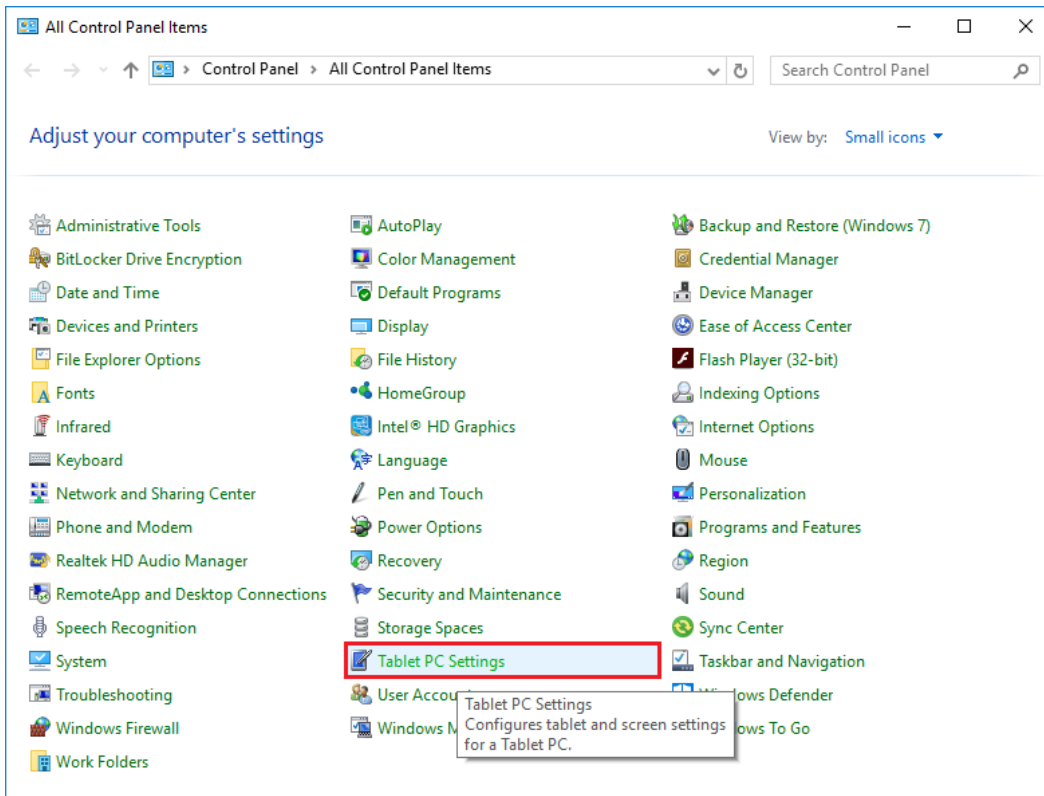2. Select **Extend these displays**, click **Apply**.
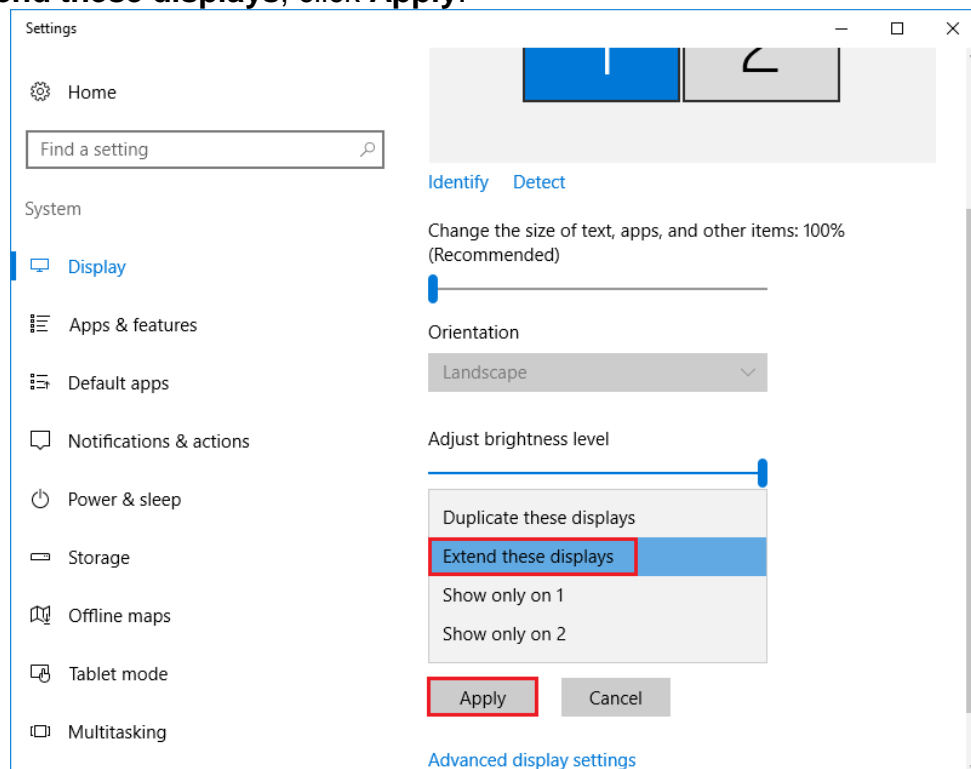
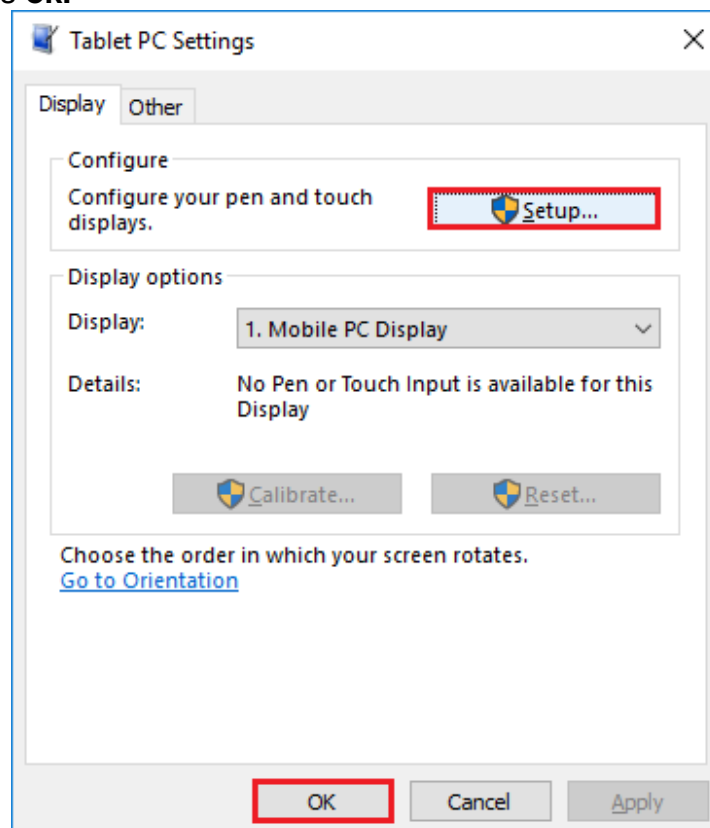3. Whether to keep the display settings message appears, click **Keep changes**.

4. Right-click on the Windows icon and select **Control Panel.**
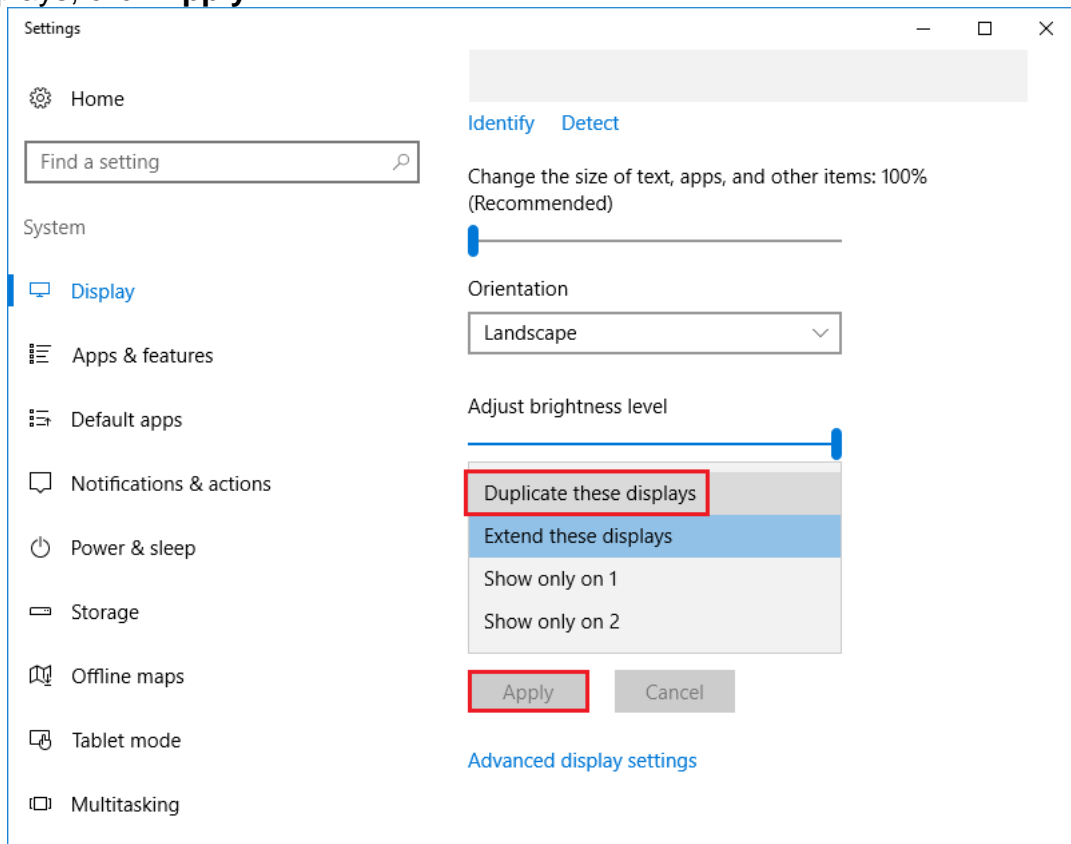

5. Select **Tablet PC Settings**.

6. Select **Setup**, the window will jump out Touch this screen to identify it as the touchscreen, click the **Touch** and press **ok.**

Touch this screen to identify it as the touchscreen.

If this is not the Tablet PC screen, press Enter to move to the next screen. To close the tool, press Esc.

7. Go back to **Display settings** again, Extend these displays have been changed to Duplicate these displays, click **Apply.**

8. Select **Keep changes**.

Notes

Notes

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