S Series HMI

7”/ 10.1”/ 15”

Intel® Pentium® N4200 Processor (2M Cache, up to 2.5 GHz)

Model No. W07IP3S-PCO1AC-POE
W07IP3S-PCO1-POE
W10IP3S-PCH2AC-POE
W10IP3S-PCH2-POE
R15IP3S-PCC3-POE

User Manual

Document Version 1.1
Document Part No. 9171111I104F

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

Contents

Preface

Copyright Notice

Trademark Acknowledgement

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 modernes 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.

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.

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.

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 powered by Intel® Pentium® N4200 Processor (2M Cache, up to 2.5 GHz) 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	27-Feb-2020	Initial document release.
1.1	11-Aug-2020	Revise panel specifications of the R15IP3S-PCC3-POE

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

The 7/ 10.1/ 15-inch S Series HMI is an elegantly-designed panel PC engineered to be the HMI that fits Smart Factory and Smart Building environments. With processing power coming from Intel® Pentium® N4200 Apollo Lake CPU, the device delivers excellent computing performance, yet low power consumption. The support for PoE function allows for the simultaneous transfer of data and electrical power and results in a reduction of installation costs and power consumption. With Front Camera and HF RFID Reader configurable, the HMI is also suitable for a diverse range of applications including access control systems, conference room management platforms, interactive POS/ kiosk terminals, and many more smart facility control scenarios.

1.2 Product Features

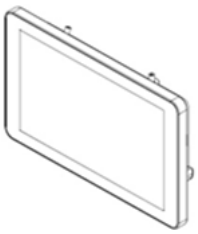
Winmate® S Series HMI features:

- 7/ 10.1/ 15-inch TFT LCD
- Intel® Pentium® N4200 Apollo Lake Processor
- Fanless cooling system and ultra-low power consumption
- Dual Gigabit Ethernet
- Support PoE function Optional RGB LED Light Bar
- Optional 2MP Front Camera
- Optional HF RFID Reader
- Front IP65 and full IP22 ratings
- Stylish design for room booking, access control and room information 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.

Default:



- **HMI Device**

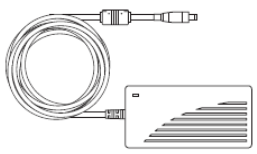
Varies by product specifications

- **Quick Start Guide (Hardcopy)**

Part No. 91521110105Z

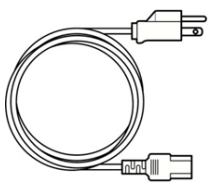
- **Driver CD & User Manual**

Part No. 9171111I104F



- **AC Adapter (12V/ 50W)**

Part No. 922D050W12VA

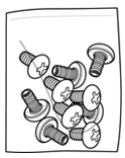


- **Power Cord**

Varies by country

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

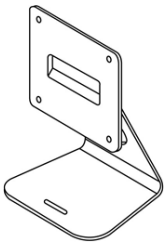
Part No. 94J602G030K0



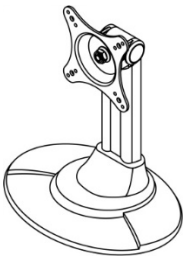
VESA Screws

Part No. 82111E240400

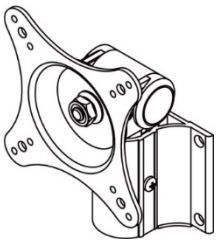
Optional:



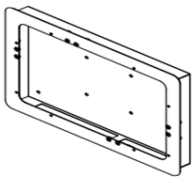
VESA Desk Stand PCVS-V1
Part No. 99KK00A0000E



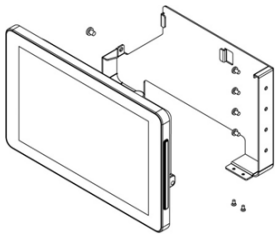
VESA Desk Stand LA-100
Part No. 9B0000000128



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(R)
Part No. 99KN00A00011(L)

External USB Cable

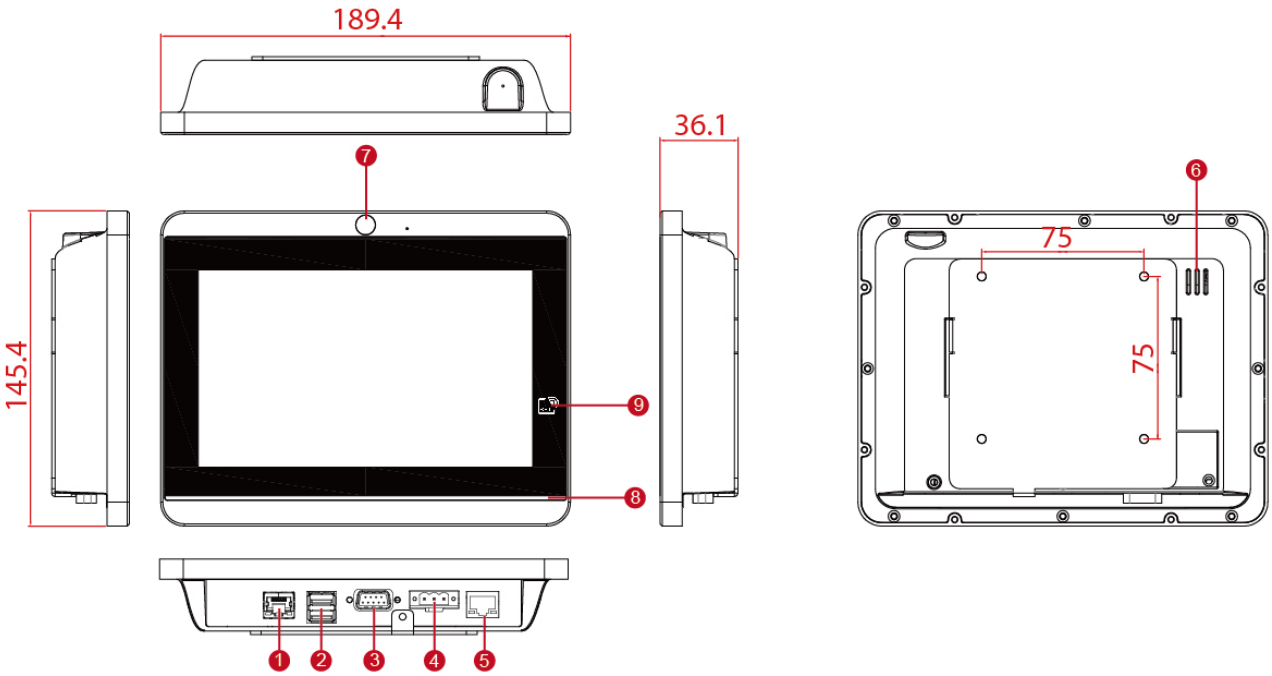
Part No. 948018102100

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, W07IP3S-PCO1AC-POE, W07IP3S-PCO1-POE

Unit: mm
Dimensions:189.4 x 145.4 x 36.1

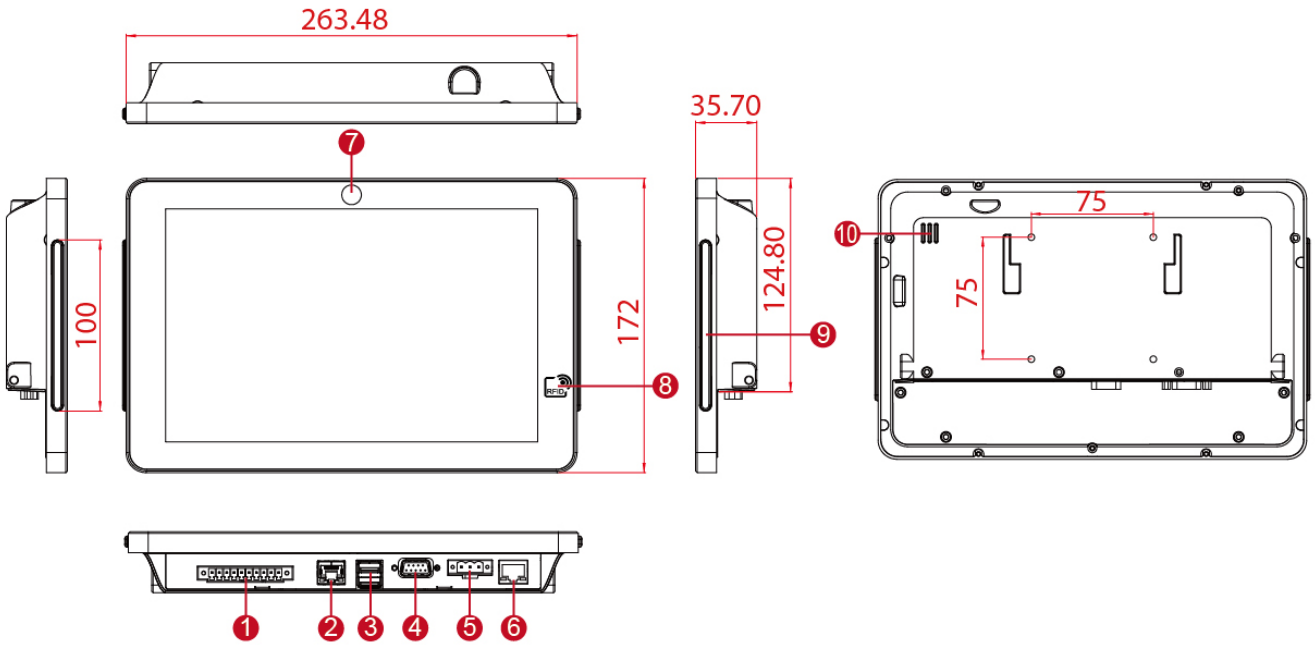


No.	Description	No.	Description
①	RJ-45 (LAN)	⑥	1 Watt Speaker
②	Two USB 3.0	⑦	2MP Front Camera (Optional)
③	RS-232/422/485	⑧	RGB LED Light Bar (W07IP3S-PCO1AC-POE only)
④	3 Pin Terminal Block 12V DC	⑨	HF RFID Reader (Optional)
⑤	RJ-45 (LAN/ PoE)		

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

10.1-inch, W10IP3S-PCH2AC-POE, W10IP3S-PCH2-POE

Unit: mm
Dimensions:263.48 x 172 x 35.7

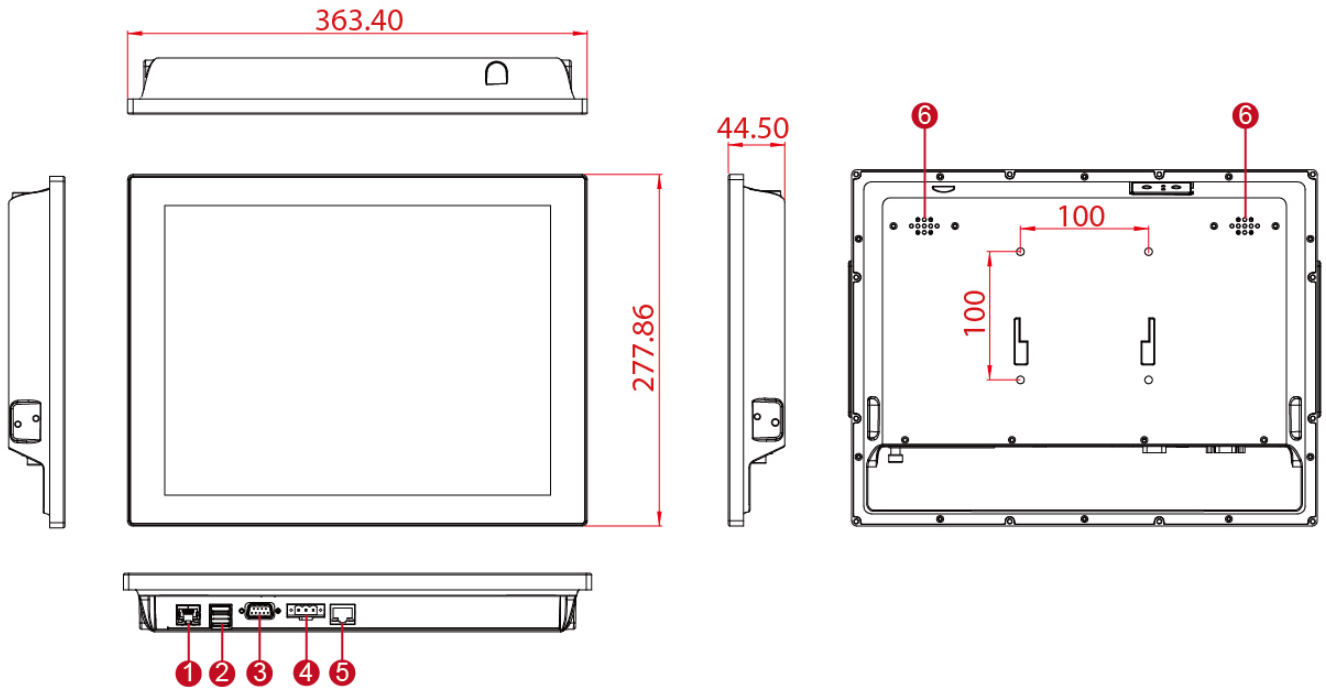


№	Description	№	Description
①	GPIO (Optional)*	⑥	RJ-45 (LAN/ PoE)
②	RJ-45 (LAN)	⑦	2MP Front Camera (Optional)
③	Two USB 3.0	⑧	HF RFID Reader (Optional)
④	RS-232/422/485	⑨	LED Status Light Bar (W10IP3S-PCH2AC-POE only)
⑤	3 Pin Terminal Block12V DC (Phoenix Type)	⑩	1 Watt Speaker

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

15-inch, R15IP3S-PCC3-POE

Unit: mm
Dimensions:363.4 x 277.86 x 44.5

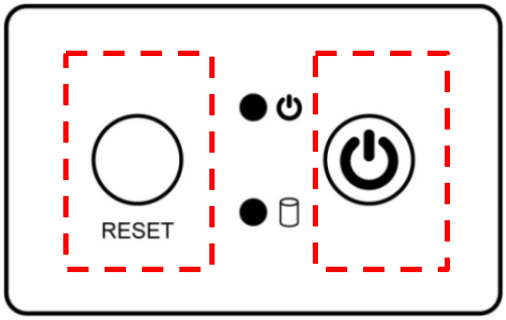


№	Description	№	Description
①	RJ-45 (LAN)	⑤	RJ-45 (LAN/ PoE)
②	Two USB 3.0	⑥	1 Watt Speaker x 2
③	RS-232/422/485		
④	Terminal Block 12V DC		

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

1.5 Physical Buttons

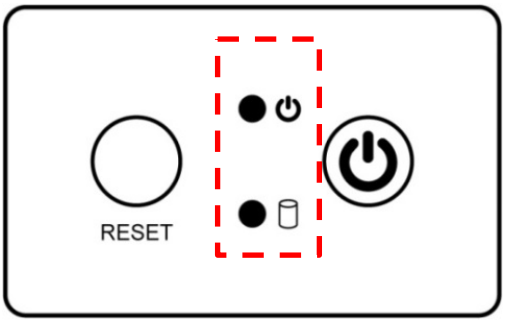
Physical buttons and located on the top side of the HMI (Only for 15”).



Icon	Button	Description
	Reset	Press to reset the system
	Power On/ Off	Press to power on or power off the device

1.6 LED Indicators: Power, Storage

Power and Storage LED indicators located on the top side of the HMI (Only for 15”).



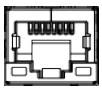
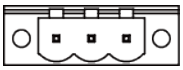
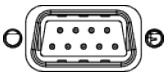
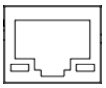
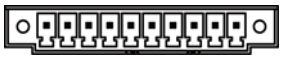
LED Type	Status	Description
	On	Power is on
	Off	Power is off
	Blinking	Storage activity (Data is being read or written)
	Off	System is idle

1.7 Connector Description

Terminal interfaces are located on the bottom side of the S Series HMI device.

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

Terminal interfaces description:

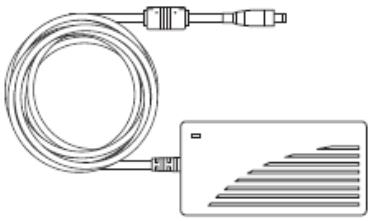
Item	Description
	**RJ-45 (LAN)** – Connects HMI device to Ethernet network. Supports PoE for power transmission in network equipment, via network UTP cable, together with data.
	**Terminal Block 3 Pin –** Provides power to the HMI device, accepts 12V DC. *Example: AC cord or DC power supply. If both are provided, choose only one.*
	**RS-232/422/485 –** Connects external devices to HMI device. Configure serial port settings via BIOS. *Example: A barcode reader or scanner to HMI device.*
	**USB 3.0** - Connects USB 3.0 compatible devices to HMI device. *Example: A printer to HMI device.*
	**RJ-45 (LAN/PoE)** – Connects HMI device to Ethernet network. Supports PoE for power transmission in network equipment, via network UTP cable, together with data. Supports PoE. Power Device (PD): IEEE 802.3at (25 W).
	**GPIO** –Connects the HMI device to specific GPIO pins to control it with a software program (Optional connector). *Example: A door key lock system to HMI device.*

Chapter 2: Getting Started

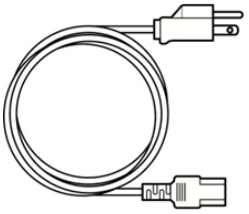
This chapter tells you important information on power supply, adapter and precautions tips. Pay attention to power considerations.

2.1 Powering On

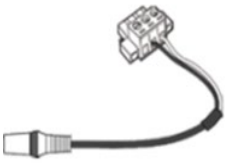
2.1.1 AC Adapter Components



- **AC Adapter**



- **Power Cord**



- **3 Pin Terminal Block to DC Jack Cable**

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

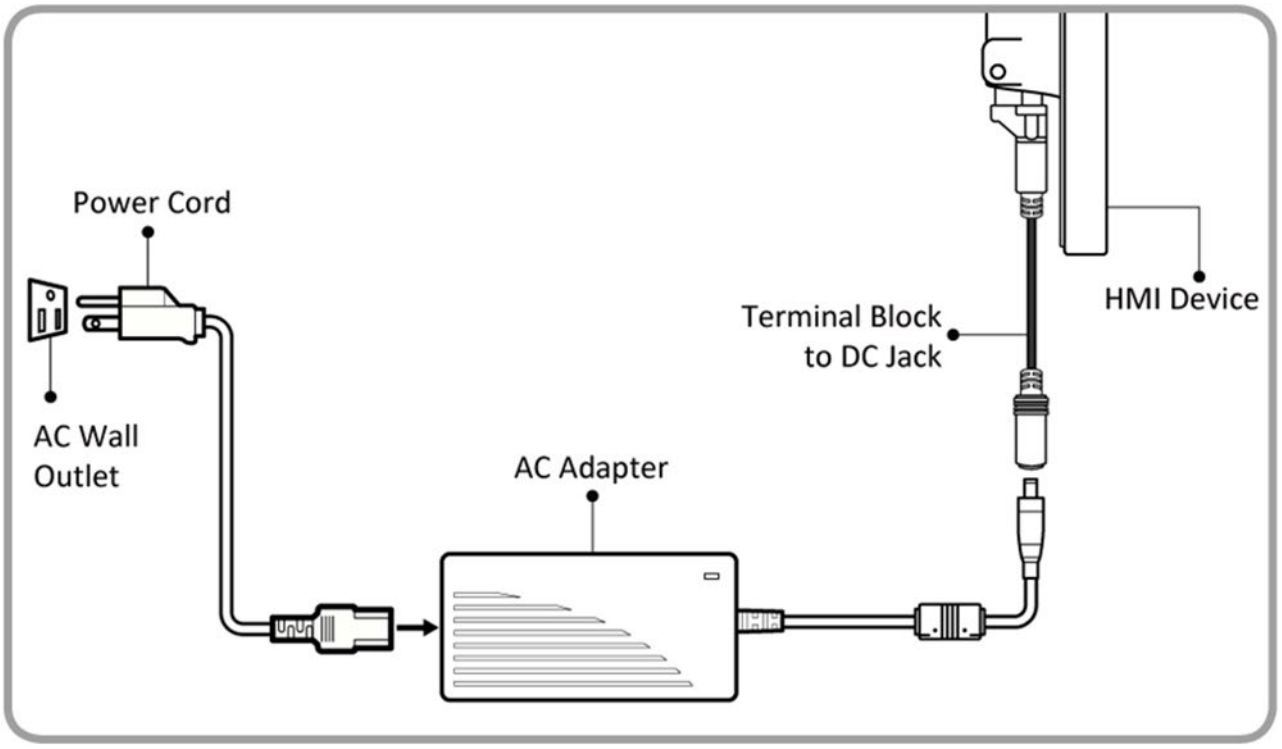
Caution Use only the AC adapter included in your package (Rating: Output 12 V/ 6.6A). Using other AC adapters may damage the device.

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 power input 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.

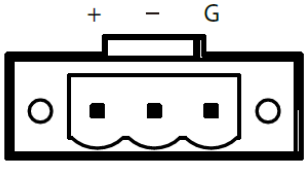
Note: Power cords vary in appearance by region and country.

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.



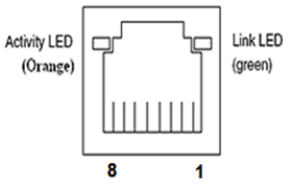
Voltage

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.



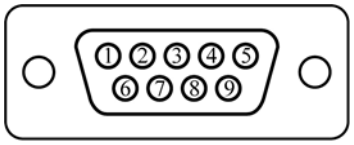
Pin №	Signal Name	Pin №	Signal Name
1	TX1+	2	TX1-
3	TX2+	4	TX2-
5	TX3+	6	TX3-
7	TX4+	8	TX4-

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.

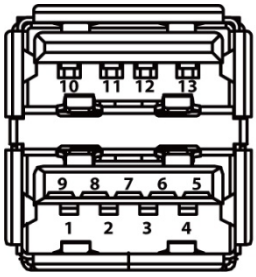


Pin №	RS-232 (Default)	RS-422	RS-485
1	DCD	TxD-	D-
2	RXD	TxD+	D+
3	TXD	RxD+	NC
4	DTR	RxD-	NC
5	GND	GND	GND
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC

2.2.4 USB Connector

The S Series HMI device has two USB 3.0 connectors. Use USB 3.0 connector to connect your HMI device to other 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.

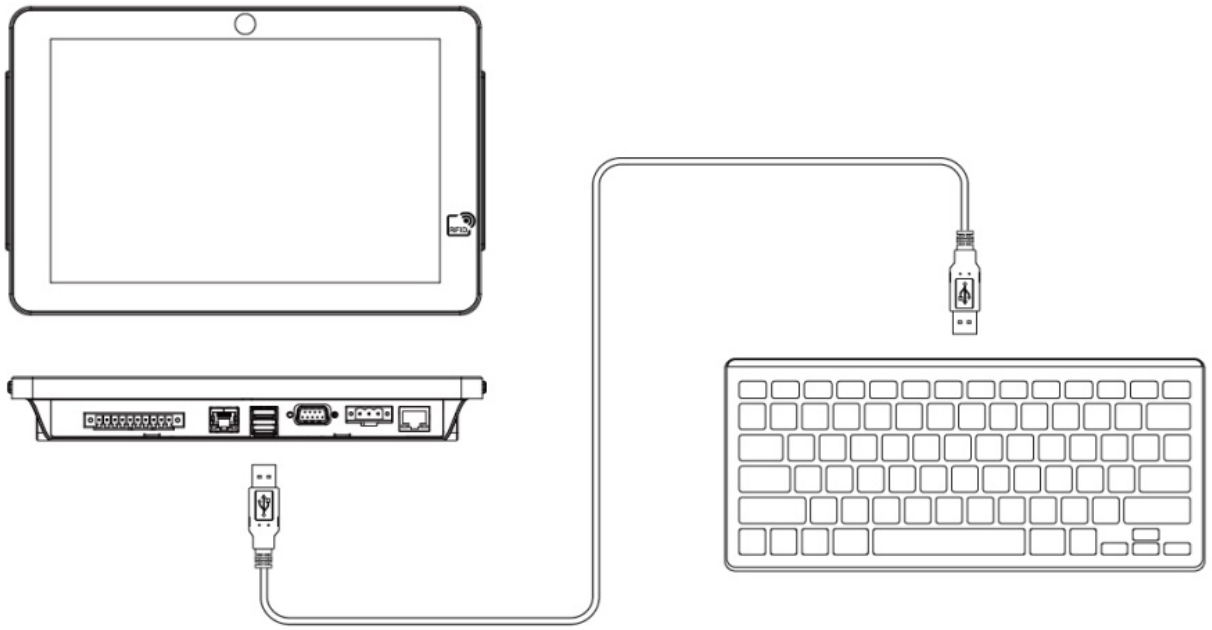
Pin assignment and connector description of DIDO connector.

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

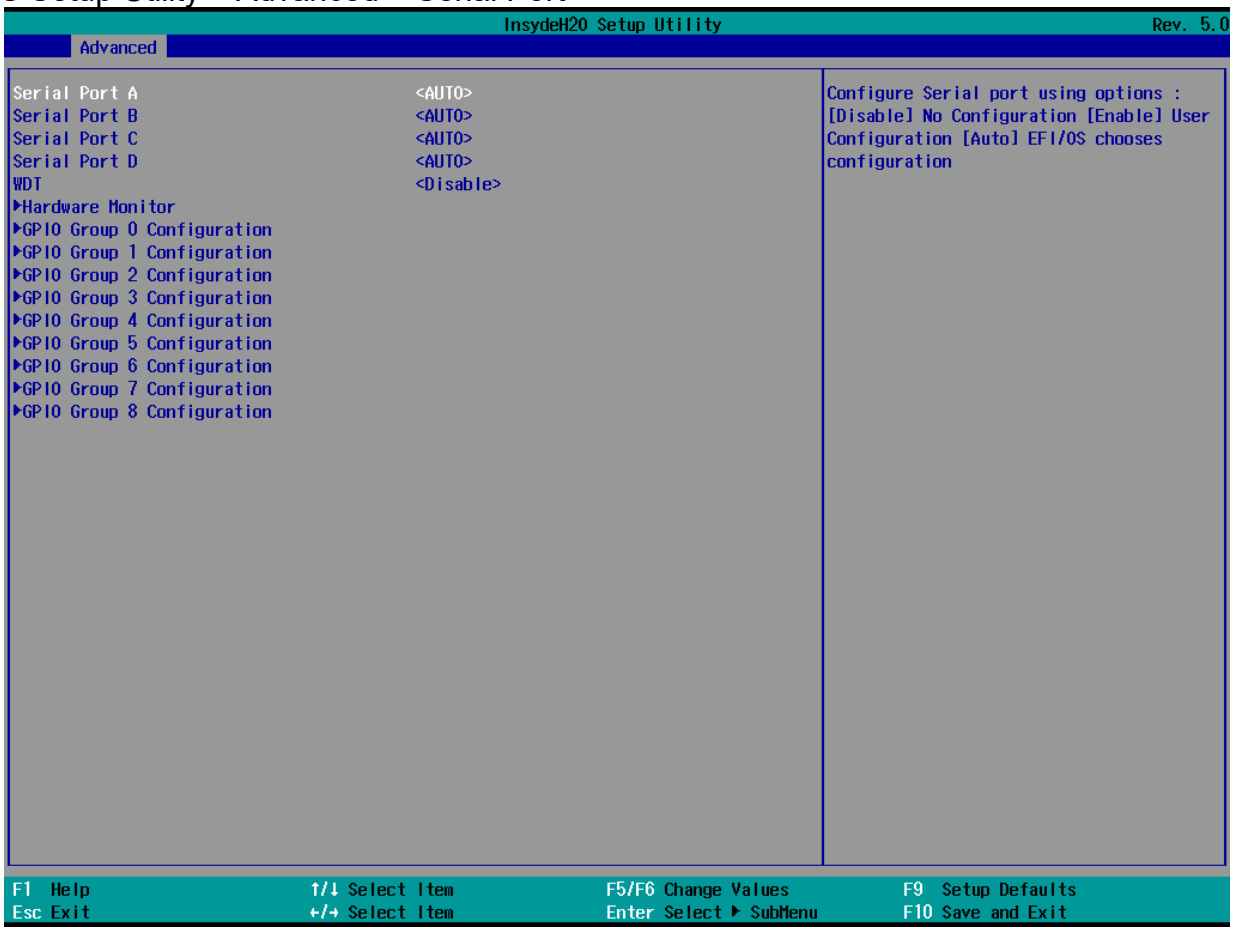
2.3 Serial Port Setting

You can configure RS-232/422/485 port setting of S Series HMI in BIOS. To enter the BIOS setup, you need to connect an external USB keyboard, and press **Del** key when the prompt appears on the screen during start up. The prompt screen shows only few seconds so need press **Del** key quickly.

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



BIOS Setup Utility **>** Advanced **>** Serial Port



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**  >**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.

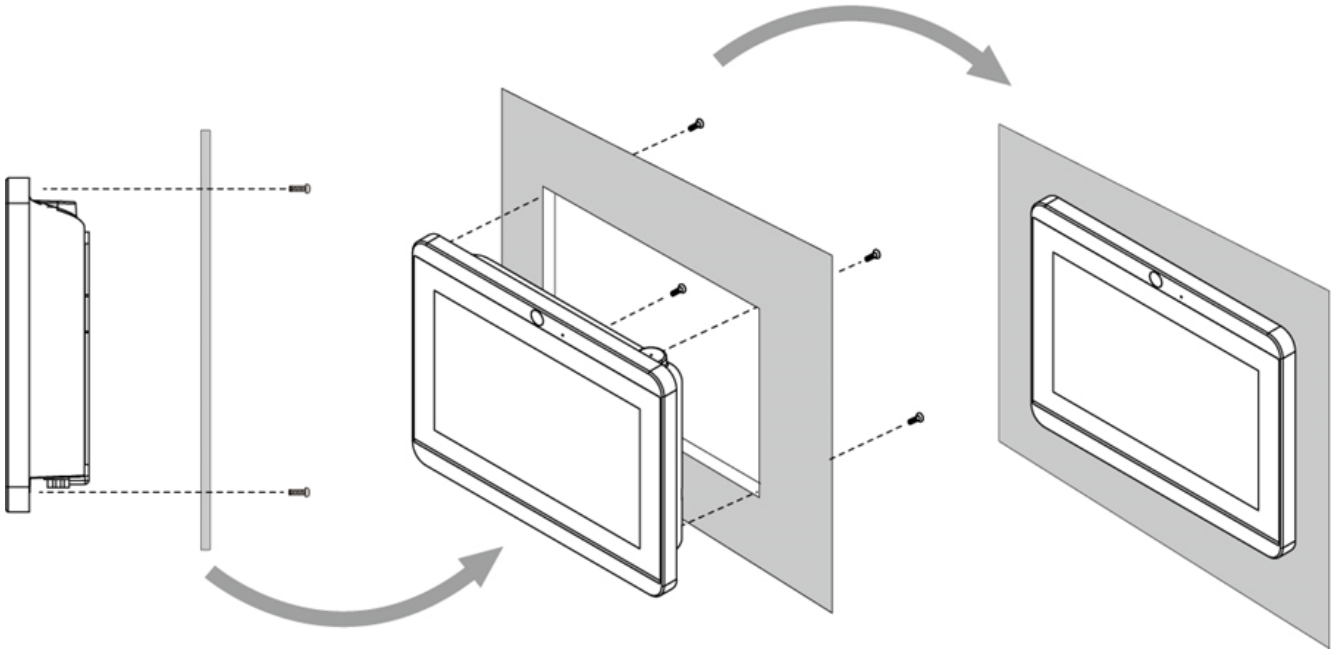
3.3.1 Panel Mount

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

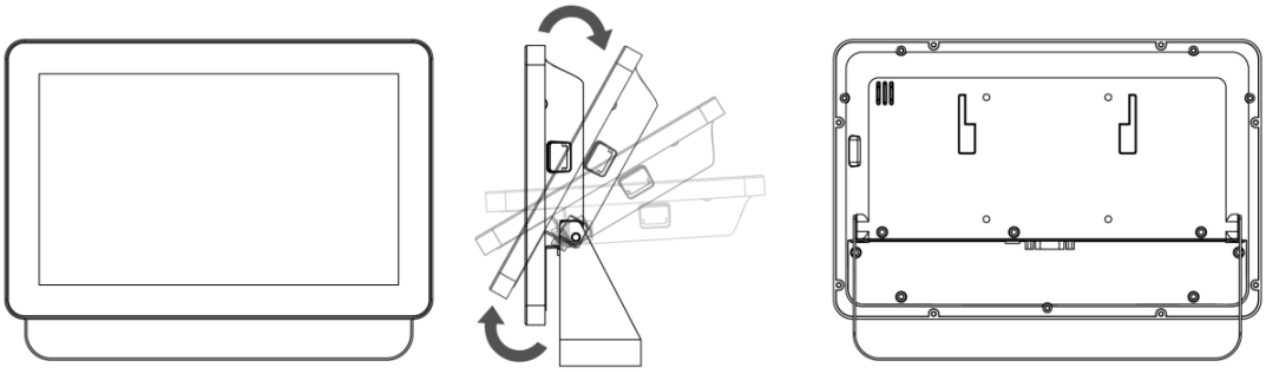
3.3.2.1 VESA Desk Stand PCVS-V1

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

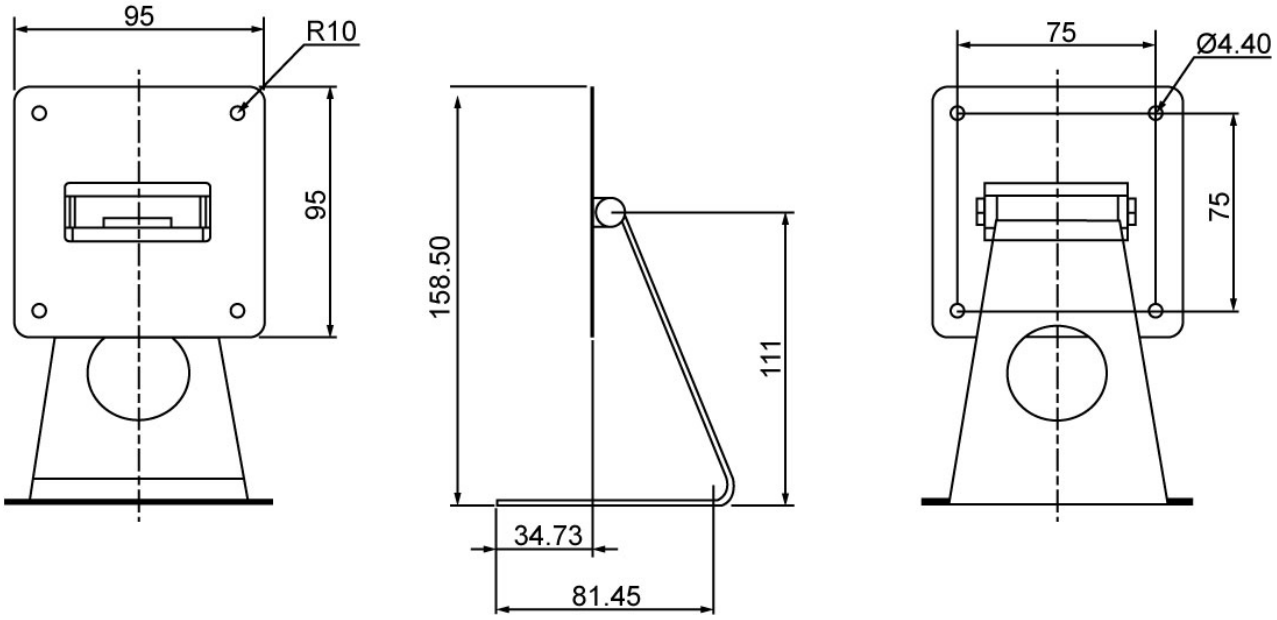
Model Name PCVS-V1
Part No. 99KK00A0000E

Installation Instruction

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



Dimensions



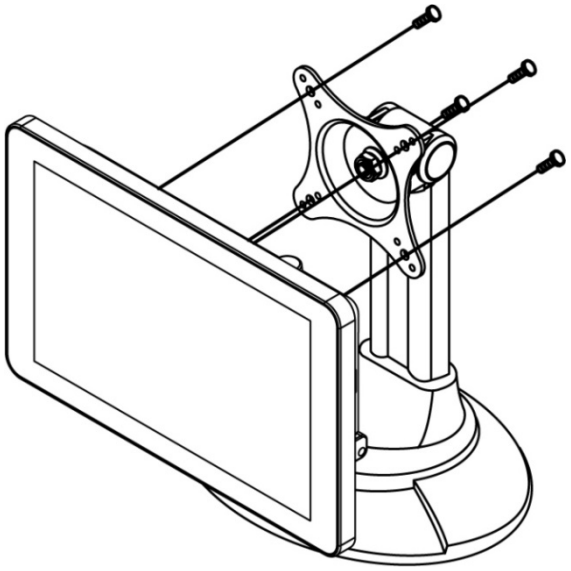
3.3.2.2 VESA Desk Stand LA-100

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

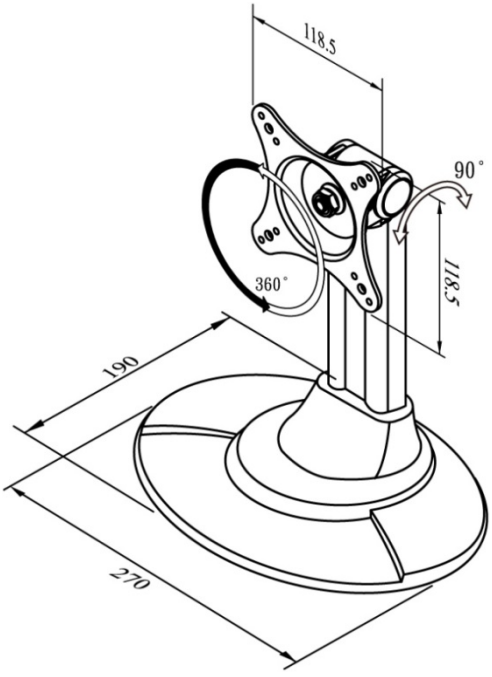
Model Name: LA-100
Part No. 9B0000000128

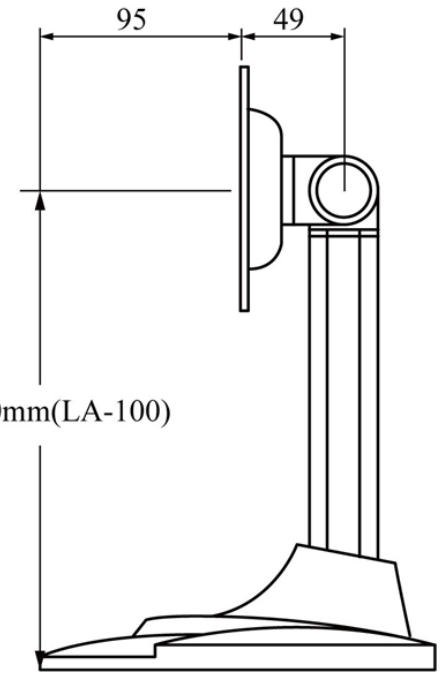
Installation Instruction

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



Dimensions



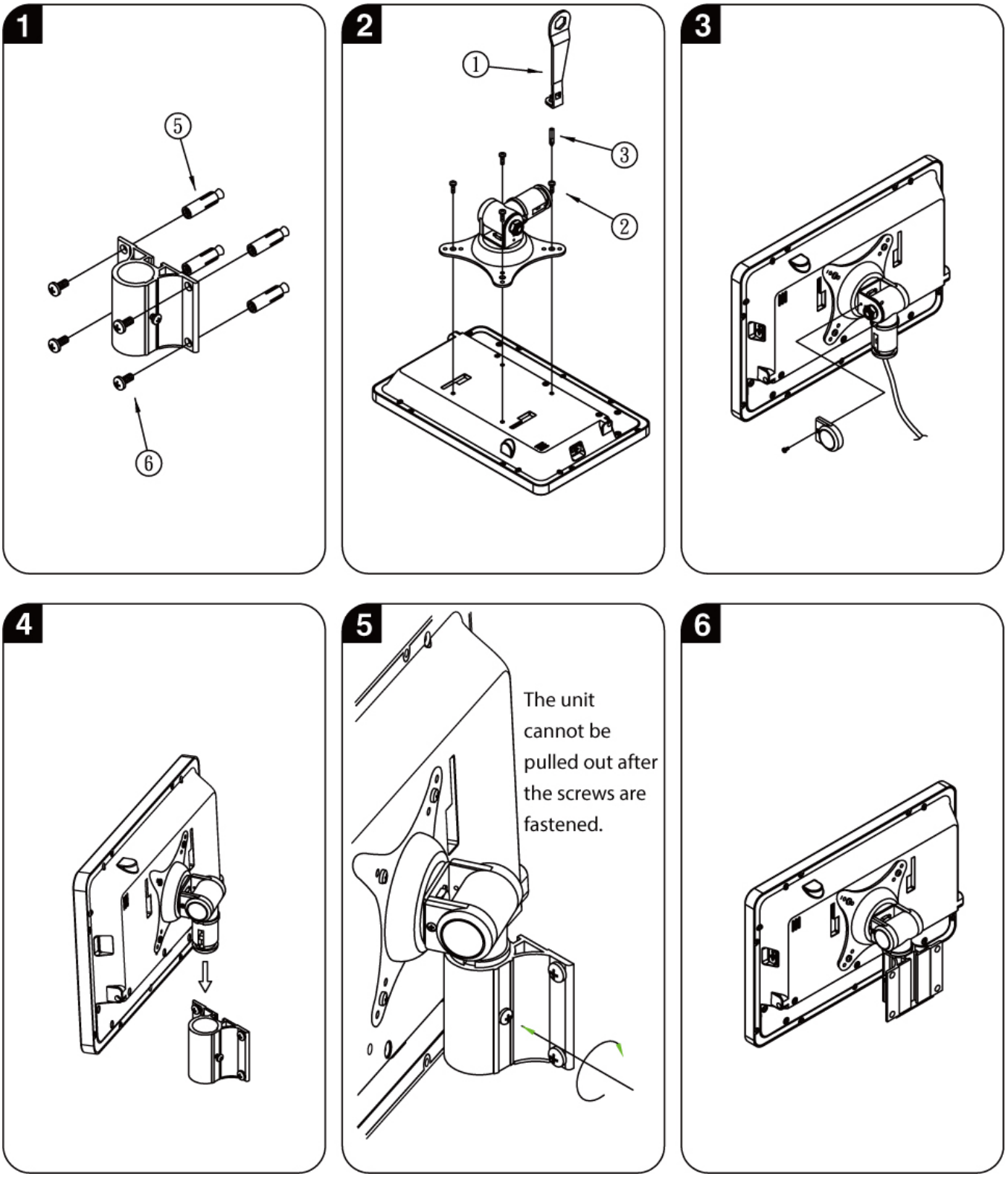


3.3.2.3 VESA Wall Mount Bracket LA-106

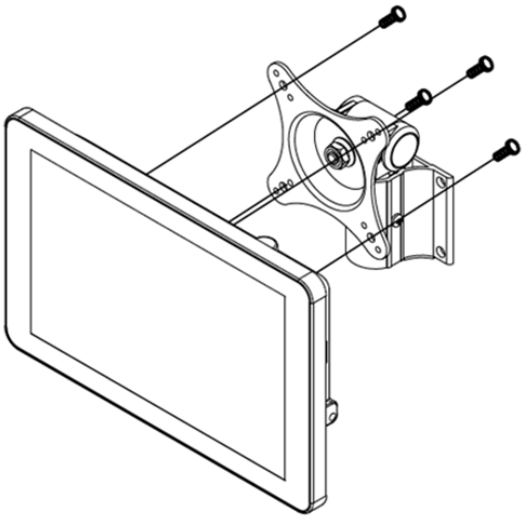
The S Series HMI device can be installed on a desk with the stand. You can purchase desk stand as an optional accessory.

Model Name LA-106
Part No. 9B0000000412

Installation Instruction



Accessories



① =1

② 4X18=4

4X10=4

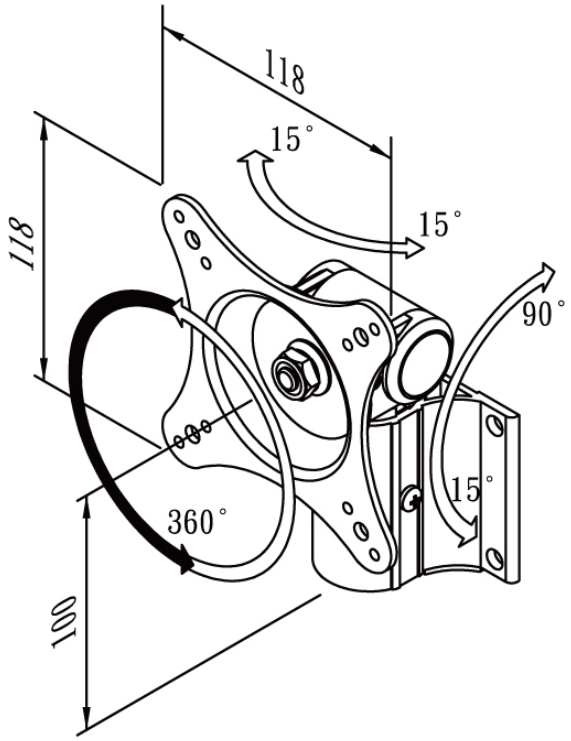
⑤ 11X35=4 (expansion bolt)

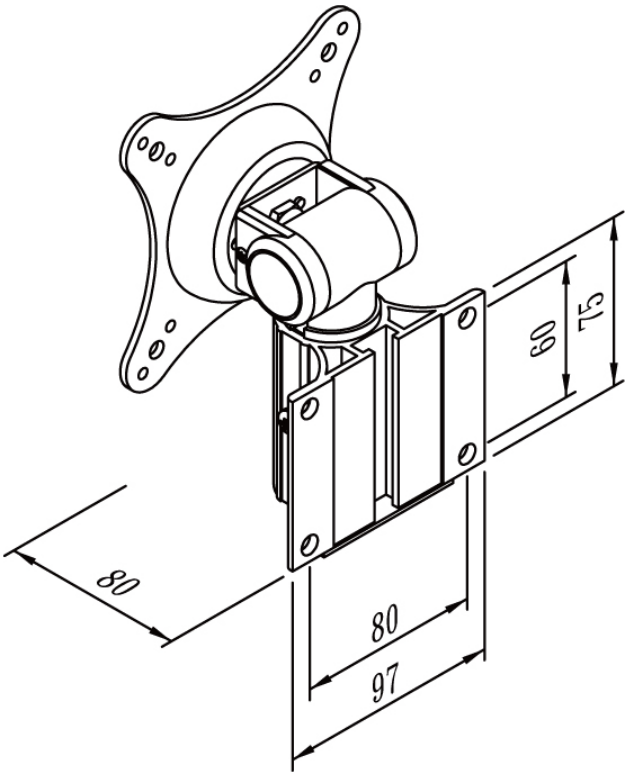
③ =1

⑥ 1/4X16=4 (screw for wall)

④ 5X20=4 (screw for wood board)

Dimensions

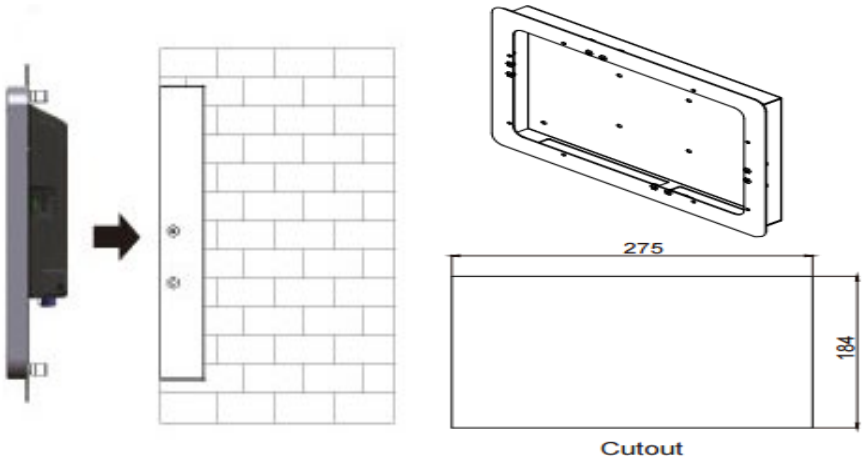




3.3.3 Front Side Wall Mount

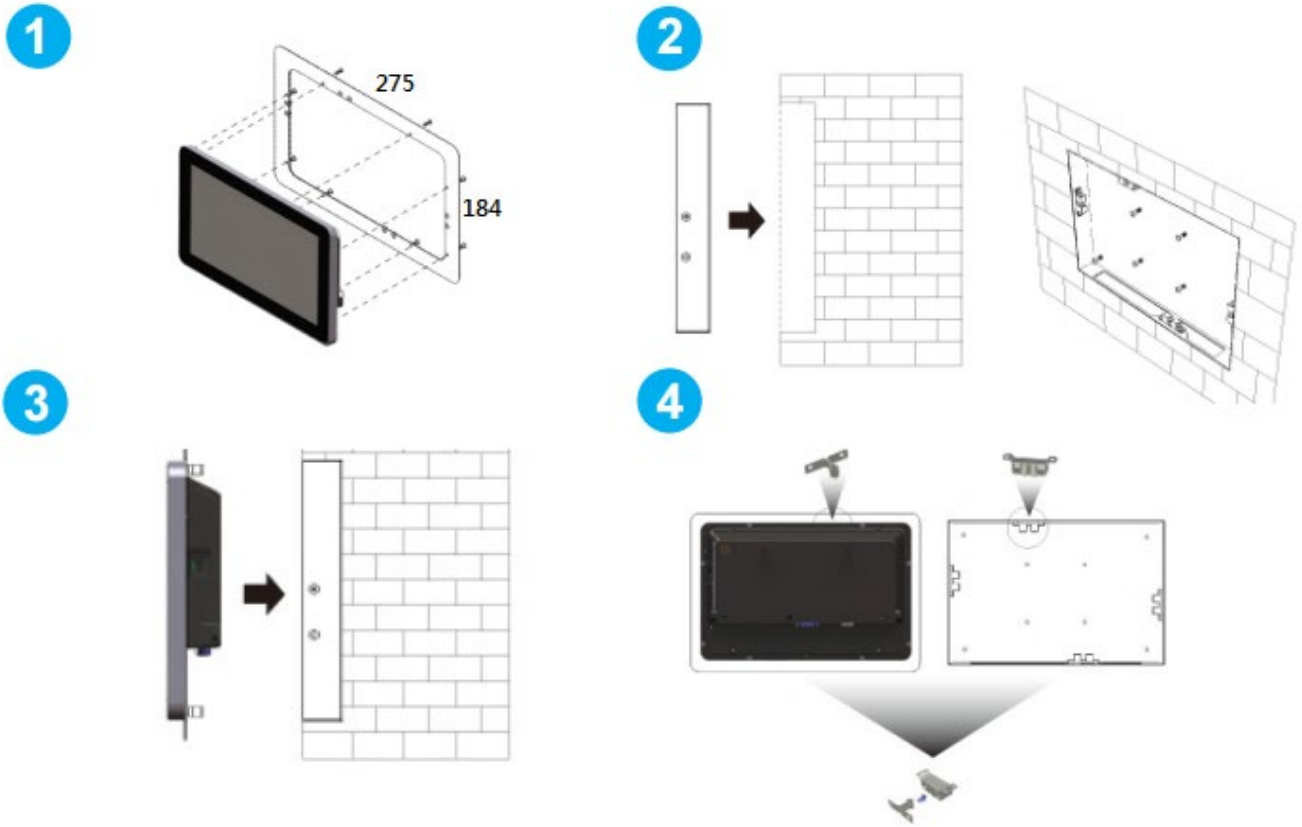
The Front Side Wall Mount is only available for 10.1” S Series HMI. You can purchase Front Side Wall Mount Bracket from Winmate.

Model Name PCFW-V1
Part No. 99KK00A0000C

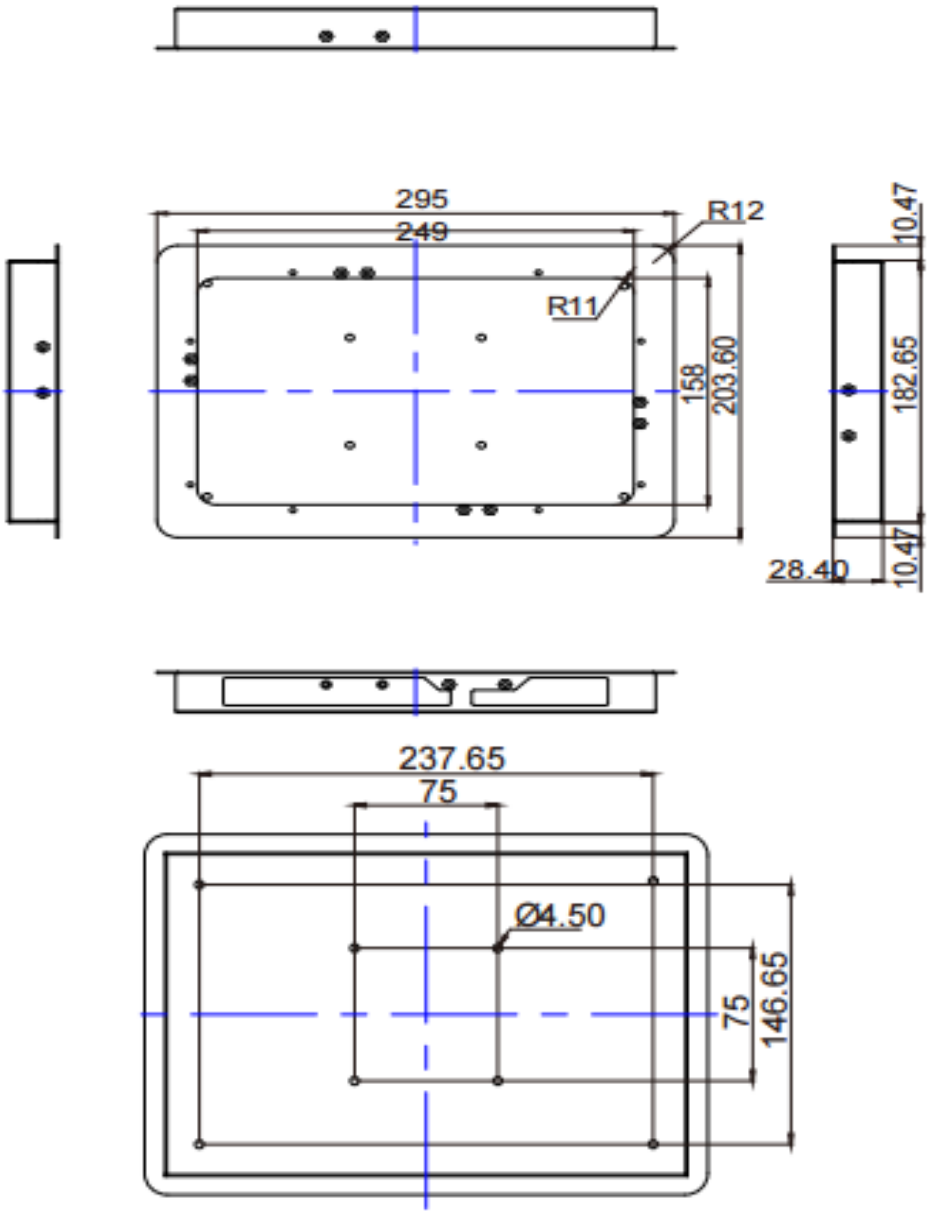


Mounting Instruction

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

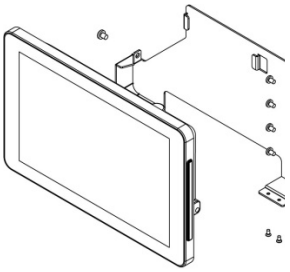

295
249
R12
R11
158
203.60
10.47
182.65
10.47
28.40
237.65
75
Ø4.50
75
146.65

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.

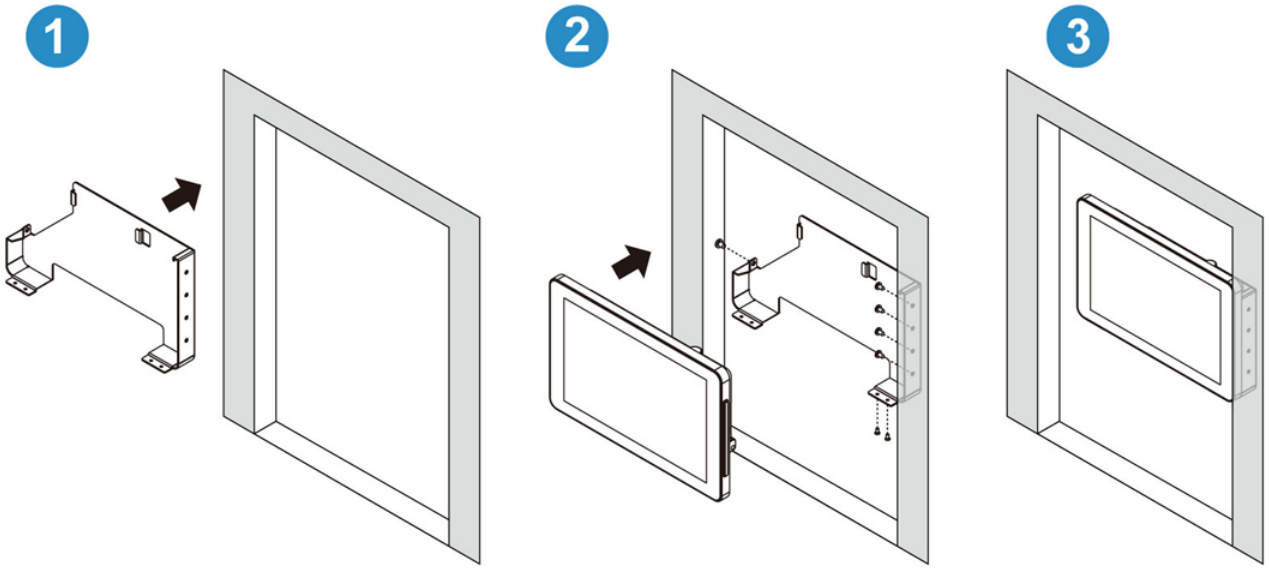
Right Side
Model Name: PCGM-V2R
Part Number:
99KN00A00010

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

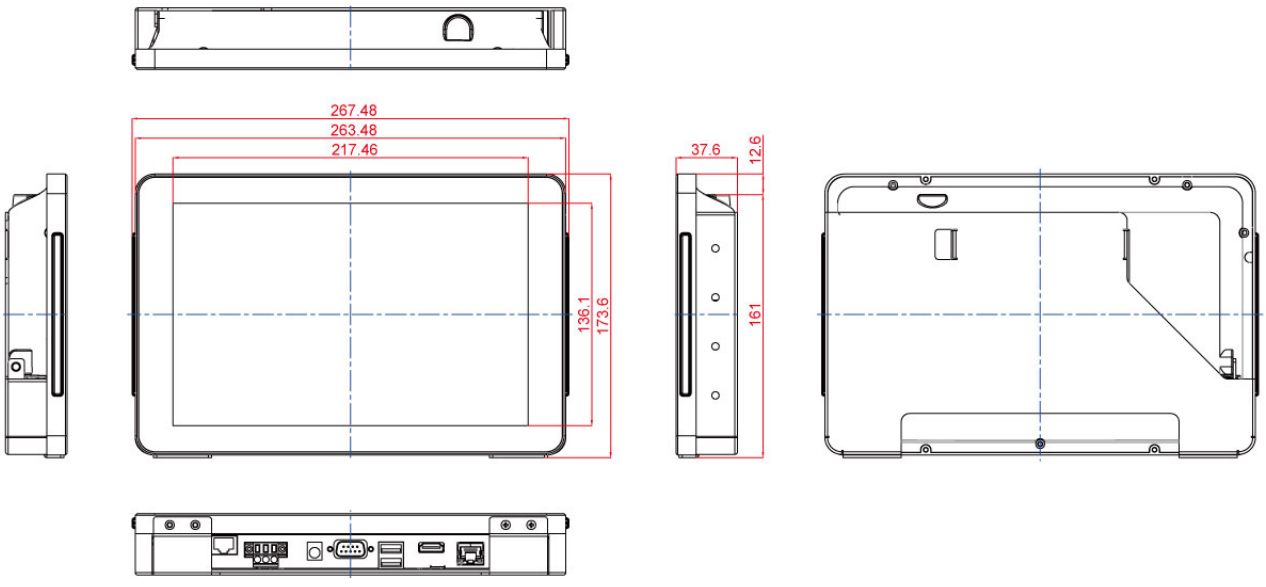


Mounting Instruction

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 Enterprise.

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

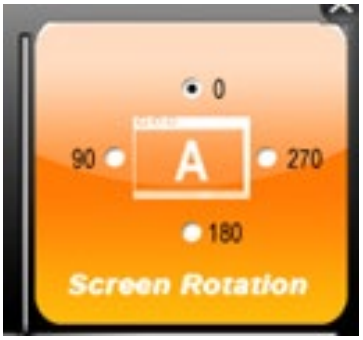
4.2.1 Hot Tab Menu

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

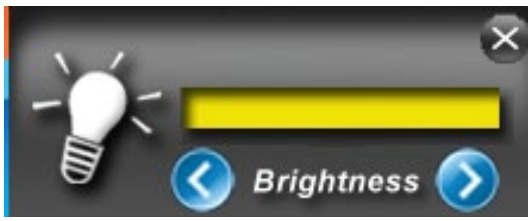
Utilities category allows automatically changing orientation from landscape to portrait mode or rotating the desktop to a different degree as 0°,90°, 180°, and 270°.



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

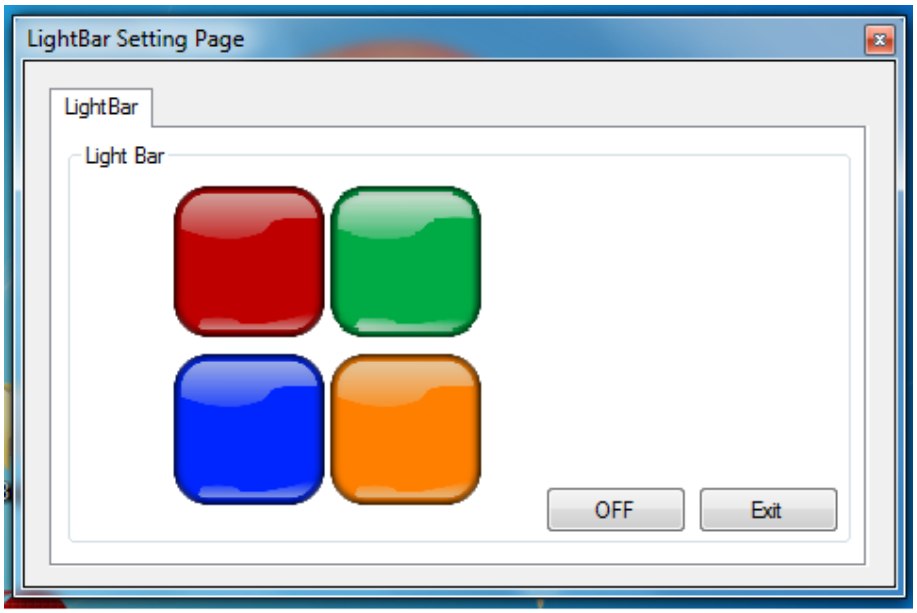
Tap **Volume** button to show your current volume level.

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

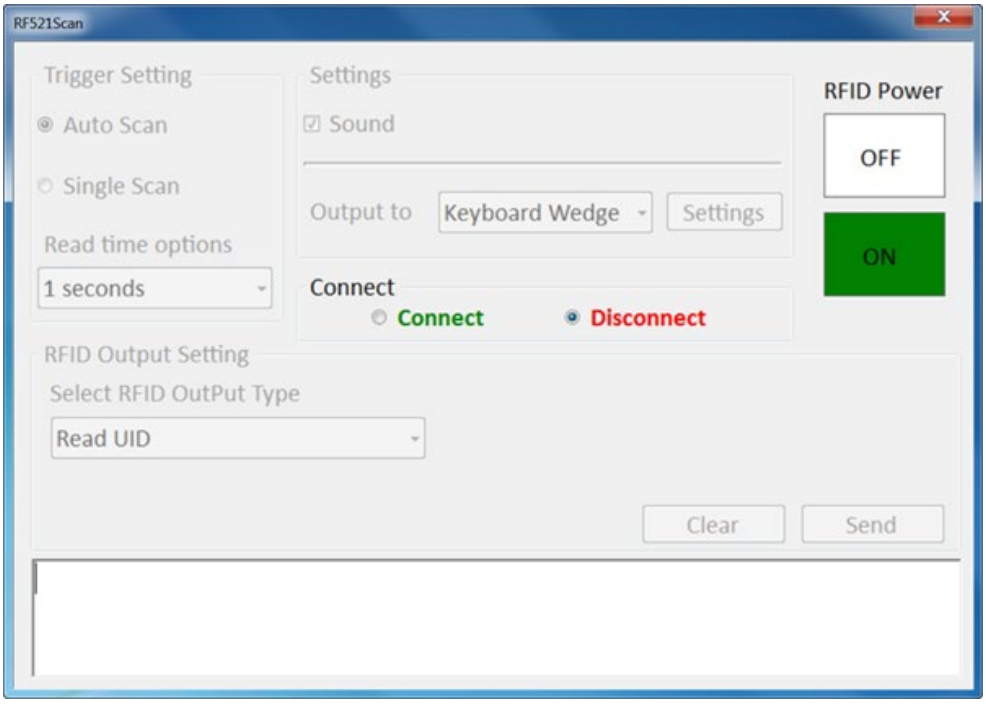
Notice that HF RFID Reader is an optional feature for 10.1" S Series HMI and may not be present in your device. HF RFID is commonly used for ticketing, payment, and data transfer applications.

4.3.1 HF RFID Reader Location

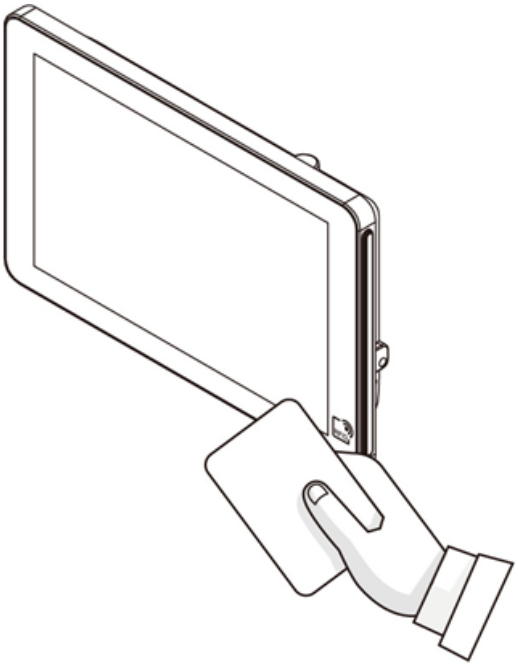
The RFID Reader is located on the bottom right front side of the HMI device. The COM Port setting in RFID Reader is "**COM 14**"

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.



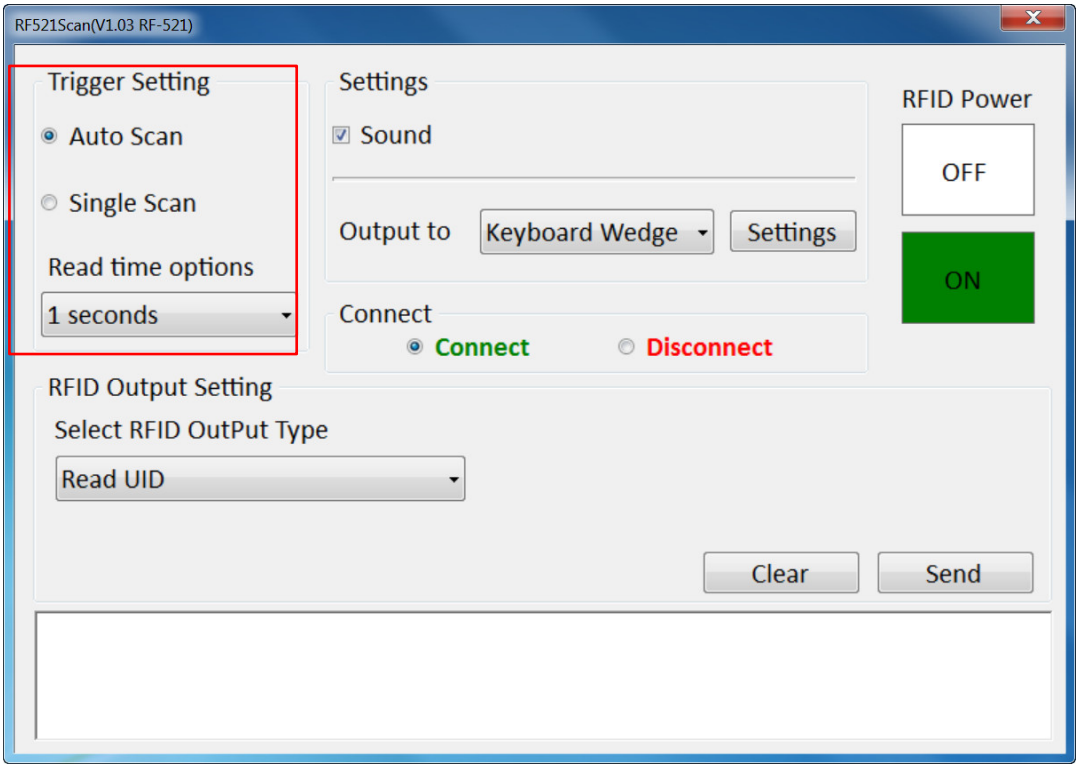
Tap on the **Disconnect** button to stop the connection with built-in HF RFID reader.

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:

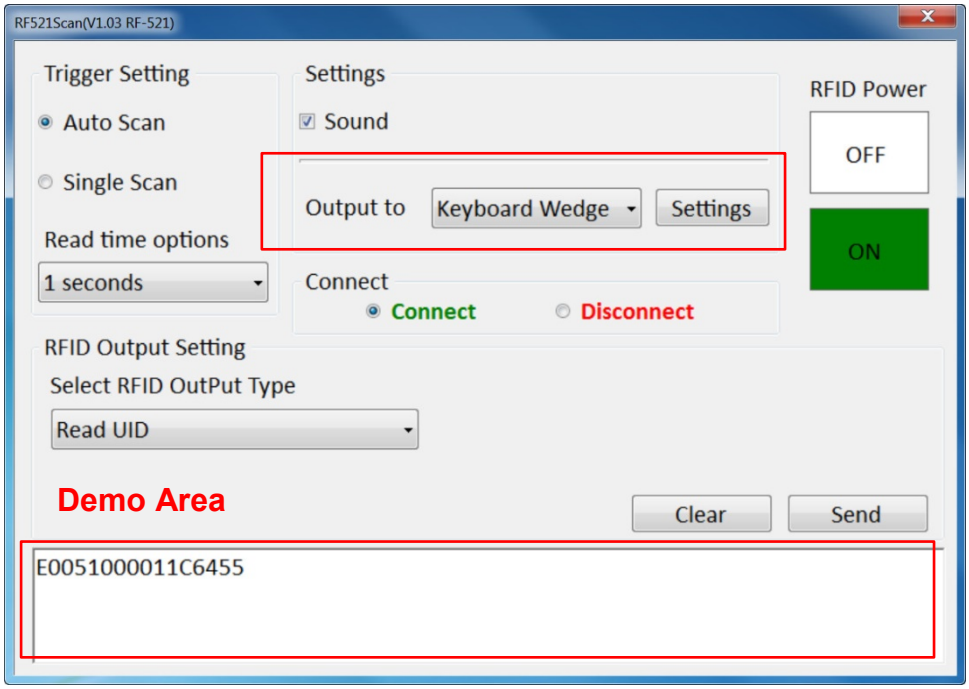
- **Keyboard Wedge**
  Under this setting, the data scanned is sent like keyboard data. The scanned data can be output directly to the demo area below this window, or user can also open other utility, such as Office Word or Notepad files, for data input.

  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.

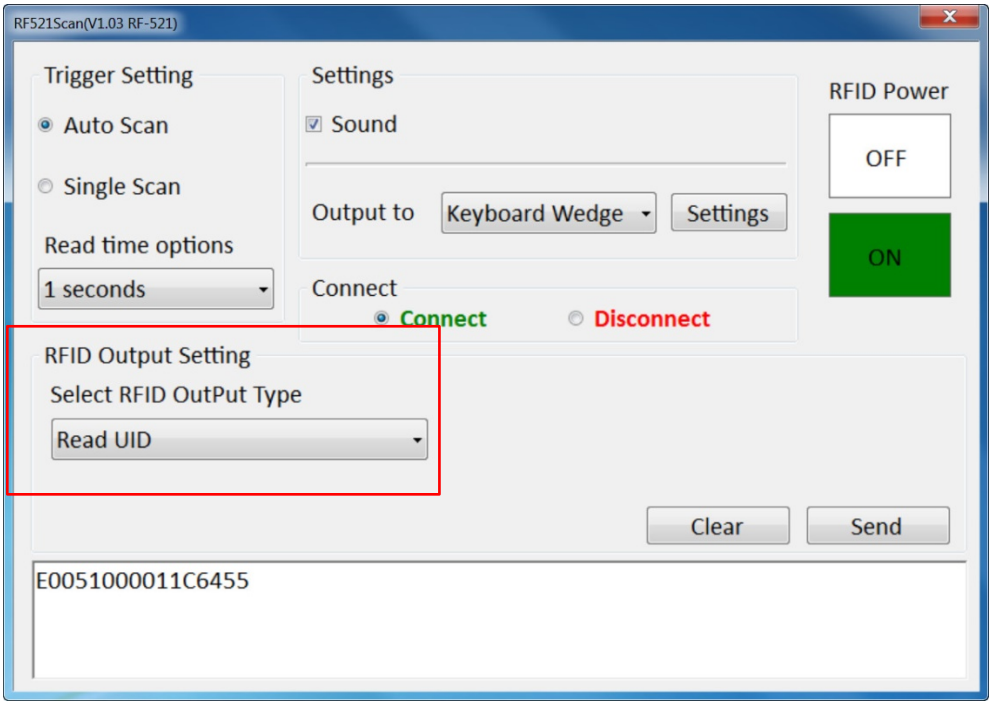
- **SDK**
  For users following SDK for software porting, the scanned data can also be output with the format needed.



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.

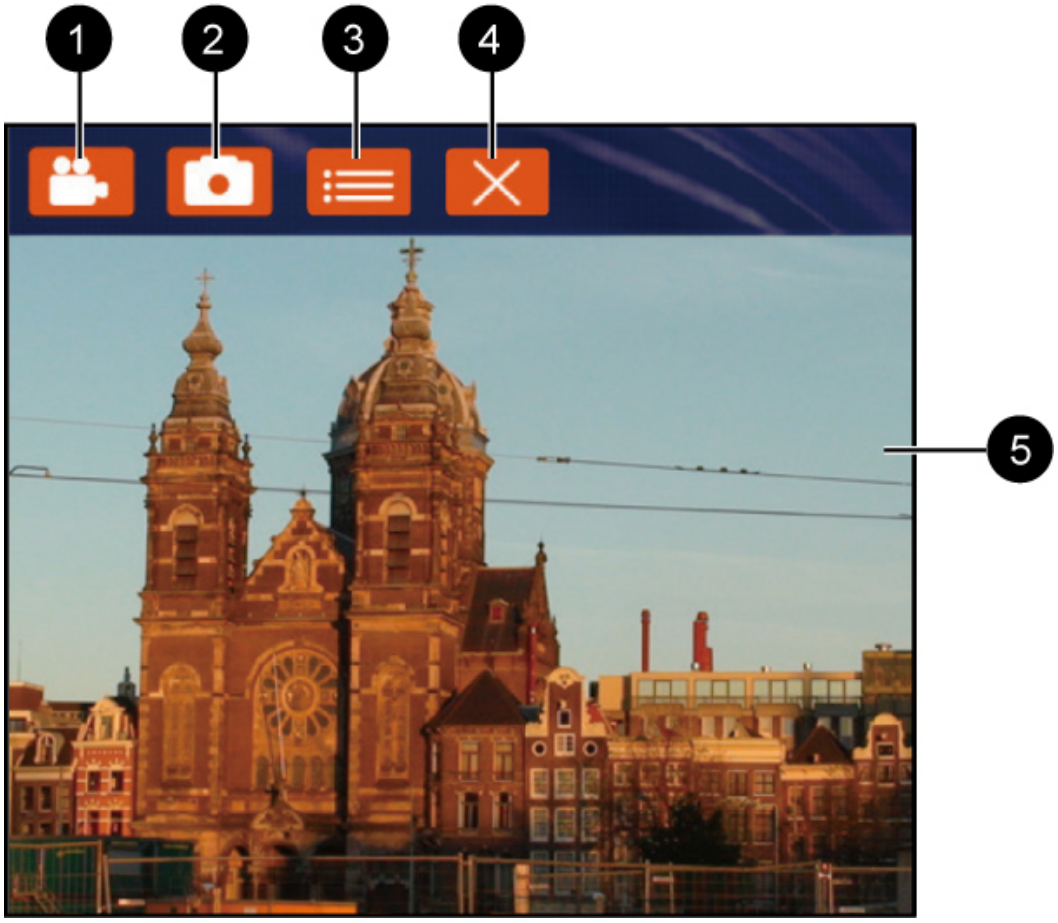
Note:
You camera screen may differ from the pictures in thus user manual.

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**.

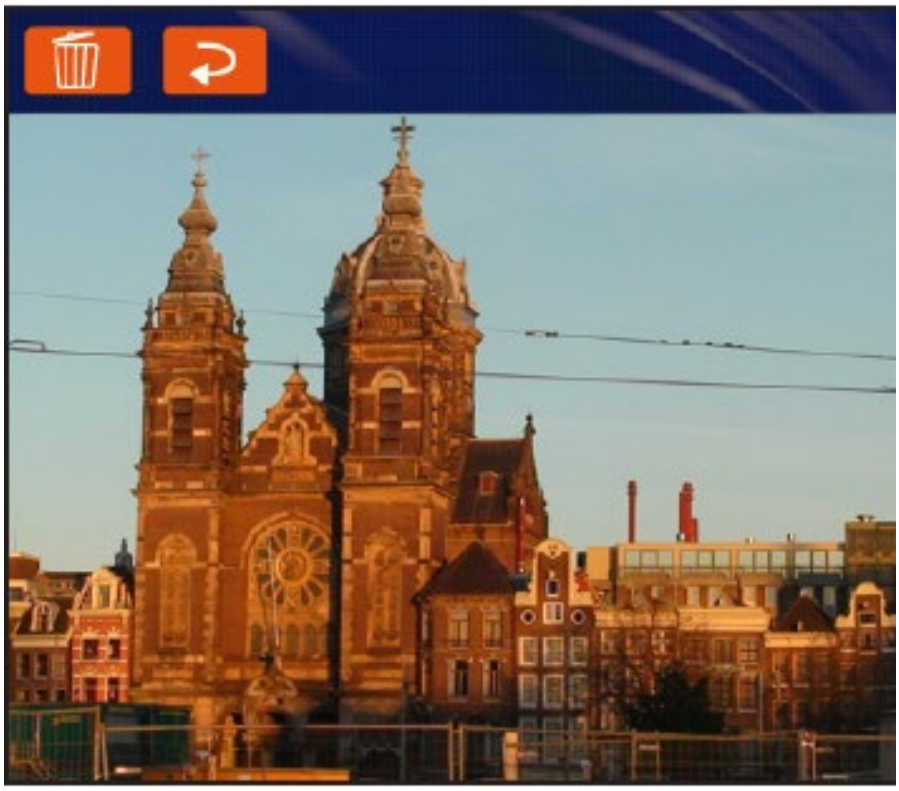
The Camera Screen



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  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  to delete the photo and return to the camera screen.
- Tap  to close the preview and return to the camera screen.

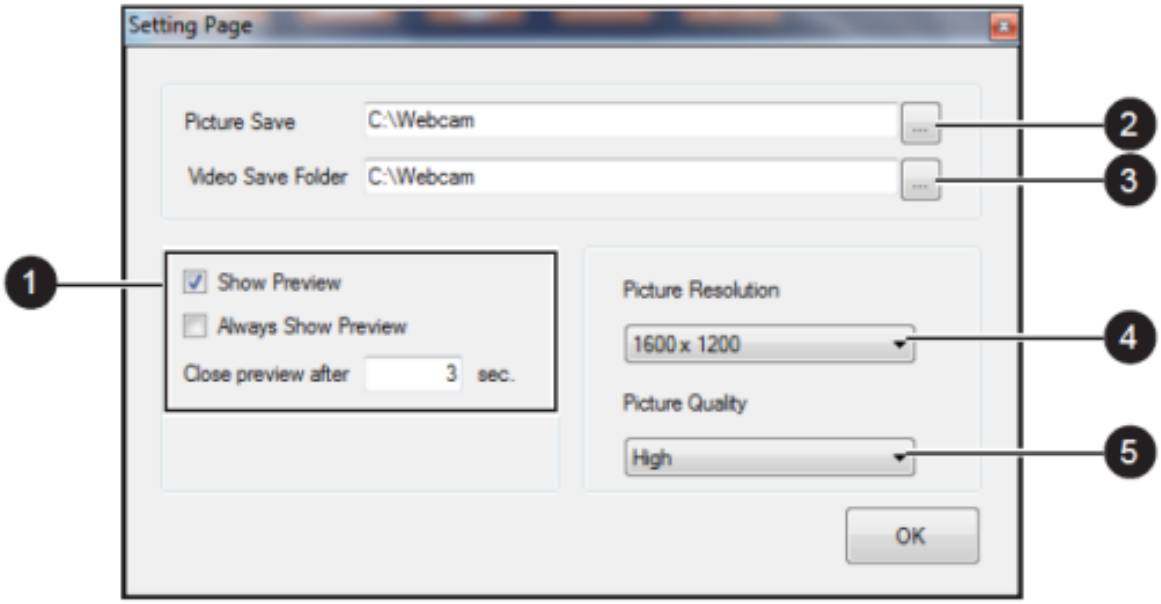
4.4.3 Recording Videos

1. Open the Camera.
2. Focus on the object.
3. Tap  to record the video. The video recording screen appears.

4. Tap  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  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 ().
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**.

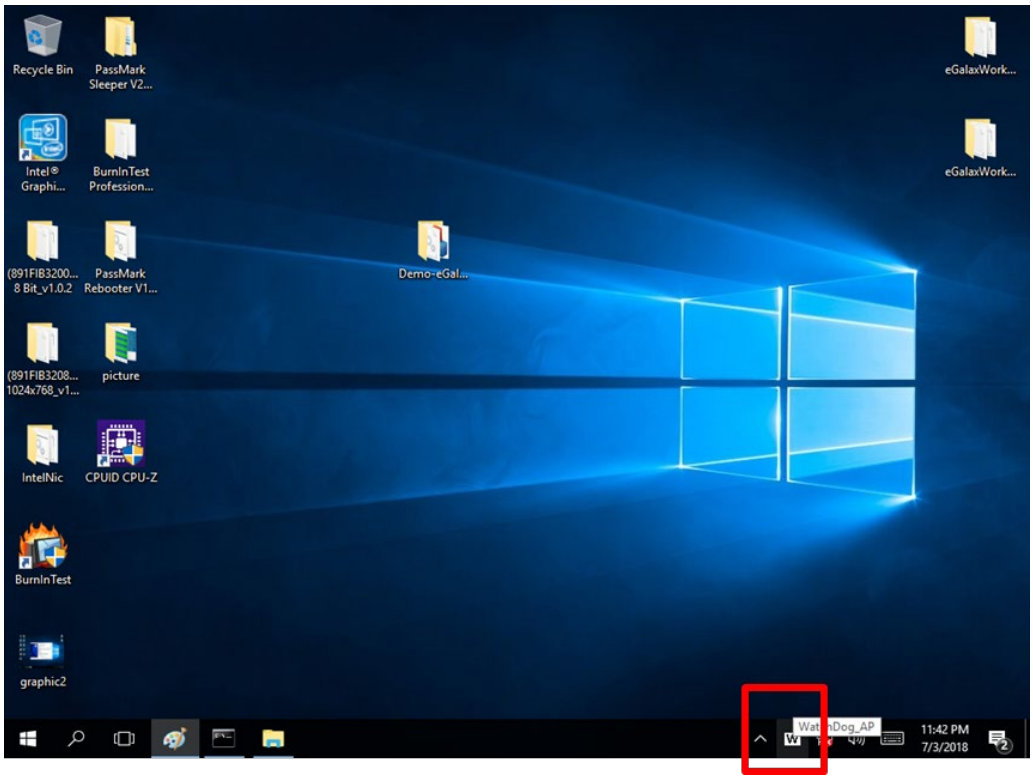
3. When settings are complete, tap **OK** to apply and save changes.

4.5 How to Enable Watchdog

To enable Watchdog, you need to download Winmate Watchdog utility. Find more information about Watchdog in “Watchdog Guide” that you can download from Winmate Download Center.

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. lick 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.

Setting	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*

4.6 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.

Important: Before starting the recovery process, remove any expansion card.

To enable quick one-key recovery procedure:

1. Connect the computer to the power source. Make sure the computer stays plugged in to power source during the recovery process.
2. Turn on the computer, and when the boot screen shows up, press **F6** to initiate the Recovery Wizard.
3. The following screen shows the Recovery Wizard. Click **Recovery** button to continue.

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

5. 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 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, external monitor and press Del key when the prompt appears on the screen during start up. The prompt screen shows only few seconds so need press Del key quickly.

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

You may need to run BIOS setup utility for reasons listed below:

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

BIOS Navigation Keys

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	Help
F5/ F6	Change Values
F9	Setup Defaults
F10	Save & Exit
Esc	Exit
Enter	Select SubMenu
↑/ ↓	Select Item
← / →	Select Item

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

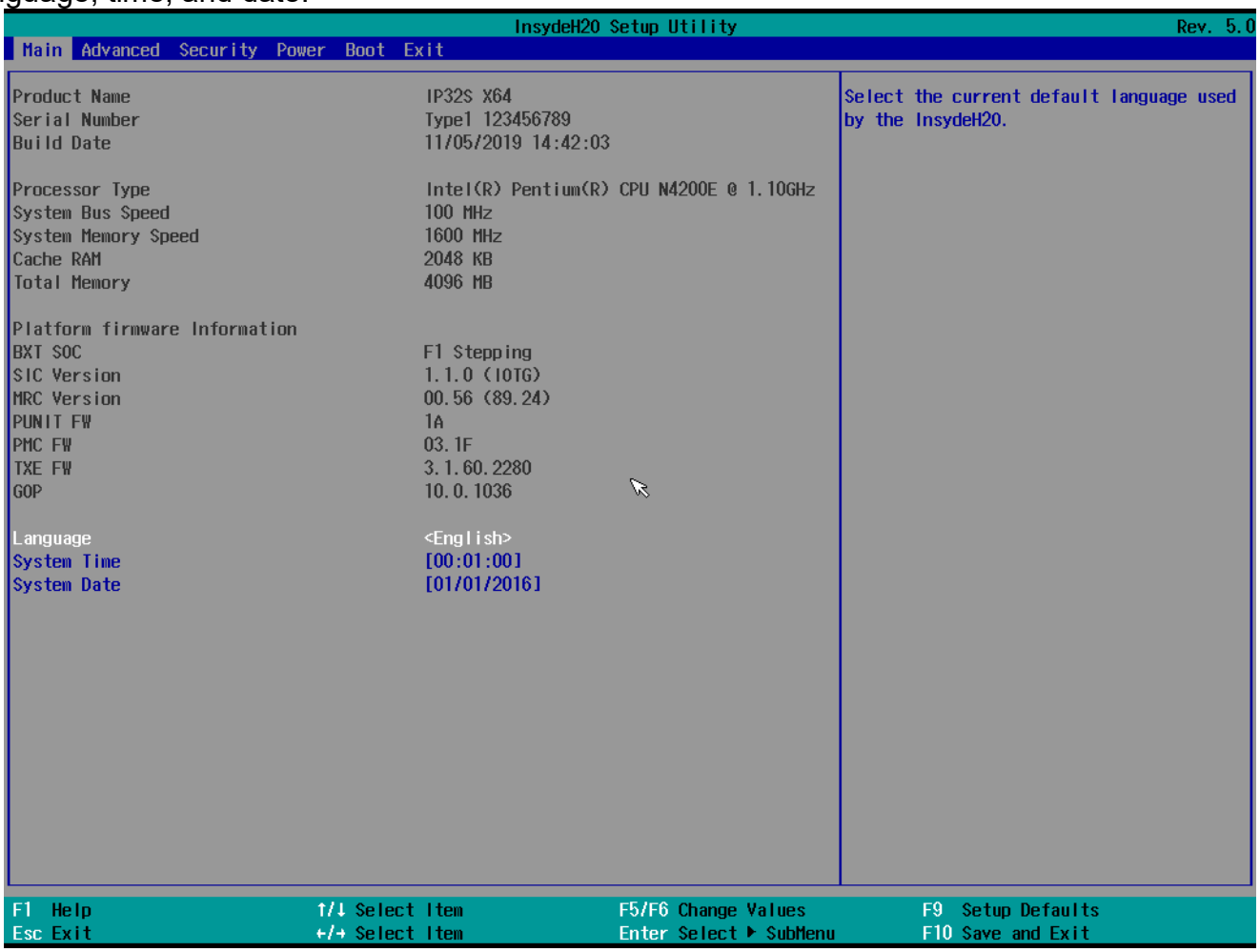
Note:
You can press the F1, F2, F3, F4, –/+, and Esc keys by connecting a USB keyboard to your computer.

5.2 BIOS Functions

5.2.1 Main Menu

The Main menu displays the basic information about yoursystem including BIOS version, processor RC version, system language, time, and date.

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.

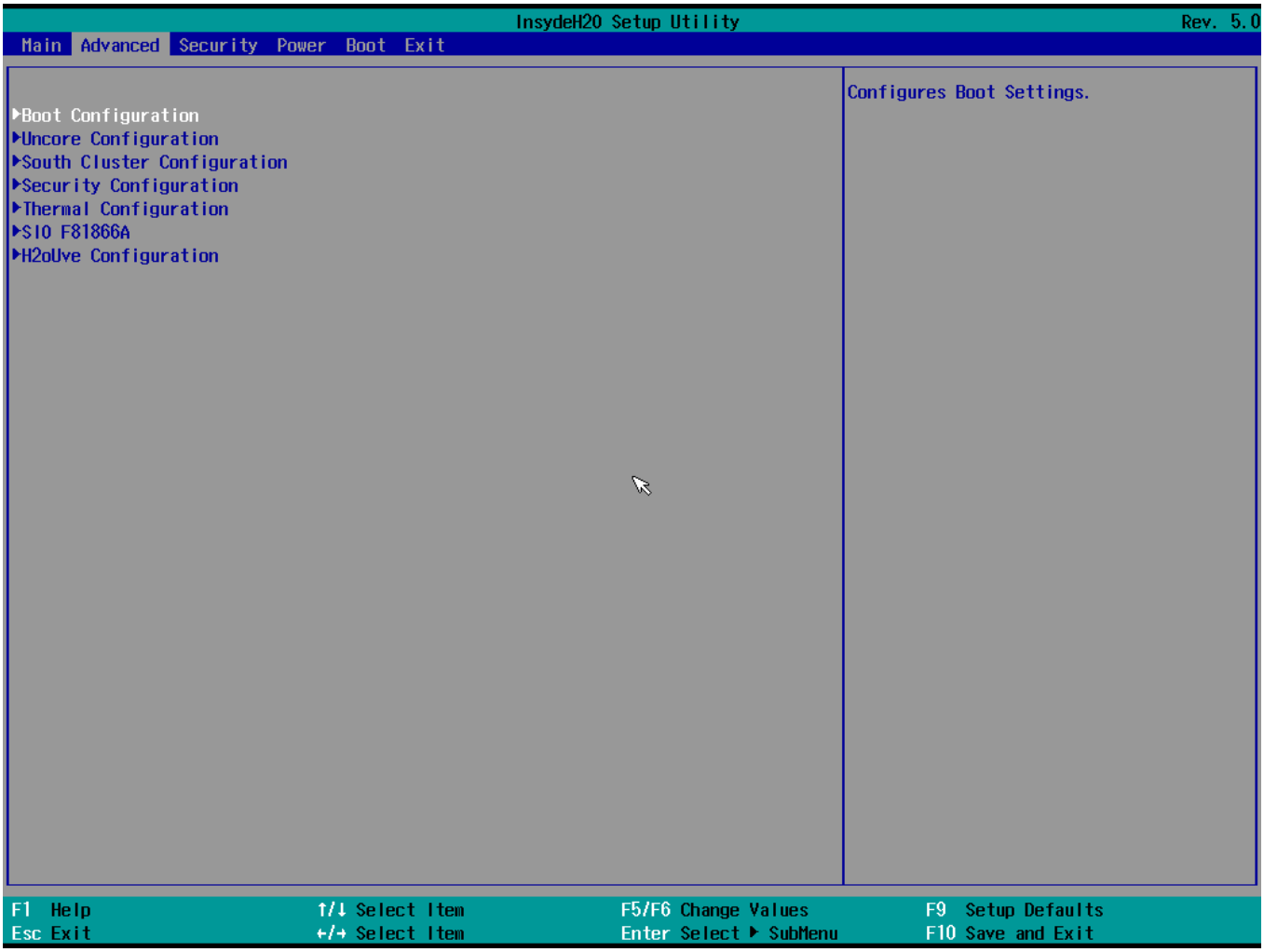


BIOS Setting	Description	Setting Option	Effect
Language	Displays the system language. [English] is set up by default.	Adjustment of the language	Set the language in other language. The language in this device is English.
System Time	This is current time setting. The time is maintained by the battery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

5.2.2 Advanced

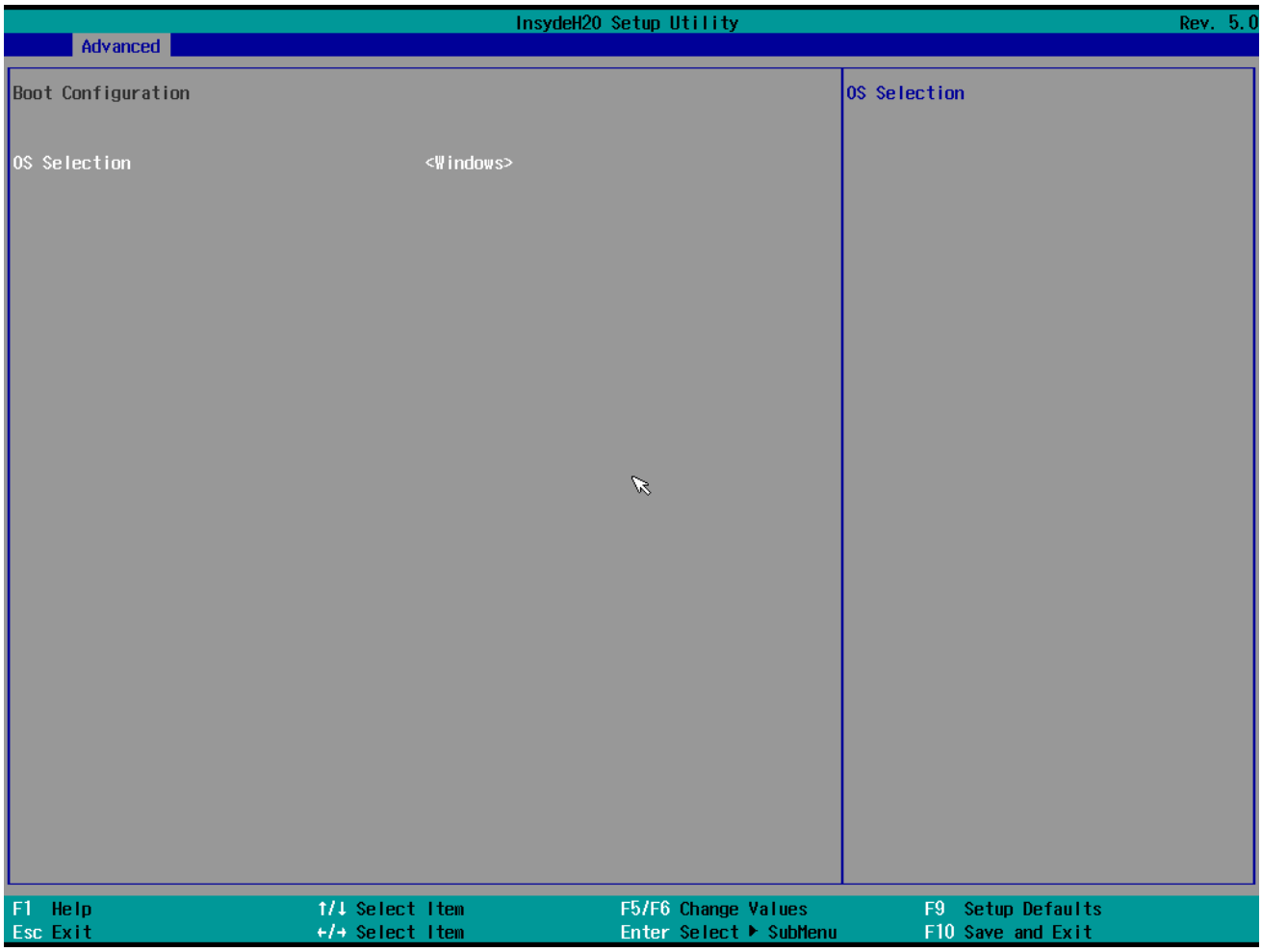
Select the Advanced Tab from the setup menu to enter the advanced BIOS setup screen. You can select any of the items on the left frame of the screen to go to the sub menu for the item, such as CPU Configuration. You can use the <Arrow> keys enter all advanced BIOS setup options. The advanced BIOS setup menu is shown below. The submenus described on the following pages.

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

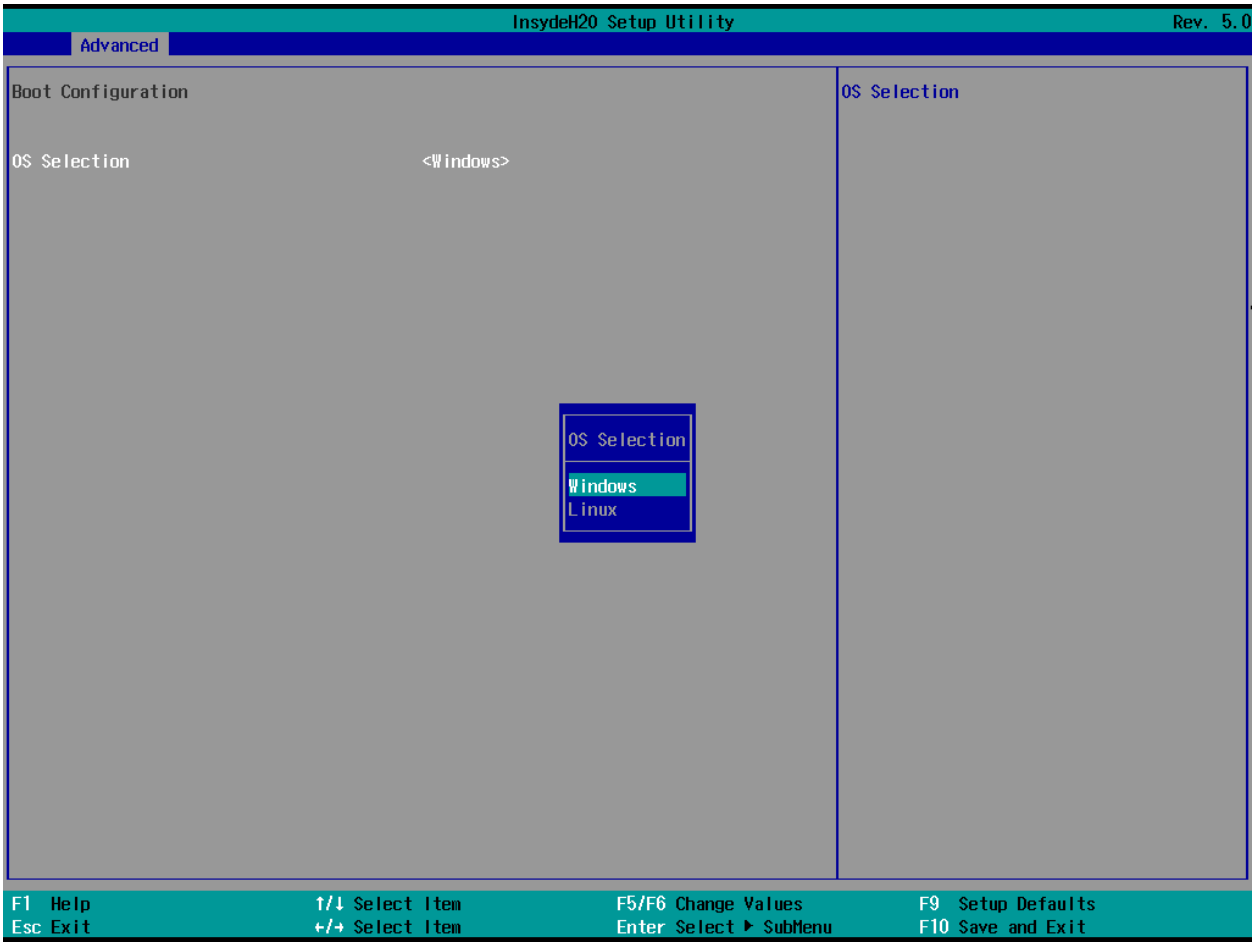


BIOS Setting	Description	Setting Option	Effect
Boot Configuration	Configures Boot setting.	Enter	Opens submenu
Uncore Configuration	Configures Uncore setting.	Enter	Opens submenu
South Cluster Configuration	Configures South Cluster setting.	Enter	Opens submenu
Security Configuration	Configures Security setting.	Enter	Opens submenu
Thermal Configuration	Configures Thermal setting.	Enter	Opens submenu
SIO F81866A	Configures SIO F81866A setting.	Enter	Opens submenu
H2OuVe Configuration	Configures H2OuVe setting.	Enter	Opens submenu

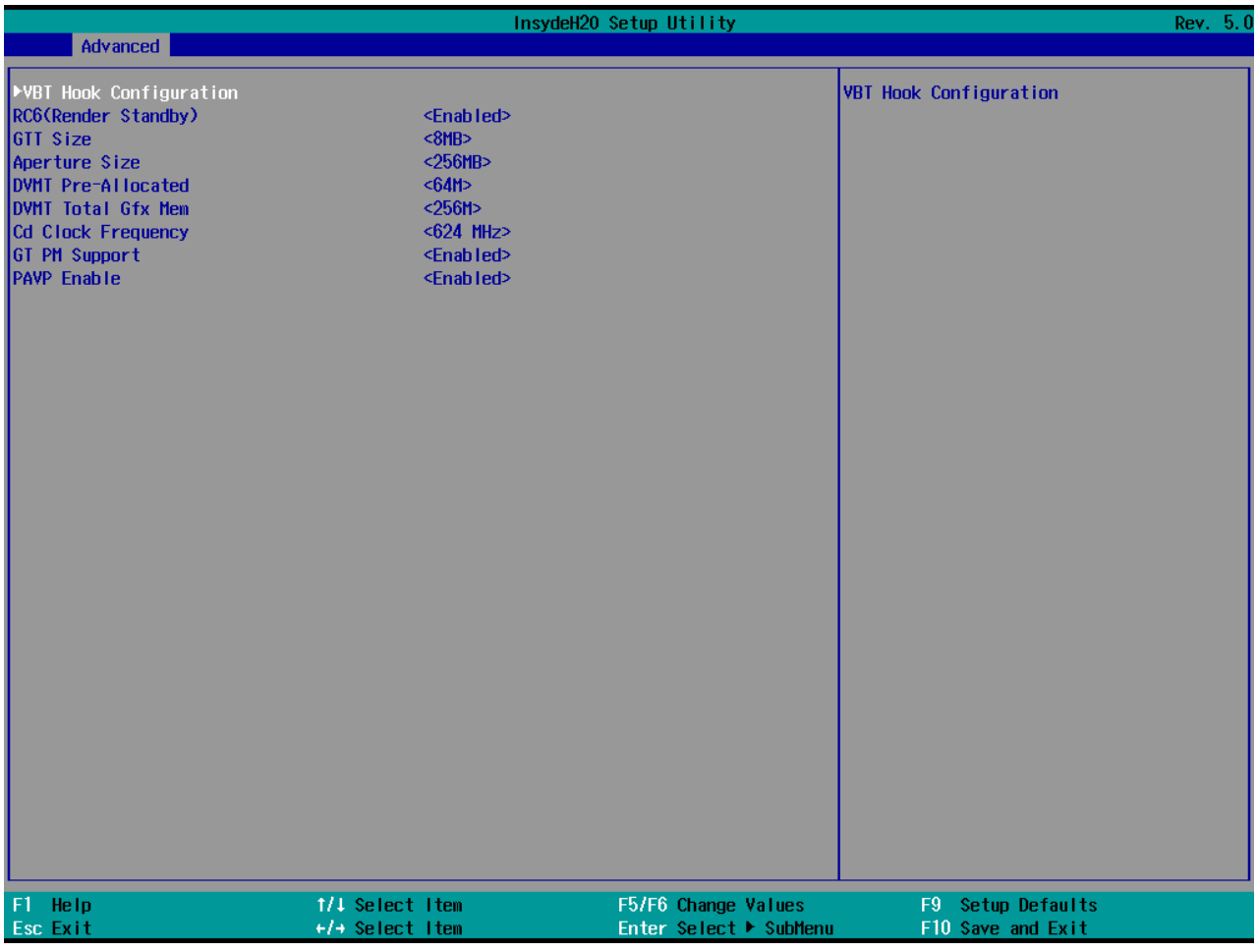
5.2.2.1 Boot Configuration



BIOS Setting	Description	Setting Option	Effect
OS Selection	OS Selection	Enter	Opens submenu

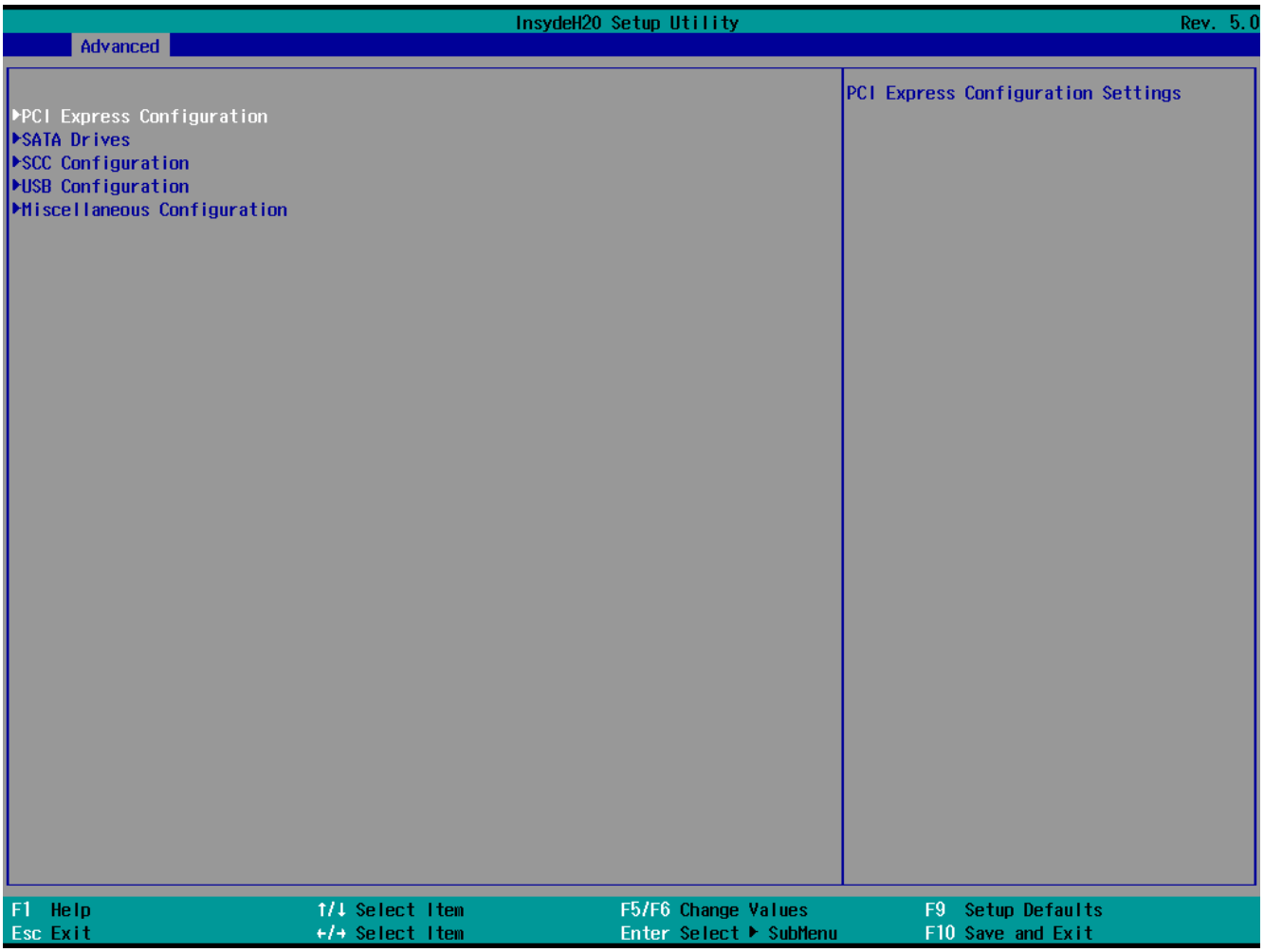


5.2.2.2 Uncore Configuration



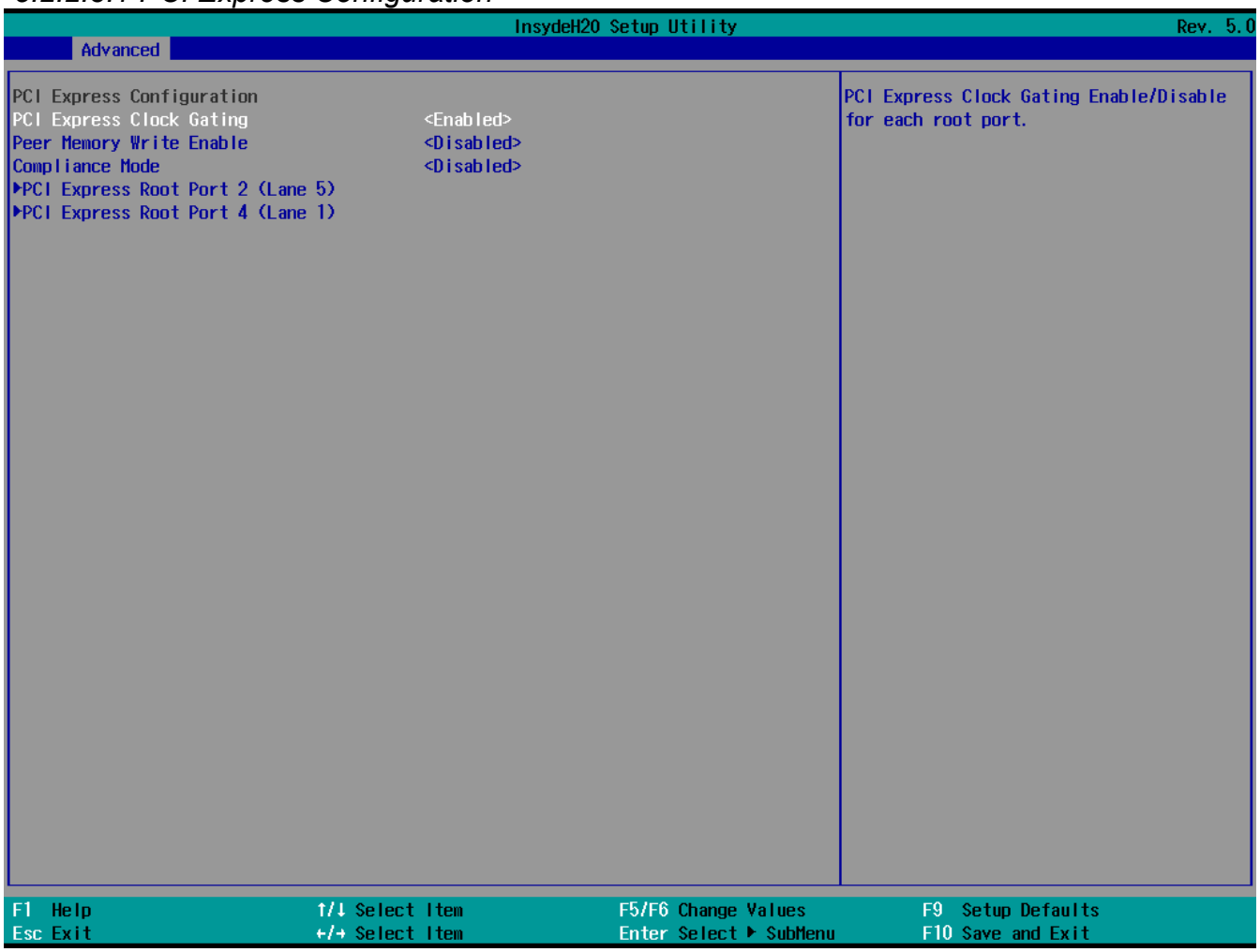
BIOS Setting	Description	Setting Option	Effect
WBT Hook Configuration	WBT Hook Configuration	Enabled/ Disabled	Enable/ Disabled WBT Hook
RC6 (Render Standby)	Check to enable render standby support, R6C should be enabled if S0ix is enabled.	Enabled/ Disabled RC6 (Render Standby)	Enable/ Disabled RC6 (Render Standby)
GTT Size	Select the GTT size.	2 MB/ 4 MB/ **8 MB**	Select the GTT size.
Apperture Size	Select the Aperture size.	256 MB	Select the Aperture size.
DVMT Pre-Allocated	Select DVMT Pre-Allocated.	**64 M**/ 96 M/ 128M/ 160M / 192M/ 224M/ 256M/ 288M/ 320M/ 352M/ 384M/ 416M/ 448M/ 480M/ 512M	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.
DVMT Total Gfx Mem	Select DVMT Total Gfx Mem.	128M/ **256 M**/ MAX	Select DVMT 5.0 total memory size used by the Internal Graphics Device.
Cd Clock Frequency	Select Cd Clock Frequency.	144 MHz/ 288 MHz/ 384MHz/ 576MHz/ **624 MHz**	Select the highest Cd Clock frequency supported by the platform
GT PM Support	Configure GT PM Support settings.	Enabled/ Disabled	Enable/ Disable GT PM Support
PAVP Enable	Enable/ Disable PAVP	Enabled/ Disabled	Enable/ Disable PAVP

5.2.2.3 South Cluster Configuration

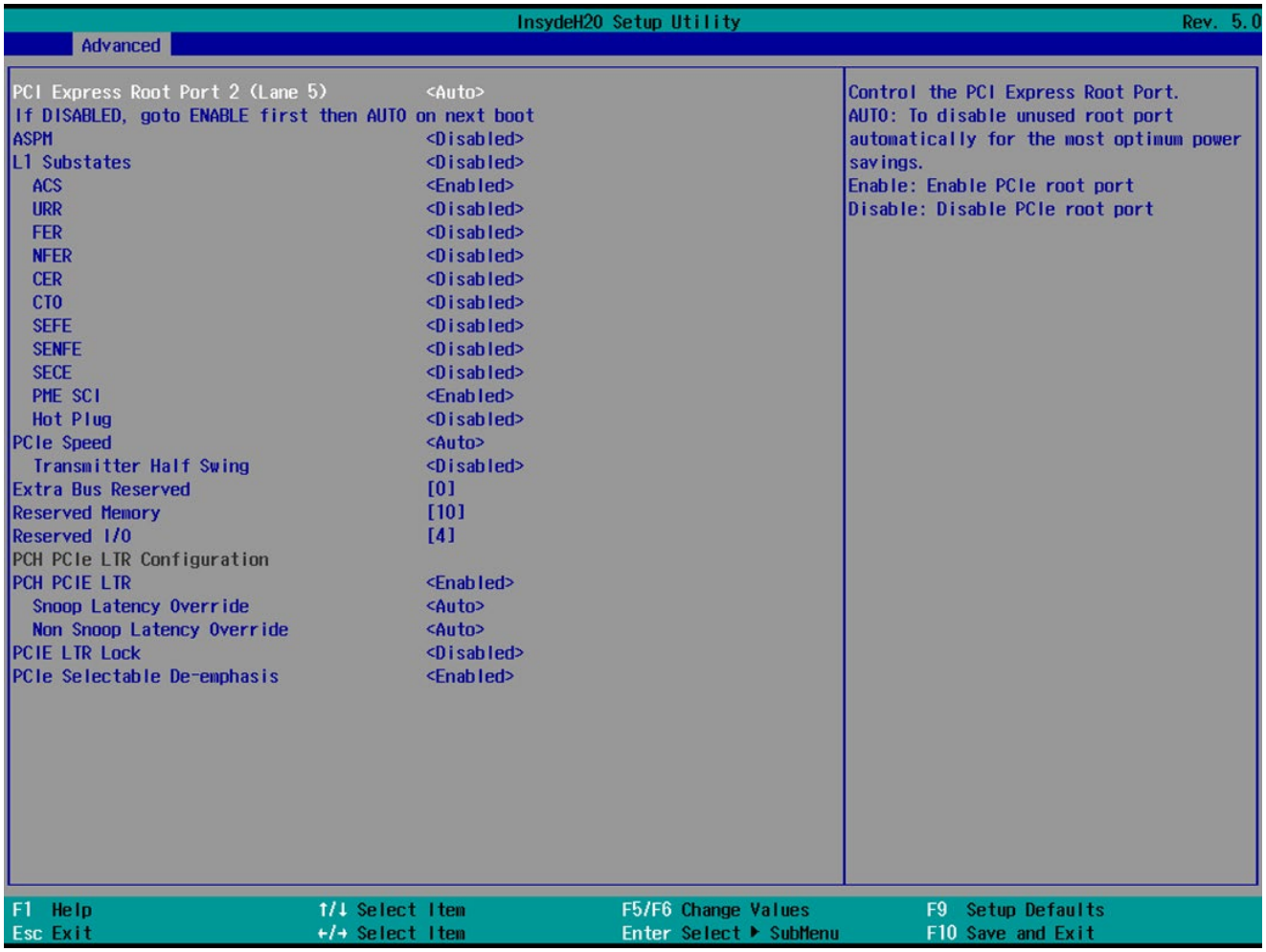


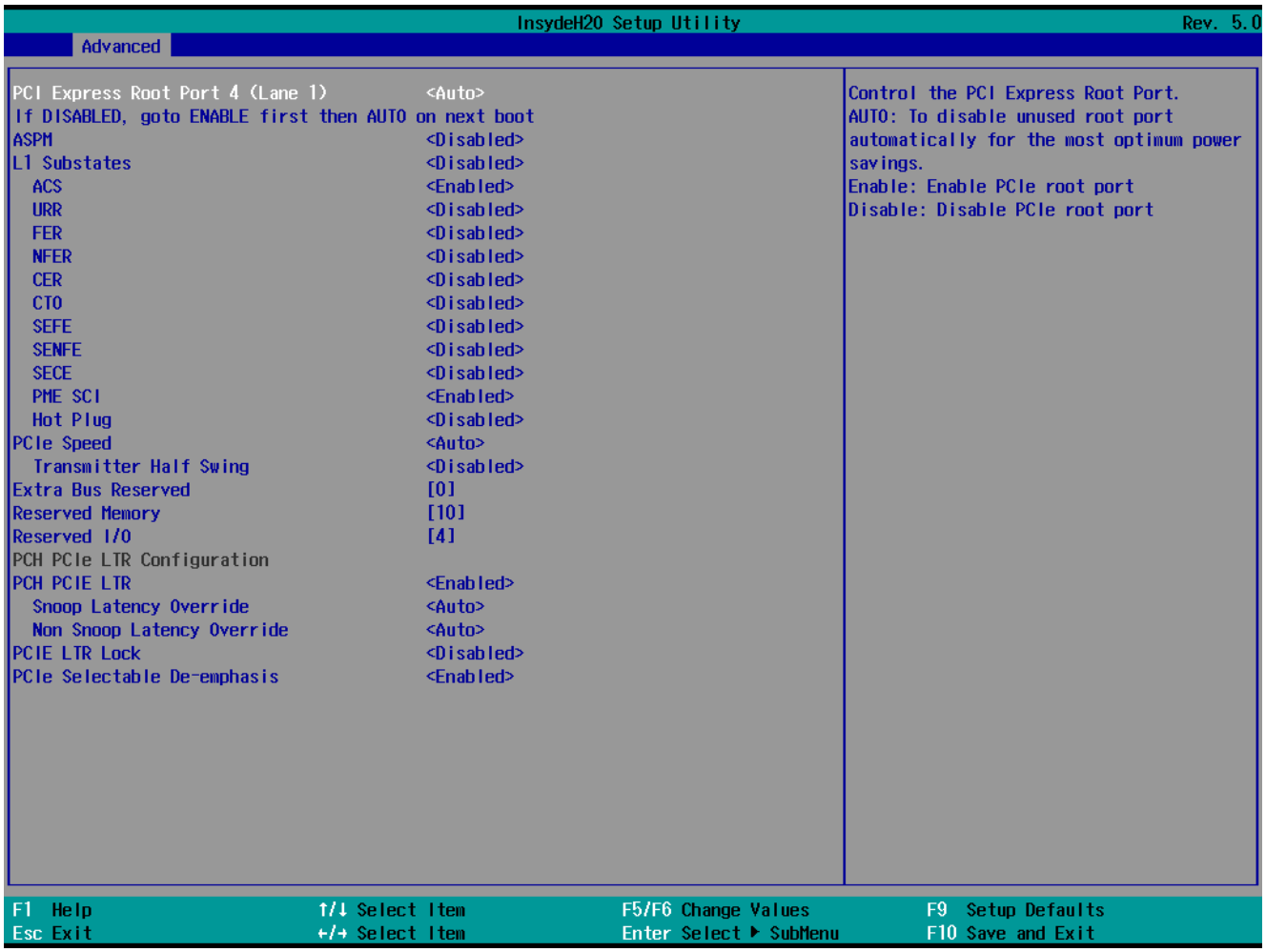
BIOS Setting	Description	Setting Option	Effect
PCI Express Configuration	PCI Express Configuration settings.	Enter	Opens submenu
SATA Drives	SATA Drives settings.	Enter	Opens submenu
USB Configuration	USB Configuration settings.	Enter	Opens submenu
Miscellenaus Configuration	Miscellenaus Configuration settings.	Enter	Opens submenu

5.2.2.3.1 PCI Express Configuration

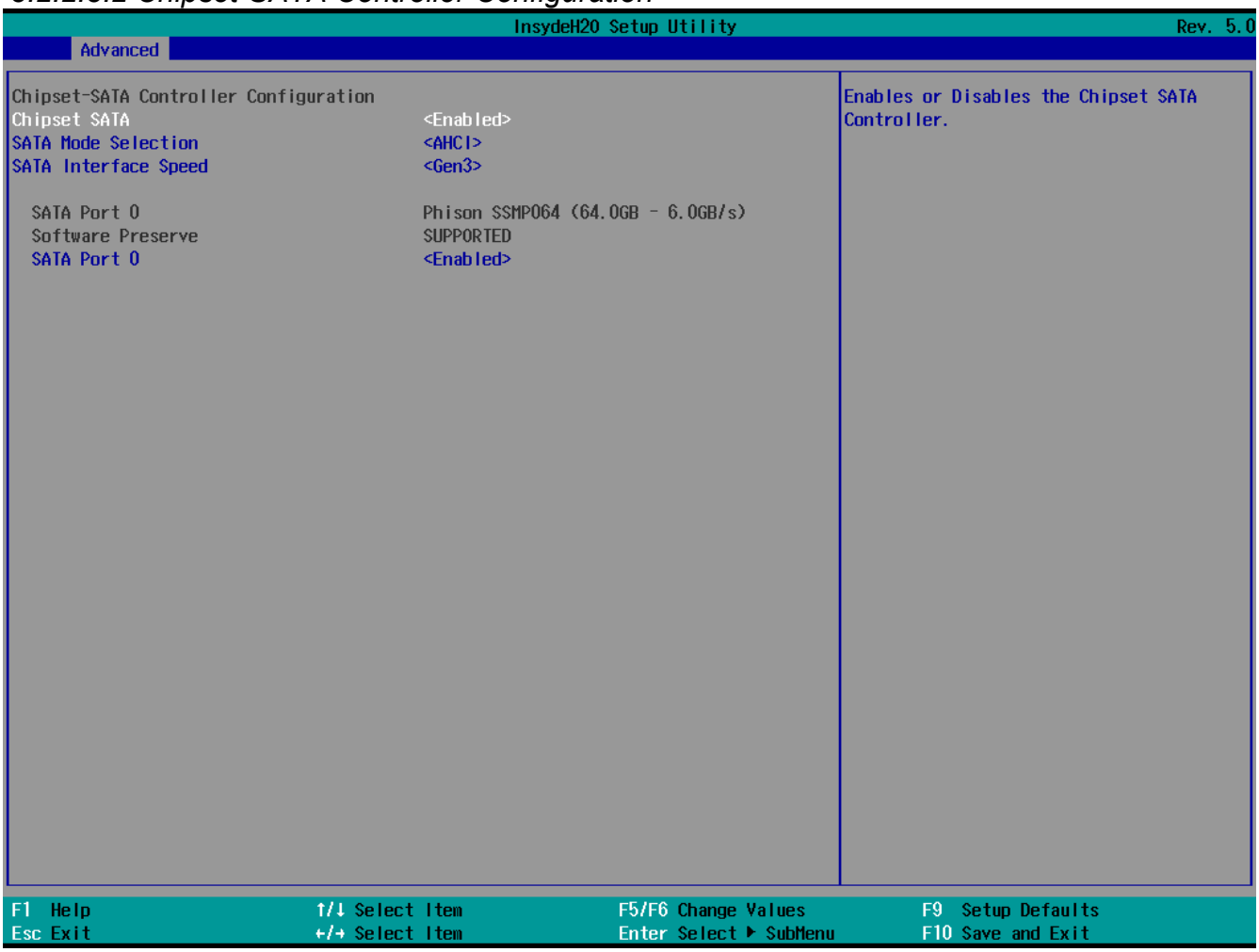


BIOS Setting	Description	Setting Option	Effect
PCI Express Clock Gating	PCI Express Clock Gating Enable/ Disable for each root port	Enabled/ Disabled	Enable/ Disable PCI Express Clock Gating for each root port
Peer Memory Write Enable	Enable Peer Memory Write	Enabled/ Disabled	Enable/ Disable Peer Memory Write
Compliance Mode	Enable Compliance Mode	Enabled/ Disabled	Enable/ Disable Compliance Mode
PCI Express Root Port 2~4(Lane 5~1)	Control the PCI Root Port.	Enter	Opens submenu. Auto: To disable unused root port automatically for the most optimum power saving. Enable: Enable PCIe Root Port. Disable: Disable PCIe Root Port.

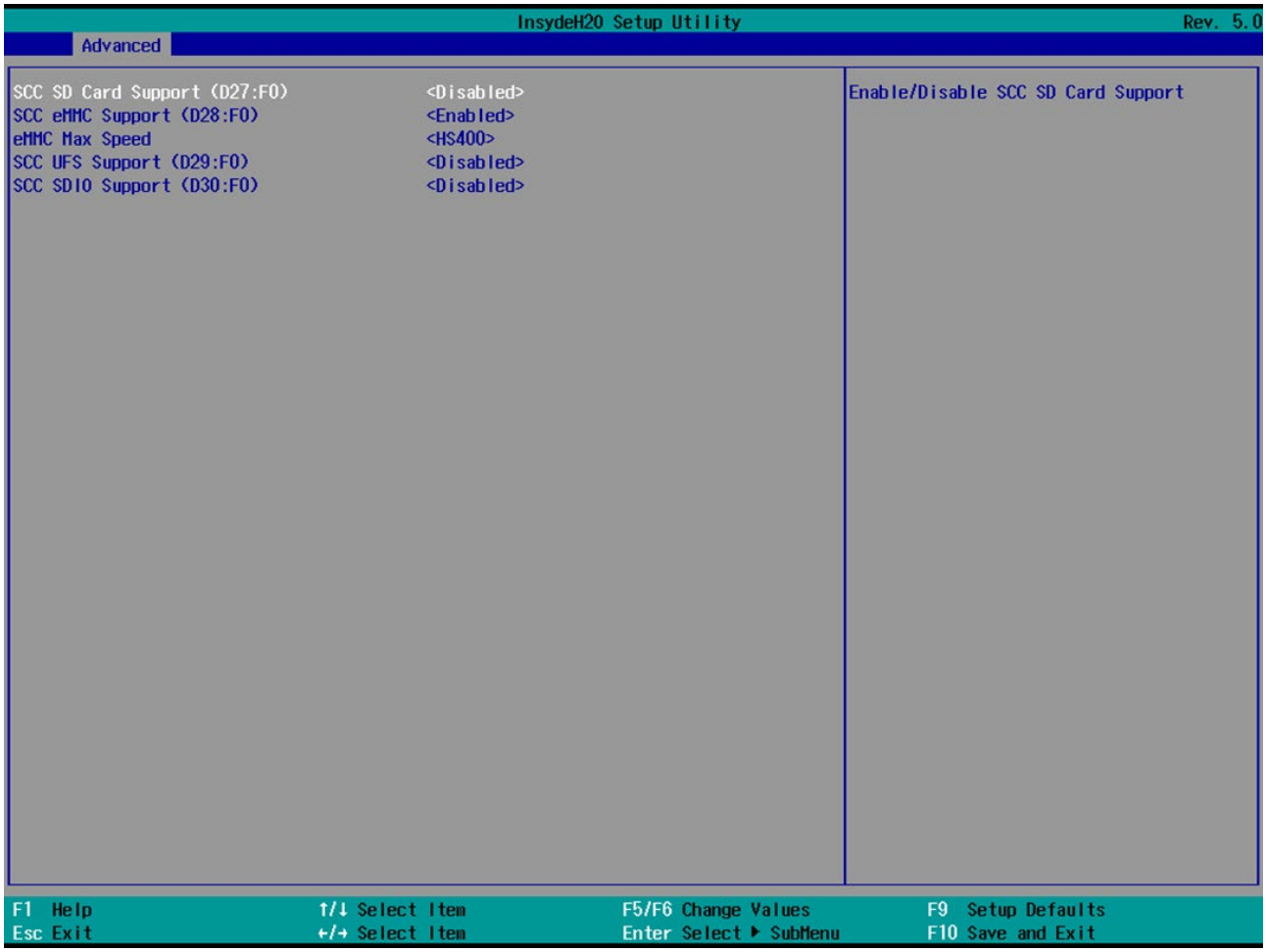

InsydeH20 Setup Utility
Rev. 5.0
Advanced
PCI Express Root Port 2 (Lane 5) <Auto>
If DISABLED, goto ENABLE first then AUTO on next boot
ASPM <Disabled>
L1 Substates <Disabled>
ACS <Enabled>
URR <Disabled>
FER <Disabled>
NFER <Disabled>
CER <Disabled>
CTO <Disabled>
SEFE <Disabled>
SENFE <Disabled>
SECE <Disabled>
PME SCI <Enabled>
Hot Plug <Disabled>
PCIe Speed <Auto>
Transmitter Half Swing <Disabled>
Extra Bus Reserved [0]
Reserved Memory [10]
Reserved I/O [4]
PCH PCIe LTR Configuration
PCH PCIE LTR <Enabled>
Snoop Latency Override <Auto>
Non Snoop Latency Override <Auto>
PCIE LTR Lock <Disabled>
PCIe Selectable De-emphasis <Enabled>
Control the PCI Express Root Port.
AUTO: To disable unused root port automatically for the most optimum power savings.
Enable: Enable PCIe root port
Disable: Disable PCIe root port
F1 Help
Esc Exit
↑/↓ Select Item
←/→ Select Item
F5/F6 Change Values
Enter Select ▶ SubMenu
F9 Setup Defaults
F10 Save and Exit


InsydeH20 Setup Utility
Rev. 5.0
Advanced
PCI Express Root Port 4 (Lane 1) <Auto>
If DISABLED, goto ENABLE first then AUTO on next boot
ASPM <Disabled>
L1 Substates <Disabled>
ACS <Enabled>
URR <Disabled>
FER <Disabled>
NFER <Disabled>
CER <Disabled>
CTO <Disabled>
SEFE <Disabled>
SENFE <Disabled>
SECE <Disabled>
PME SCI <Enabled>
Hot Plug <Disabled>
PCIe Speed <Auto>
Transmitter Half Swing <Disabled>
Extra Bus Reserved [0]
Reserved Memory [10]
Reserved I/O [4]
PCH PCIe LTR Configuration
PCH PCIE LTR <Enabled>
Snoop Latency Override <Auto>
Non Snoop Latency Override <Auto>
PCIE LTR Lock <Disabled>
PCIe Selectable De-emphasis <Enabled>
Control the PCI Express Root Port.
AUTO: To disable unused root port automatically for the most optimum power savings.
Enable: Enable PCIe root port
Disable: Disable PCIe root port
F1 Help
Esc Exit
↑/↓ Select Item
←/→ Select Item
F5/F6 Change Values
Enter Select ▶ SubMenu
F9 Setup Defaults
F10 Save and Exit

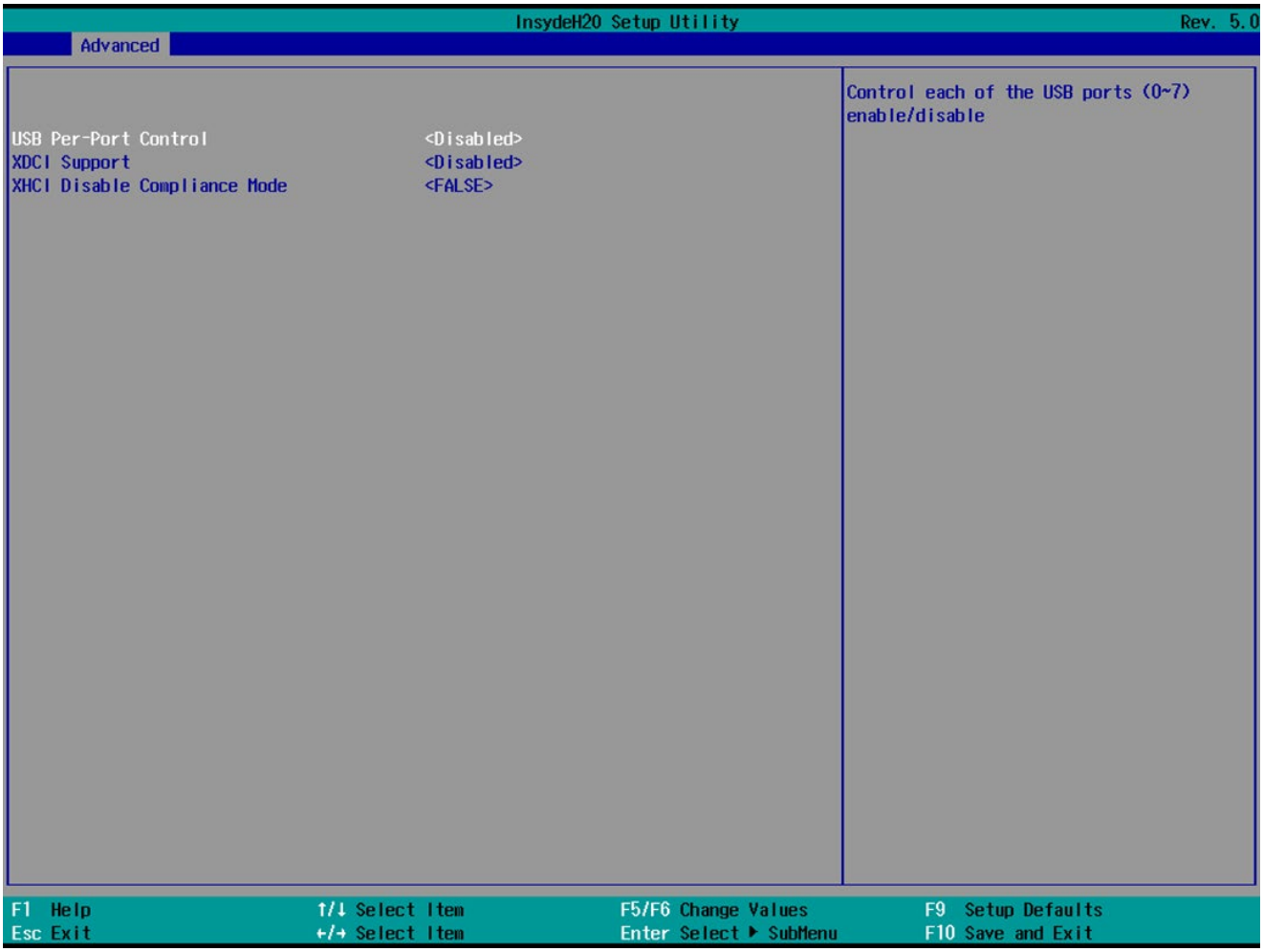
3.2.2.3.2 Chipset-SATA Controller Configuration



BIOS Setting	Description	Setting Option	Effect
Chipset SATA	Chipset SATA Controller. Settings.	Enabled/ Disabled	Enable or Disable the Chipset SATA Controller.
SATA Mode Selection	Select SATA Mode. When you activate AHCI mode, it increases the speed of access to files in memory devices and improves overall performance of your computer	AHCI	AHCI for a system using SATA disks (non-RAID)
		RAID	RAID to create an Intel Matrix RAID
		Disabled	Disable both AHCI/ RAID functions
SATA Interface Speed	Select SATA Interface Speed	Gen3	
SATA Port 0	SATA Port 0 settings.	Enabled/ Disabled	Enable or Disable SATA Port 0
SATA Port 1	SATA Port 1 settings.	Enabled/ Disabled	Enable or Disable SATA Port 1

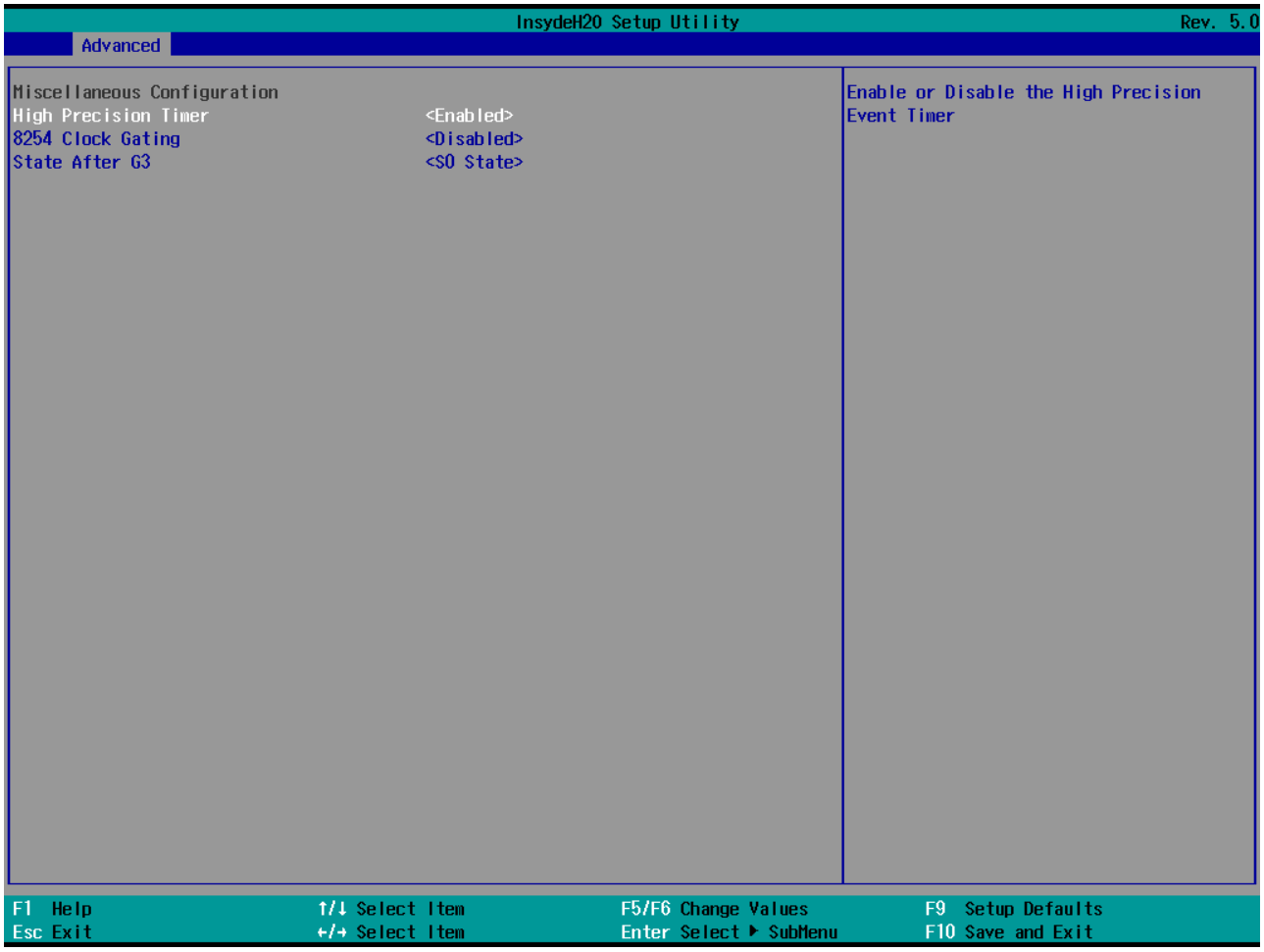


3.2.2.3.3 USB Pre-Port Control



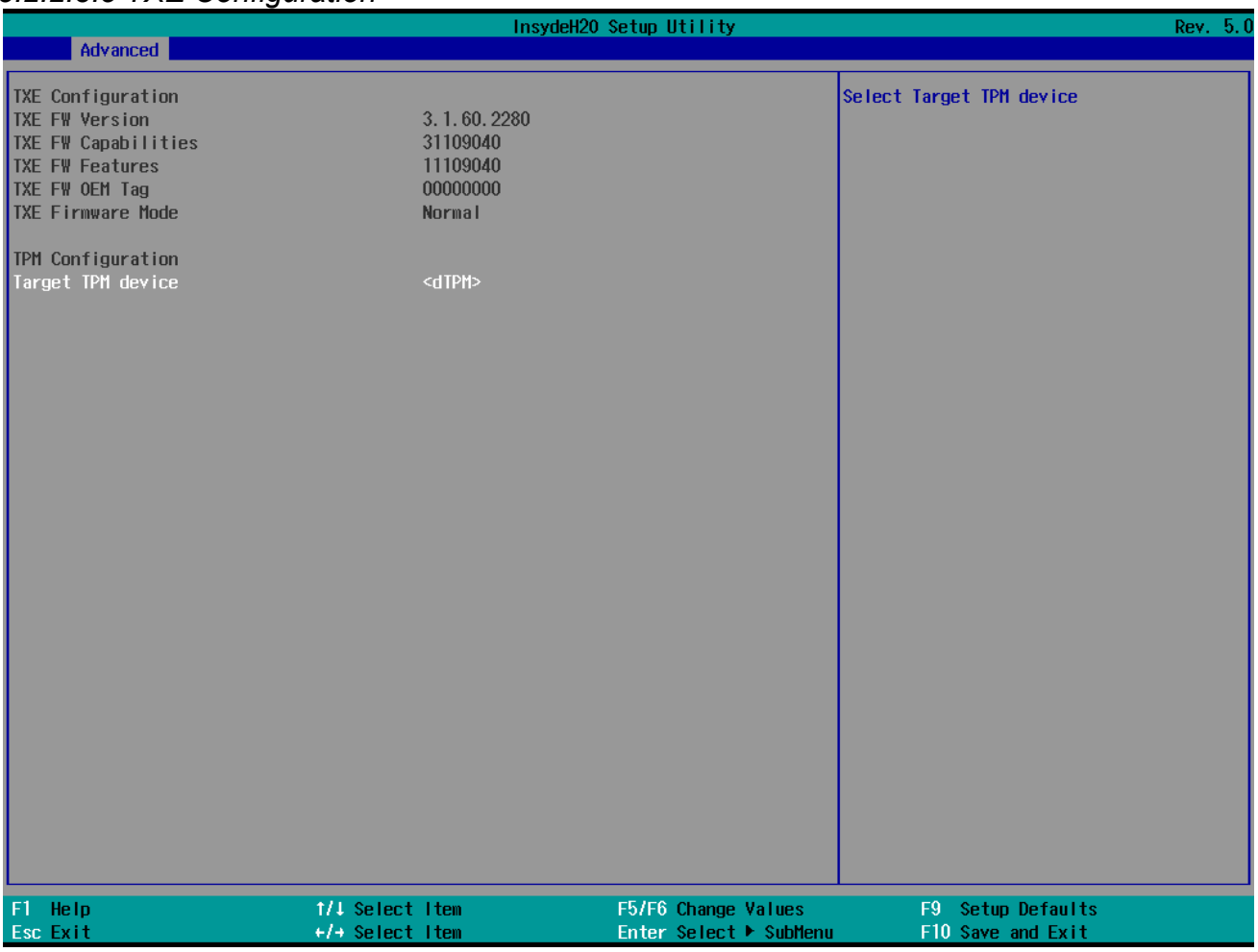
BIOS Setting	Description	Setting Option	Effect
USB Per-Port Control	USB Per-Port Control a settings.	Enabled/ Disabled	Control each of the USB ports (0~7) enable/ disable.
XDCI Support	Allows you to enable or disable xDCI (USB OTG Device).	Enabled/ Disabled	Enable or Disable XDCI Support
XHCI Disable Compliance Mode	Option to disable Compliance Mode.	FALSE	Default is FALSE to not disable Compliance Mode.
		TRUE	Set TRUE to disable Compliance Mode.

3.2.2.3.4 Miscellaneous Control



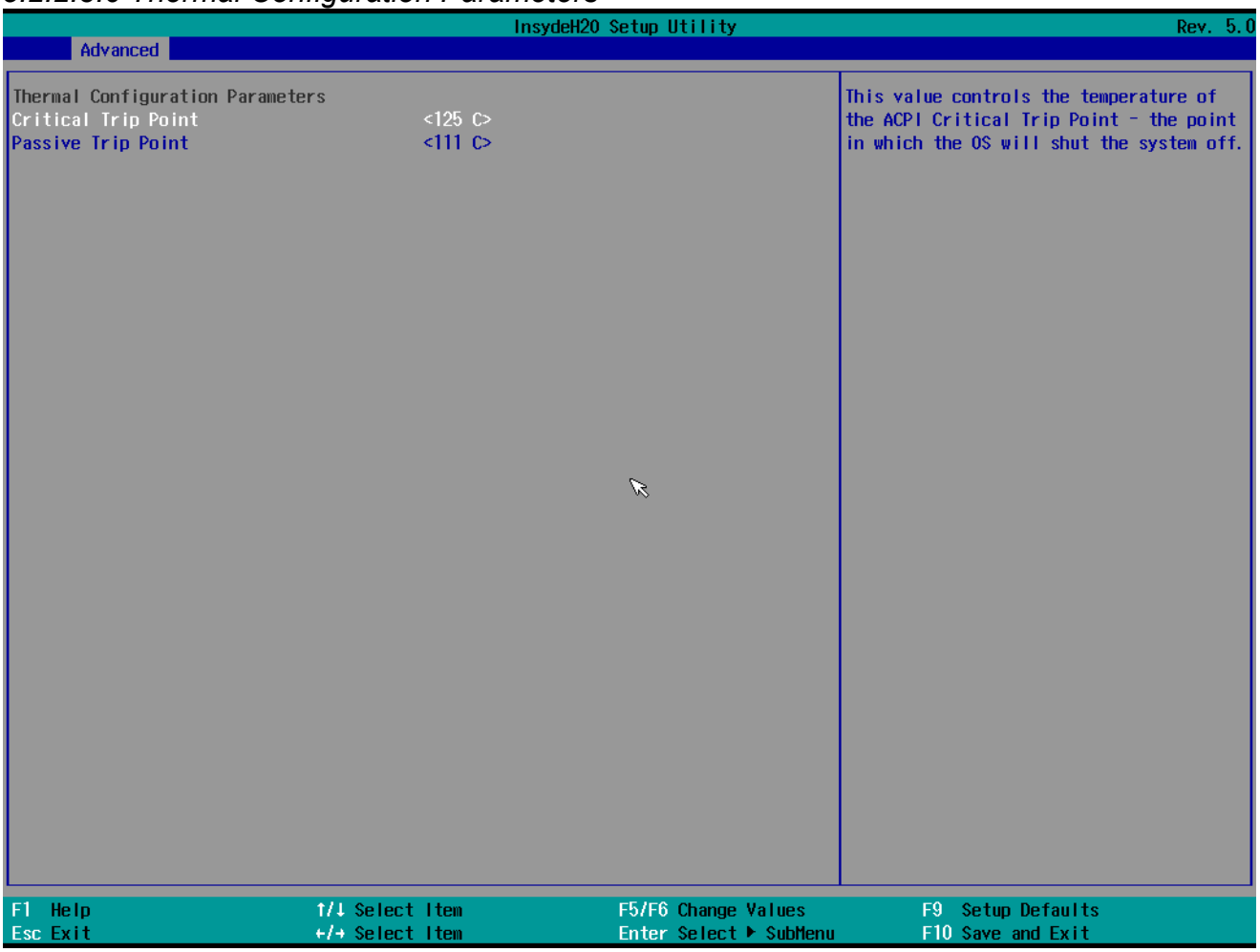
BIOS Setting	Description	Setting Option	Effect
High Precision Timer	High Precision Timer settings	Enabled/ Disabled	Enable or Disable the High Precision Event Timer
8254 Clock Gating	8254 Clock Gating	Enabled/ Disabled	Enable or Disable 8254 Clock Gating
State After G3	Specify what state to go to when power is re-applied after a power failure (G3 state)	S0	System will boot directly as soon as power applied.
		S5	System keeps in power-off state until power button is pressed.

5.2.2.3.5 TXE Configuration



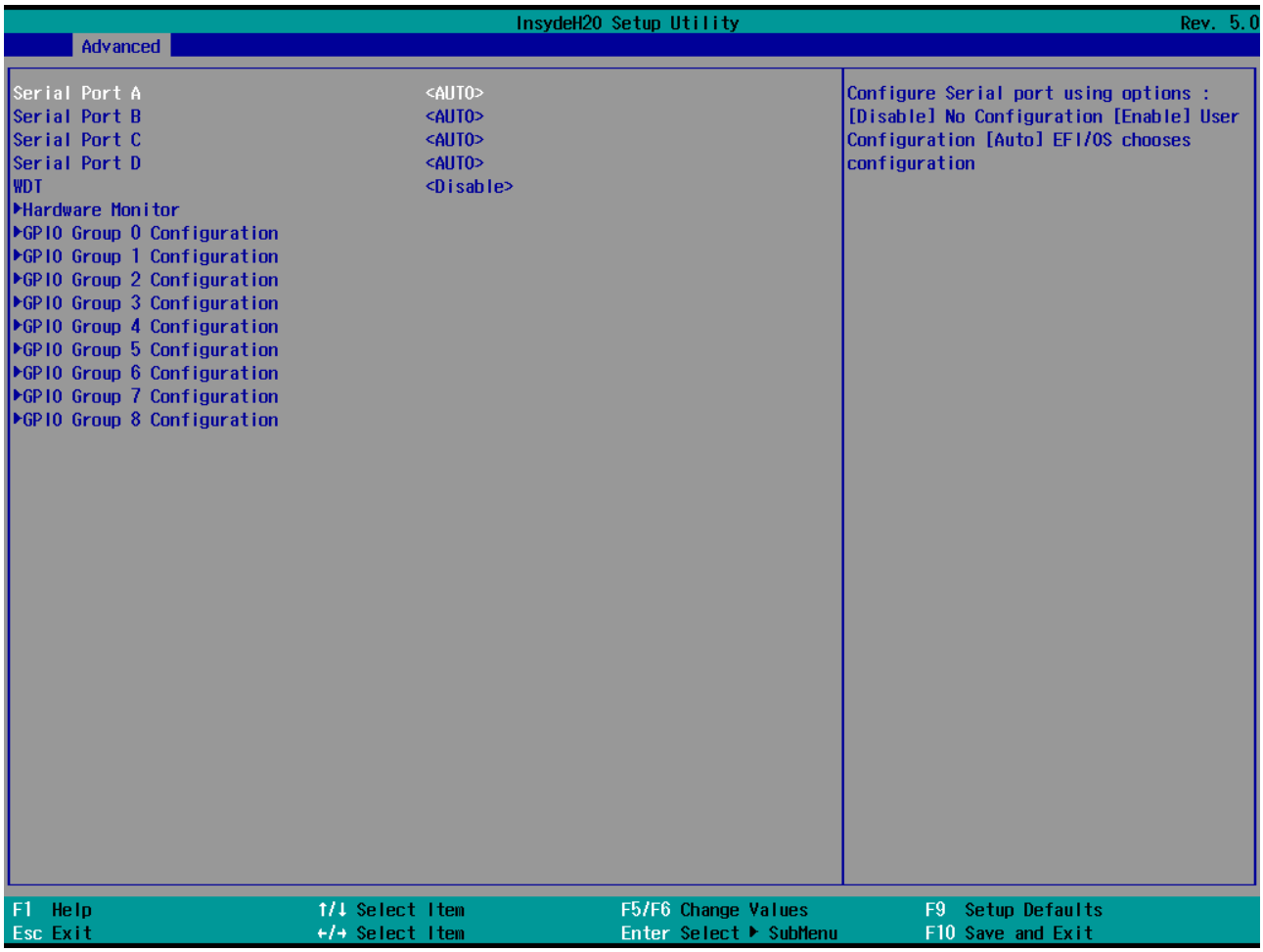
BIOS Setting	Description	Setting Option	Effect
Target TPM Device	Select Target TPM Device	dTPM	Select Target TPM Device

5.2.2.3.6 Thermal Configuration Parameters



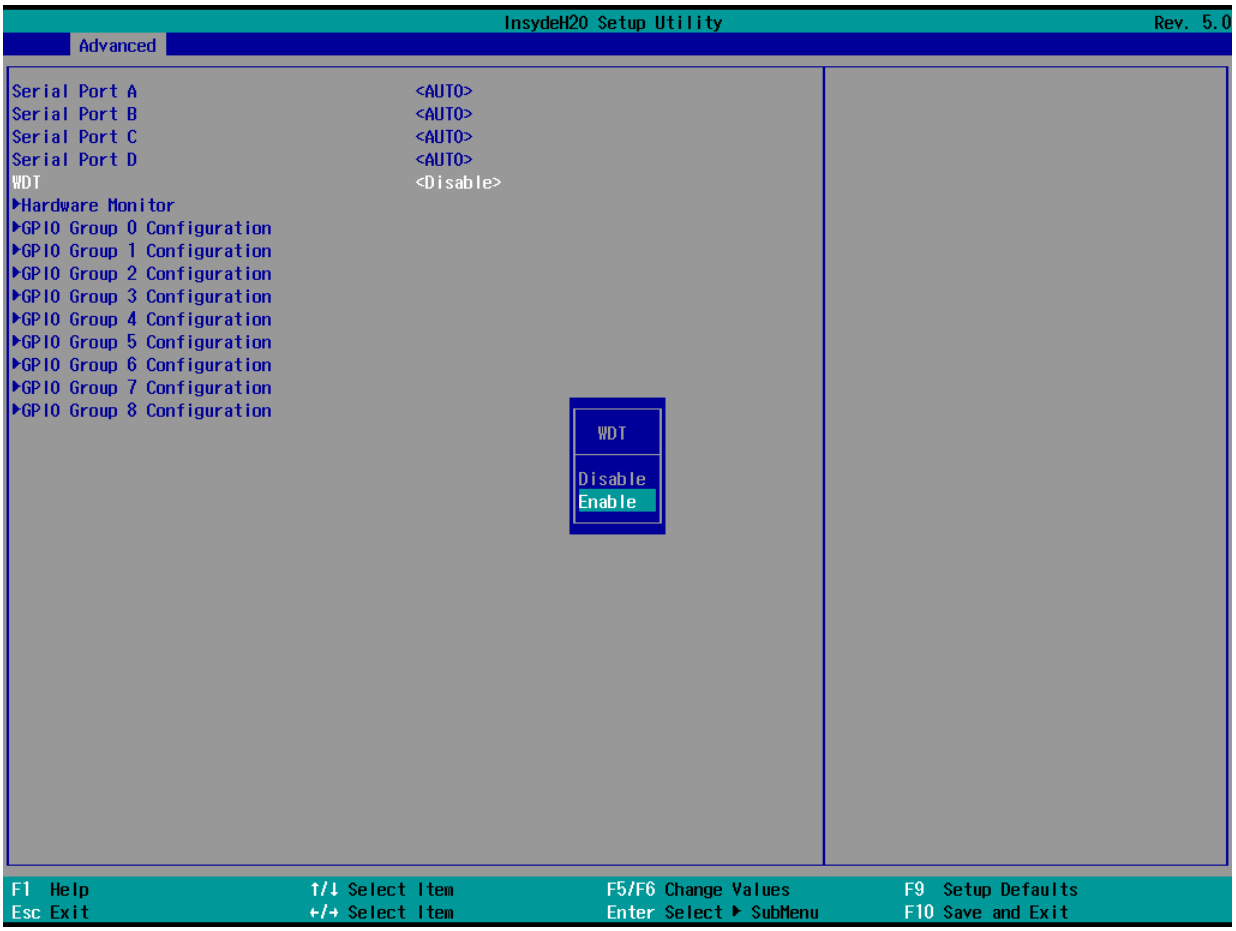
BIOS Setting	Description	Setting Option	Effect
Critical Trip Point	This value controls the temperature of the ACPI Critical Trip Point – the point in which the OS will shut down the system.	125 C	Select the point in which the OS will shut down the system.
Passive Trip Point	This value controls the temperature of the ACPI Passive Trip Point – the point in which CPU is slowed down in order to cool.	111 C	Select the point in which CPU is slowed down in order to cool..

5.2.2.3.7Serial Port

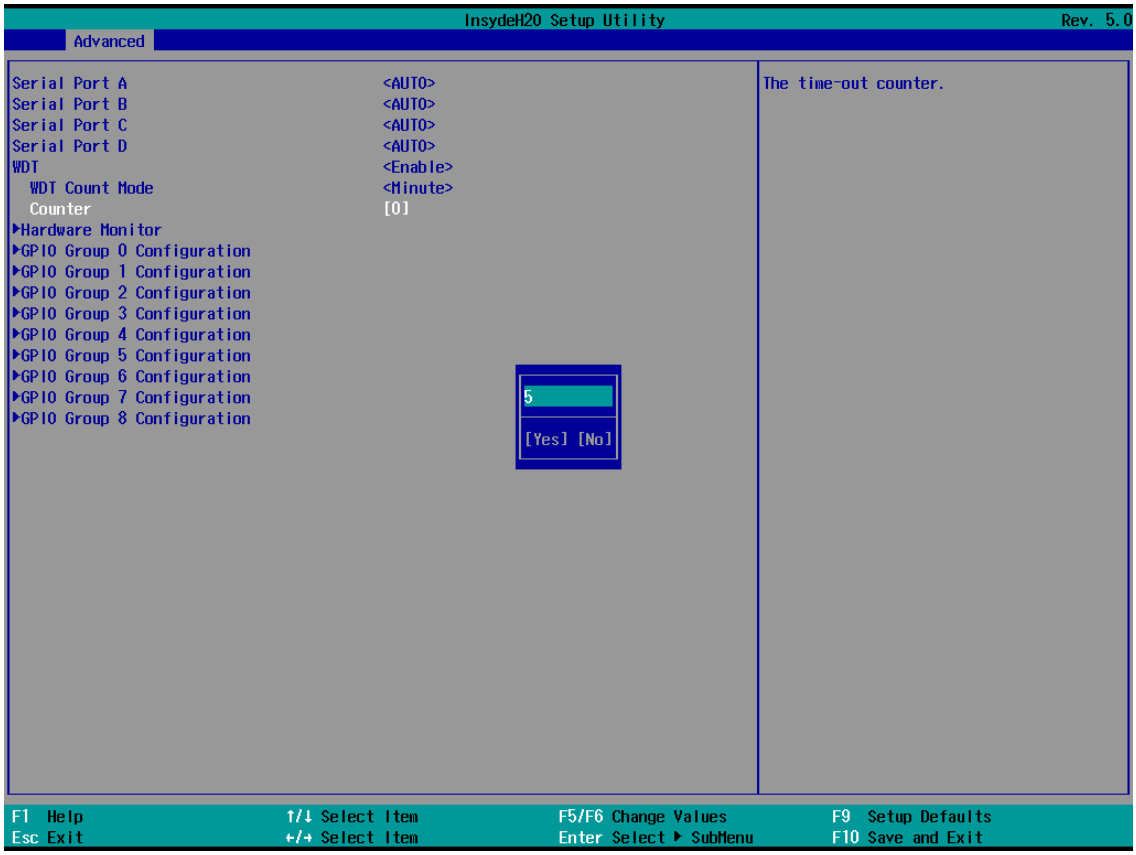


BIOS Setting	Description	Setting Option	Effect
Serial Port A~D	Configure serial port settings.	Enabled	User configuration
		Disabled	No configuration
		Auto	EFI/ OS chooses configuration
WDT	WDT count mode and counter settings.	Enabled/ Disabled	Enable or disable WDT. Select WDT settings.
Hardware Monitor	Hardware Monitor settings.	Enter	Open sub-menu
GPIO Group 0~8 Configuration	GPIO Group 0~8 Configuration	Enter	Open sub-menu

5.2.2.3.8 WTD

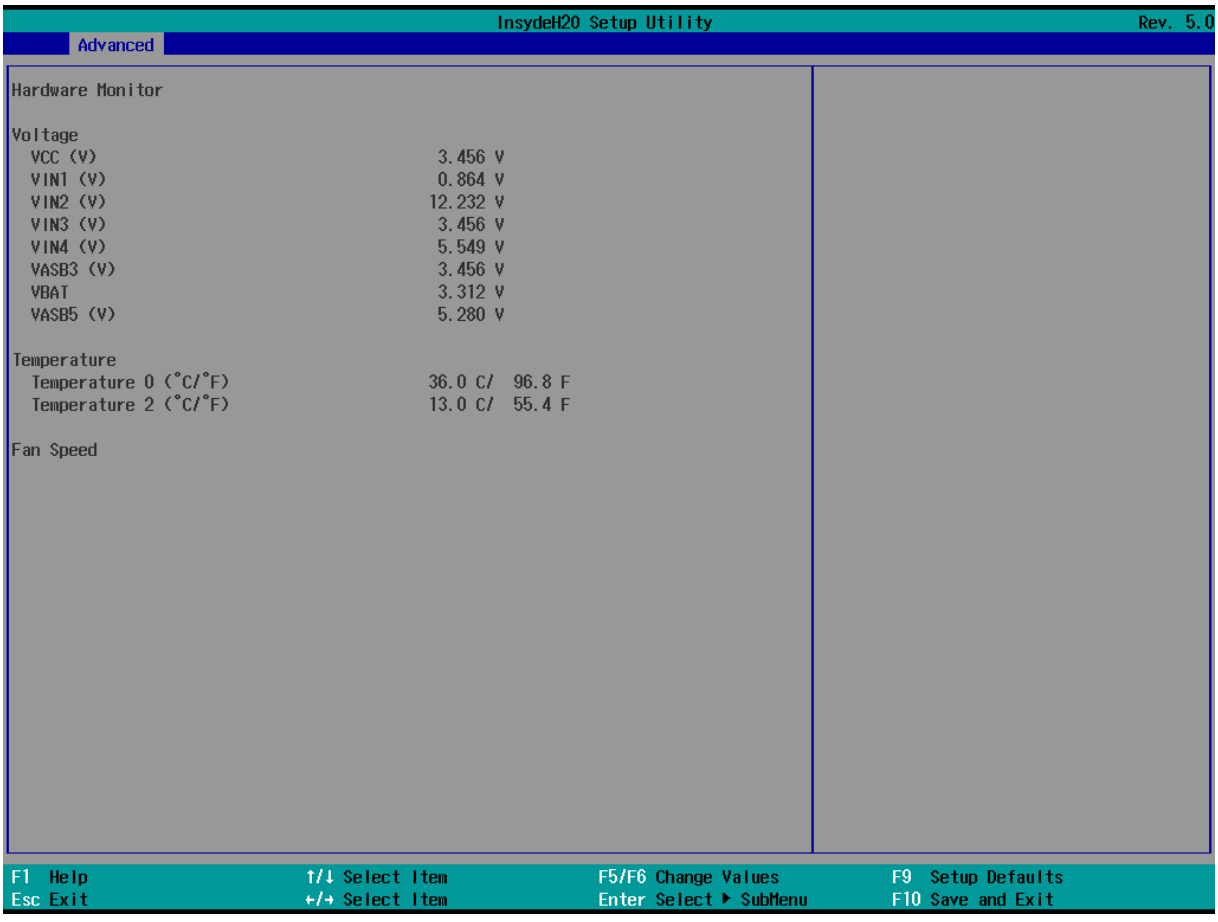


BIOS Setting	Description	Setting Option	Effect
WDT	WDT count mode and counter settings.	Enabled/ Disabled	Enable or disable WDT. Select WDT settings.

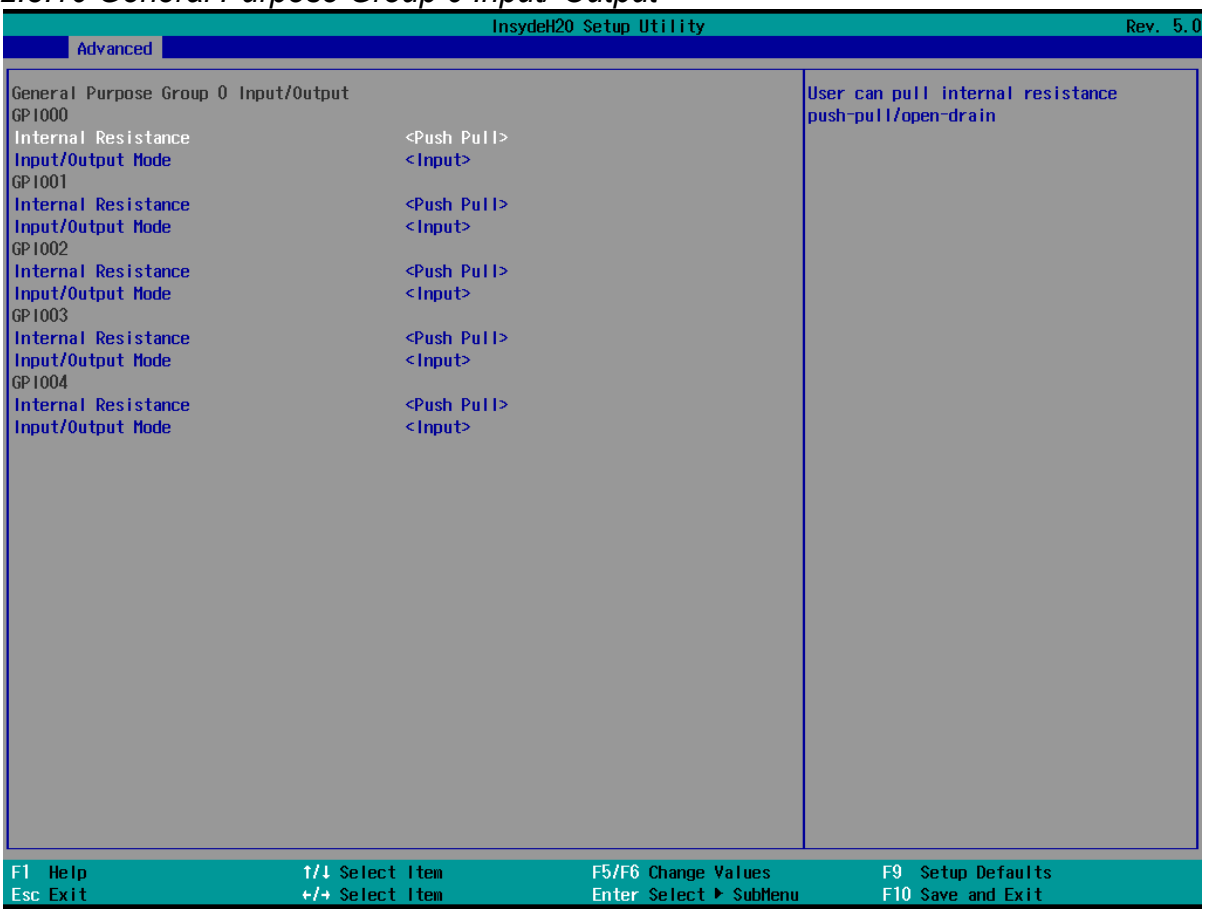


BIOS Setting	Description	Setting Option	Effect
WDT Count Mode	WDT Count Mode	Default [Minute]	Set the timeout counter to [Minute].
Counter	The timeout counter.	Default [0] **Please change to [5]**	Set the timeout counter to [5].

3.2.2.3.9 Hardware Monitor

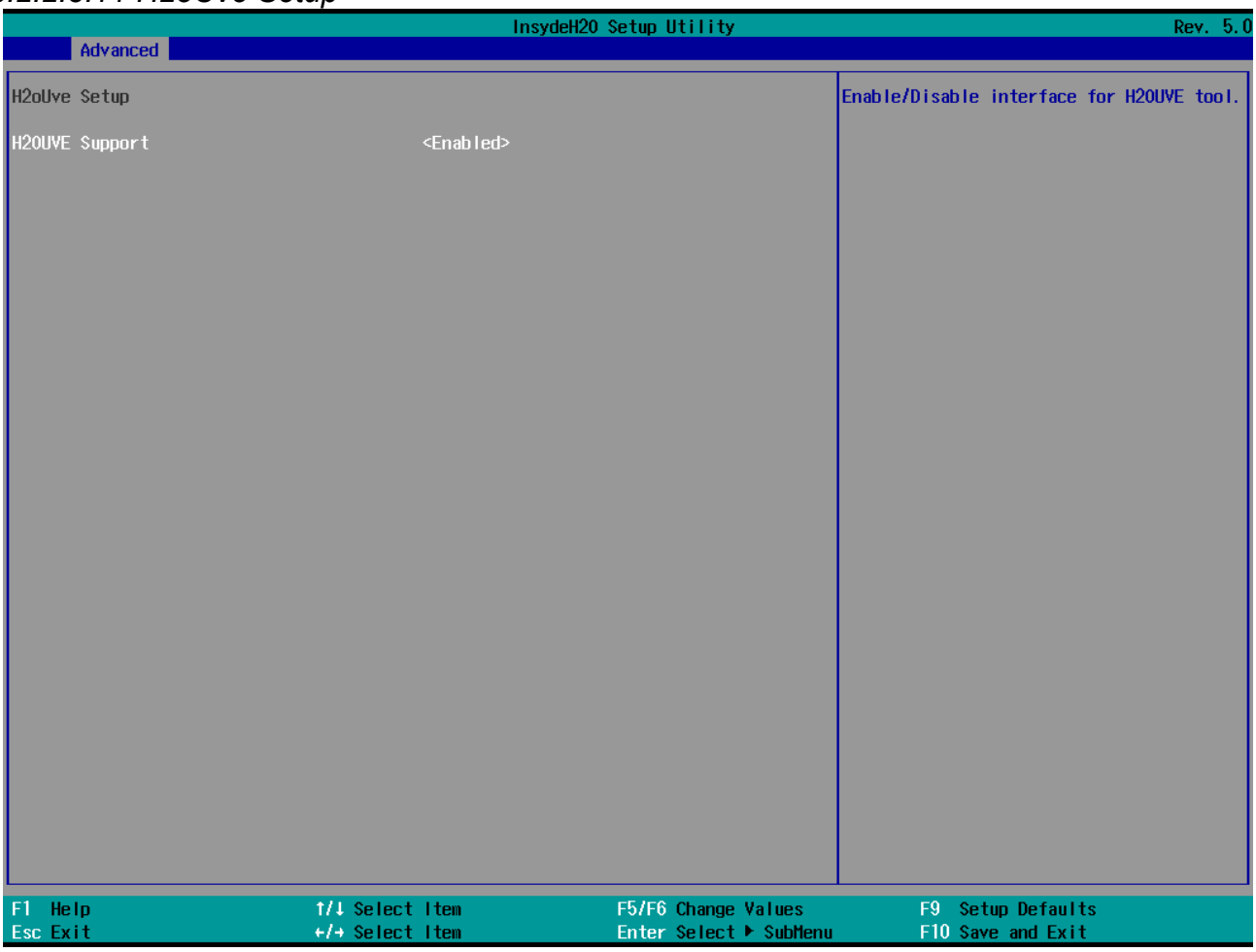


3.2.2.3.10 General Purpose Group 0 Input/ Output



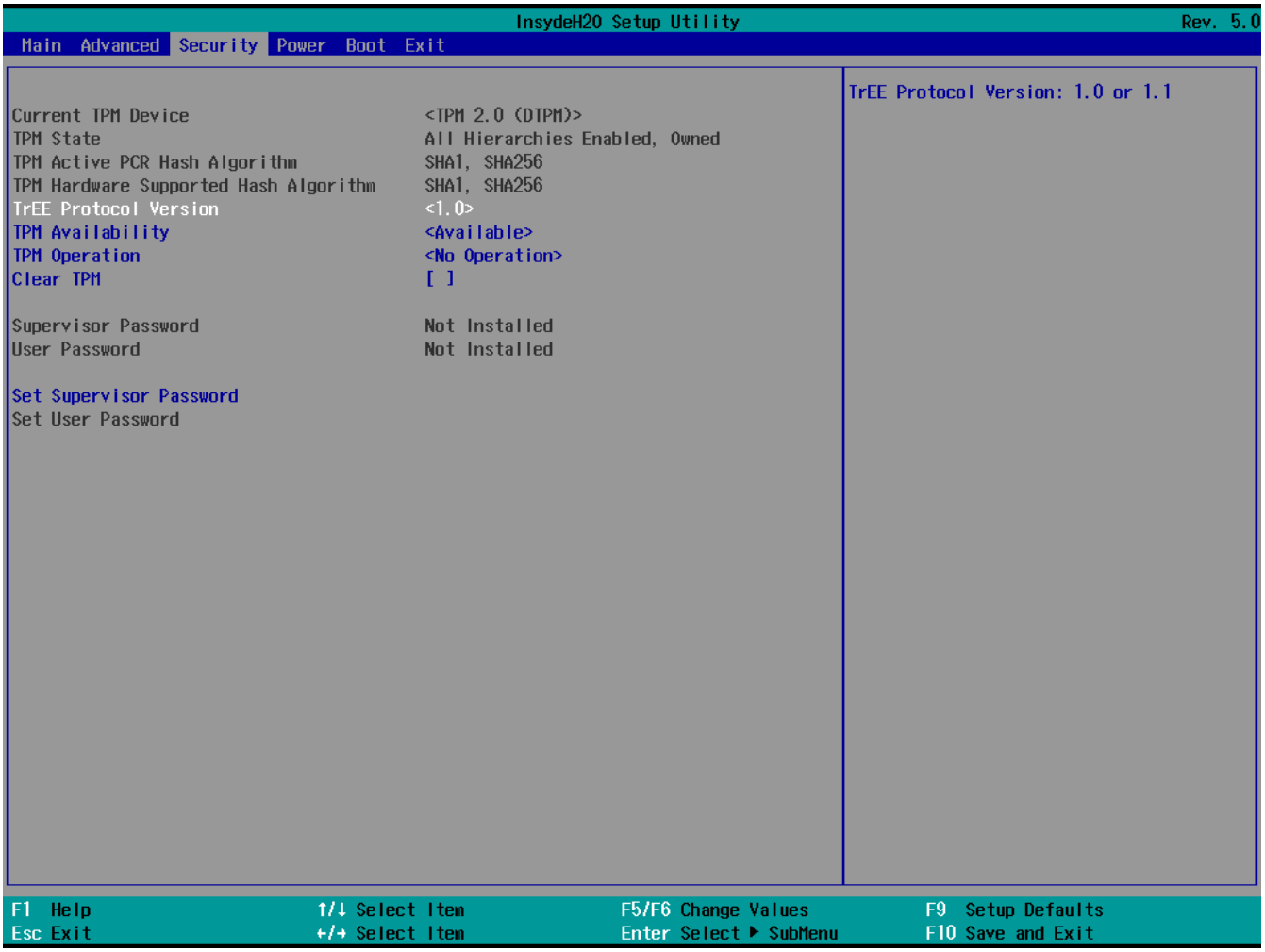
BIOS Setting	Description	Setting Option	Effect
Internal Resistance	Internal Resistance settings	Push Pull	User can pull internal resistance push-pull
		Open Drain	User can pull internal resistance open drain
Input/ Output Mode	Select Input/ Output Mode	Input	Set the GPI0 pin input
		Output	Set the GPI0 pin output

3.2.2.3.11 H2oUve Setup



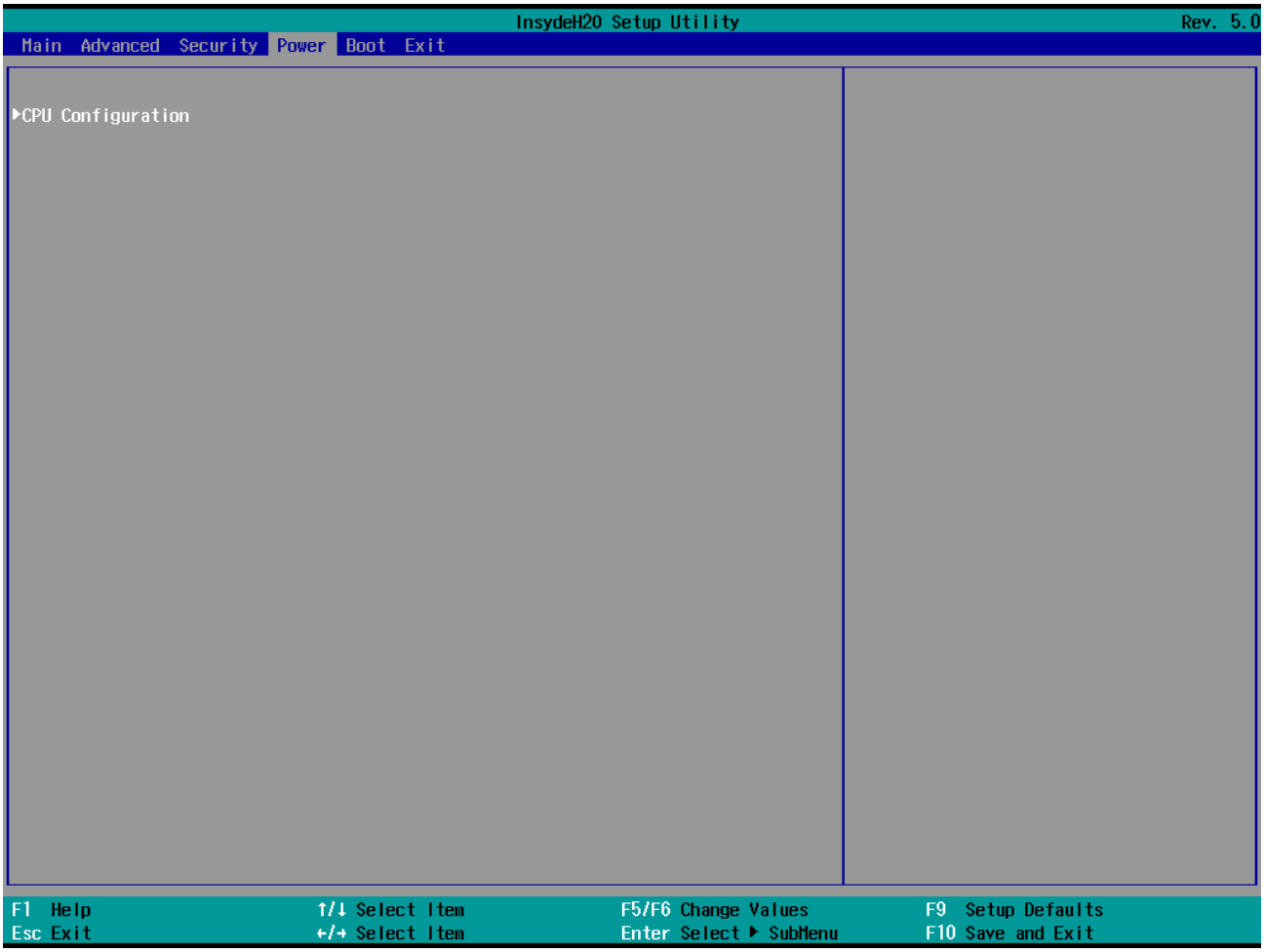
BIOS Setting	Description	Setting Option	Effect
H2oUve Support	H2oUve Support settings	Enabled/ Disabled	Enable or Disable interface for H2oUve tool

5.2.3.Security



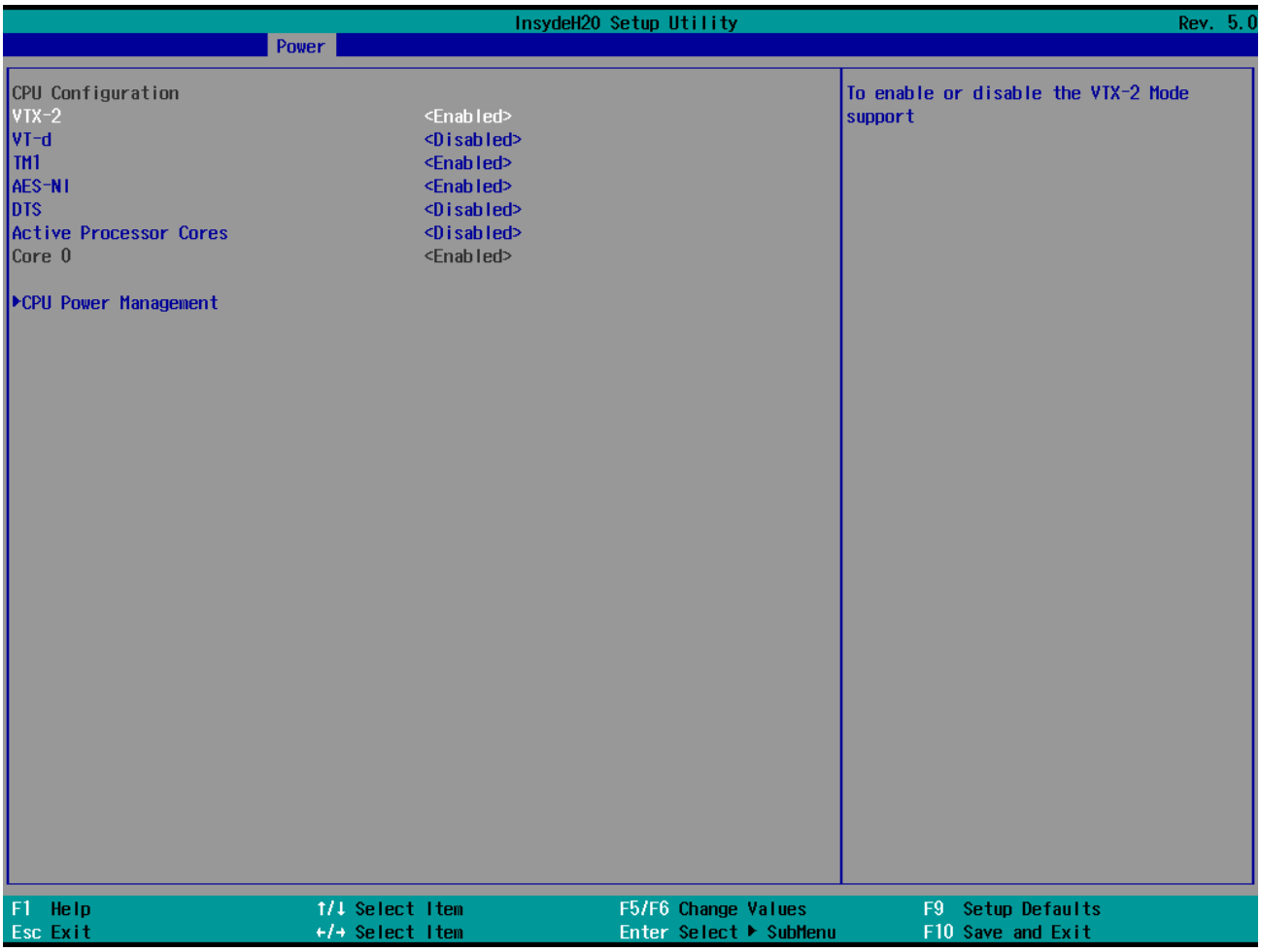
BIOS Setting	Description	Setting Option	Effect
TrEE Protocol Version	TrEE Protocol Version: 1.0 or 1.1	1.0 or 1.1	
TPM Availability	TPM Availability	Available	
TPM Operation	TPM Operation	No operation	
Clear TPM	Clear TPM		
Set Supervisor Password	Set Supervisor Password	Custom-setting	Set Supervisor Password

5.2.4 Power



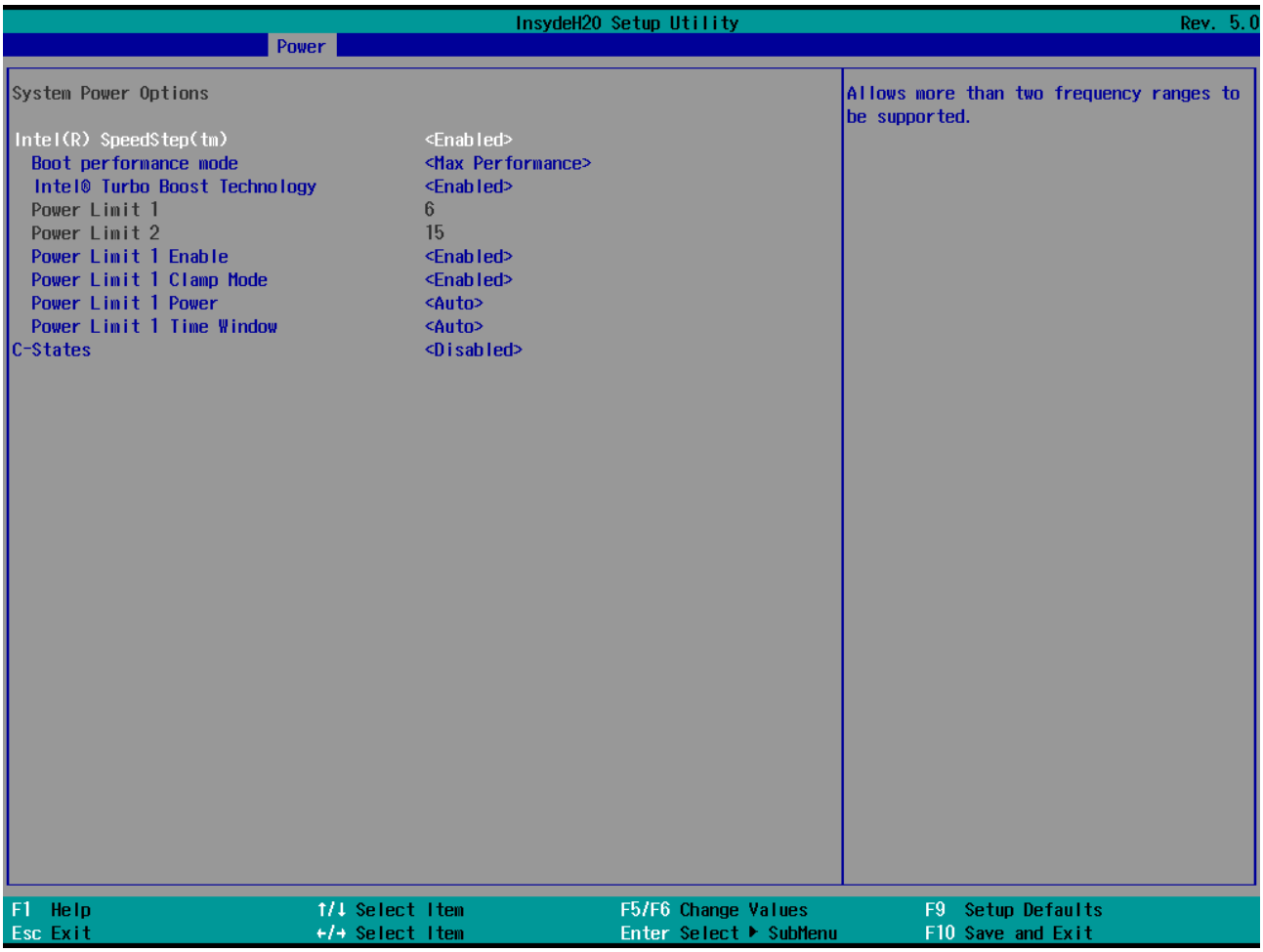
BIOS Setting	Description	Setting Option	Effect
CPU Configuration	CPU Configuration settings	Enter	Opens sub-menu

5.2.4.1 CPU Configuration



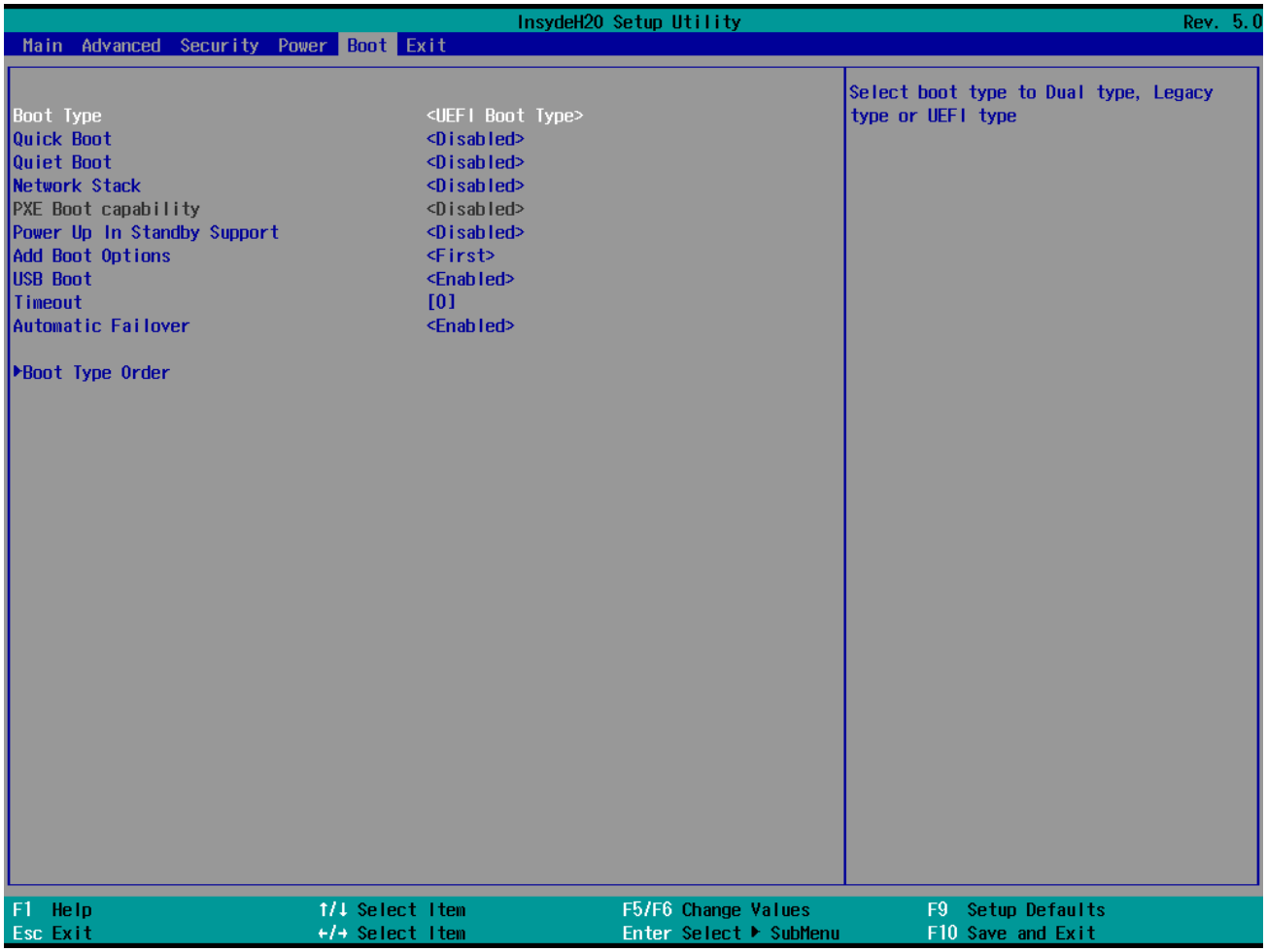
BIOS Setting	Description	Setting Option	Effect
VTX2	VTX2 mode support settings	Enabled/ Disabled	To enable or disable VTX2 mode support
VT-d	VT-d support settings	Enabled/ Disabled	To enable or disable VT-d support
TM1	TM1 support settings	Enabled/ Disabled	To enable or disable TM1 support
AES-N1	AES-N1 support settings	Enabled/ Disabled	To enable or disable AES-N1 support
DTS	DTS support settings	Enabled/ Disabled	To enable or disable DTS support
Active Processor Core	Active Processor Core support settings	Enabled/ Disabled	To enable or disable Active Processor Core
CPU Power Management	CPU Power Management settings	Enter	Opens sub-menu

5.2.4.2 System Power Options



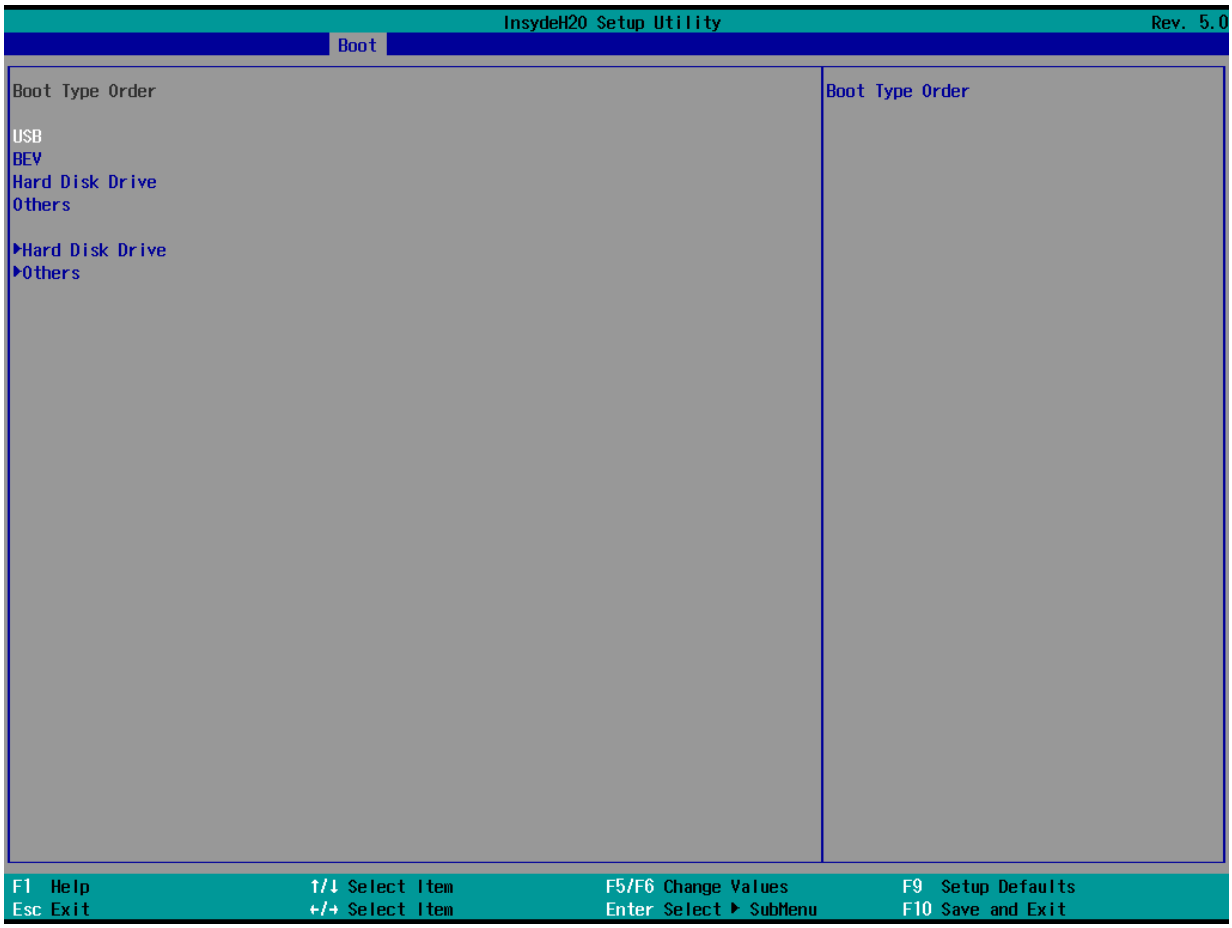
BIOS Setting	Description	Setting Option	Effect
Intel SpeedStep	Intel SpeedStep settings	Enabled/ Disabled	Allows more than two frequency ranges to be supported
Intel Turbo Boost Technology	Intel Turbo Boost Technology settings	Max Performance	Enabled-Enables the logical processor cores on processors supporting hyper threading technology.
Power Limit 1 Enable	Allows changing the power limit settings	Enabled	
Power Limit 1 Clamp Mode	Allows changing the Power Limit 1 Clamp Mode settings	Enabled	
Power Limit 1 Power	Allows changing the power limit Power settings	Auto	
Power Limit 1 Time Window	Allows changing the power limit Time Window settings	Auto	
C-States	C-States power saving states settings	Disabled	C-states are idle power saving states.

5.2.5 Boot



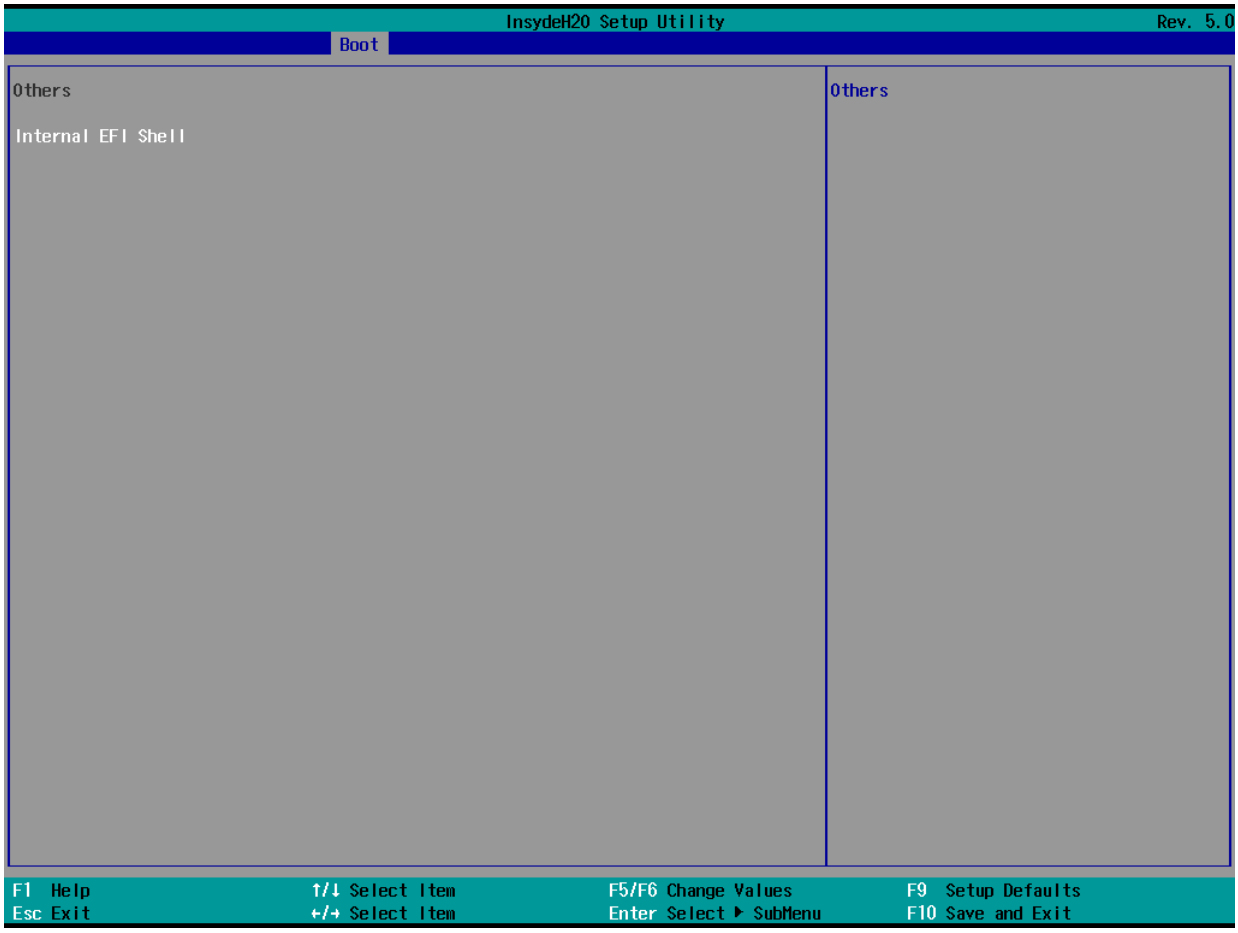
BIOS Setting	Description	Setting Option	Effect
Boot Type	Select Boot Type	Dual/ Legacy/ UEFI	Select boot type to Dual type, Legacy type or UEFI type.
Quick Boot	Quick Boot settings	Enabled/ Disabled	Enable or disable Quick Boot
Quiet Boot	Quiet Boot settings	Enabled/ Disabled	Enable or disable Quiet Boot
Network Stack	Network Stack settings	Enabled/ Disabled	Enable or disable Network Stack
Add Boot Options	Add Boot Options	First	
USB Boot	USB Boot settings	Enabled/ Disabled	Enable or disable USB Boot
Timeout	Timeout settings	0	
Automatic Failover	Automatic Failover settings	Enabled/ Disabled	Enable or disable Automatic Failover
Boot Type Order	Select Boot Type Order	Enter	Opens sub-menu

5.2.5.1 Boot Type Order

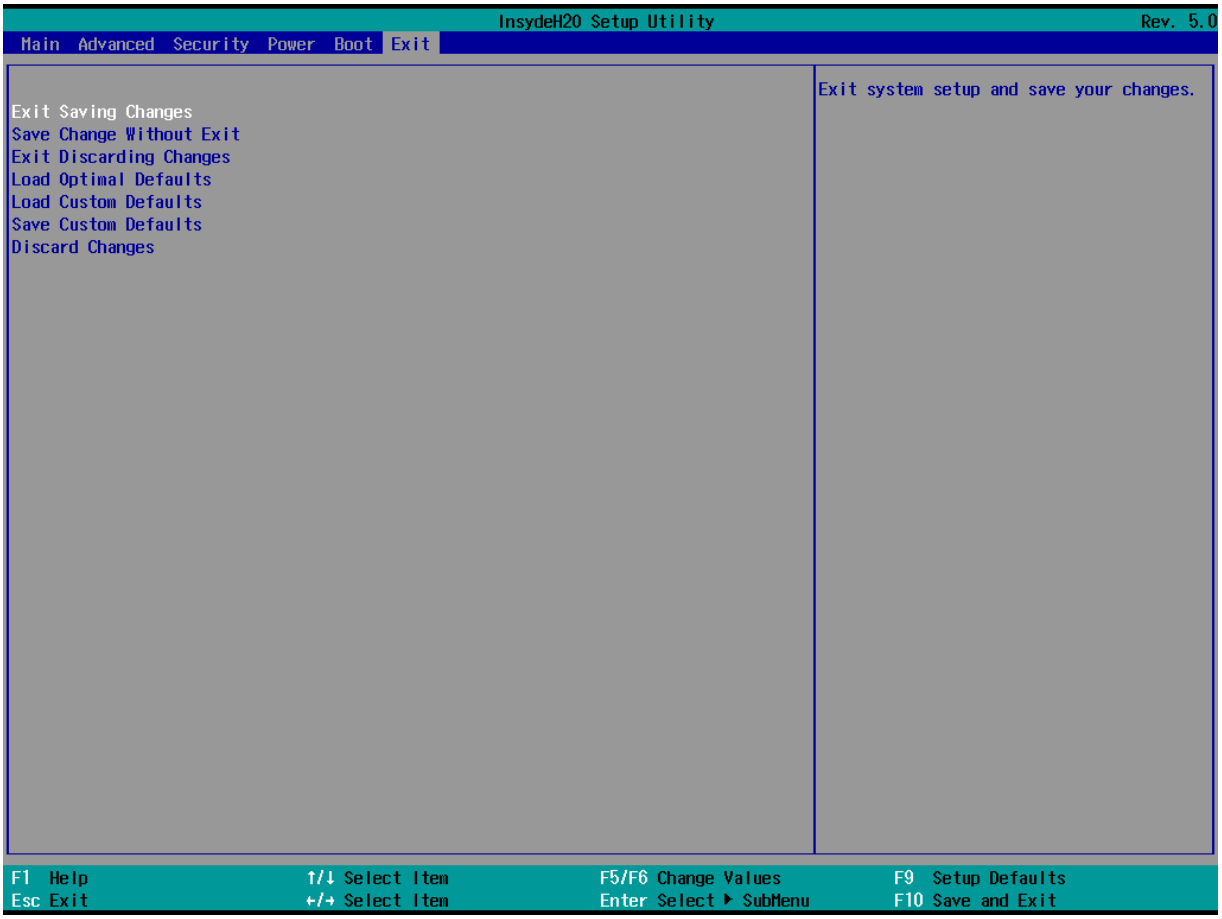


5.2.5.2 Hard Disk Drive

3.2.5.3 Others


InsydeH20 Setup Utility
Rev. 5.0
Boot
Others
Internal EFI Shell
Others
F1 Help
Esc Exit
↑/↓ Select Item
←/→ Select Item
F5/F6 Change Values
Enter Select ▶ SubMenu
F9 Setup Defaults
F10 Save and Exit

5.2.6 Exit


InsydeH20 Setup Utility
Rev. 5.0
Main Advanced Security Power Boot Exit
Exit Saving Changes
Save Change Without Exit
Exit Discarding Changes
Load Optimal Defaults
Load Custom Defaults
Save Custom Defaults
Discard Changes
Exit system setup and save your changes.
F1 Help
Esc Exit
↑/↓ Select Item
←/→ Select Item
F5/F6 Change Values
Enter Select ▶ SubMenu
F9 Setup Defaults
F10 Save and Exit

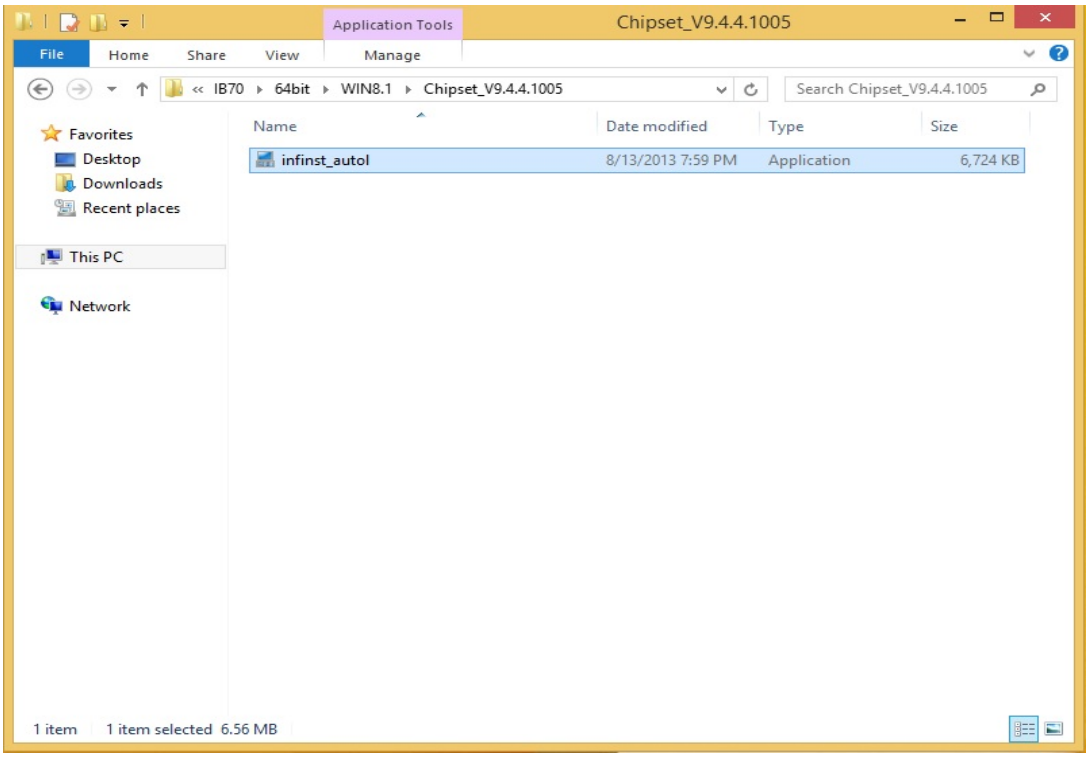
BIOS Setting	Description	Setting Option	Effect
Exit Saving Setting	Exit Saving Setting	Enter	Exit system and save your changes
Exit Saving Setting	Exit Saving Setting	Enter	Save change without exit
Exit Saving Setting	Exit Saving Setting	Enter	Edit discarding changes
Load Optimal Defaults	Load Optimal Defaults	Enter	Load optimal defaults
Save Custom Defaults	Save Custom Defaults	Enter	Save custom defaults
Discard Changes	Discard Changes	Enter	Discard you changes

Chapter 6: Driver Installation

This chapter describes how to install all necessary drivers.

6.1 Installing Chipset Driver

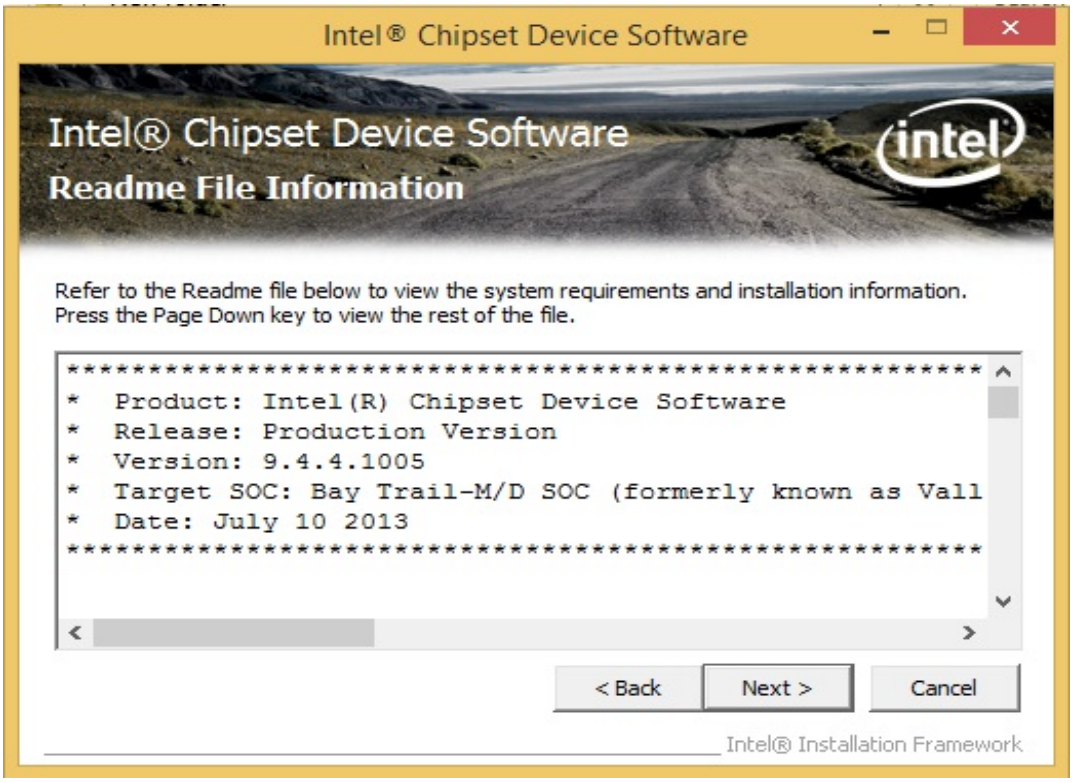
Step 1 Insert the CD that comes with the motherboard. Open the file document “Chipset Driver” and click “infinst_auto.exe” to install driver.



Step 2 Click **Next** to continue.

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

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



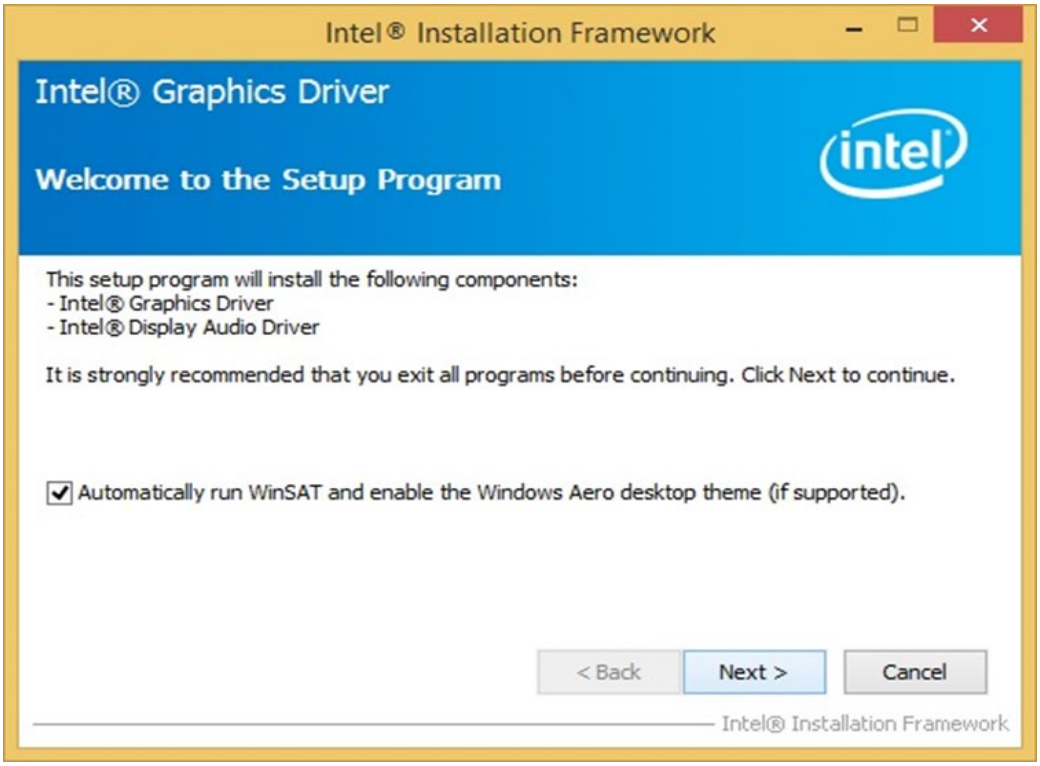
Step 5 Software setup progress window will appear, click **Next** to continue.

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.

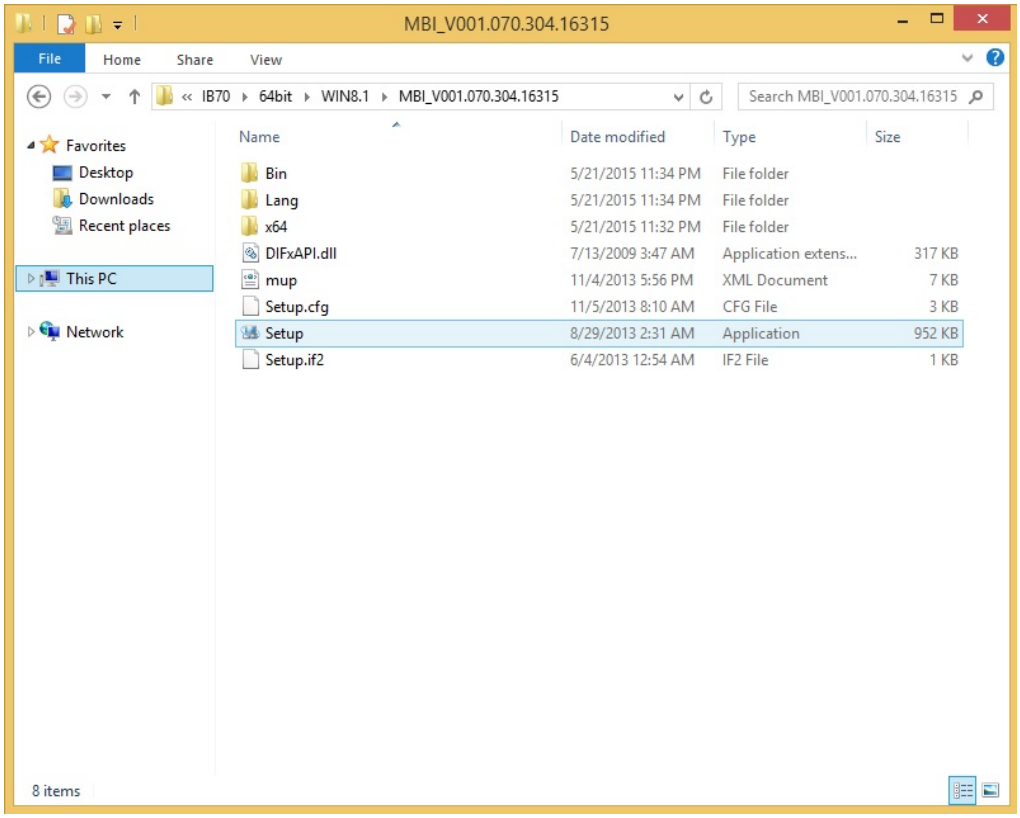


Step 3 Carefully read the license terms and click **Yes** to agree.
Step 4 Check Readme file information, and click **Next** to install driver.
Step 5 Click **Next** to continue.
Step 6 Windows Security window will appear, click **"Install this driver software anyway"** to continue.
Step 7 Setup Progress 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.

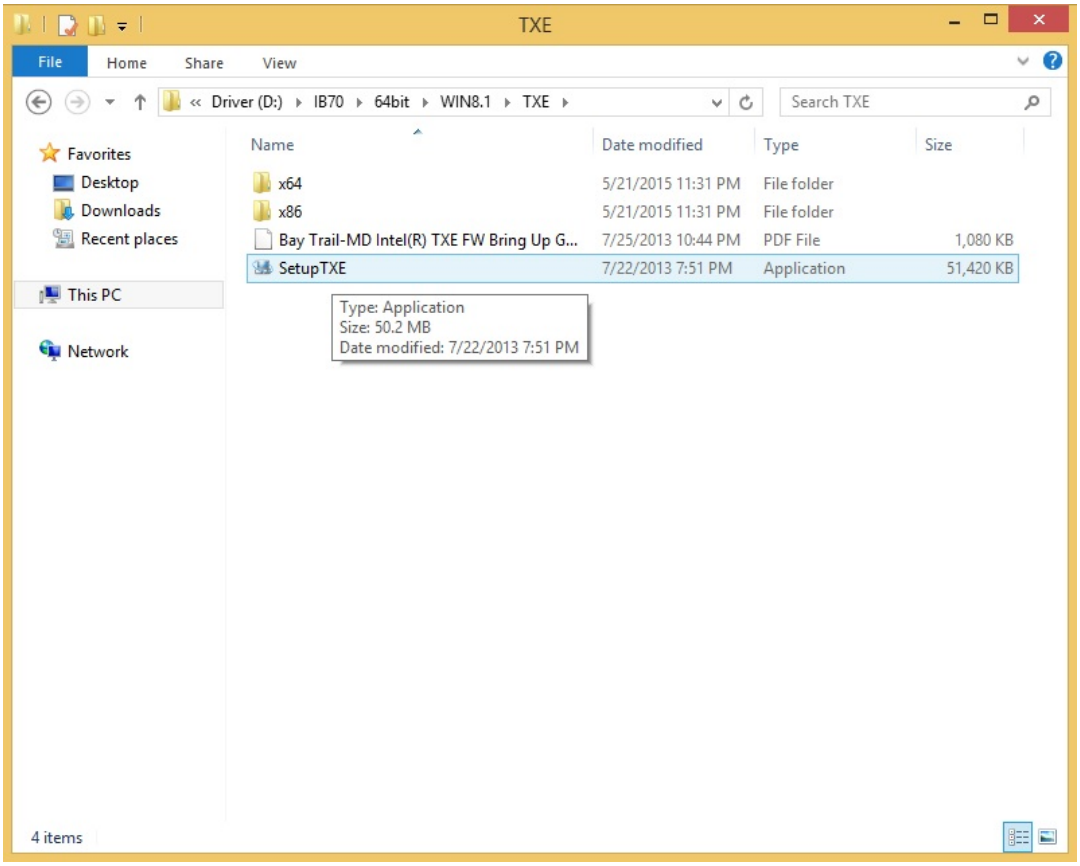
Step 1 Insert the CD that comes with the motherboard. Open the file document **“MBI”** and click **“Setup.exe”** to install the driver.



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.



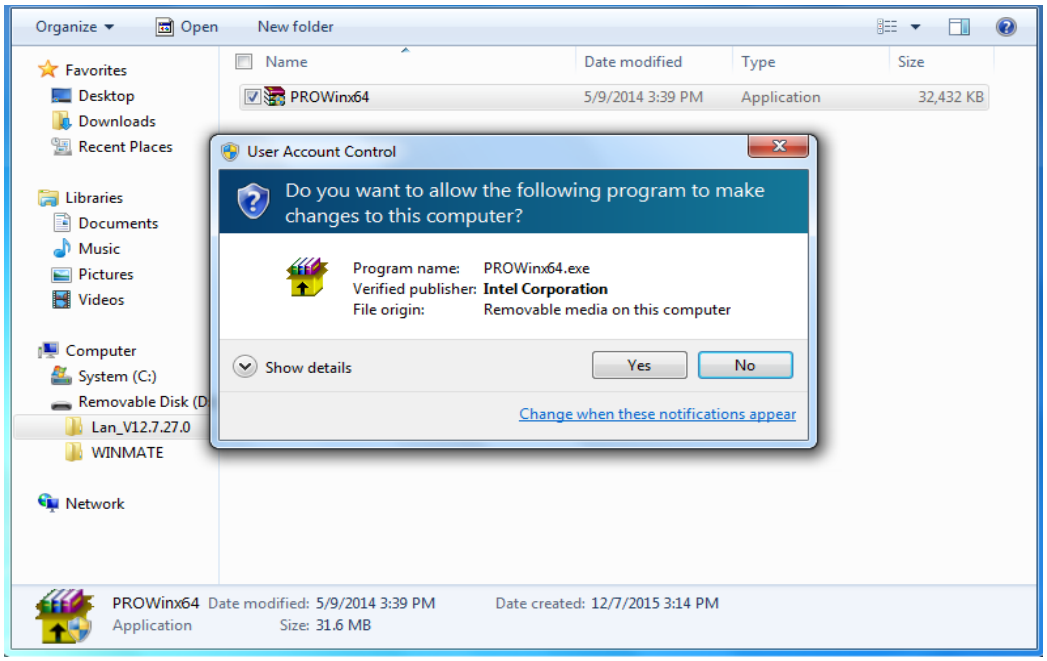
Step 2 Welcome to the setup program window will appear, click **Next** to start the installation.
Step 3 Carefully read the license terms and click **Yes** to agree.
Step 4 Confirmation window will appear, click **Next** to continue the driver installation.
Step 5 Please wait while the product is being 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**”.

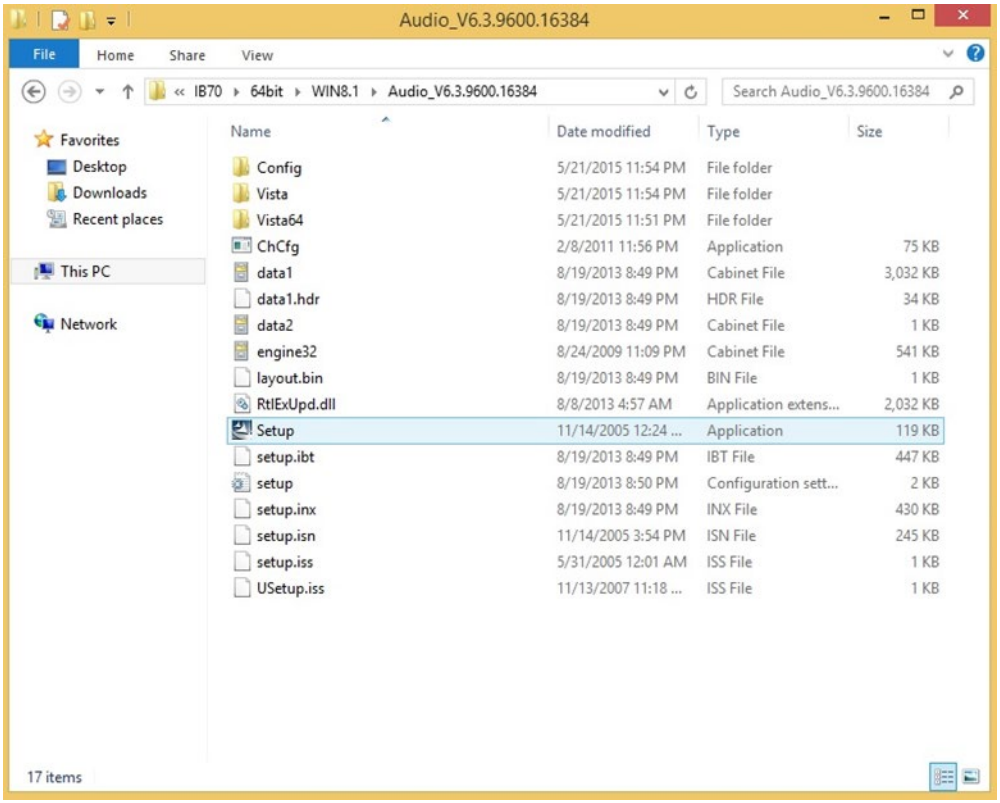
Step 6 The wizard is ready to begin installation, click **Install** to continue.

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.

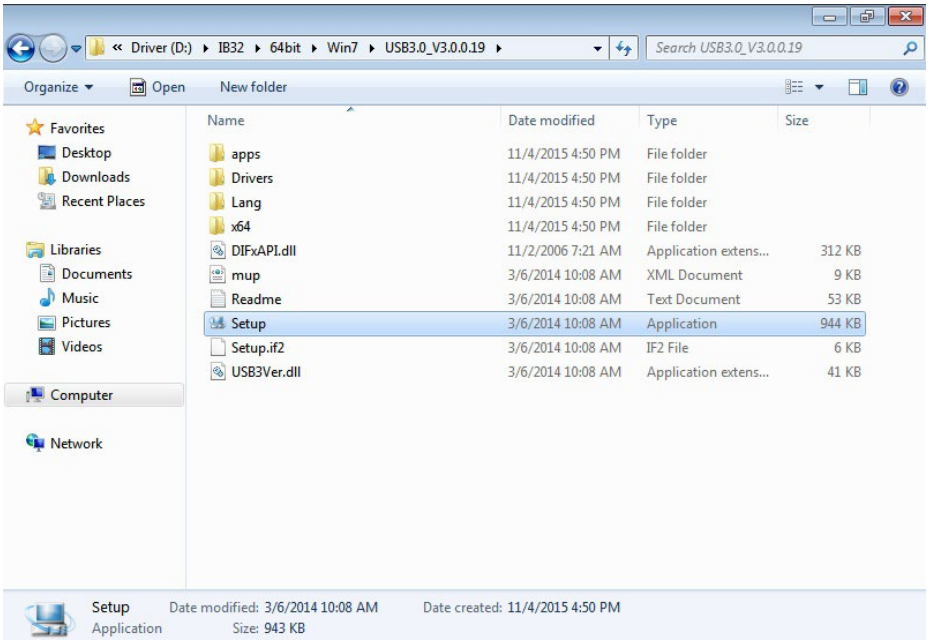
6.7 Installing USB 3.0 Driver

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				
	W07IP3S-PCO1-POE	**W07IP3S-PCO1AC-POE**	**W10IP3S-PCH2-POE**	**W10IP3S-PCH2AC-POE**	**R15IP3S-PCC3-POE**
Display					
Size/ Type	7" TFT (Wide)	7" TFT (Wide)	10.1" TFT (Wide)	10.1" TFT (Wide)	15" TFT (LED Backlight)
Resolution	1024 x 600	1024 x 600	1280 x 800	1280 x 800	1024 x 768
Brightness	1000 nit	1000 nit	350 nit	350 nit	300 nit
Contrast Ratio	700:1 (typ.)	700:1 (typ.)	800:1 (typ.)	800:1 (typ.)	2000:1 (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)	-88~88 (H) ; -88~88 (V)
Max Colors	16.7M	16.7M	16.7M	16.7M	16.7M
Touch	Projected Capacitive Multi-Touch PCAP	Projected Capacitive Multi-Touch PCAP	Projected Capacitive Multi-Touch PCAP	Projected Capacitive Multi-Touch PCAP	Projected Capacitive Multi-Touch PCAP
System Specifications					
Processor	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)	Intel® Pentium® N4200 (2M Cache, up to 2.5 GHz)
System Memory	2GB DDR3L 1866 SO-DIMM (Optional 8 GB)	2GB DDR3L 1866 SO-DIMM (Optional 8 GB)	2GB DDR3L 1866 SO-DIMM (Optional 8 GB)	2GB DDR3L 1866 SO-DIMM (Optional 8 GB)	2GB DDR3L 1866 SO-DIMM (Optional 8 GB)
Storage	64GB M.2 SSD (Default)	64GB M.2 SSD (Default)	64GB M.2 SSD (Default)	64GB M.2 SSD (Default)	64GB M.2 SSD (Default)
LAN Chipset	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN	Dual Intel® I210-AT GbE LAN
OS	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	Windows 10 IoT Enterprise	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
User Controls					
LED Light Bar	N/A	RGB Light Bar	N/A	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)
Software					
Utility	HotTab	HotTab	HotTab	HotTab	HotTab
Camera					
Front Camera	2 MP Front Camera (Optional)	2 MP Front Camera (Optional)	2 MP Front Camera (Optional)	2 MP Front Camera (Optional)	2 MP Front Camera (Optional)
Interface					
Serial Port	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485	RS-232/422/485
USB Port	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
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
DIDO	N/A	N/A	GPIO (Optional)	GPIO (Optional)	GPIO (Optional)

	Model Name				
	W07IP3S-PCO1-POE	**W07IP3S-PCO1AC-POE**	**W10IP3S-PCH2-POE**	**W10IP3S-PCH2AC-POE**	**R15IP3S-PCC3-POE**
Power Specifications					
Power Input	12V DC Terminal Block 3 pin	12V DC Terminal Block 3 pin	12V DC Terminal Block 3 pin	12V DC Terminal Block 3 pin	12V DC Terminal Block 3 pin
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)
PoE Rating	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	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	363.40 x 277.86 x 44.50 mm
Mounting	VESA Mount (75x75), Panel Mount	VESA Mount (75x75), Panel Mount	VESA Mount(75x75), Panel Mount, Front Side Wall Mount	VESA Mount(75x75), Panel Mount, Front Side Wall Mount	VESA Mount(100x100), Panel Mount, Front Side Wall Mount
Cooling	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
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)
IP Rating	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

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

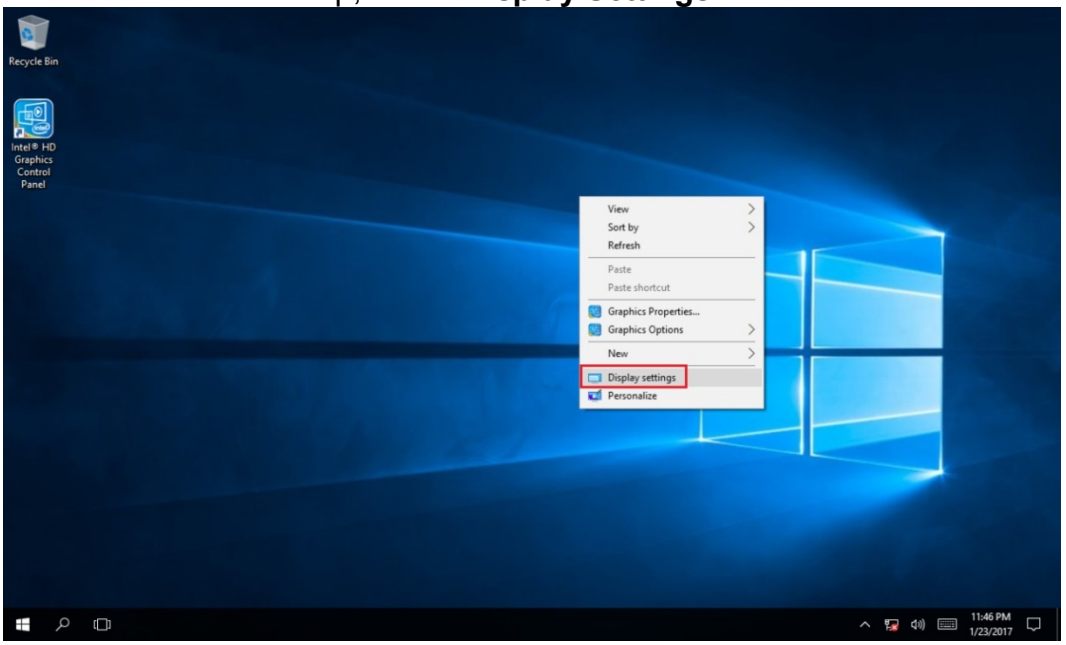
**1: Checksum is 2’s complement of sum of length and all messages*

Appendix D: Changing Screen Resolution

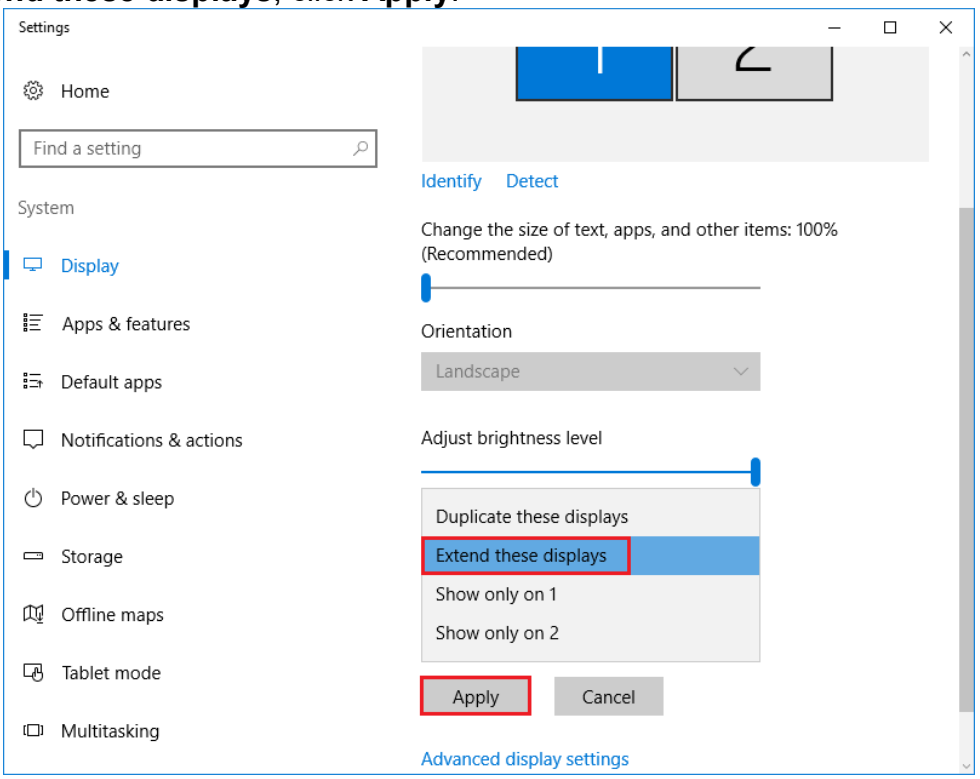
If you plug HDMI cable from this device to an external display, touch resolution will be influenced by the external display.

Follow instructions below how to adjust touch resolution.

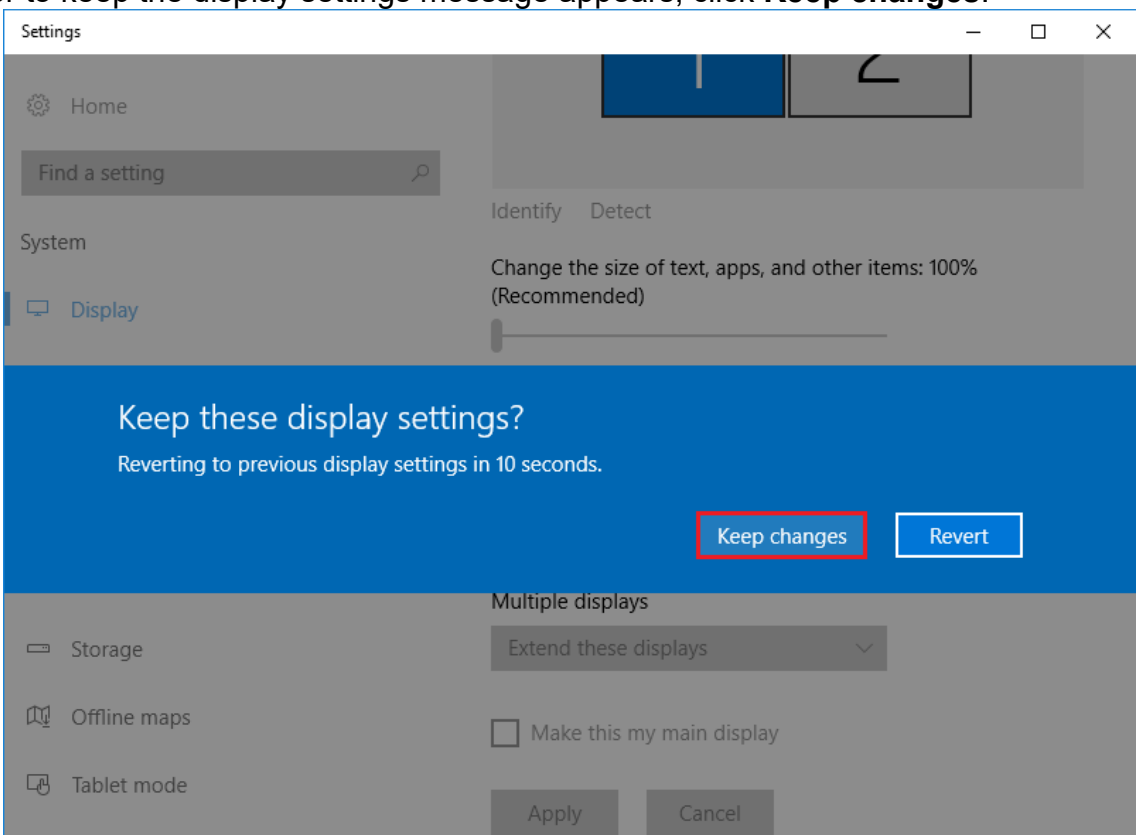
1. Right-click mouse on the desktop, select **Display Settings**.



2. Select **Extend these displays**, click **Apply**.

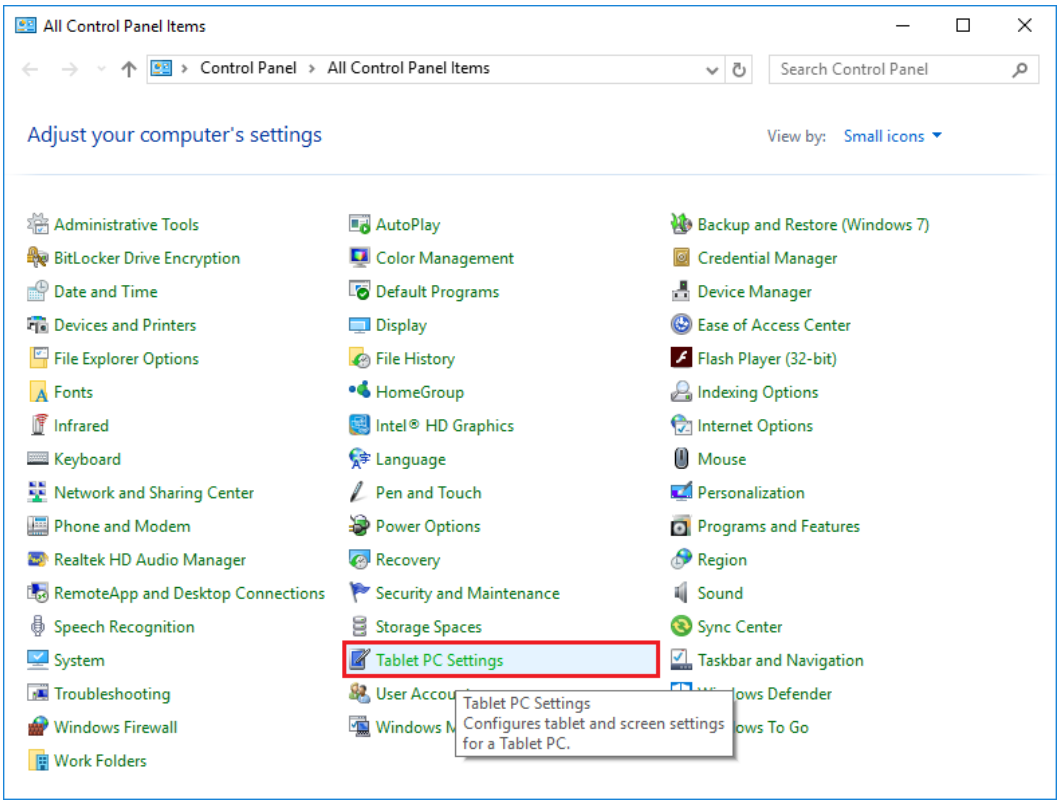


3. Whether to keep the display settings message appears, click **Keep changes**.

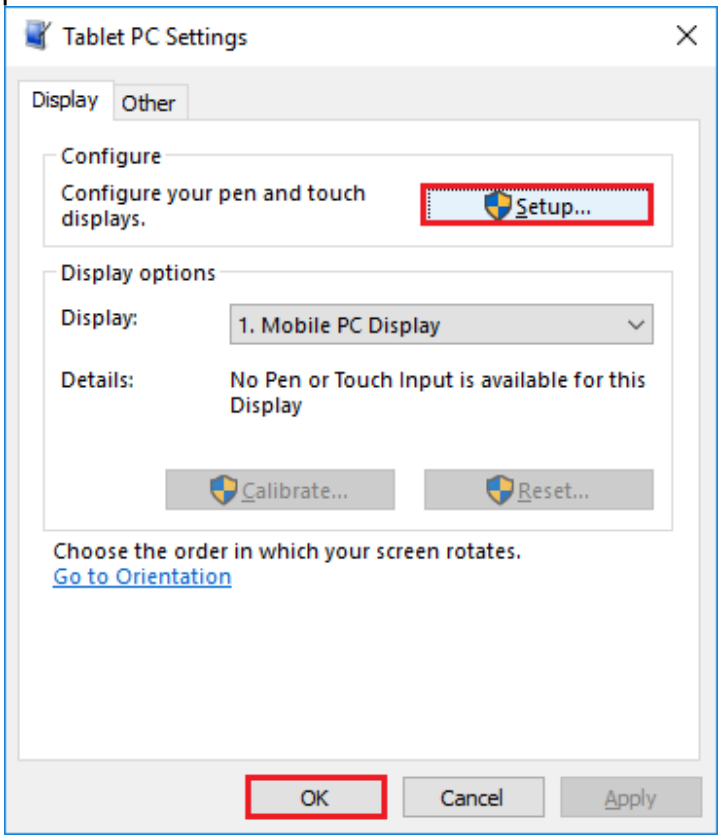


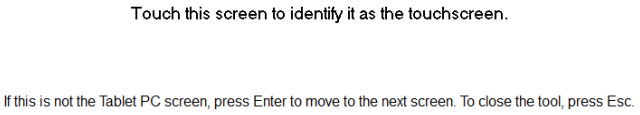
4. Right-click on the Windows icon and select **Control Panel.**

5. Select **Tablet PC Settings**.

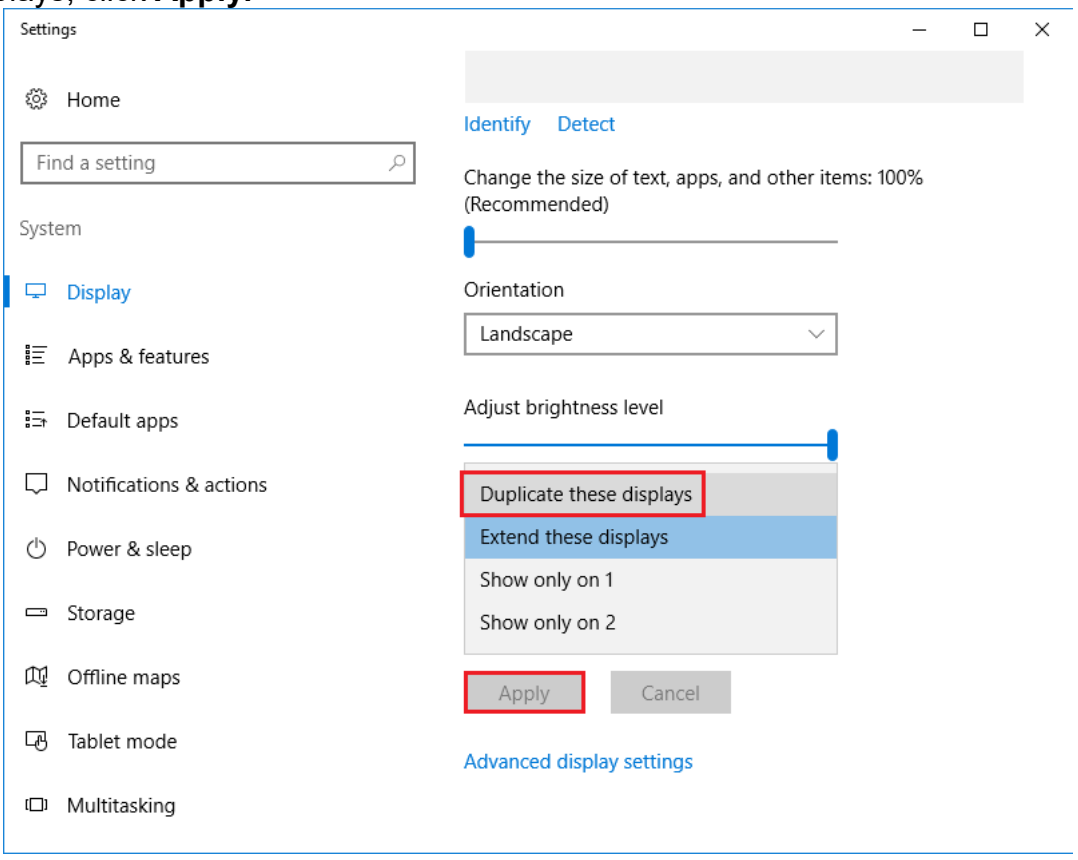


6. Select **Setup**, the window will jump out Touch this screen to identify it as the touchscreen, click the **Touch** and press **ok.**

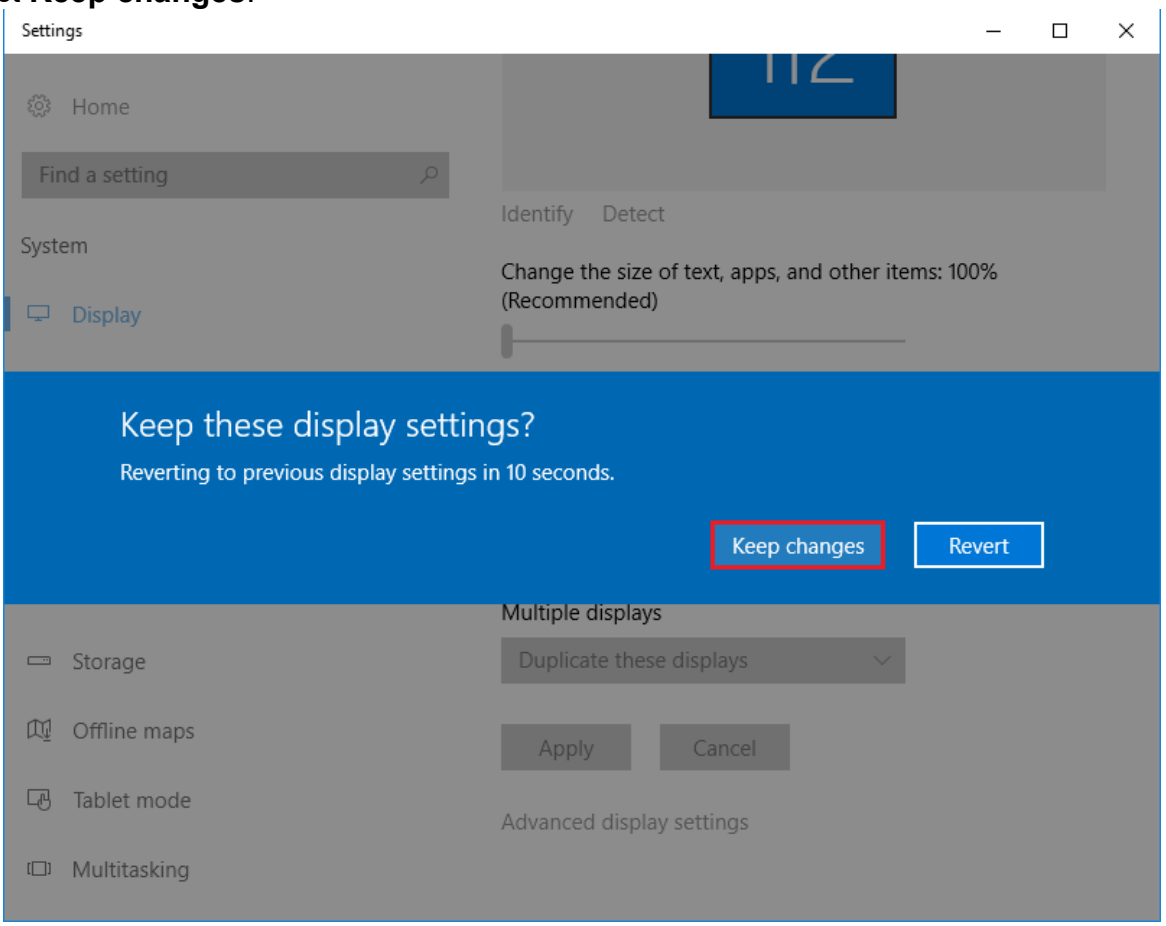




7. Go back to **Display settings** again, Extend these displays have been changed to Duplicate these displays, click **Apply.**



8. Select **Keep changes**.



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