Colormetrics

P1300
User Manual

Version 1.0

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SAFETY INSTRUCTIONS

1. Read these instructions carefully. Keep these instructions for future reference.

2. Please disconnect this device from AC outlet before cleaning. Do not use liquid or spray detergent for cleaning. Use moisture sheet or cloth for cleaning.

3. Please keep your device safe from high levels of humidity.

4. Install the device and its driver on a surface plate. Any tilt plate might cause damage.

5. Do not place anything over the power cord. And avoid people from stepping on it

6. Please be aware cautious note or warnings on the device.

7. If the device will not be used for a long time, please unplug the power cord to avoid damages by transient overvoltage.

8. Never pour any liquid into the device; this could cause fire or electrical shock.

9. If one of the following situations happens, get the device checked by a service personnel:
   a. The power cord or plug is damaged.
   b. Liquid has penetrated into the device.
   c. The device has been exposed to moisture.
   d. The device does not work well or you cannot get it work according to user manual.
   e. The device has dropped and damaged.

10. Do not leave this device in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the device.

11. Unplug the power cord when doing any service or adding optional kits.

Lithium Battery Caution:

1. 1. Danger of explosion can happen if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacture's instructions.

2. Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

CE Notice

This device complies with the requirements of the CE directive.

WEEE Notice

This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.

1-1   Standard Accessories

System

Power cord

Driver Bank

90W Power Adaptor

1-2   Optional Accessories

VFD

8" or 10.4" 2nd Display

MSR

i-button

Barcode Scanner 1D / 2D

2-1 Rear View

Power Switch | DC 19V IN | LAN | USB 2.0 x 2 | USB 3.0 x 4 | RJ11 | VGA | COM1 | COM2 | COM3
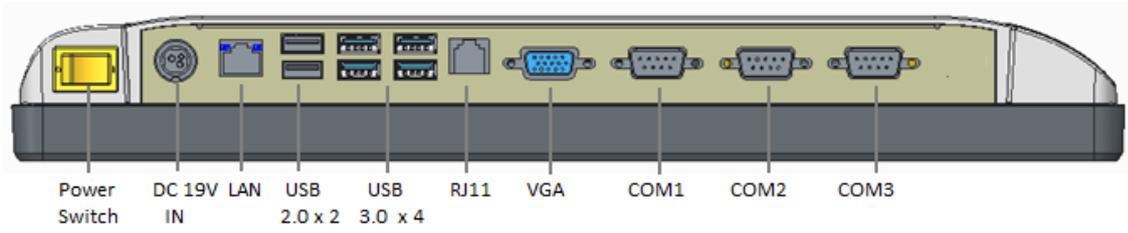
⚠ **Please make sure the 19V DC is plugged in the right direction before plugging in DC jack.**

2-2 Back View

HDD TRAY

VFD COVER/ 2nd Monitor (optional)

USB PORT/MSR/I-BUTTON (optional)

USB PORT/MSR/I-BUTTON (optional)
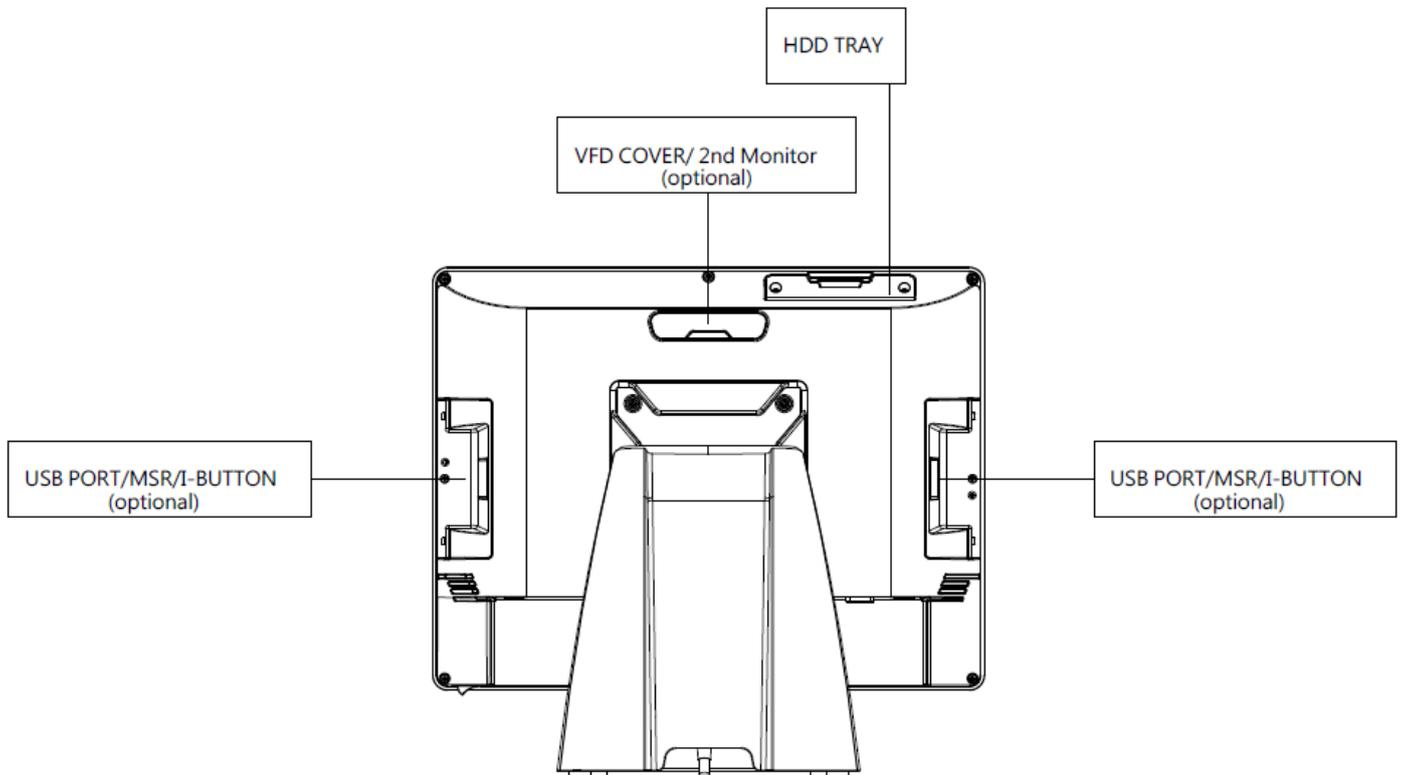
2-3 Specifications

Display	Display Size	15" eDP Panel
	Resolution	1024 X 768
	Brightness / Color	350 cd/m^2 , 16.7M colors
Touch Panel	Type	Projected Capacitive touch
Processor	CPU/ Chipset	Intel® Core™ i3-7100U (Dual Core 3M Cache, up to 2.40 GHz)
Memory		x 1 (DDR4-2133MHz SO-DIMM, up to 16GB)
Storage		x 1 (2.5" SATAIII SSD)
I/O Connectors	USB 2.0	x 2 (Rear), x 2 (Side)
	USB 3.0	x 4 (Rear)
	Powered COM (RS232)	x 3 (DB9 Power COM RI/ 5V/ 12V selected by jumper)
	Cash Drawer Port	x 1 (24V RJ11)
	Audio Port — Internal Speaker	1 x 2W
	LAN	x 1 (RJ45 10/100/1000 Base-T)
	VGA	X 1 (DB15)
	DC In	Lockable 3-pin DC input
OS Support		Linux / Win 10 IoT Enterprise
Optional Peripherals		VFD / 8", 9.7" customer display / MSR / iButton / 2D barcode scanner / WiFi
Power Supply		90W 19V lockable 3-pin DC input power adapter
Environment	Temperature — Operation	32° to 95° F (0° to 35° C)
	Temperature — Storage	-4° to 140° F (-20° to 60° C)
	Relative Humidity	20% to 80% non-condensing
Dimension (W x D x H) mm		364 x 229 x 334
Certifications		CE / FCC / LVD
Protection		IP64 on front bezel

2-4 Internal Layout

M/B PCBA

- M.2 E Key
- SATA III
- MSR/iButton
- MSR/iButton
- Speaker
- Power button
- Power LED
- DDR4 Socket
- DC in 19V
- RJ45 USB 2.0
- USB3.0
- RJ11
- VGA
- COM1
- COM2
- COM3
- USB 3.0

11
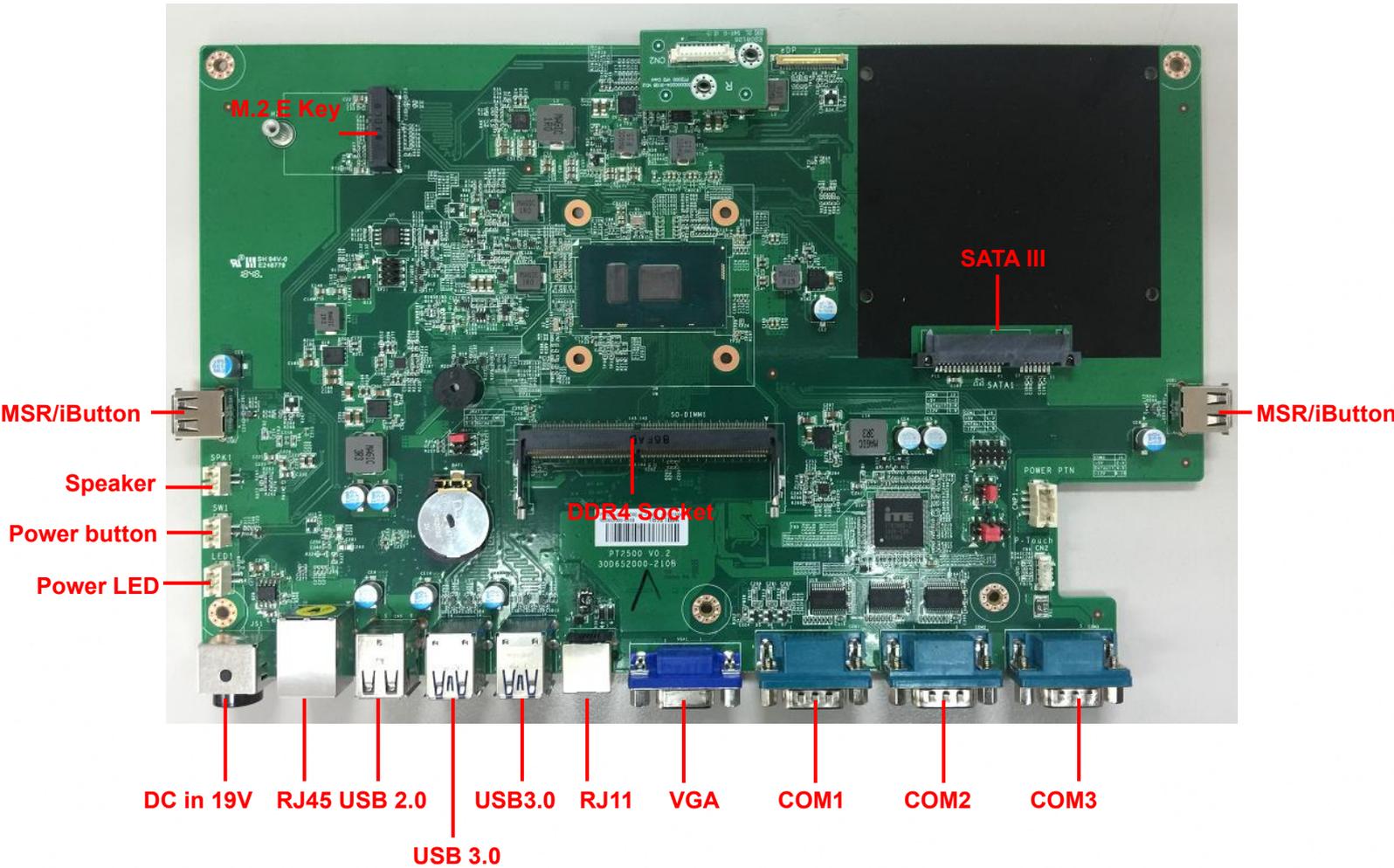
1. J1: eDP connector Pin Definition

No.	Definition	No.	Definition
1	NC	16	GND
2	GND	17	DDI2_DP_HPD
3	DDI2_DP_TX1_DN	18	GND
4	DDI2_DP_TX1_DP	19	GND
5	GND	20	GND
6	DDI2_DP_TX0_DN	21	GND
7	DDI2_DP_TX0_DP	22	BL_Enable
8	GND	23	BL PWM DIM
9	SOC_EDP1_AUX_P	24	NC
10	SOC_EDP1_AUX_N	25	NC
11	U3Rxp1	26	+12V
12	+V3.3V	27	+12V
13	+V3.3V	28	+12V
14	NC	29	+12V
15	GND	30	NC

2. SATA1: SATA Pin Definition

No.	Definition	No.	Definition
1	GND	12	GND
2	SATA_TX0_P	13	GND
3	SATA_TX0_N	14	+V5
4	GND	15	+V5
5	SATA_RX0_N	16	+V5
6	SATA_RX0_P	17	GND
7	GND	18	GND
8	N/C	19	GND
9	N/C	20	N/C
10	N/C	21	N/C
11	GND	22	N/C

3. SW1: Power On/Off connector Pin Definition

No.	Definition
1	Power-ON#
2	GND

4. CN2: Touch panel connector Pin Definition

No.	Definition
1	+5V
2	USB D-
3	USB D+
4	GND

5. USB1/USB2: Sideward MSR connector Pin Definition

No.	Definition
1	+5V
2	D-
3	D+
4	GND

6. CN1: VFD connector Pin Definition

No.	Definition
1	+5V
2	DSR#
3	USB D-
4	RxD
5	USB D+
6	TxD
7	GND
8	RTS#
9	CTS#
10	DTR#

System

1. DC Jack Pin Definition

No.	Definition
1	+19V
2	Ground
3	+19V

2. 2-Layer USB2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	5	+5V
2	D-	6	D-
3	D+	7	D+
4	GND	8	GND

3. 2-Layer USB3.0+2.0 connector Pin Definition

No.	Definition	No.	Definition
1	+5V	10	+5V
2	D-	11	D-
3	D+	12	D+
4	GND	13	GND
5	RX-	14	RX-
6	RX+	15	RX+
7	GND	16	GND
8	TX-	17	TX-
9	TX+	18	TX+

4. LAN: RJ45 Pin Definition

No.	Definition
1	MDI0A+
2	MDI0A-
3	MDI1A+
4	MDI1A-
7	MDI2A+
8	MDI2A-
9	MDI3A+
10	MDI3A-

5. COM connector Pin Definition

No.	Definition
1	DCD1#
2	RxD
3	TxD
4	DTR#
5	GND
6	DSR#
7	RTS#
8	CTS#
9	5V/12V/Ring#

Powered COM 5V/ 12V selected by jumper

COM1	J4
+5V	1-3
Default	3-5
+12V	7-9

COM2	J4
+5V	2-4
Default	4-6
+12V	8-10

COM3	J3
+5V	1-2
Default	3-4
+12V	5-6

6. RJ11 (Cash Drawer) connector Pin Definition

No.	Definition
1	GND
2	SOUT6_RJ11
3	RI#6
4	+24V
5	N/C
6	GND

7. LED1: Power Button Pin Definition

No.	Definition
1	+5V standby
2	GPIO

8. SPK1: Int. Speaker Pin Definition

No.	Definition
1	Out+
2	Out-

9. Cash Drawer connector Pin Definition

No.	Definition
1	GND
2	SOUT6_RJ11
3	RI#6
4	+24V
5	N/C
6	GND

5-1. HDD/SSD

1. Dis-fasten 2 screws.

2. Pull out the hard drive case in an outward direction to remove it from the system.

3. Install the hard drive in the hard drive case and fasten 4 hard drive case screws.
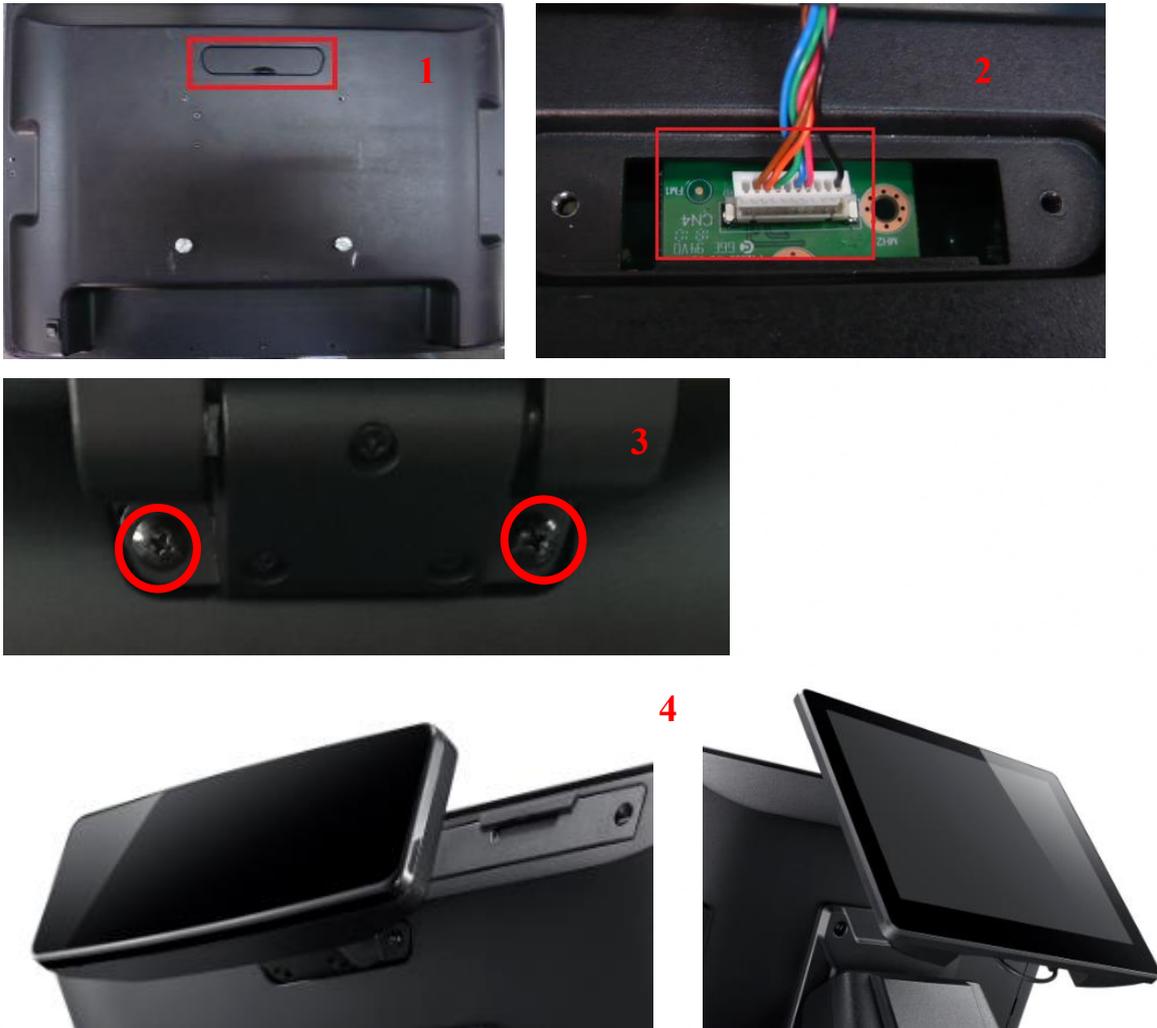
5-2. RAM

1. Dis-fasten 13 screws and remove the back cover.
2. Insert the RAM into the RAM slot.

5-3. MSR / i-Button / RFID

1. The MSR/i-Button easily install on the side of the LCD Touch Screen's USB 2.0 connector.

2. Insert the USB connector on the MSR/i-Button into the side USB port

3. Secure the module with the two screws onto the system.

5-4. VFD / 8"/ 9.7" 2nd Display

1. Remove top cover.

2. Either plug the VFD cable into the VFD connector or plug the 8" or 9.7" 2nd display cable into the

   2nd display's connector (note: display connector can only be connected to one device at a time).

3. Install VFD with 2 screws / Install 8"or 9.7" 2nd display with 2 screws.

4. VFD/2nd display installation is complete as shown in the picture

5-5. 1D/2D Barcode Scanner

1. Install the barcode scanner with bracket attached by tightening the 2 screws

2. Plug the barcode scanner Type-A Male USB cable into a USB port

6-1. MagSwipe Card Reader /i-Button reader Configuration utility

The MagSwipe Configuration utility is used to set up the output format of MagSwipe

CIDTestAp V07.01 Operation Manual

1.   Device Connection

2.   Utility Features

3.   Configuration Setup

Version: V01.00 .

1.   Device Connection

1. USB(HID) Interface

Select the USB HID device which has been plug into the PC USB port, enter the correct Vendor ID = 0E6A and Device ID then press 'OK", different device has its own Device ID., e.g. DID=0x030F for keyboard and HID USB, DID=0x5082 for keyboard, HID and VCP USB.
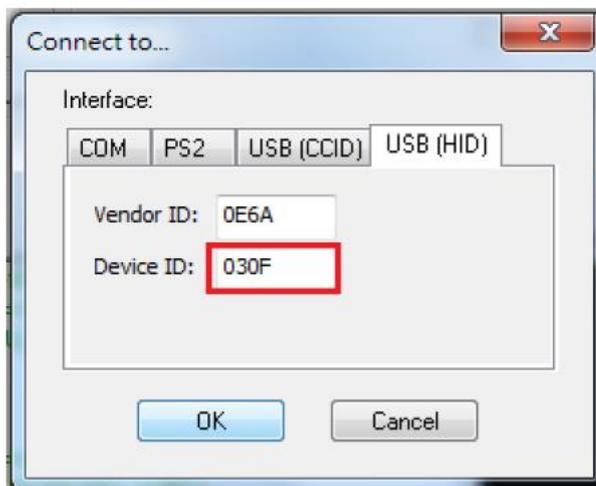
2. Utility Features

After success device connection each supported command will get its response, e.g. Get Version command should response with the device HW/FW version, for all command set supported please reference its programming guide.

There are two command/response windows can be used (see block1 & 2).

For second level device the Indirect command signal should be selected (see block3 & 4). Press the button "Configure Word" to enter the parameter setting function (see Block 5). The two response windows show up the data from the device connected.
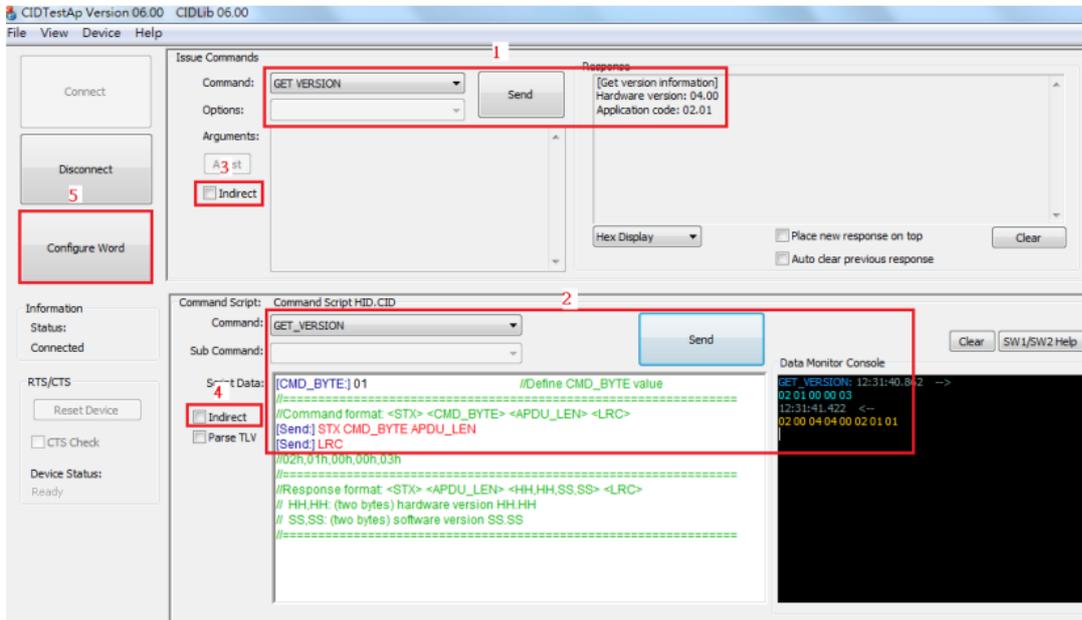
2. Configuration Setup

Device functions(e.g. MSR, i-Button, RFID, Chip card) behavior can be defined and stored by this tool.

Four operation buttons define as below:

"Load From File": Load the previous setting configuration file from storage.

"Save To File": Save the current screen setting to file in storage.

"Get Configuration Word": Get current setting in the device connected.

"Set Configuration Word": Set current setting on the screen to the device connected.
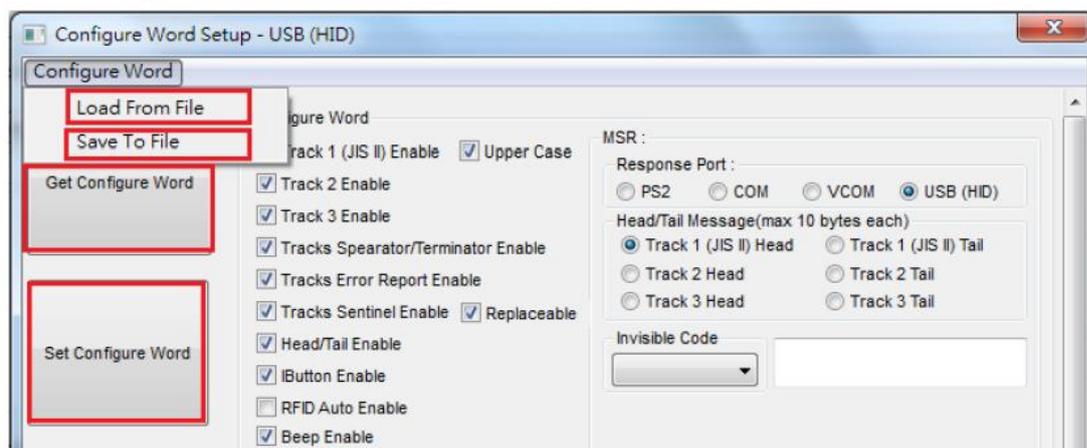
16 parameter areas(see below) are used for four functions, each function related area should be setup correctly and press Set Configure Word button before operation.

MSR function areas: 1,2,5,6,9,11,12,13

i-Button function areas: 2,3,5,7,10,11,14

RFID function areas: 2,4,5,8,11,15

Chip card function areas: 16
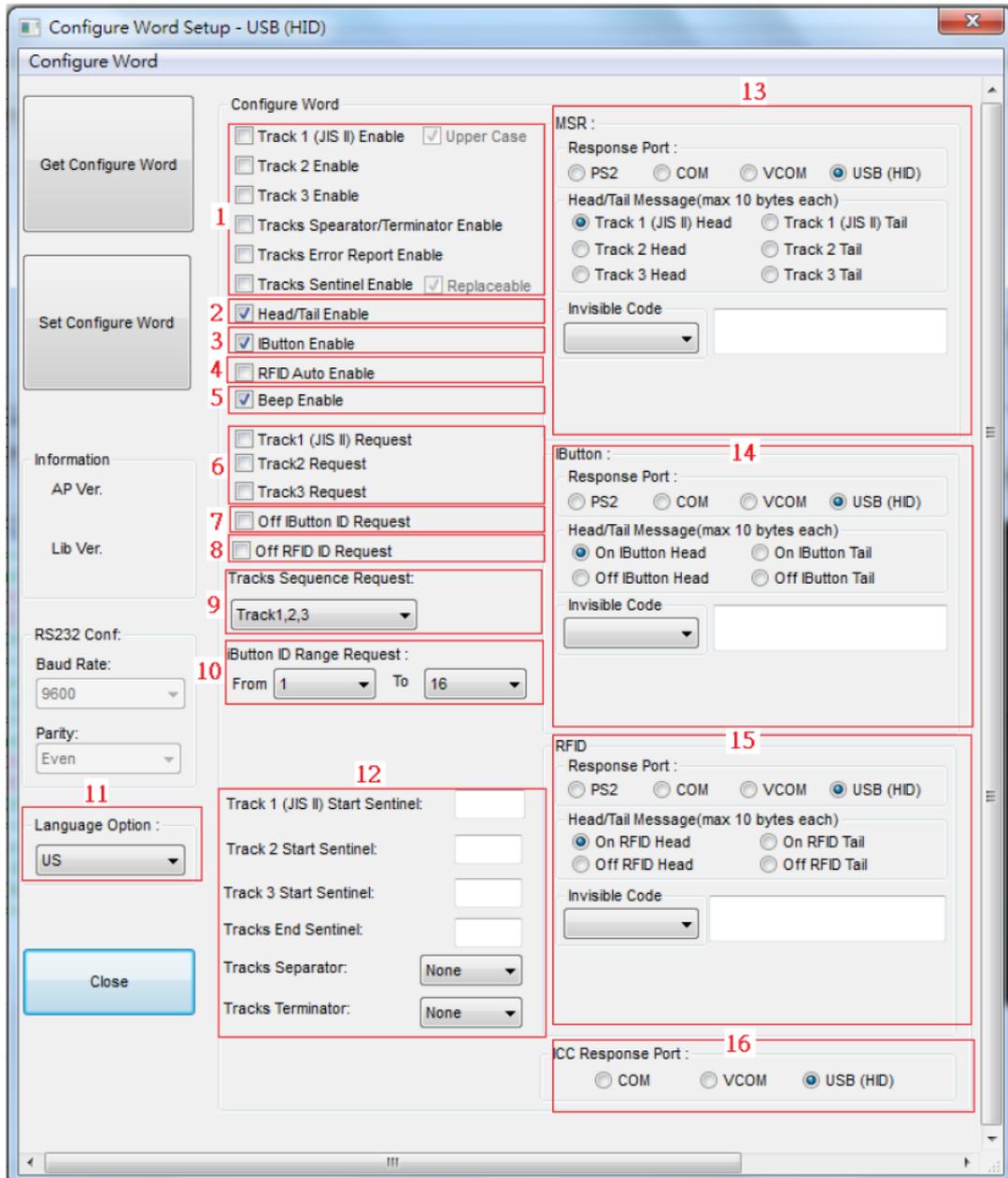
Configure word detail

Area 1

Track 1 (JIS II) Enable:	If enabled, the track 1 data will response.
Track 2 Enable:	If enabled, the track 2 data will response.
Track 3 Enable:	If enabled, the track 3 data will response.
Upper Case:	If selected, the track1 data read will transfer to upper case before response.
Track Separator /Terminator Enable:	If enabled, the reader will send Track Separator and Track Terminator code defined in this configure word between tracks data or after the last track data.
Track Error Report Enable:	If enabled, the character "F" will response when track data read fail.
Track Sentinel Enable & Replaceable:	If enabled, the reader will send start and end sentinel at begin and last position of each track data. If replaceable, these sentinels will be replaced by the sentinel defined in this configure word.

Area 2

Head/Tail Enable:	If enabled, all of the Head/Tail message defined in this configure word will prefix and suffix to each data returned.

Area 3

i-Button Enable:	If enabled, i-Button key ID may response when key attached or removed.

Area 5

Beep Enable:	If enabled, the beeper will activate to indicate the operation result.

Area 6

Track 1 (JIS II) Request:	If selected, the reader will response track data only if track1 read correctly.
Track 2 Request:	If selected, the reader will response track data only if track2 read correctly.
Track 3 Request:	If selected, the reader will response track data only if track3 read correctly.

Area 7

Off i-Button ID Request:	If selected, key ID will response while key removed.

Area 8

Off RFID ID Request:	If selected, RFID ID will response while RFID card removed.

Area 9

Tracks Sequence Request:	Select the order of three tracks data returned.

Area 10

i-Button ID Range Request:	Define the i-Button data range returned.

Area 11

Language Option:	Select one of supported keyboard language for PS2 or keyboard USB interface.

Area 12

Track 1 (JIS II) Start Sentinel:	Define Track 1 Start sentinel byte, default is "%".
Track 2 Start Sentinel:	Define Track 2 Start sentinel byte, default is ";".
Track 3 Start Sentinel:	Define Track 3 Start sentinel byte, default is "+".
Tracks End Sentinel:	Define all Tracks End sentinel byte, default is "?".
Tracks Separator:	Define the insertion byte between each track data returned.
Tracks Terminator:	Define the appending byte after the last track data returned.

Area 13

MSR Response Port:	Select MSR data response port right after swiped.
Head/Tail Message:	Message prefix and suffix to each track data returned.
Each Head/Tail accepts10 bytes max. long. Invisible code:	Enter keyboard control code.

Area 14

I-Button Response Port:	Select i-Button key ID response port right after key attached or removed.
Head/Tail Message:	Message prefix and suffix to key data returned. Each Head/Tail accepts10 bytes max. long.
Invisible code:	Enter keyboard control code.

Area 15

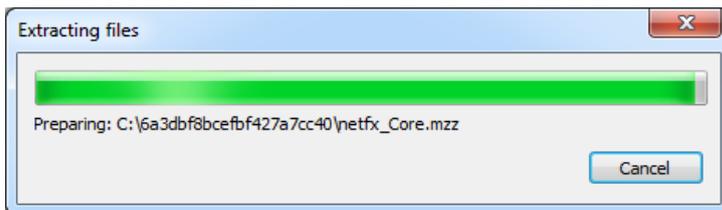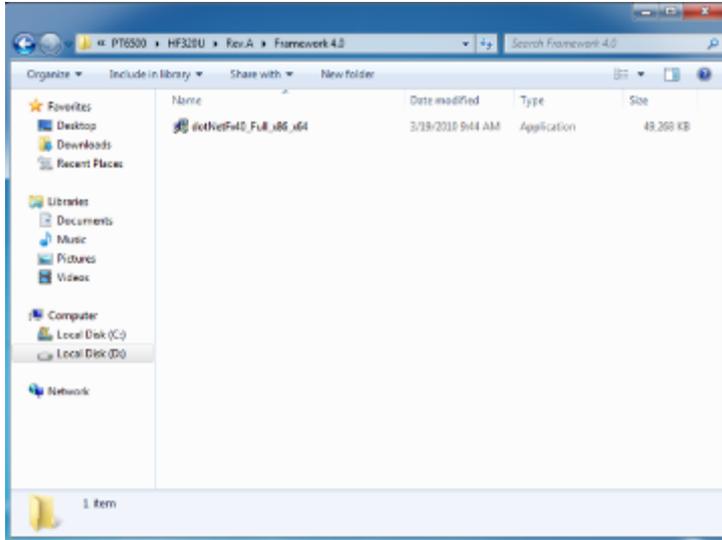| RFID Response Port:	Select RFID ID response port right after tag attached or removed.
Head/Tail Message:	Message prefix and suffix to tag data returned. Each Head/Tail accepts10 bytes max. long.
Invisible code:	Enter keyboard control code.

Area 16

ICC Response Port:	Select chip card auto. ATR response port,

6-2. Install framework 4.0

1. Double-click to install.

2. Select "I have read and accept the license terms. And click Install..
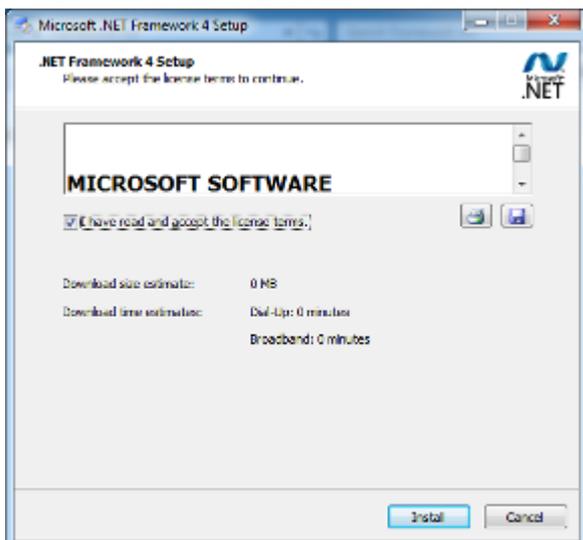
3. Click Finish.
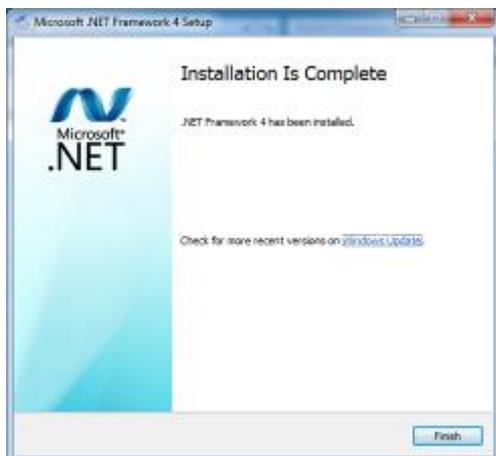
6-3. VFD

1. Power on VFD and waiting test page of EEPROM test, Baud rate and Command page. Set up the customer display by " VFDset.exe"

2. Setup VFDset.exe software.

Colormetrics P1300   www.colormetrics.info
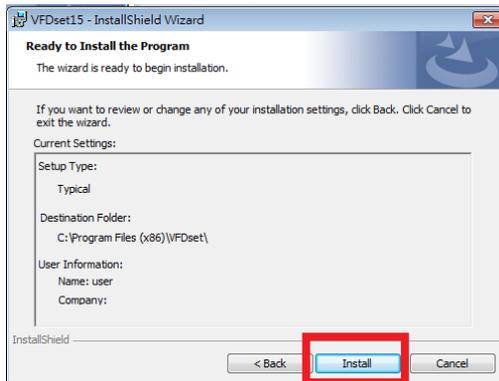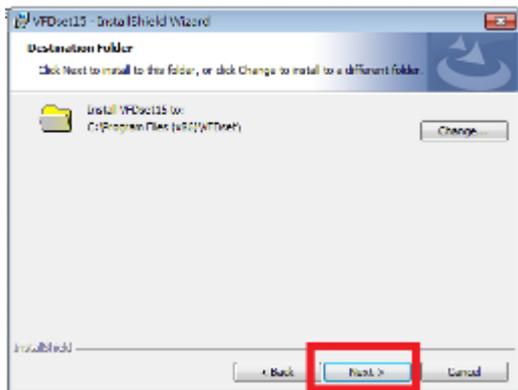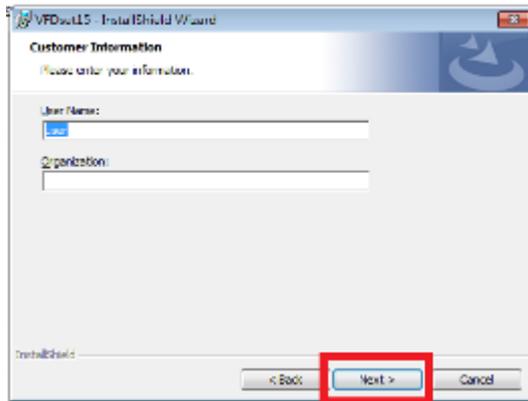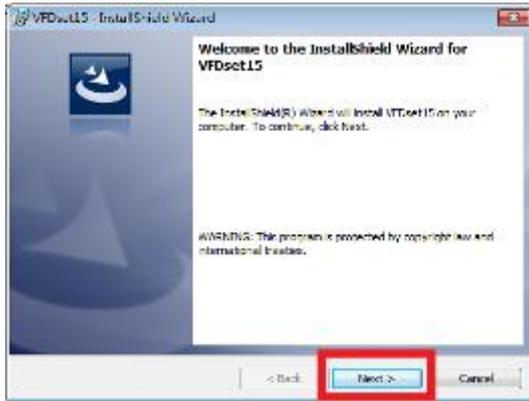
3. To execute "VFDset.exe" for setting up communication between software and VFD module.
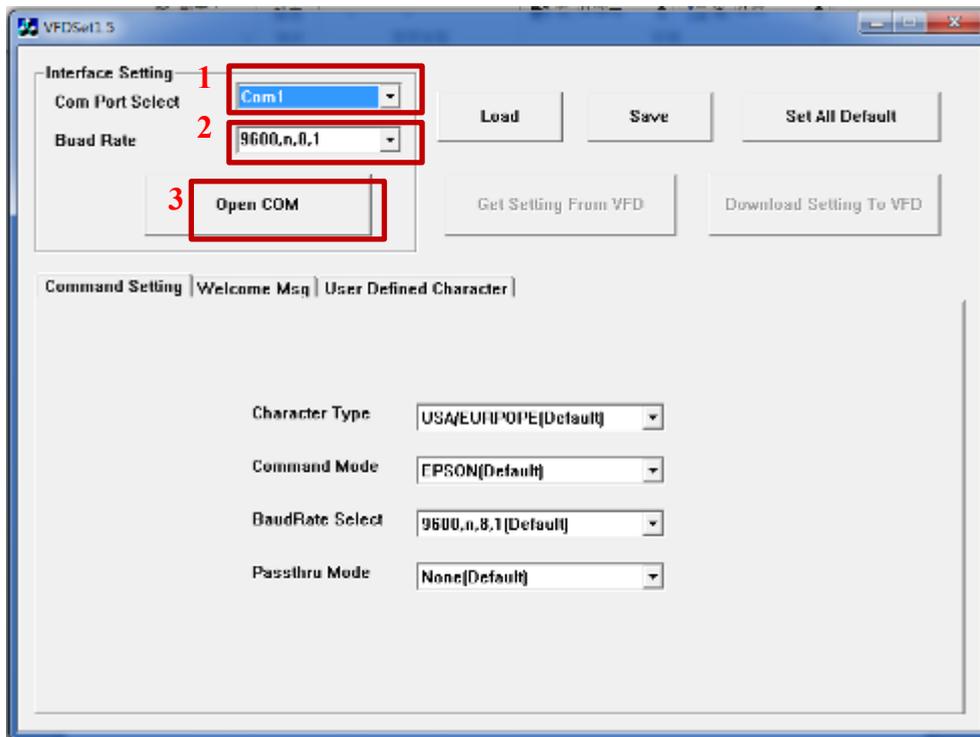
Please then follow the steps as shown in the above figure, the baud rate will show on states page of VFD module (Note: You may check it when power on VFD module), then click "Open COM" button.

4. "Get Setting from VFD" button to get all the settings from Clientron and it'll refresh the "VFDset.exe" software.

5. Select "Character Type"/ "Command Mode"/ "Baud Rate Select"/ "pass thru Mode".
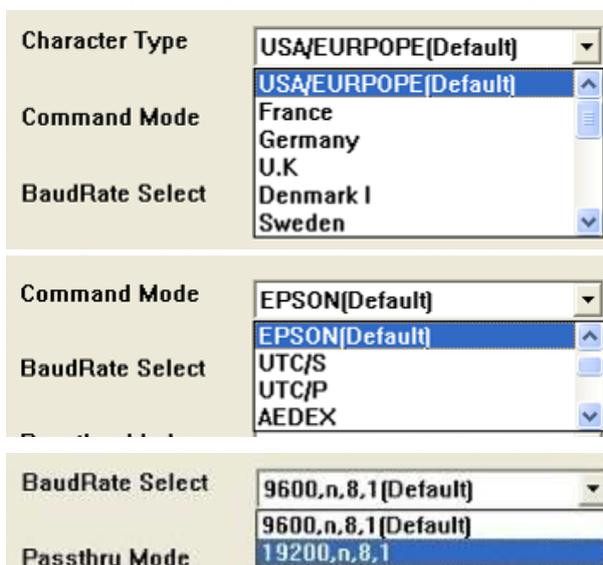
6. Click "Set All Default" button to show default setting, the Default table is

    Character Type   : USA
    Command Type   : EPSON/EURPOPE
    Baud Rate Setting   : 9600/n/8/1
    Pass-through Mode   : None
    Welcome msg line1   : *** VFD DISPLAY ***
    Welcome msg line2   : **HAVE A NICE DAY AND THANK YOU   **

7. Welcome Message

    Welcome Message line1 maximum 20 characters, line 2 maximum 20 characters, total of 40 characters.

    a. ASCII mode

    You can type the character by keyboard (0x20h ~ 0x7Fh), if you press clear icon, it will clear the all Message characters on AP.

    b. Hex mode

    Hex mode can define the character from 0x20h to0xFFh，the range 0x80~0XFF which depends on the code page table.
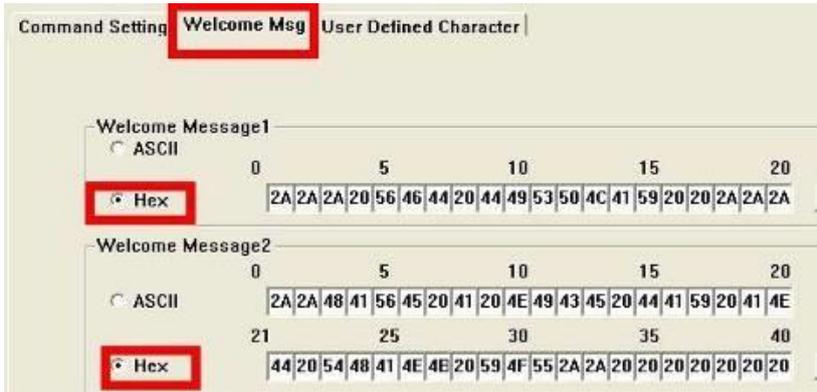
Like the first character (0x80)，in default code page will show on VFD module.

8. Click "Download setting to VFD" button

This button is to download the setting from VFDset.exe to VFD module. After success dialog
"Download O.K! Please restart!" message popped up. Please restart display for enable new setting

9. Click "Save" button

To save user's setting in file; for example, below picture to save file name as "GOODLUCK" file
set for Welcome Message.

33
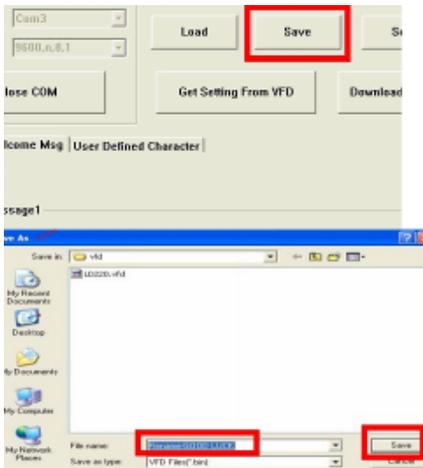
10. Click "Load" button

After saving, you must restart the utility here. Then load your setting rename-GOODLUCK.vfd.

1. Double-click to install.

 CTUtil_Setup_6.0.3.4.exe
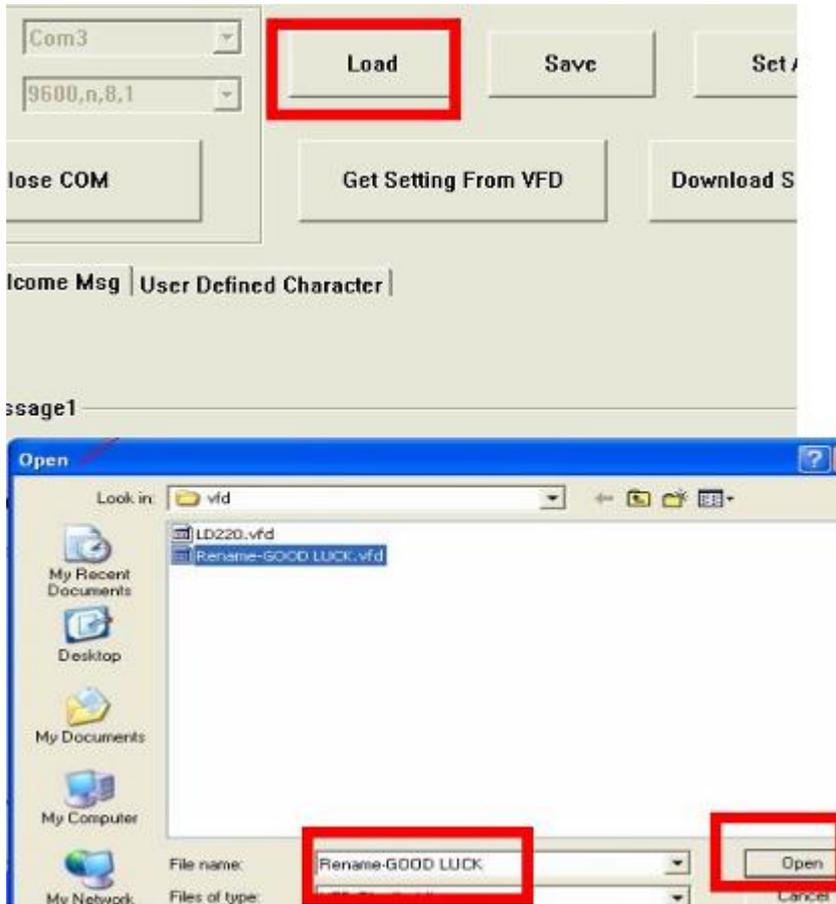
2. Select Next than install
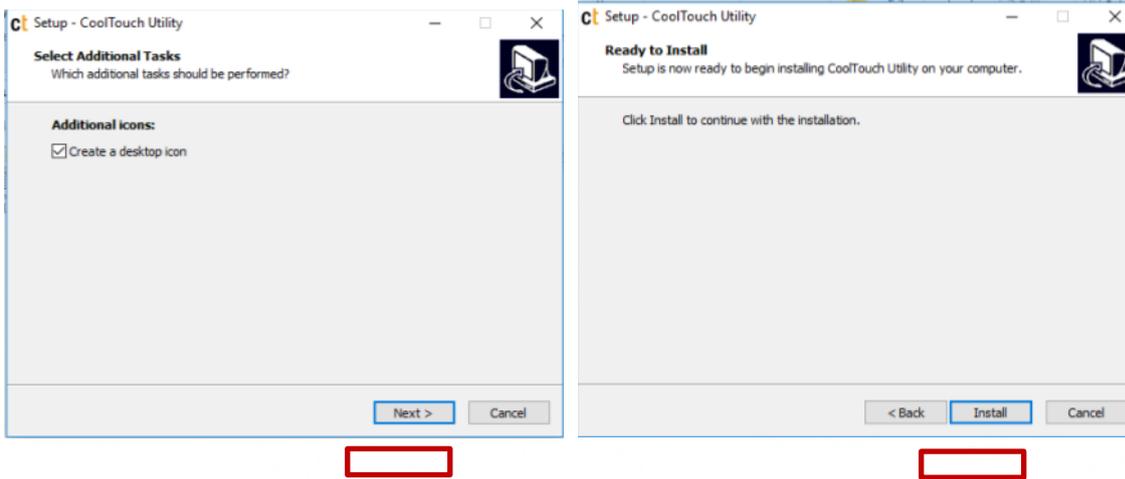
3. Reset your system.
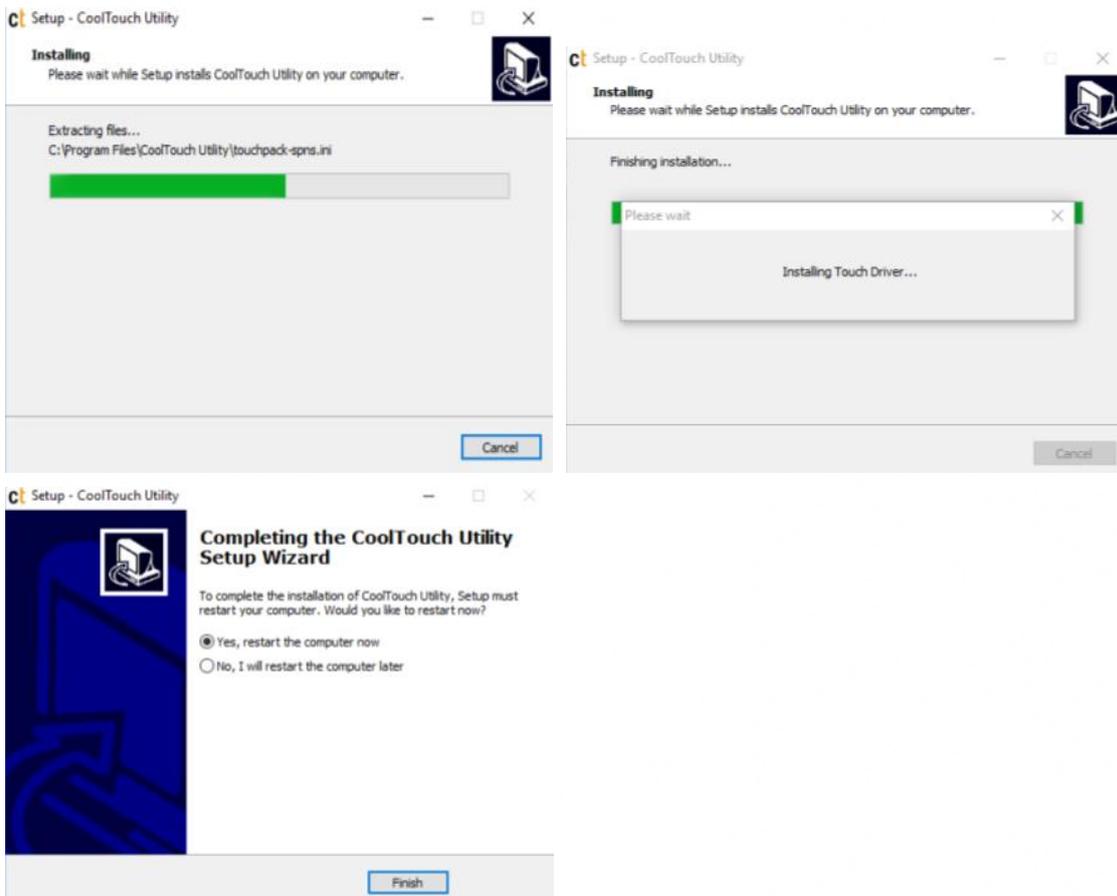
4. Double-click to icon.

5. Open touch utility., at tag of setting, can chose Digitizer or Mouse mode.
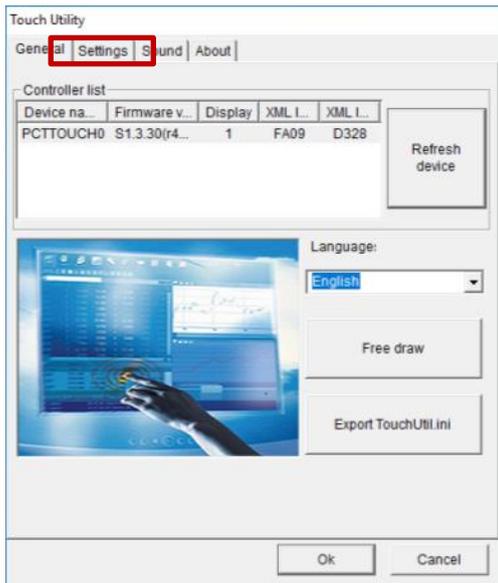
1. Press <DEL > key to enter SETUP CMOS UTILITY when system boot up.
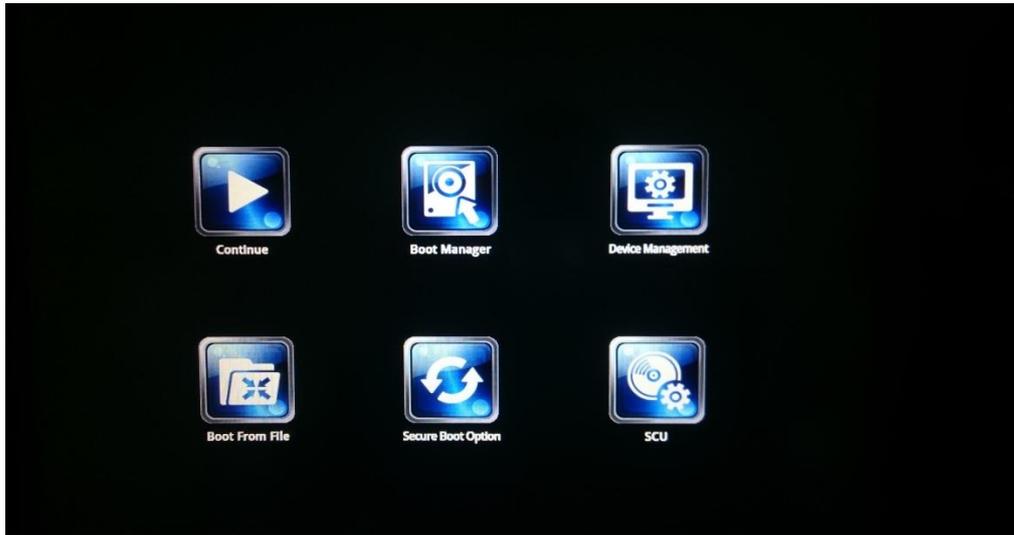
2. Press <ENTER >over SCU button to enter the utility.
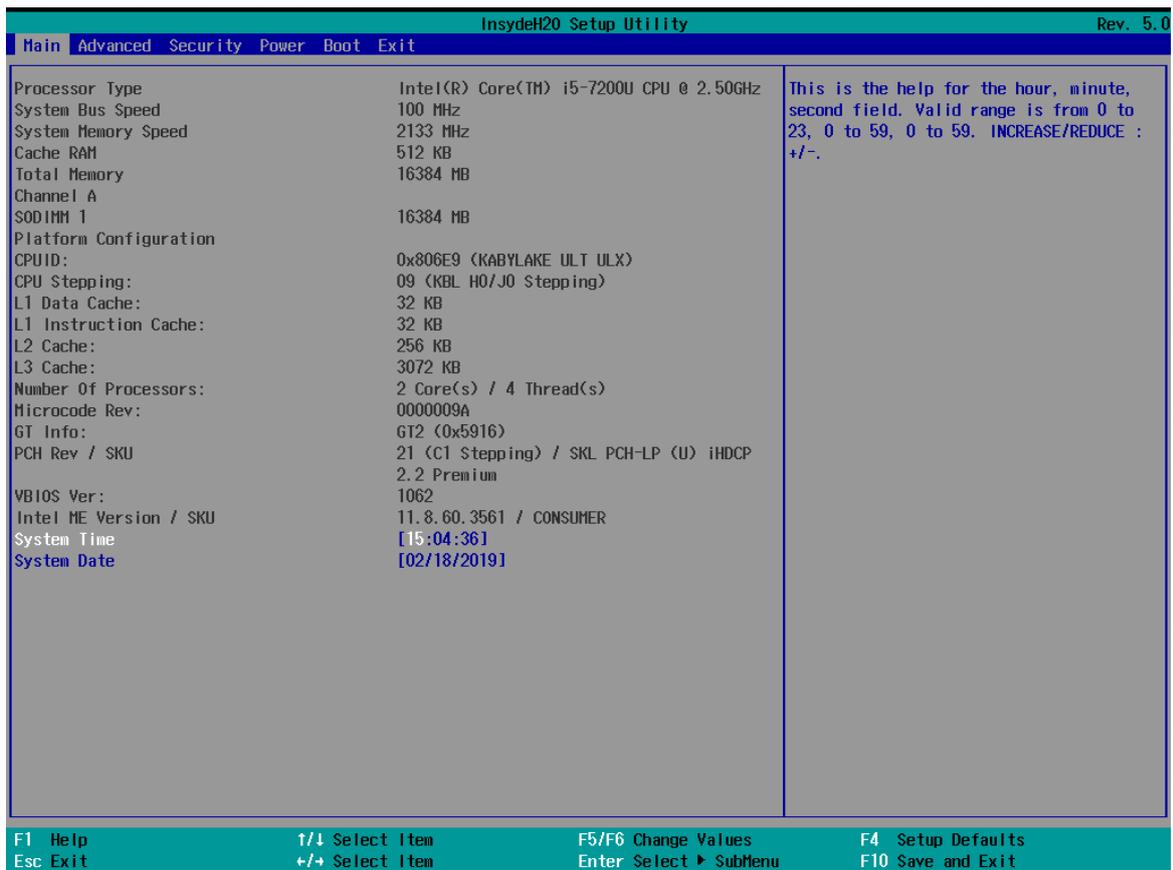
Press <F9> to view the system information.
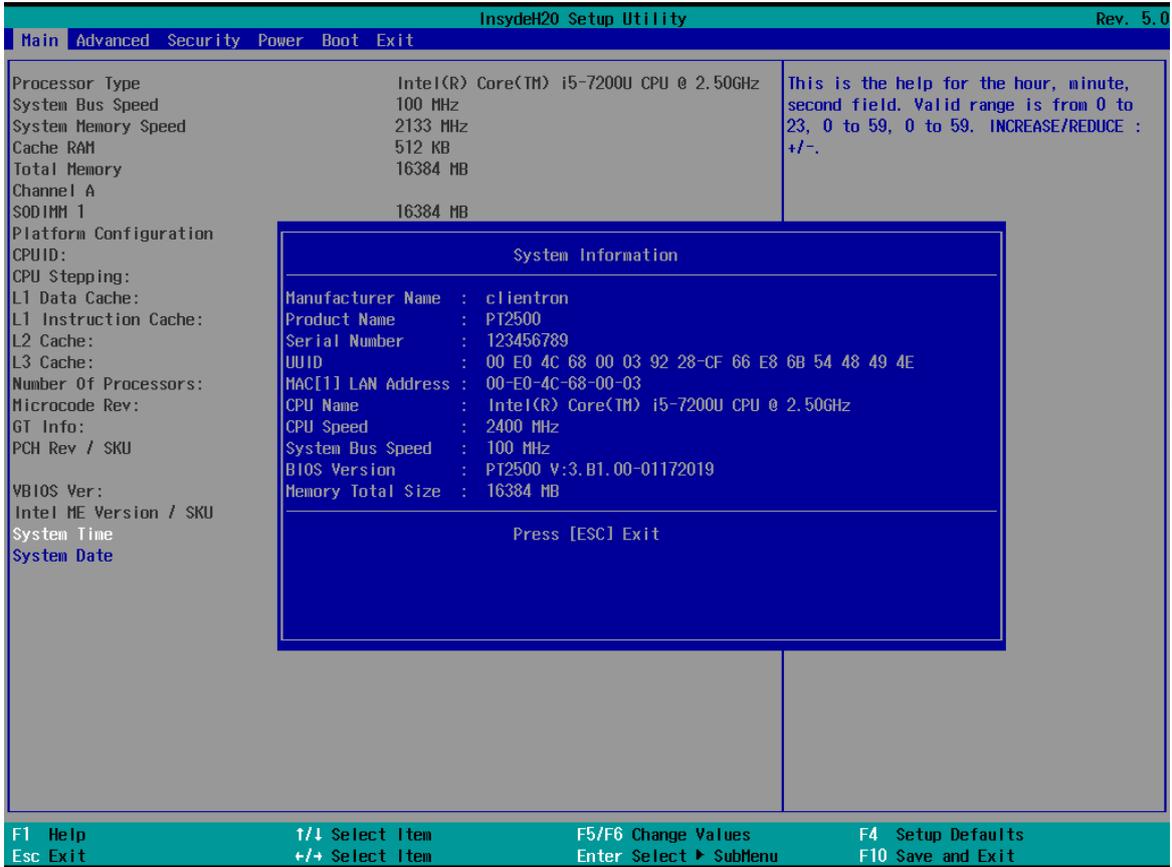
Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

WARNING!

Setting the wrong values in the sections below may cause the system to malfunction. Make sure that the settings made are compatible with the hardware.

7-1. Advanced

Use the Advanced menu to configure the system for basic operation through the following sub-menus:

```
                              InsydeH20 Setup Utility                              Rev. 5.0
 Main  Advanced  Security  Power  Boot  Exit
                                                       Configures Boot Settings.
▶Boot Configuration
▶SATA Configuration
▶Audio Configuration
▶Graphics Configuration
▶SIO ITE8786E




 F1  Help              ↑/↓ Select Item       F5/F6 Change Values      F4  Setup Defaults
 Esc Exit              ←/→ Select Item        Enter Select ▶ SubMenu   F10 Save and Exit
```
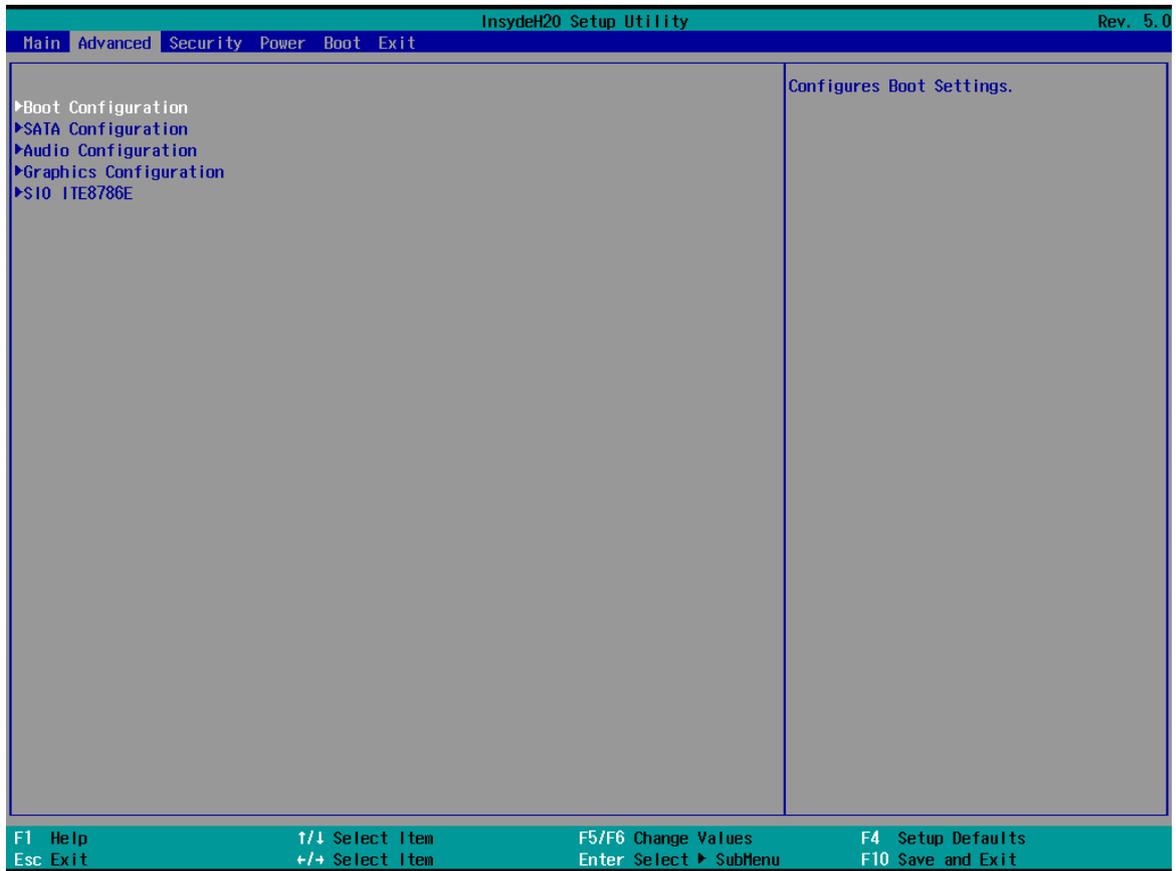
7-1-1. Boot Configuration

Use the Boot Configuration menu to select power-on state for Numlock.

```
                           InsydeH2O Setup Utility                          Rev. 5.0
   Advanced

  Boot Configuration                                      Selects Power-on state for Numlock

  Numlock                         <On>














  F1  Help              ↑/↓ Select Item      F5/F6 Change Values     F4  Setup Defaults
  Esc Exit              ←/→ Select Item      Enter Select ▶ SubMenu  F10 Save and Exit
```
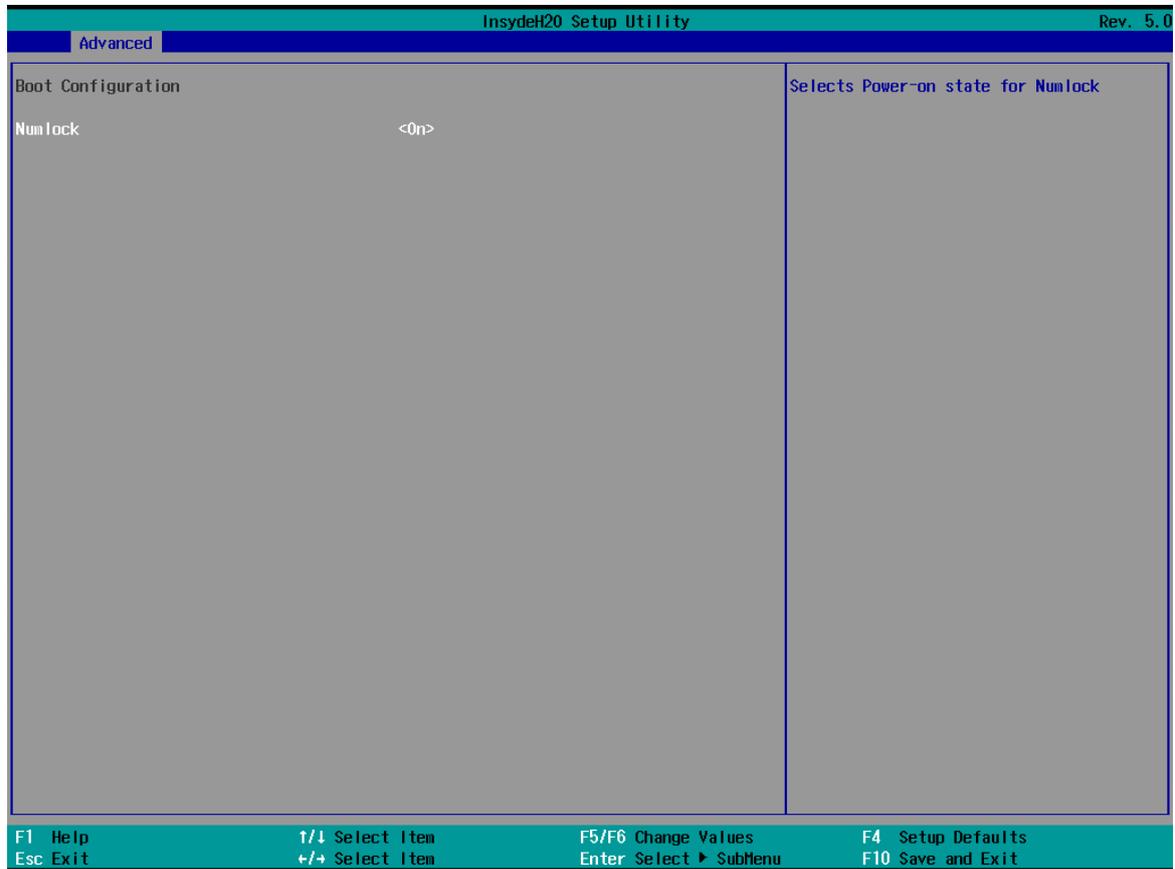
7-1-2. Audio Configuration

Use the Audio Configuration menu to read Audio configuration information and configure the Audio settings

```
                          InsydeH20 Setup Utility                              Rev. 5.0
        Advanced
 Audio Subsystem Configuration Settings                      Control Detection of the Audio device.

 Audio Controller                    <Enabled>               Disabled = Audio will be unconditionally
                                                             disabled

                                                             Enabled = Audio will be unconditionally
                                                             enabled




 F1  Help              ↑/↓ Select Item      F5/F6 Change Values      F4  Setup Defaults
 Esc Exit              ←/→ Select Item       Enter Select ▶ SubMenu   F10 Save and Exit
```
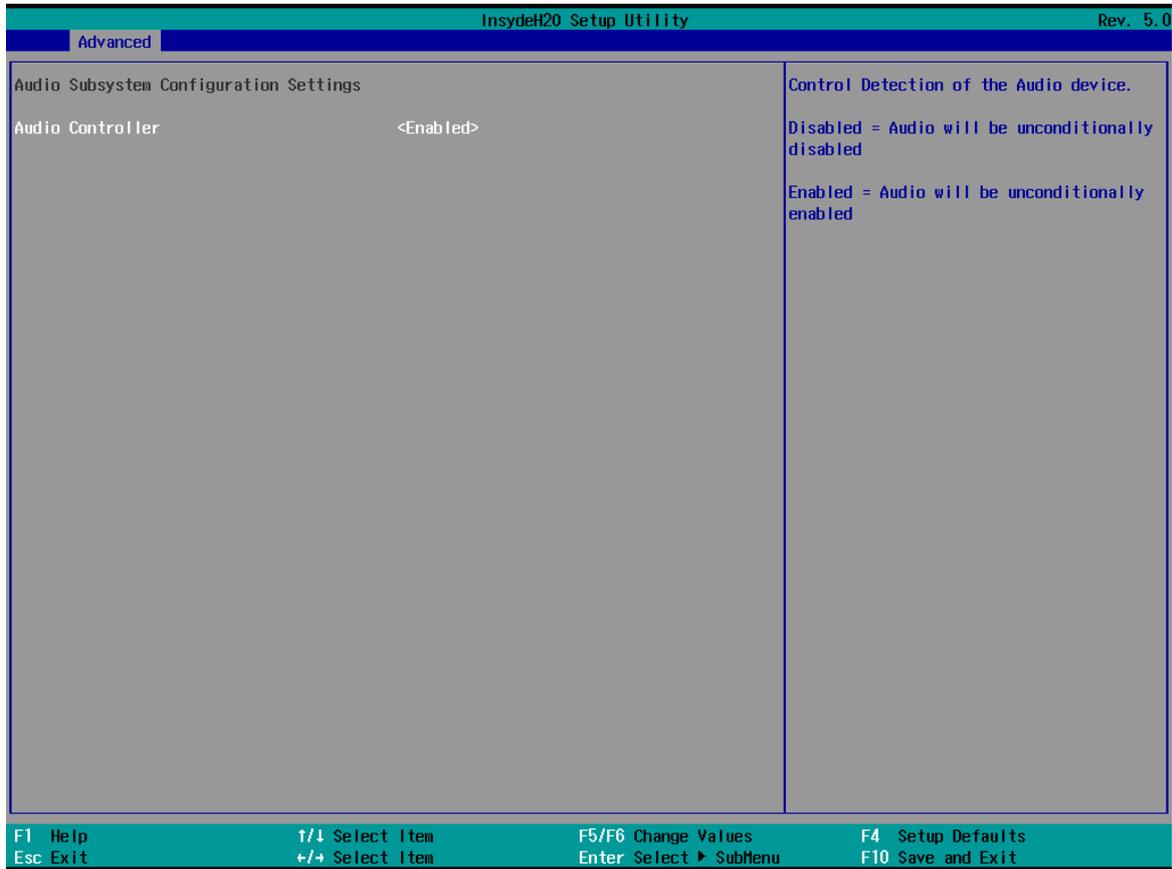
7-1-3. Video Configuration

Use the Video Configuration menu to read Video configuration information and configure the Video settings

```
                              InsydeH20 Setup Utility                              Rev. 5.0
    Advanced
 Graphics Configuration                                      Select DVMT 5.0 Pre-Allocated (Fixed)
                                                             Graphics Memory size used by the
 DVMT Pre-Allocated              <256M>                      Internal Graphics Device.




 F1  Help              ↑/↓ Select Item      F5/F6 Change Values    F4  Setup Defaults
 Esc Exit              ←/→ Select Item      Enter Select ▶ SubMenu F10 Save and Exit
```
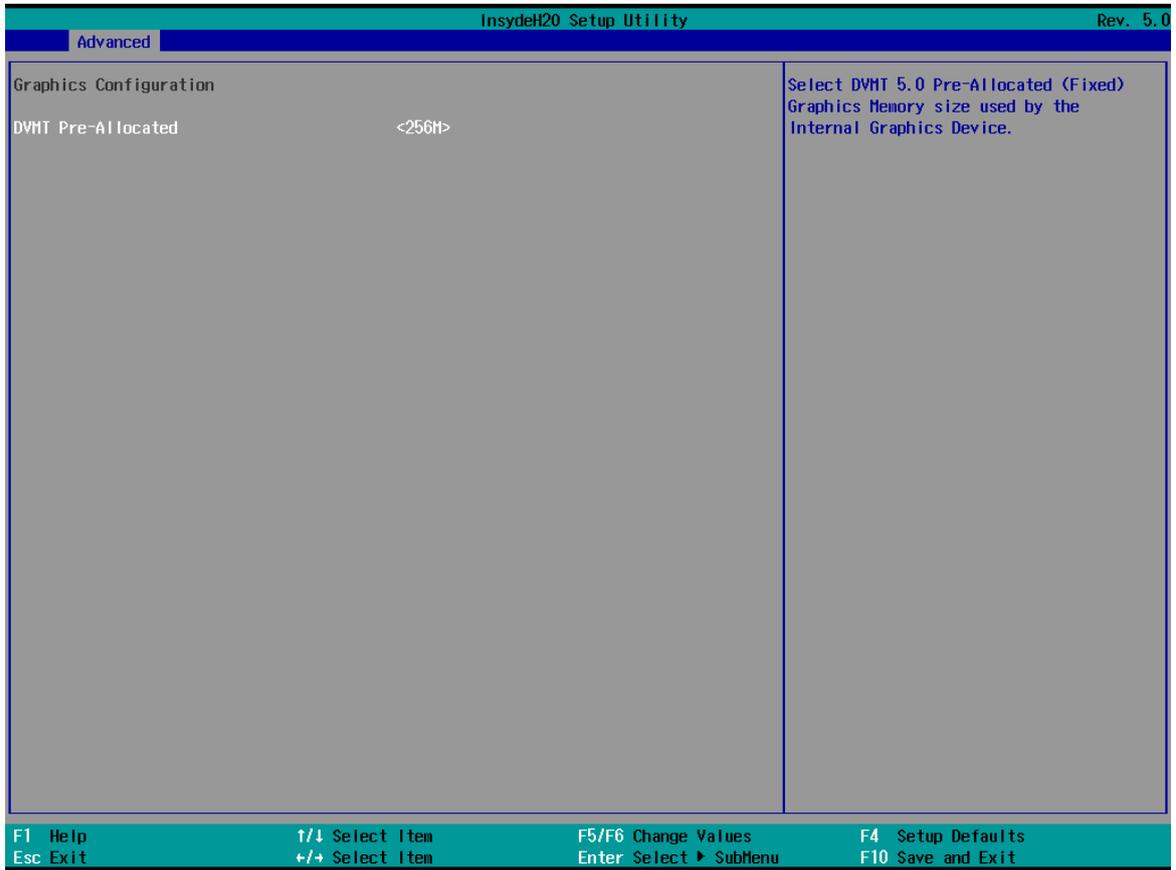
7-1-4. SATA Configuration

Use the SATA Configuration menu to read SATA configuration information and configure the SATA settings

```
                                    InsydeH20 Setup Utility                      Rev. 5.0
        Advanced

  SATA Configuration

 ▶Serial ATA Port 0      [TOSHIBA MQ01ABF032  ]

  F1  Help              ↑/↓ Select Item       F5/F6 Change Values        F4  Setup Defaults
  Esc Exit              ←/→ Select Item       Enter Select ▶ SubMenu     F10 Save and Exit
```
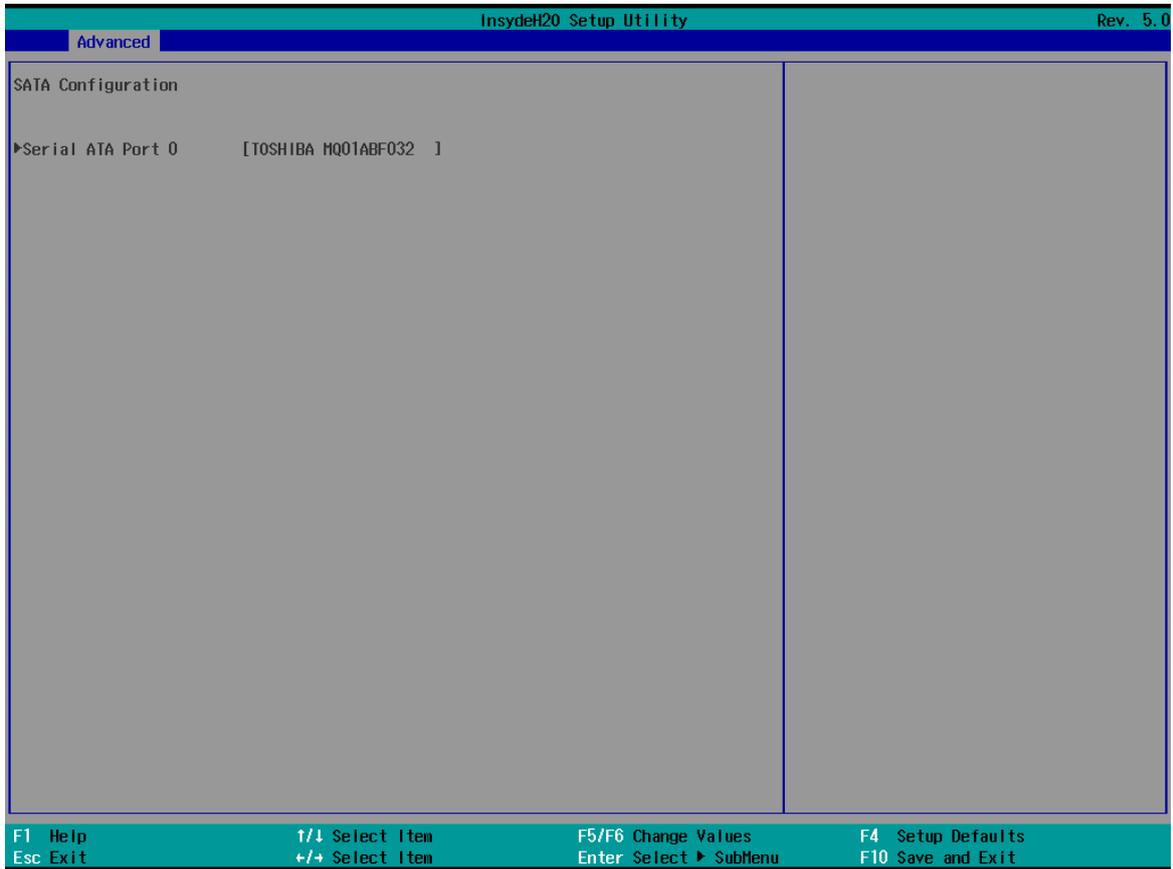
7-2. Security

Use the Security menu to install or change the password

Colormetrics P1300   www.colormetrics.info
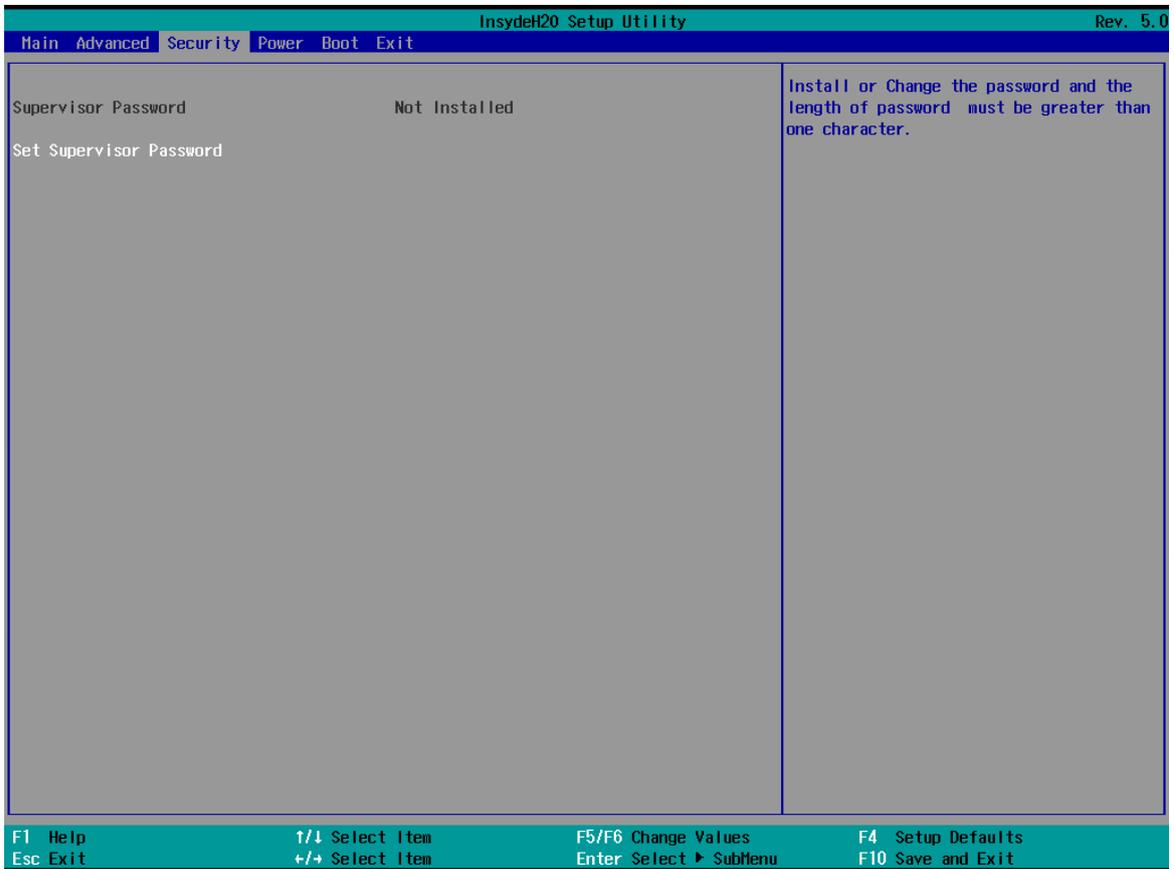
7-3. Power

Use the power menu to install or change the power settings.

```
                            InsydeH20 Setup Utility                          Rev. 5.0
 Main  Advanced  Security  Power  Boot  Exit

 AC Loss Auto Restart            <Power Off>          Specify what state to go to when power
 Wake on LAN from S3             <Enabled>            is re-applied after a power failure (G3
 Wake on LAN from S5             <Enabled>            state).
 Wake on RTC from S5             <Disabled>




















 F1   Help           ↑/↓ Select Item      F5/F6 Change Values        F4   Setup Defaults
 Esc Exit            ←/→ Select Item      Enter Select ▶ SubMenu     F10 Save and Exit
```
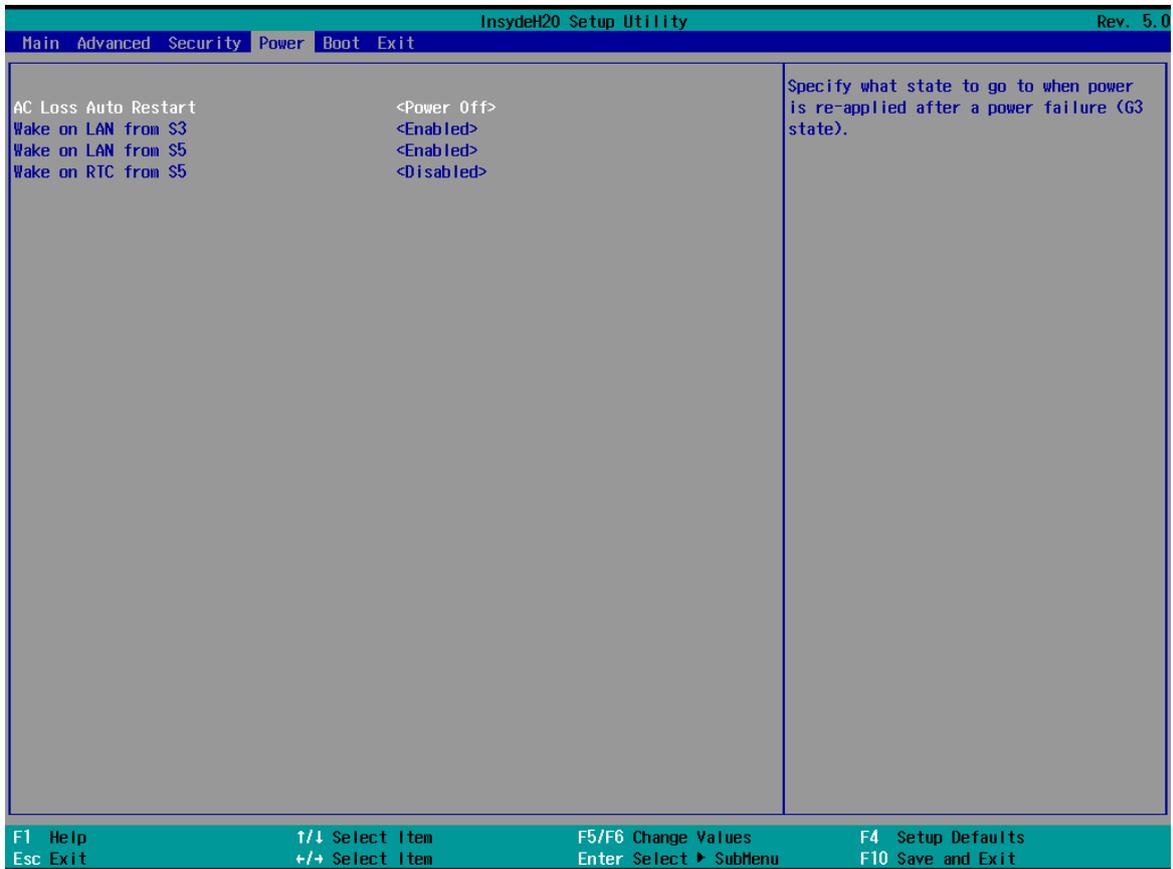
AC Loss Auto Restart

Enable or disable system power on automatically after AC power restored

Wake on LAN

Enable or disable system wake by onboard LAN chip

LVDS Firmware update

This item allows you to enable or disable LVDS Firmware update

7-4. Boot

Use the Boot menu to select type to Dual type, Legacy type or UEFI type.

```
                              InsydeH20 Setup Utility                              Rev. 5.0
  Main  Advanced  Security  Power  Boot  Exit

  Boot Type                      <Dual Boot Type>            Select boot type to Dual type, Legacy
  Quiet Boot                     <Enabled>                   type or UEFI type
  Network Stack                  <Disabled>
  PXE Boot capability            <Disabled>
  USB Boot                       <Enabled>
  EFI Device First               <Disabled>

  ▶EFI
  ▶Legacy




  F1   Help              ↑/↓ Select Item     F5/F6 Change Values     F4   Setup Defaults
  Esc  Exit              ←/→ Select Item     Enter Select ▶ SubMenu  F10  Save and Exit
```
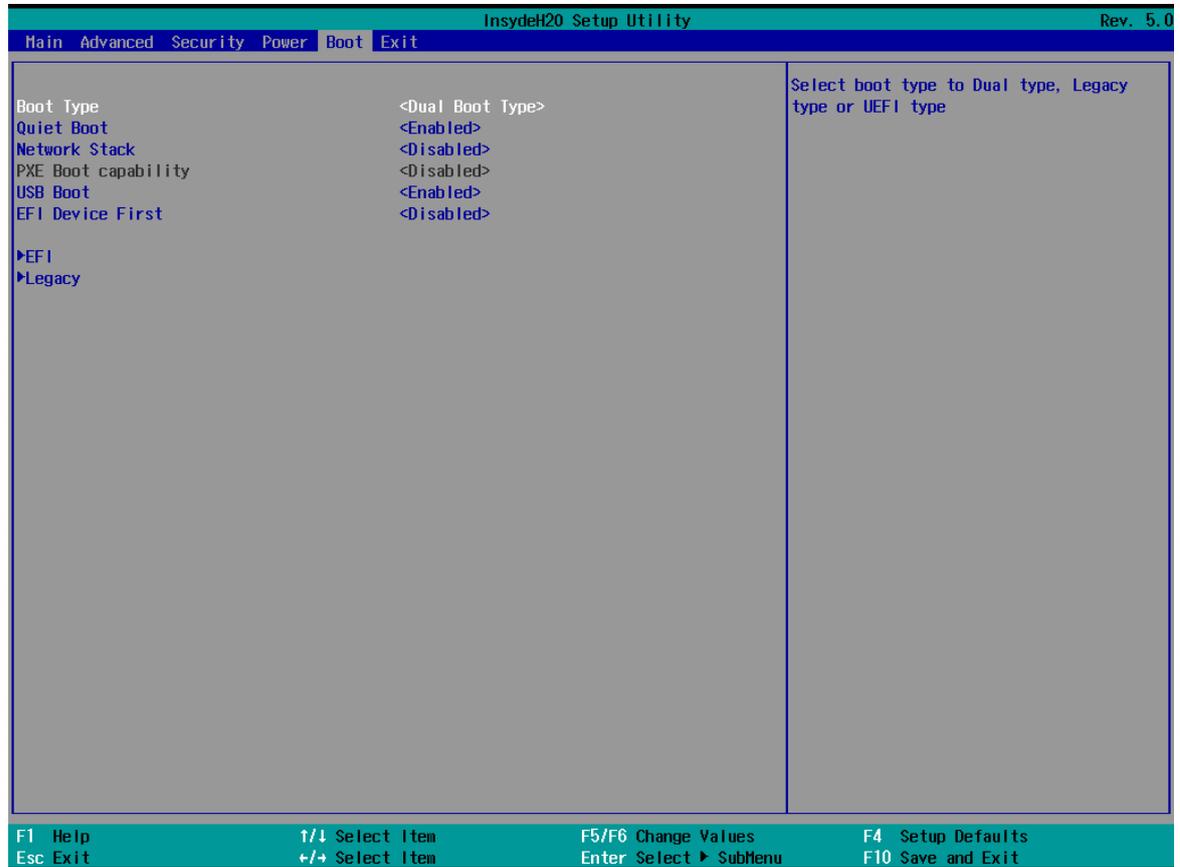
7-5.   Exit

Use the Save & Exit menu to load default BIOS values, optimal failsafe values or to save configuration changes.

```
                              InsydeH20 Setup Utility                          Rev. 5.0
  Main  Advanced  Security  Power  Boot  Exit

  Exit Saving Changes                              Exit system setup and save your changes.
  Save Change Without Exit
  Exit Discarding Changes
  Load Optimal Defaults
  Load Custom Defaults
  Save Custom Defaults
  Discard Changes

  F1  Help              ↑/↓ Select Item    F5/F6 Change Values        F4   Setup Defaults
  Esc Exit              ←/→ Select Item    Enter Select ▶ SubMenu     F10  Save and Exit
```

1. **How to clean the LCD surface properly?**
   - ☆ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
   - ☆ Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.
   - ☆ Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. **What are some of the basic supplies needed to clean an LCD screen?**
   - ☆ A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
   - ☆ Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
   - ☆ Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. **What types of cleaners are acceptable?**
   - ☆ Water
   - ☆ Vinegar (mixed with water)
   - ☆ Isopropyl Alcohol

   NOTICE: The following cleaners are unacceptable:

   - ☆ Acetone
   - ☆ Ethyl alcohol
   - ☆ Ethyl acid
   - ☆ Ammonia
   - ☆ Methyl chloride