

Embedded Computer

Intel® Tiger Lake Core™i5-1145G7E, ,1.5 GHz (turbo up to 4.10GHz)



I330EAC-ITW

User Manual

Document Version 1.2 Document Part No. 91521110105L

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

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Preface

Copyright Notice

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

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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 1W22Axxxxxx means October of year 2022.

Customer Service

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

You may need the following information ready before you call:

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

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

Advisory Conventions

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



Note:

A note is used to emphasize helpful information



Important:

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



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

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



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

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



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

Safety Information



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

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



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

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

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 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
 - o IEC61000-4-2: 2009
 - o IEC61000-4-3: 2006+A1: 2007+A2: 2010
 - o IEC61000-4-4: 2012
 - o IEC61000-4-5: 2014
 - IEC61000-4-6: 2013
 - o 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

Chapter 1: Introduction

Congratulations on purchasing Winmate® EAC ITW Embedded Computer. EAC ITW with 11th Generation Intel® Tiger Lake Core[™] i5-1145G7E offers high performance computing power and outstanding video processing. EAC ITW suitable for Factory Automation, Machine Vision, Surveillance, Machine Automation and other high-performance applications.

1.1 Features

Winmate® I330EAC-ITW Embedded Computer offers the following features:

- Intel® Tiger Lake Core™i5-1145G7E
- RAM 4G DDR4L (Up to 32G)
- Removable 2.5" SSD drive bay
- Multi Video Output, DVI/HDMI/ Display Port
- Isolation Power Protection 1.5KV
- 4 x Digital Input / 4 x Digital Output
- 8 x NMEA Port 0183

1.2 Package Contents

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

Standard factory shipment list:









• Quick Start Guide (Hardcopy)





 AC Adapter 12V/ 84W



Driver CD & User Manual

1.3 Product Overview

Front Side I/O Connectors



N⁰	Description	N⁰	Description
1	DC Input	8	RS232/422/485
2	Giga LAN x2	9	2.5" SSD Slot x2
B	USB 3.0 x2	10	Audio in, Audio out
4	DVI	1	HDD LED indicator
6	HDMI	12	Reset / Clear CMOS button
6	DP	B	Power Button
7	RS232/422/485		

Rear Side I/O Connectors



N⁰	Description	N⁰	Description
1	8 x NMEA 0183 (Optional)	2	8 x Isolated DIDO (Optional)

Chapter 2: Hardware Installation

2.1 Mounting

I330EAC-ITW Embedded Computer supports table mounting.

Mounting Instruction:

- 1. Fasten screws to secure L-shape mounting brackets to the I330EAC-ITW.
- 2. Insert the I330EAC-ITW into the fixture (ex. rack) and fasten screws to secure the unit.



2.2 Connecting the Power

The DC power supply connector of the I330EAC-ITW Embedded Computer is on the front panel.



Warning!

Ensure voltage and polarity is compliant with the DC input. Improper input voltage or polarity can cause system damage.

Avertissement! Assurez-vous que la tension et la polarité sont conformes à l'entrée CC. Une tension d'entrée ou une polarité incorrecte peut endommager le système.

Warning!



Connect the I330EAC-ITW either to AC power or DC power. Do not perform both connections at the same time.

Avertissement! Connectez l'I330EAC-ITW à une alimentation CA ou CC. N'effectuez pas les deux connexions en même temps.

Connecting to DC Power

Connect open wire cable (not supplied by Winmate) to 9-36V DC, maximum power source 220W.

Chapter 3: Operating the Device

3.1 How to Enable Watchdog

Download Winmate Watchdog utility to enable Watchdog. Find more information in "Watchdog Guide" that you can download from 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. Click ^W icon to open Watchdog utility.



3. 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. <i>Default: 10 min</i>
Periodically Feed Time	To set a cycle time to automatically reset watchdog timer. <i>Default: 9 min</i>
Enable / Disable	Enable or disable watchdog. Default: Enable

3.2 S4 Wake on LAN

In Windows 10 OS shutdown settings will not have Hibernate mode if your storage capacity is below 32 GB.



Caution Check if your system storage capacity is 32 GB before entering Hibernation mode.

Attention Vérifiez si la capacité de stockage de votre système est de 32 Go avant de passer en mode Veille prolongée.

Storage capacity below 32 GB:

🎾 System Settings		-	×
\leftarrow \rightarrow \checkmark 🎓 $>$ Control Panel > Hardware and Sound > Power Options > System Settings	~ Ū	Search Control Panel	P
Define power buttons and turn on password protection Choose the power settings that you want for your computer. The changes you make to the settings on this page apply to all of your power plans. Bower and sleep button settings Image: State of the press the power button: Image: State of the press the power button: Image: State of the press the sleep buttor: Image: State of the press the power buttor: Image: State of the power buttor: Image: State of the power buttor:			
Save changes Cancel			

Storage capacity above 32 GB

System Settings		-	×
← → マ ↑ 🦹 > Control Panel > All Control Panel Items > Power Options > System Settings	~ Ü	Search Control Panel	٩
Define power buttons and turn on password protection Choice the course entires that you want for your consistent To choose you using to the estimate on this			
page apply to all of your power plans.			
Power and sleep button settings			
When I press the power button: Sleep ~			
When I press the sleep button: Sleep V			
Shutdown settings			
Turn on fast startup (recommended) This helps start your PC faster after shutdown. Restart isn't affected. Learn More			
Show in Power menu.			
Hibernate Show in Power menu.			
✓ Lock Show in account picture menu.			
Save changes Cancel]		

3.3 Changing Serial Port Settings

You can change serial port settings in BIOS.

To change serial port settings (Kaby Lake Core i5-7200U):

- 1. To enter the BIOS setup connect an external USB keyboard, external monitor and quickly press **Del** key when the prompt appears on the screen during start up.
- 2. In BIOS go to Advanced > F81866 Super IO Configuration > Serial Port Configuration.





- 3. Change Settings from UART mode to RS232/422/485.
- 4. Exit BIOS utility.

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To change serial port settings (Skylake Core i5-6200U):

- 1. To enter the BIOS setup connect an external USB keyboard, external monitor and quickly press **Del** key when the prompt appears on the screen during start up.
- 2. In BIOS go to Advanced > F81866 Super IO Configuration.

Aptio Setup Utility – Copyright (C) 2018 American Main Advanced Chipset Security Boot Save & Exit	Megatrends, Inc.
 Trusted Computing ACPI Settings F81866 Super IO Configuration Hardware Monitor RTC Wake Settings CPU Configuration SATA Configuration Network Stack Configuration CSM Configuration USB Configuration 	System Super IO Chip Parameters.
	<pre>++: Select Screen \$ 14: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults </pre>

3. Serial Port Configuration.

F81866 Super ID Configuration Set Parameters of Serial Port Super ID Chip F81866 Serial Port 1 Configuration Set Parameters of Serial Port SuperIO GPIO Setting Katch Dog Timer Select Watch Dog Timer Select [Disabled] *+: Select Screen 1: Select Item Enter: Select Enter: Select	Aptio Setup Utility – (Advanced	Copyright (C) 2018 American	Megatrends, Inc.
Super ID Chip F81866 > Serial Port 1 Configuration > SuperIO GPIO Setting Watch Dog Timer Select [Disabled] ++: Select Screen 14: Select Item Enter: Select	F81866 Super IO Configuration		Set Parameters of Serial Port
 SuperIO GPIO Setting Watch Dog Timer Select [Disabled] ++: Select Screen 11: Select Item Enter: Select 	Super IO Chip ▶ Serial Port 1 Configuration ▶ Serial Port 2 Configuration	F81866	
++: Select Screen 11: Select Item Enter: Select	 SuperIO GPIO Setting Watch Dog Timer Select 	[Disabled]	
++: Select Screen ↑↓: Select Item Enter: Select			
+/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults			<pre>++: Select Screen 1↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults</pre>
Version 2 18 1263 Conumight (P) 2018 American Megatrende The	Wersion 2 18 1262 Pa	nuright (P) 2018 American W	aratrends. Inc

4. Change Settings from UART mode to RS232/422/485.



5. Exit BIOS utility.

3.4 Changing DIDO Settings

Download **Option Device Config Tool** from <u>Winmate Download Center</u> or driver CD that comes in a package with Box PC.

To change DIDO Settings:

- 1. Click the **Option Device Config Tool 1** icon on the desktop.
- 2. Click **DI4DO4**.



3. Adjust DI4DO4 settings and press Start.



3.5 Changing NMEA Port Settings

Download **Option Device Config Tool** from <u>Winmate Download Center</u> or driver CD that comes in a package with Box PC.

To change DIDO Settings:

- 1. Click the **Option Device Config Tool 1** icon on the desktop.
- 2. Click **U2RS4**.



3. Adjust U2RS4 settings and press Start.

Recycle Bin Recycle Bin Microsoft Edge					
Control Panel	¢	U2F	RS4	۲	
OptionDevi	COM Port Mode Sw Ch A R5422 Ch C O Ch B R5422 Ch D O	RS485	Ch E R\$422 R\$4 Ch G O Ch F R\$422 R\$4 Ch H O	485	
				Set	
Type here to search	Ū	H 🔁 🖪		Å	へ 寝 (1)) 目 10:03 AM 11/14/2018 ワ

3.6 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 the PCI/ PCIe card and CFast 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 **Tab+ F6** to initiate the Recovery Wizard.
- 3. The following screen shows the Recovery Wizard. Click Recovery button to continue.

Recovery	Wizard
Click " Recovery WARNING! The process wi	" to restore your system. Il clear all of your data.
If you do not wan reboot.	t to restore your system please press " Quit " to Recovery Quit

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



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

Chapter 4: INSYDE H20 BIOS Setup

This chapter describes the different settings available in the INSYDE BIOS that comes with the board. This chapter offers information on the BIOS installation utility.

4.1 How and When 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:

Кеу	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.</enter>
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 Sub Menu
<u></u> ↑/↓	Select Item
\leftarrow / \rightarrow	Select Item



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

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

4.2 BIOS Functions

4.2.1 Main Menu

The Main menu displays the basic information about your system 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.

InsydeH20 Setup Utility Rev. 5.0				
Main Advanced Security	Power Boot Exit			
InsydeH20 Version Processor Type System Bus Speed Cache RAM Total Memory Speed Cache RAM Total Memory Channel A SODIMM 0 Channel B Unknown 0 Platform Configuration CPUD: CPU Speed: CPU Speed: CPU Stepping: Number Of Processors: Microcode Rev: GT Info: SMX/IXT: PCH Rev / SKU GOP Ver: Intel ME Version / SKU LAN PHY Revision Language System Time System Date	IKWW.V106 Intel(R) Core(TH) i5-7 100 MHz 2133 MHz 512 KB 4096 MB 4096 MB [Not Installed] 0x806E9 (KABYLAKE ULT 2700 MHz 09 (KBL H0/J0 Stepping 2 Core(s) / 4 Thread(s 0000008E G12 (0x5916) Un-Supported 21 (C1 Stepping) / SKL 2.2 Premium 9.0.1069 11.8.50.3470 / CORPORA (B2 Stepping) <english> [14:46:13] [12/16/2019]</english>	200U CPU @ 2.50GHz ULX)) PCH-LP (U) iHDCP TE	Select by the	the current default language used InsydeH2O.
F1 Help Esc Exit	1/↓SelectItem F5 +/+SelectItem En	/F6 Change Values ter Select ⊨ SubMenu		F9 Setup Defaults F10 Save and Exit
BIOS Setting	Description	Setting Opt	ion	Effect
	Displays the system	Adjustment	of	Set the language in
Language	language. [Fnglish] is	the	JI	other language. The
	set up by default.	language		language in this
				device is English.
System Time	This is current time	Date and tim	ne	Set the time in the
	setting. The time is	cnanges.		Tormat:
	battery when the			[[]]]/]]]]/33]
	device is turned off.			
System Date	This is current date	Date and tim	ne	Set the date in the
	setting.	changes.		format [mm/dd/yyyy];

4.2.2 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.

	Ins	sydeH20 Setup Utility	Rev. 5.0
Main Advanced Security	Power Boot Exit		
Hain Advanced Security PCPU Configuration PPower & Performance Psystem Agent (SA) Configur PPCH-I0 Configuration PPCH-FW Configuration PS10 F81866A	Ins Power Boot Exit	ydeH20 Setup Utility Con Par	Rev. 5.0 of igure Management Engine Technology ameters
F1 Help Esc Fxit	1/4 Select Item	F5/F6 Change Values Enter Select ▶ Sublienu	F9 Setup Defaults F10 Save and Exit

BIOS Setting	Description	Setting Option	Effect
CPU	Configures Trusted	Enter	Opens
Configuration	Computing parameters		submenu
Power &	Configures Power &	Enter	Opens
Performance	Performance parameters		submenu
System Agent	Configures System Agent	Enter	Opens
Configuration	Configuration parameters		submenu
PCH-OI	Configures PCH-OI	Enter	Opens
Configuration	parameters		submenu
PCH-FM	Configures PCH-FM	Enter	Opens
Configuration	parameters		submenu
SIO F81866A	Configures SIO F81866A	Enter	Opens
	parameters		submenu

4.2.2.1 CPU Configuration

	InsydeH20 Setup Utility	Rev. 5.0
Advanced		
CPU Configuration		When enabled, a VMM can utilize the additional bardware canabilities
Туре	11th Gen Intel(R) Core(TH) i7-118567E 0 2.80GHz	provided by Vanderpool Technology.
ID	0x806C1	
Speed	1200 HHz	
VHX	Supported	
SHX/TXT	Supported	
Intel (VMX) Virtualization Technology	<enabled></enabled>	
Active Processor Lores	Call2 (Eashlad)	
AFS	Chabled	
The Full	t itea F57F6 change Values	For Setup Defaults

BIOS Setting	Description	Setting Option	Effect
Intel (VMM) Virtualization Technology	Enable or disable Intel Virtualization Technology.	Enable/Disable	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.
Active Processor Cores	Number of core to enable in each processor package	All / 1 / 2/ 3	Select number of core to enable in each processor package
Hyper Threading	Intel Hyper- Threading Technology allows a single processor to execute two or more separate threads concurrently.	Enable / Disable	Enable or disable Hyper Threading
AES	Enable or disable AES (Advanced Encyption Standard)	Enable/Disable	Enable or disable AES

4.2.2.2 F81886A Configuration



	InsydeH20	Setup Utility	Rev. 5.0
Advanced			and the set of the set
Advanced Serial Port A Serial Port A UART Mode Serial Port B WDT +Hardware Monitor +GP10 Group 0 Configuration +GP10 Group 1 Configuration	<auto> <r\$232> <auto> <d i="" sab="" te=""></d></auto></r\$232></auto>		Configure Serial port using options : [Disable] No Configuration [Enable] User Configuration [Auto] EFI/OS chooses configuration
F1 Help Esc Exit	†/↓ Select Item +/+ Select Item	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit

4.2.2.3 GPIO Configuration

	Insyd	eH20 Setup Utility	Rev. 5.0
Advanced			
General Purpose Group 0 Input/Out GP1000	put		User can pull internal resistance push-pull/open-drain
Internal Resistance	<push pull=""></push>		
Input/Output Mode	<output></output>		
Pei Phase Output Value	<high></high>		
Dxe Phase Output Value GP1001	<high></high>		
Internal Resistance	<push pull=""></push>		
Input/Output Mode	<output></output>		
Pei Phase Output Value	<high></high>		
Dxe Phase Output Value GP1002	<high></high>		
Internal Resistance	<push pull=""></push>		
Input/Output Mode	<output></output>		
Pei Phase Output Value	<high></high>		
Dxe Phase Output Value GP1003	<high></high>		
Internal Resistance	<push pull=""></push>		
Input/Output Mode	<0utput>		
Pei Phase Output Value	<high></high>		
Dxe Phase Output Value GP1004	<high></high>		
Internal Resistance	<push pull=""></push>		
Input/Output Mode	<output></output>		
Pei Phase Output Value	<high></high>		
Dxe Phase Output Value	<high></high>		
F1 Help t/	J Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit +/	→ Select Item	Enter Select 🕨 SubMenu	F10 Save and Exit

	InsydeH	20 Setup Utility		Rev. 5.0
Advanced				
General Purpose Group 1 Input/Output GP1010			User can pull internal resistance push-pull/open-drain	
Internal Resistance	<push pull=""></push>			
Input/Output Mode	<output></output>			
Pei Phase Output Value	<high></high>			
Dxe Phase Output Value GP1011	<high></high>			
Internal Resistance	<push pull=""></push>			
Input/Output Mode	<output></output>			
Pei Phase Output Value	<high></high>			
Dxe Phase Output Value GP1012	<high></high>			
Internal Resistance	<push pull=""></push>			
Input/Output Mode	<output></output>			
Pei Phase Output Value	<high></high>			
F1 Help 1/4 Sele	ect Item	F5/F6 Change Values	F9 Setup Defaults	

4.2.2.4 Hardware Monitor

<u> </u>	Insyd	eH20 Setup Utility	Rev. 5.0
Advanced			
Hardware Monitor			
Voltage			
VCC (V)	3.344 V		
VIN1 (V)	0.864 V		
VIN2 (V)	12.144 V		
	1.936 ¥		
VIN4 (V) VASB3 (V)	0.000 ¥ 3.328 W		
VRAT	3. 136 V		
VASB5 (V)	5.136 V		
Temperature			
Temperature 0 (°C/°F)	32.0 C/ 89.0	6 F	
Temperature 2 (°C/°F)	37.0 C/ 98.0	6 F	
			R
F1 Help	1/↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	+/+ Select Item	Enter Select ▶ SubMenu	F10 Save and Exit

4.2.2.5 PCH-IO Configuration

	Insydel	H2O Setup Utility	Rev.	5.0
Advanced				
PCH-10 Configuration			PCI Express Configuration settings	
 ▶PCI Express Configuration ▶SATA And RST Configuration ▶USB Configuration 				
State After G3	<\$5 State>			
				R
E1 Help	t/l Salact Itam		EQ. Satur Dafaults	
Esc Exit	+/+ Select Item	Enter Select ► SubMenu	F10 Save and Exit	

BIOS Setting	Description	Setting Option	Effect
PCI Express Configuration	PCI Express clock gating enable/disable for each root port.	Enter	Opens sub-menu
SATA And RST Configuration	Enable/ Disable SATA device	Enter	Opens sub-menu
USB Configuration	Selectively enable/ disable the corresponding USB port from reporting a Device Connection to the controller.	Enter	Opens sub-menu
State After G3	System power state setting	S0 State S5 State	

4.2.2.6 PCI Express Configuration

	Insy	deH20 Setup Utility	Rev. 5.0
Advanced			
PCI Express Configuration			PCI Express Clock Gating Enable/Disable for each root port.
PCI Express Clock Gating PCIE Port assigned to LAN	<enabled> 5</enabled>		
►PCI Express Root Port 1 ►PCI Express Root Port 6 ►PCI Express Post Port 7			
PPCI Express Root Port 7 PPCI Express Root Port 8 PPCI Express Root Port 9			
PCI Express Root Port 10 PCI Express Root Port 11 PCI Express Root Port 12			
			R
F1 Help Esc Exit	1/↓ Select Item +/→ Select Item	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit

Advanced PCI Express Root Port 1				
PCI Express Root Port 1				
		<fnahled></fnahled>		Control the PCI Express Root Port.
Tono Loav		Inknown>		
ASPM		<disabled></disabled>		
L1 Substates		<disabled></disabled>		
Gen3 Eq Phase3 Method		<software searc<="" td=""><td>ch></td><td></td></software>	ch>	
UPTP .		[5]		
DPTP		[7]		
ACS		<enabled></enabled>		
URR		<disabled></disabled>		
FER		<disabled></disabled>		
NFER		<disabled></disabled>		
CER		<disabled></disabled>		
СТО		<disabled></disabled>		
SEFE		<disabled></disabled>		
SENFE		<disabled></disabled>		
SECE		<disabled></disabled>		
PME SCI		<enabled></enabled>		
Hot Plug		<disabled></disabled>		
Advanced Error Reporting		<enabled></enabled>		
PCIe Speed		<auto></auto>		
Transmitter Half Swing		<disabled></disabled>		
Detect Timeout		[0]		
Extra Bus Reserved		[0]		
Reserved Memory		[10]		
Reserved 1/0		[4]		
PCH PCIe LTR Configuration				
PCH PCIE1 LTR		<enabled></enabled>		
Snoop Latency Override		<auto></auto>		
Non Snoop Latency Override		<auto></auto>		6
Force LTR Override		<disabled></disabled>		· · · · · · · · · · · · · · · · · · ·
PCIE1 LTR Lock		<d i="" led="" sab=""></d>		
F1 Help Esc Exit	1/1 Select	ltem Item	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit

4.2.2.7 SATA and RST Configuration

		InsydeH20	Setup Utility	
Advanced				
SATA And RST Configuration				Enable/Disable SATA Device.
SATA Controller(s)		<enabled></enabled>		
SATA Mode Selection		<ahcts< td=""><td></td><td></td></ahcts<>		
Sorial ATA Dort 0		Empty		
Software Preserve		Unknown		
Port 0		<pre>cEnabled></pre>		
Hot Plug		<disabled></disabled>		
Configured as oSATA				
Spin Up Dovice		Chicoblody		
SATA Dovice Type		Clard Dick Drives		
Topo Logy				
SATA Port () DevSin		<disablad></disablad>		
DITO Configuration		<disabled></disabled>		
DM Value		[023]		
Serial ATA Port 1		Fwnty		
Software Dreserve		Unknown		
Dort 1		<pre>cEnabled></pre>		
Hot Plug		<disabled></disabled>		
Configured as eSATA		Hot Dlug supported		
Spin Up Device		Chieshlads		
SATA Device Type		CHard Diek Drives		
SATA Port 1 DevSin		<disabled></disabled>		
DITO Configuration		<disabled></disabled>		
		[625]		
DM Value		[15]		
Serial ATA Port 2		Phison SSMP064 (64	(IGB)	
Software Preserve		SUPPORTED		8
Port 2		<enabled></enabled>		
Hot Plug		<disabled></disabled>		
Configured as eSATA		Hot Plug supported		
ET US	A/1 0-1	14		
	the select	Item	Forro Unange varides	FU Seve and Exit
ESUEXIL	Serect	T LCIII	enter serect 💌 sabhena	TU SAVE ANU EXIL

4.2.2.8 USB Configuration

	Insyd	eH20 Setup Utility	Rev. 5.0
Advanced			
USB Configuration			Selectively Enable/Disable the corresponding USB port from reporting a Device Connection to the controller
USB Port Disable Override	e <disable></disable>		Device connection to the controller.
F1 Help Fsc Exit	1/4 Select Item €/4 Select Item	F5/F6 Change Values Enter Select ≻ Sublienu	F9 Setup Defaults F10 Save and Exit

4.2.2.9 ME Firmware Configuration

	Insyd	eH20 Setup Utility	Rev. 5.0
Advanced			
ME Firmware Version ME Firmware Mode ME Firmware SKU ME File System Integrity Value ME Firmware Status 1 ME Firmware Status 2 NFC Support	11.8.50.3425 Normal Hode Corporate SKU 2 0x90000255 0x89108106 Disabled		When Disabled ME will be put into ME Temporarily Disabled Mode.
HE State Hanageability Features State AHT BIOS Features ▶AHT Configuration HE Unconfig on RTC Clear State Comms Hub Support JHI Support Core Bios Done Message	<enabled> <enabled> <enabled> <d i="" sabled=""> <d i="" sabled=""> <enabled></enabled></d></d></enabled></enabled></enabled>		
<pre>▶Firmware Update Configuration ▶PTT Configuration ▶HE Debug Configuration</pre>	•		
			K
F1 Help Esc Exit	1/↓ Select Item +/→ Select Item	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit

Advanced	Insyd	eH20 Setup Utility	Rev. 5.0
Huyanceu			
Me FW Inage Re-Flash	<d i="" led="" sab=""></d>		Enable/Disable Me FW Image Re-Flash function.
			R
F1 Help Esc Exit	t/↓ Select Item +/→ Select Item	F5/F6 Change Values Enter Select ► SubMenu	F9 Setup Defaults F10 Save and Exit

	Insyde	eH20 Setup Utility		Rev. 5.0
Advanced				
Advanced HECL Timeouts Force ME DID Init Status CPU Replaced Polling Disable ME DID Message HECL Retry Disable HECL Message check Disable HBP HOB Skip HECL2 Interface Communication KT Device IDER Device End Of Post Message D013 Setting for HECL Disable	IXI <disabled> <disabled> <disabled> <disabled> <disabled> <disabled> []] [X] [X] <send dxe="" in=""> <disabled> </disabled></send></disabled></disabled></disabled></disabled></disabled></disabled>	E	nable/Disable HECI Send/Receiv imeouts.	7e
bors setting for meet produce	чи таай теан			
				R
F1 Help	1/1 Select Item	F5/F6 Change Values	F9 Setup Defaults	

PTT Capability / State PTP aware OS	1 / 1 <ptp aware=""></ptp>		Select whether or not the OS you will boot to will be PTP aware
F1 Help t/	Select Item	F5/F6 Change Values	F9_Setup Defaults

4.2.	2.10	Power	&	Performance
	_	1 01101	ч.	

	Ins	sydeH20 Setup Utility	Rev. 5.0
Advanced			
Power & Performance		c	201 - Power Management Control Options
►CPU - Power Management Con	trol		
			<i>w</i>
F1 Help	↑/↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	+/→ Select Item	Enter Select 🕨 SubMenu	F10 Save and Exit

BIOS Setting	Description	Setting Option	Effect
CPU – Power Management Control	Configure CPU – Power Management parameters	Enter	Opens sub-menu

	InsydeH20 Setup Utility		Rev. 5.0
Advanced			
CPU - Power Management Control		Select the performance state that BIOS will set starting from reset	the vector.
Boot performance mode Intel(R) SpeedStep(tm) Intel(R) SpeedSthift Technology Turbo Hode C states ▶Custom P-state Table	<ftax formance="" non-turbo="" per=""> <enabled> <enabled> <disabled> <disabled></disabled></disabled></enabled></enabled></ftax>		
			R
F1 Help 1/4 Select	t Item F5/F6 Change Values	F9 Setup Defaults	
Esc Exit +/+ Selec	t Item Enter Select ► SubMe	nu F10 Save and Exit	

	Ins	ydeH20 Setup Utility	Rev. 5.0
Custom P-state Table		•	Sets the number of custom P-states. At
Number of P states	[0]		least 2 states must be present.
			B
F1 Help	1/1 Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	+/+ Select Item	Enter Select 🕨 SubMenu	F10 Save and Exit

BIOS Setting	Description	Setting Option	Effect
Boot Performance Mode	Configure Boot Performance Mode parameters	-Max non-turbo performance -Max battery -Turbo Performance	Select the performance state that the BIOS will set starting from reset vector
Intel SpeedStep (ta)	Configure Intel SpeedStep (ta) parameters	Enabled/ Disabled	Allows more than two frequency ranges to be supported
Intel Speed Shift Technology	Configure Intel Speed Shift Technology parameters	Enabled/ Disabled	Enable/ Disable Intel Speed Shift Technology support. Enabling will expose the CPP v2 interface to allow for hardware controlled P- states
-Turbo Mode	Enable or disable Turbo Mode	Enabled/ Disabled	Enable/ Disable processor Turbo Mode (requires EMTTM enabled too). Auto means enabled, unless max turbo ratio is bigger than 16 – SKL AO W/A
C states	Enable or disable C states	Enabled/ Disabled	Enable/ Disable CPU Power Management. Allows COU to go to C states when it is not 100% utilized
Custom P- state Table	Configure Custom P-state Table parameters	Enter	Enters sub-menu
-Number of P- states	Select the number of custom P-states.	[Number]	Set the number of custom P-states. At least 2 states must be present

4.2.2.11 System Agent (SA) Configuration

	Insyde	H2O Setup Utility	Rev. 5
Advanced			
System Agent (SA) Configurati	on	C	Graphics Configuration
SA PCIe Code Version VT-d	2, 7, 2, 0 Supported		
▶Graphics Configuration			
VT-d	<enabled></enabled>		
			7
F1 Help Esc Exit	1/↓ Select Item +/→ Select Item	F5/F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit
BIOS Setting	Description	Setting Opti	on Effect
Graphics	Configure	Enter	Opens sub-menu

Configuration	Graphics Configuration parameters	Linei	Opens sub-menu
Vt-d	Intel® Virtualization Technology for Directed I/O	Enabled Disabled	Vt-d capability

4.2.2.11.1 Graphics Configuration

	Ins	ydeH20 Setup Utility	Rev. 5.0
Graphics Configuration			Graphics turbo IMON current values supported (14-31)
Graphics Turbo IMON Current	[31]		
Internal Graphics	<auto></auto>		
Aperture Size	<256MB>		
DVMT Pre-Allocated	<32112 <256M5		
Gfx Low Power Mode	<enabled></enabled>		
			R
F1 Helpt	/↓ Select Item	F5/F6 Change Values	F9 Setup Defaults
Esc Exit	/+ Select Item	Enter Select SubMenu	F10 Save and Exit

BIOS Setting	Description	Setting Option	Effect
Internal Graphics	Internal Graphics settings	Auto Enabled Disabled	Keep IGFX enabled based on the setup options
Aperture Size	Select the aperture size	128MB 256MB 512MB 1024MB 2048 MB	Select the aperture size Note: Above 4MB MMIO BIOS assignment is automatically enabled when selecting 2048MB aperture. To use this feature please disable CSM port
DVMT Pre- Allocated	Select DVMT Pre-Allocated	0M~60M	Select DVMT 5.0 Pre-Allocated (Fixed) Graphic Memory size used by Internal Graphic Device
DVMT Total Gfx Mem	Select DVMT Total Gfx Mem	256M 128M MAX	Select DVMT 5.0 Total Graphic Memory size used by the Internal Graphic Device
Gfx Low Power Mode	Select Gfx Low Power Mode	Enabled/ Disabled	This option is applicable for SFF only

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4.2.2.11.2 Vt-d

Advanced	InsydeH2	0 Setup Utility		Rev. 5.0
System Agent (SA) Configuration	on		VI-d capability	
SA PCIE Code Version VT-d	2.7.2.0 Supported			
▶Graphics Configuration				
VT-d	<enabled></enabled>			
		VT-d Disabled Enabled		
Esc Exit	+/+ Select Item +/+ Select Item	F57F6 Change Values Enter Select ▶ SubMenu	F9 Setup Defaults F10 Save and Exit	
BIOS Setting	Description	Setting Opti	on Effect	
Vt-d	Intel® Virtualization Technology for Directed I/O	Enabled Disabled	Vt-d capabilit	У

4.2.3 Boot

BIOS Setting	Description	Setting Option	Effect
Boot Type	Boot Type configuration	UEFI Boot Type	Select boot type to Dual type, Legacy type or UEFI type
Quick Boot	Quick Boot configuration	Enabled Disabled	Allows InsydeH20 to skip certain tests while booting. This will decrease the time needed to boot the system
Quiet Boot	Quiet Boot configuration	Enabled Disabled	Disable or enable booting in text Mode.
Timeout	Timeout	[Value]	Timeout settings
Automatic Failover		Enable	If boot to default device fail, it will directly try to boot next device
		Disable	If boot to default device fail, it will pop warning message then go to firmware UI
Boot Type Order	Boot Type Order	Enter	Opens sub-menu

4.2.3.1 Boot Type Order

	Ins	ydeH20 Setup Utility		Rev. 5.0
	Boot			
Boot Type Order			Boot Type Order	
USB BEV Hard Disk Drive Others				
▶Hard Disk Drive ▶Others				
				R
F1 Help Esc Exit	1/↓ Select Item +/→ Select Item	F5/F6 Change Values Enter Select ► SubMenu	F9 Setup Defaults F10 Save and Exit	

BIOS Setting	Description	Setting Option	Effect
Hard Disk Type	Hard Disk Type configuration	Enter	Opens Sub-menu
Others	Other configuration	Enter	Opens Sub-menu
4.2.3.1.1 Hard Disk Type

	InsydeH20 Setup Utility	Rev. 5.0
Boot		
Hard Disk Drive		Hard Disk Drive
Windows Boot Manager (Phison SSMP064GTB3CO-S11)		
		R
F1 Help 1/4 Select Item	F5/F6 Change Values	F9 Setup Defaults
ESC EXIT FIF Select Item	anter serect 🕨 Subrienu	FIU Save and Exit

4.2.3.1.2 Others

	li	nsydeH20 Setup Utility		Rev. 5.0
	Boot			
Others			0 ther s	
Internal EFI Shell				
				ß
F1 Help	1/1 Select Item	F5/F6 Change Values	F9 Setun Defaults	
Esc Exit	+/→ Select Item	Enter Select ► SubMenu	F10 Save and Exit	

4.2.4 Security

	InsydeH20 Setup Utility	Rev. 5.0
Main Advanced Security Power Boo	t Exit	
Current TPM Device TPM State TPM Active PCR Hash Algorithm TPM Hardware Supported Hash Algorithm TrEE Protocol Version TPM Availability TPM Operation Clear TPM Supervisor Password Set Supervisor Password	<tph (ftph)="" 2.0=""> All Hierarchies Enabled, UnOwned SHA1 SHA1, SHA256 <1.0> <available> <no operation=""> [] Not Installed</no></available></tph>	TrEE Protocol Version: 1.0 or 1.1
	K	
F1 Help 1/4 Se	lect Item F5/F6 Change Values	F9 Setup Defaults

BIOS Setting	Description	Setting Option	Effect
TrEE Protocol	Choose TrEE	1.0	TrEE Protovol
Version	Protocol Version	1.1	Version: 1.0 or 1.1
TPM Availability	TPM Availability	Available	When hidden don't
	configuration	Hidden	exposes IPM to 0
TPM Operation	TPM Operation configuration	[]	Select one of the supported operation to change TPM2state
Clear TPM	Clear TPM configuration	[]	Select to Clear TPM
Set Supervisor Password	Set Supervisor Password	Enter New password	Install or Change the password and the length of password must be greater than one character

4.2.5 Power

	InsydeH20	Setup Utility	Rev.	5.0
Main Advanced Security Power	Boot Exit			
			Enable/Disable ACP1 \$1/\$3 \$leep state	
ACPI \$3	<enabled></enabled>			
Auto Wake on \$5	<disabled></disabled>			
				R
F1 Help 1/	4 Select Item	F5/F6 Change Values	F9 Setup Defaults	

BIOS Setting	Description	Setting Option	Effect
ACPI S3	ACPI S3	Disabled	Enable/ Disable ACPI
	configuration	Enabled	S1/S3 Sleep state
Auto Wake on S5	Auto Wake on S5	Disabled	Auto Wake on S5, by
	configuration	By Every Day	Day or Month or fixed
		By Every Month	time of every day

4.2.5 Exit



Chapter 5: Driver Installation

This chapter contains driver installation guide. Follow the instructions below to complete the installation. You will quickly complete the installation. This chapter provides instructions on how to install drivers on the I330EAC-ITW Box PC.

5.1 Chipset Driver

Follow instructions below to install Chipset driver.

1. Open the Driver CD (included in the package) and select Chipset driver.



2. Installation window will pop up, select Next.

Intel(R) Chipset Device Software Welcome	(intel)
You are about to install the following product: Intel(R) Chipset Device Software It is strongly recommended that you exit all programs before continu Press Next to continue, or press Cancel to exit the setup program.	ing.
Next	Cancel

3. Select Accept to agree with the terms of license agreement.



4. Check the ReadMe file information, select Install to continue.

Intel(R) Chipset Device Software	(intel)
Completion	
You have successfully installed the following product:	
Intel(R) Chipset Device Software	
You must restart this computer for the changes to take effect.	
View Log Files	
Restart Now	Restart Later

5. Wait for the driver to be installed. When installation completed, select **Restart Now** to restart your computer.



5.2 Graphic Driver

Follow instructions below to install Graphic driver.

1. Open the Driver CD (included in the package) and select **Graphic** driver.

		· ·					<u> </u>							
🖌 📘 🖛			Application Too	ols win6	4_23.20.16.49	73							- 0	\times
File Home	Share	View	Manage											~ 🔞
n to Quick Copy access	Paste	Cut Copy path Paste short	tcut to •	Copy to	elete Renam	e New folder	hew item	Propert	Ties 🖉 Open 🔹	Select all	ne lection			
Clip	pboard			Organi	ze		New		Open	Select				
→ ~ ↑ [> RDVD	(D:) → Dri	iver > Graphi	cs > win6	4_23.20.16.49	73				~ Õ	Sea	rch win64_23	.20.16.4973	Q
			^											
Ouick access		Name				Date modifi	lyp	e	Size					
Deskton		🛃 win64_	23.20.16.4973			1/9/2018 4:3	8 AM App	lication	324,126	KB				
Develoade	2													
Decuments														
Documents	~													
Pictures	×													
IntelNic														
OneDrive														
This PC														
This PC														
RDVD (D:)														
Driver														
A Network														
tem 1 item cel	acted 316 h	4R												B==
tem i item sei	ected S10 N												4-41 AM	
	נו 🎻									^	1	4 ≫)	7/2/2018	(2)
													1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	\sim

2. Installation window will pop up, select Next.

Intel(R) Graphics Driver So	ftware - InstallShield Wizard	>
	Driver Version: 23.20.16.4901 Release Version: Production Version Build Date: December 21, 2017 Platforms: 6th Gen Intel(R) Core(TM) processor family (codename Skylake) 7th Gen Intel(R) Core(TM) processor family (codename Kaby Lake) 8th Gen Intel(R) Core(TM) processor family (codename Coffee Lake) Apollo Lake GeminI Lake Operating System(s): Microsoft Windows* 10-64 - Aniversary Update Microsoft Windows* 10-64 - Creators Update Microsoft Windows* 10-64 - Fall Creators Update Microsoft Windows* 10-64 - Fall Creators Update CONTENTS I. Product Support II. Installation Information	*
	< Back Next > Ca	ncel

3. Select Accept to agree with the terms of license agreement.



4. Check the ReadMe file information, select Next to continue.

eadme File Information		(inte
Refer to the Readme file below to view th	e system requirements and installat	ion information.
Driver Version: 23.20.16.4901 Release Version: Production Version Build Date: December 21, 2017		
Platforms: 6th Gen Intel(R) Core(TM) processor fami 7th Gen Intel(R) Core(TM) processor fami 8th Gen Intel(R) Core(TM) processor fami Apollo Lake GeminI Lake	ily (codename Skylake) Ily (codename Kaby Lake) Ily (codename Coffee Lake)	

5. Wait for the driver to be installed.

tup Progress	(int	el
ease wait while the following setup opera	tions are performed:	
reating Process: C:\Program Files (x86)\ nstalling Driver: Intel(R) Display Audio	Intel\Intel(R) Processor Graphics\uninstall\Uninstall	Vulk
/ersion: 10.24.00.01		

6. Select **Next** to continue.

ntel® Graphics Driver	
etup Progress	(inte
Please wait while the following setup operations are perfo	ormed:
Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \Users\Public\Desktop\Intel(R) HD Graph Deleting File: C: \Users\Public\Desktop\Intel(R) Graphics Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \Users\Public\Desktop\Intel(R) Iris(R) Gr Deleting File: C: \Users\Public\Desktop\Intel\Intel(R) Iris(Deleting File: C: \Users\Public\Desktop\Intel\Intel\GFX\Inte Deleting Registry Key: HKLM\SOFTWARE\Intel\GFX\Inte Deleting Registry Key: HKLM\SOFTWARE\Intel\GFX\Inte	Menu\Programs\Intel(R) Graphics and Menu\Programs\Intel\Intel(R) Graphic ics Control Panel.lnk and Media Control Panel.lnk Menu\Programs\Intel\Intel(R) Iris(R) (Menu\Programs\Intel(R) Iris(R) Graph aphics Control Panel.lnk R) Graphics Control Panel.lnk mal\AudioFix rnal\AudioFix
Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \Users\Public\Desktop\Intel(R) HD Graph Deleting File: C: \Users\Public\Desktop\Intel(R) Graphics Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \ProgramData\Microsoft\Windows\Start Deleting File: C: \Users\Public\Desktop\Intel(R) Iris(R) Gr Deleting File: C: \Users\Public\Desktop\Intel\Intel(R) Iris(Deleting File: C: \Users\Public\Desktop\Intel\Intel\GFX\Inte Deleting Registry Key: HKLM\SOFTWARE\Intel\GFX\Inte Deleting Registry Key: HKLM\SOFTWARE\Intel\GFX\Inte Click Next to continue.	Menu\Programs\Intel(R) Graphics and Menu\Programs\Intel\Intel(R) Graphic ics Control Panel.Ink and Media Control Panel.Ink Menu\Programs\Intel\Intel(R) Iris(R) (Menu\Programs\Intel(R) Iris(R) Graph aphics Control Panel.Ink R) Graphics Control Panel.Ink mal\AudioFix rnal\AudioFix

7. After installation is completed, select "Yes, I want to restart this computer now", and click Finish.



5.3 Management Engine (ME)

Follow instructions below to install Management Engine (ME).

1. Open the Driver CD (included in the package) and select **ME** driver.

🖸 📙 🖛	A	pplication Tools	ME Software In:	staller			- 0	×
File Home	Share View	Manage						^ (
n to Quick Copy P access Clipt	Paste shortc	ut Copy to	▪ X Delete ▪ ■ Rename ganize	New New	Propert	Edit Gen Open	Select all Select none Invert selection Select	n
← → • ↑ 📙	« Intel Management	t Engine Driver(Ka	> ME Softwar	re Installer	v õ	Search ME	Software Installer	,p
- Quick accorr	Name	^		Date modifie	d	Туре	Size	
Deckton	IntelME	FWVer.dll		11/21/2017 1	1:12	Application exte	ens 21 Ki	В
	🖉 mup			11/21/2017 1	1:30	XML Document	t 28 Ki	В
Documents	SetupMi	E		11/21/2017 1	1:31	Application	75,094 Ki	В
Pictures IntelNic ConeDrive This PC RDVD (D:)	*	Size: Date	Application 73.3 MB modified: 11/21/	2017 11:31 AM				
Driver								
🧊 Network								
3 items 1 item sele	ected 73.3 MB							BEE IN

2. Select **Next** to start the installation.

Setup	×
Intel® Management Engine Components Welcome	(intel)
You are about to install the following product:	
Intel® Management Engine Components 11.7.0.1058	
It is strongly recommended that you exit all programs before continu Click Next to continue, or click Cancel to exit the setup program.	ing.
Intel Corporation	Next > Course

3. Select **Next** to agree with the terms of license agreement.

Setup	×
Intel® Management Engine Components License Agreement	
INTEL SOFTWARE LICENSE AGREEMENT(OEM / IHV / ISV Distribution & Single User)	^
IMPORTANT - READ BEFORE COPYING, INSTALLING OR USING. Do not use or load software (including drivers) from this site or any associated materials (collectively, the "Software") until you have carefully read the following terms and conditions. By loading or using the Software, you agree to the terms of this Agreement, which Intel may modify from time to time following reasonable notice to You. If you do not wish to so agree, do not install or use the Software.	
Please Also Note: • If you are an Original Equipment Manufacturer (OEM), Independent Hardware Vendor (IHV) or Independent Software Vendor (ISV), this complete LICENSE AGREEMENT applies; • If you are an End-User, then only Exhibit A, the INTEL SOFTWARE LICENSE AGREEMENT, applies.	
For OEMs, IHVs and ISVs:	
LICENSE. Subject to the terms of this Agreement, Intel grants to You a nonexclusive,	~
I accept the terms in the License Agreement.	
Intel Corporation <back next=""> Car</back>	ncel

4. Wait for the driver to be installed.

Setup	
Intel® Management Engine Components Progress	(intel)
Please wait while the product is being installed.	
Intel Corporation	< Back Next > Cancel

5. When installation completed, select inish complete installation.



5.4 Audio Driver

Follow instructions below to install Audio driver.

1. Open the Driver CD (included in the package) and select Audio driver.

File Home St	Appl	lication Tools Manage	Realtek High De	finition Driver 6	4bit V6.0.1.8	8036(R281)	- 0	× ^ (?
Pin to Quick Copy Pas access Clipbo	Cut Copy path Paste shortcut	Move to •	X Delete -	New folder New	Properties	Edit History	Select all Select none Invert selection Select	
← → ~ ↑	Audio > Realtek Hig	h Definition Dri	iver 64bit V6.0.1.8	036(R281)	ڻ v	Search Real	tek High Definitio	Q
	Name	^		Date modifie	d Ty	pe	Size	
🖈 Quick access	0008-64bit_	Win7_Win8_Wi	n81_Win10_R281	3/26/2017 7:4	BPM A	oplication	212,455 KB	
Desktop	*							
Documents	*							
Pictures	*							
IntelNic								
ConeDrive								
This DC								
This PC								
RDVD (D:)								
Driver								
i Network								
1 item 1 item selecte	ed 207 MB						8	

2. Select Start to continue.

≌ Realtek High Definition A Realtek Hig	Audio Driver Setup (4.54) R2.81 gh Definition	Audio Driver R2.81	-	
	Realtek High Definition Audio Dr	iver Setup (4.54) R2.81 X		
		Weikome to the InstallShield Waard for Realitek High Definition Audio Driver The InstallShield Waard will instal Realitek High Definition Audio Driver on your computer. To continue, dock front.		
	InstallSided	< gad: [jext >] Cancel		
	ů 🛷 🖬 🗉	~ 🖬 di	» = 80 7/	42 PM

3. When installation completed, select **Finish** complete installation.



5.5 Ethernet Driver

Follow instructions below to install LAN driver.

1. Open the Driver CD (included in the package) and select LAN driver.



2. When compression is complete, select **Next**.

✓ Intel(R) Network Connections Install Wizard X
Welcome to the install wizard for Intel(R) Network Connections
Installs drivers, Intel(R) Network Connections, and Advanced Networking Services.

 WARNING: This program is protected by copyright law and international treaties.

3. Read the license agreement, and then select Next.

Intel(R) Network Connections Install Wizard	×
License Agreement Please read the following license agreement carefully.	(intel)
INTEL SOFTWARE LICENSE AGREEMENT IMPORTANT - READ BEFORE COPYING, INSTALLING C Do not copy, install, or use this software and any associated n (collectively, the "Software") provided under this license agre ("Agreement") until you have carefully read the following term By copying, installing, or otherwise using the Software, you ag the terms of this Agreement. If you do not agree to the terms of do not copy, install, or use the Software.	A R USING. naterials ement is and conditions. ree to be bound by of this Agreement,
LICENSES:	~
● I accept the terms in the license agreement ○ I do not accept the terms in the license agreement	Print
< Back Next	> Cancel

X

4. System displays the installed packages, select **Next**.

Intel(R) Network Connections Install	Wizard		×
Ready to Install the Program			(intol)
The wizard is ready to begin installation.			linter
Click Install to begin the installation.			
If you want to review or change any of exit the wizard.	your installation	settings, click Back.	Click Cancel to
	< Back	Install	Cancel

5. Confirm the installation, select **Install** to start the installation.

Ready to Install the Program			
The wizard is ready to begin installation			intel
Click Install to begin the installation.			
If you want to review or change any of exit the wizard.	your installation set	ttings, dick Back. Cl	ick Cancel to
	< Back	Install	Cancel

6. When installation is completed, select **Finish** to close the window.

Install wizard Completed	(intel
To access new features, open Device Manager, and view the properties of the network adapters.	

5.6 Watchdog Driver

For more details about Winmate Watchdog, please download Watchdog Guide from Winmate Downloads Center.

Follow instructions below to install Watchdog driver.

- 1. Type "cmd" in the run box then the cmd.exe will appear in programs.
- 2. Right click on the cmd exe and click on "Run as administrator" to start
- 3. Open the Driver CD (included in the package) and select Watchdog driver.



4. When Windows Security dialog appear, select **install** to continue the Installation.



5. Wait for installation to complete. When installation is complete, press any key to close.

Annensueson commandersonpt - instan			~
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver≻dir ne system cannot find the file specified.			^
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver>dir/w ne system cannot find the file specified.			
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver>cd WMWDG Driver for Win7_64bit			
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver for Win7_64bit>dir/w /olume in drive D is RDVD /olume Serial Number is 6834-E6AS			
Directory of D:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver for Win7_64bit			
.] [] devcon.exe install.bat wmwdg.cat wmwdg.inf [x64] 4 File(s) 91,617 bytes 3 Dir(s) 60,737,892,352 bytes free			
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver for Win7_64bit>install			
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver for Win7_64bit>DEVCON.EXE INSTALL wmwdg	.inf "	root\WM	1WD
evice node created. Install is complete when drivers are installed dating drivers for root\WMWDG from D:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver fo ig.inf. rivers installed successfully.	r Win7	_64bit\	wm
:\Driver\WatchDog_AP V3.0.2(Driver V2.0.0.4)\Driver\WMWDG Driver for Win7_64bit>pause			

6. Open the Driver CD (included in the package) and select Watchdog AP.



7. Select Next.



8. The installed storage location is displayed, select **Next** to continue.

😸 WatchDog_AP Setup	—		×
Select Installation Folder This is the folder where WatchDog_AP will be installed.			2
To install in this folder, click "Next". To install to a different folder, ent "Browse".	er it be	low or cli	sk
Eolder: C:\Program Files (x86)\WatchDog_AP\WatchDog_AP\		Browse.	
Advanced Installer			
< Back Next >	•	Can	cel

9. Select **Next** to start the installation.

🛃 WatchDog_AP Setup	×
Ready to Install	
The Setup Wizard is ready to begin the WatchDog_AP installation	
Click "Install" to begin the installation. If you want to review or change a installation settings, click "Back". Click "Cancel" to exit the wizard.	iny of your
Advanced Installer	
< Back 📢 Install	Cancel

10. When installation is completed, select **Finish** to close the window.



5.7 Option Devices Driver Installation

5.7.1 WIDOM Driver

Important: Please be warned that counterfeit/fake PL-2303HX Rev A (or PL-2303HXA) USB-to-Serial Controller ICs using Prolific's trademark logo, brandname, and drivers, are being sold in the China market. Counterfeit IC products show exactly the same outside chip markings but generally are of poor quality and causes Windows driver compatibility issues (Yellow Mark Error Code 10 in Device Manager under WinXP, Vista, and 7). This warning is issued to all customers and consumers to avoid confusion and false purchase. Please purchase only from stores or vendors providing technical and RMA support.



5.7.1.1 Windows 7 Driver Installation

This section will guide you on how to install the PL-2303 Windows Driver. You can download the latest Driver Installer program from Prolific Support website:

http://www.prolific.com.tw/US/ShowProduct.aspx?p_id=225&pcid=41

_	
_	
_	

Note:

Please take notice of the installation order. First, run the Driver Installer Program before plugging in the USB to Serial adapter. If you already plug the device during the driver installation, you need to re-plug the device for Windows to enumerate the device and load the drivers installed. If your device is embedded to the system, you might need to restart the system (or click rescan hardware changes in Device Manager) to reload and install the driver.

The following steps will show how to install the device under Windows 7 (64-bit) OS as this is the most inquired driver installation support received by Prolific. The procedures are the same and straight-forward for all other supported Windows operating system versions.



- 1. Power on your computer and boot to Windows. Run or double-click the PL-2303 Windows Driver Installer program.
- 2. The InstallShield Wizard will be displayed to inform you that the PL-2303 USB-to-Serial driver will be installed on your computer. Click Next to continue.



3. The PL-2303 Driver Installer program will then start to install the drivers needed.

PL-2303 Driver Installer Program	×
Setup Status	EA.
PL-2303 USB-to-Serial is configuring your new software installation	n.
InstallShield	Cancel

 Click the Finish button to close the InstallShield program. If you have plugged the cable into the PC while running the setup installation, please unplug and replug the cable for the system to detect the device.



 Plug in the USB to Serial adapter to the PC USB port. Windows should detect the driver as Prolific USB-to-Serial Comm Port. Go to Device Manager and check for the "Prolific USBto-Serial Comm Port" device and the COM port number assigned by Windows.



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6. You can also check the driver version by right-clicking on the "Prolific USB-to-Serial Comm Port" device and select Properties and Driver tab.

		_				-
General	Port Settings	Driver	Details	Events	Power Management	
	Prolific USB-to	-Serial (Comm Po	t (COM3)		
	Driver Provide	r: Pr	olific			
	Driver Date:	6/	/5/2015			
	Driver Version:	: 3.	6.78.350			
	Digital Signer:	M Pu	icrosoft V ublisher	Vindows I	Hardware Compatibility	
Drį	ver Details	To v	iew detail	s about ti	he driver files.	
Upd	ate Driver	To u	pdate the	driver so	ftware for this device.	
<u>R</u> oll	Back Driver	lf the back	device f to the pr	ails after i eviously i	updating the driver, roll installed driver.	
	<u>D</u> isable	Disa	bles the s	elected d	levice.	
<u>l</u>	<u>J</u> ninstall	Tou	ninstall th	e driver (Advanced).	

Warning! If you are encountering yellow mark (Error Code 10) for device in Device Manager under Windows XP, Vista, or Windows 7, you need to contact the cable vendor or manufacturer for possible counterfeit chip. Prolific does not manufacture or sell any end-user market products and will not provide or be responsible for direct support to end-users.



Prolifi	c USB-to-Seria	al Comm Port (COM6) Pro	perties X
General	Port Settings Dr	iver Details Events	
-	Prolific USB-to-Se	erial Comm Port (COM6)	
	Device type:	Ports (COM & LPT)	
	Manufacturer:	Prolific	
	Location:	Port_#0002.Hub_#0006	
This	device cannot star	t. (Code 10)	*
			-
		OK	Cancel

5.7.1.2 Windows Driver Installation (via Windows Update)

This section guides you on how to install the PL-2303 Windows Driver via Windows Update. You will need an Internet connection to automatically download and install the drivers via Windows Update:

Operating Systems	Windows 7	Windows 8 / 8.1	Windows 10
	(32 & 64 bit)	(32 & 64 bit)	(32 & 64 bit)
Windows Update	V	V	V

1. Check if your Internet connection is OK. Plug in PL-2303 USB to Serial cable.



2. Windows will automatically check Windows Update if driver is available and will download and install the driver instantly



3. Windows will then prompt you that Prolific USB-to-Serial Comm Port (COMx) is installed and ready to use.

Driver Software Installation		×
Prolific USB-to-Serial Comm Port	(COM6) installed	
Prolific USB-to-Serial Comm Port (COM6)	✓ Ready to use	
		Close

🚽 Device Manager
<u>File Action View Help</u>
SE-Snook-PC
⊳-1. Computer
🗅 👝 Disk drives
Display adapters
DVD/CD-ROM drives
IDE ATA/ATAPI controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Ports (COM & LPT)
Prolific USB-to-Serial Comm Polt (CUM6)
Sound video and game controllers
System devices
Universal Serial Bus controllers

4. You can also right-click on the USB-Serial Controller device and click Update Driver.

Update Driver Software - USB-Serial Controller D	
How do you want to search for driver software?	
Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.	
Browse my computer for driver software Locate and install driver software manually.	
	Cancel
G I Update Driver Software - USB-Serial Controller D	X
Searching online for software	

	×
G I Update Driver Software - USB-Serial Controller D	
Downloading driver software	
	Cancel
	×
Update Driver Software - Prolific USB-to-Serial Comm Port (COM6)	×
Update Driver Software - Prolific USB-to-Serial Comm Port (COM6)	×
Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software	x
Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device:	X
 Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	X
 Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	×
 Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	×
 Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	×
 Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	×
 ✓ Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) ✓ Windows has successfully updated your driver software ✓ Windows has finished installing the driver software for this device: 	X
 ✓ Update Driver Software - Prolific USB-to-Serial Comm Port (COM6) Windows has successfully updated your driver software Windows has finished installing the driver software for this device: Prolific USB-to-Serial Comm Port 	X

5.7.1.3 Windows 8/8.1/10 Driver Installation

This section shows how to install the PL-2303 device in Windows 8 or 8.1 or 10 Operating System. You can download the latest Driver Installer program from Prolific Support website: http://www.prolific.com.tw/US/ShowProduct.aspx?p_id=225&pcid=41

		/indo	OWS	
			_	
Microsoft Version 1 © 2015 f	Windows 0.0 (Build 10135) ficrosoft Corporatio	n. All rights reserv	ved.	
The Wind interface intellectu countries	ows 10 Pro Insider are protected by tr al property rights in /regions.	Preview operating ademark and othe the United States	system and it r pending or e and other	ts user existing
Evaluatio	n copy. Expires 10/	1/2015 4:59 PM		
This prod Terms to	uct is licensed unde	r the <u>Microsoft So</u>	ftware License	

1. Power on your computer and boot to Windows. Run or double-click the PL-2303 Windows Driver Installer program. The InstallShield Wizard will be displayed to inform you that the PL-2303 USB-to-Serial driver will be installed on your computer. Click Next to continue.

PL2303 USB-to-Serial Driver Ins	taller Program	\times
	Welcome to the InstallShield Wizard for PL-2303 USB-to-Serial	
	The InstallShield Wizard will install PL-2303 USB-to-Serial on your computer. To continue, click Next.	
	< <u>B</u> ack <u>Next</u> Cancel	

2. The PL-2303 Driver Installer program will then start to install the drivers needed. Click the Finish button to close the InstallShield program.

PL2303 USB-to-Serial Driver In:	staller Program
	InstallShield Wizard Complete The InstallShield Wizard has successfully installed PL-2303 USB-to-Serial. Click Finish to exit the wizard.
	< <u>B</u> ack Finish Cancel

3. Plug in the USB to Serial adapter to the PC USB port. Windows should detect the driver as "Prolific USB-to-Serial Comm Port". Go to Device Manager and check for the device and the COM port number assigned by Windows. You can also check the driver version by right-clicking on the "Prolific USB-to-Serial Comm Port" device and select Properties and Driver tab.

🛃 Device Manager — 🗆 🗙	Prolific USB-to-Serial Comm Port (COM3) Properties
Eile Action View Help	General Port Settings Driver Details Events Power Management
✓ ✓ WIN10-10135 S Bluetooth II Computer Disk drives Display adapters DVD/CD-ROM drives Win Human Interface Devices Win Human Interface Devices	Prolific USB-to-Serial Comm Port (COM3) Driver Provider: Prolific Driver Date: 6/5/2015 Driver Version: 3.6.78.350
 > □ DE ATLACATAPI controllers > □ Keyboards > □ Monitors > □ Network adapters > □ Portable Devices > □ Portable Devices 	Digital Signer: Microsoft Windows Hardware Compatibility Publisher Driver Details To view details about the driver files. Update Driver To update the driver software for this device.
Prolific USB-to-Serial Comm Port (COM3) Print queues Processors Software devices	Roll Back Driver If the device fails after updating the driver, roll back to the previously installed driver.
 iii Source concest iii Source controllers iiii Storage controllers iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Disable Disables the selected device.
 Jacobi devices Universal Serial Bus controllers 	Uninstall To uninstall the driver (Advanced).

4. The COM Port number for the PL-2303 is assigned by the Windows Operating System. If you encounter a device that shows a yellow mark (Error Code 10), you need to check if that device is using an old version Prolific chip (PL-2303HXA or PL-2303XA) or a counterfeit chip. As mentioned in the previous sections, Prolific does not support old version chips in Windows 8.



Prolifi	c USB-to-Seria	al Comm Port (COM6) Properties	х
General	Port Settings Dri	iver Details Events	
	Prolific USB-to-Se	erial Comm Port (COM6)	
	Device type:	Ports (COM & LPT)	
	Manufacturer:	Prolific	
	Location:	Port_#0002.Hub_#0006	
Devic	e status		_
This	device cannot start	:. (Code 10)	L.
		,	r
-		ОК Са	incel

5.7.2 U2RS4 Driver

Follow instructions below to install U2RS4.

1. Open the Driver CD (included in the package) and select USB Serial Device (COM14) driver.

Recycle Bin				
	📇 Device Manager		- 0	×
	File Action View Help			
2	🗢 🔶 📰 📰 🔛 🕎 🖳	Χ €		
	✓			^
Edge	> 🖬 Audio inputs and outputs			
	> 💻 Computer			
	> 👝 Disk drives			
1	🔰 🕞 Display adapters			
	> 🎽 Firmware			
OptionDevi	> 🗛 Human Interface Devices			
	> 📹 IDE ATA/ATAPI controllers			
	> 🥅 Keyboards			
	> III Mice and other pointing devices			
	> 🥅 Monitors			
	> 🕎 Network adapters			
	> 📃 Portable Devices			
	V 🛱 Ports (COM & LPT)			
	Communications Port (COM	11)		
	Communications Port (COM	2)		
	USB Serial Device (COM14)	Update driver		
	USB Serial Device (COM15)	Birchie de lies		
	USB Serial Device (COM16)	Disable device		
	USB Serial Device (COM9)	Uninstall device		
	Print queues Processors	Scan for hardware changes		
	> Security devices	Properties		
	> Software devices			
	Sound, video and game control	ers		
	Su Storane controllers			
	Launches the Update Driver Wizard for the s	elected device.		
⊕ O Type here ■	o search	😑 🗟 💼 😒 🍠	x ^e ^ 🖬 🗤 ₁₂	2/16/2019

2. Select "Search automatically for updated driver software."

Update Drivers - USB Serial Device (COM14)

How do you want to search for drivers?

- → Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.
- → Browse my computer for driver software Locate and install driver software manually.



×

V

~

<u>C</u>lose

3. Press **Next** to continue.

📱 Update Dri	vers - USB Serial Dev	ice (COM14)			
Browse for	drivers on your	computer			
Search for driv	ers in this location:				
Icol_V1.0.5\D	nver\U2RS4\U2RS4_ folders	Driver_2.5.0.1_COM30_	FixedCOM V	B <u>r</u> owse	
→ <u>L</u> et me This list same ca	pick from a lis will show available d tegory as the device	t of available driv rivers compatible with	vers on my cor In the device, and a	mputer Il drivers in the	

4. Installation complete. Press Close to exit installation program.

~	Update Drivers - XR21B1424 USB UART Ch C (COM32)	~
	Windows has successfully updated your drivers	
	Windows has finished installing the drivers for this device:	
	XR21B1424 USB UART Ch C	

5. Open Device Manager and check the tool being added.



5.7.3 DIDO Driver

For more details about Winmate Watchdog, please download Digital IO Guide from Winmate Downloads Center.

Follow instructions below to install **Digital IO** driver.

- 1. Type "cmd" in the run box then the cmd.exe will appear in programs.
- 2. Right click on the cmd.exe and click on "Run as administrator" to start.



- 3. Open the Driver CD (included in the package) and select Digital IO driver.
- 4. When Windows Security dialog appear, select install to continue the

Installation.

5. Wait for installation to complete. When installation is complete, press any key to close.

🔤 Administrator: Command Prompt	-		\times
[] MDIO 64bit Driver Installation Guide v101.pdf WMDIO Driver for Win7_32bit.zip MDIO Driver for Win7_32bit.zip 3 File(s) 227,270 bytes 2 Dir(s) 60,734,410,752 bytes free			-
D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0>CD WMDIO Driver for Win7_64bit			
D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_64bit>DIR/W Volume in drive D is RDVD Volume Serial Number is 6834-E6A5			
Directory of D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_64bit			
[.] [] devcon.exe install.bat wmdio.cat wmdio.inf [x64] 4 File(s) 91,614 bytes 3 Dir(s) 60,736,315,392 bytes free			
D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_64bit>INSTALL			
D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_64bit>DEVCON.EXE INSTALL wmdio.inf "ro Device node created. Install is complete when drivers are installed Wpdating drivers for root\WMDIO from D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_6 Drivers installed successfully.	ot\WMD 4bit\w	IO" mdio.in	nf.
D:\Driver\WMDIO APP v1.0.0.3\Driver\5.0.6.0\WMDIO Driver for Win7_64bit>pause Press any key to continue			

5.8 Option Device Configuration Tool Installation

Follow instructions below to install Option Device Configuration Tool:

1. Open the Driver CD (included in the package) and select **OpenDeviceConfigTool**.



2. Click Next.



3. Select installation folder, click Next to continue.

9 OptionDeviceConfigTool		- <u></u>		×
Select Installation Fold	er			5
he installer will install OptionDeviceCo	nfigTool to the following folder.			
o install in this folder, click "Next". To	install to a different folder, enter it be	low or c	lick "Brov	vse".
Folder				
C:\Program Files (x86)\OptionDevic	eConfigTool\OptionDeviceConfig"		B <u>r</u> owse	2
		<u>[</u>	⊇isk Cost.	
Install OptionDeviceConfigTool for yo	ourself, or for anyone who uses this c	omputer	r.	
C From to to to				
⊖ Just <u>m</u> e				
⊖ Just <u>m</u> e			-	

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4. Click **Next** to start the installation.



5. Installation complete. Click **Close** to exit..



6. Open Option Device Config Tool. You will see DI4DO4 and U2RS4 options available.



Appendix

Appendix A: Hardware Specifications

		Model Name
		I330EAC-IKW
	CPU	Intel® Tiger Lake Core™ i5 1145G7E,1.5 GHz(turbo up to 4.10GHz)
	BIOS	InsydeH20 BIOS
	System Chipset	Intel® SoC Integrated
System Specifications	System Memory	1x SODIMM, DDR4 2133 MHz, 4G 8GB (Optional), 16GB (Optional), 32GB (Optional)
Ethernet Controlle		Intel® Ethernet Controller I211AT Intel® Ethernet Connection I219LM
	Storage	1 x M.2 64GB, 128GB (Optional), 256GB (Optional), 512GB (Optional)
	Second Storage	2.5" Removable SSD/HDD (Optional)
	DC	1 x DC Input
	USB	2 x USB3.0
	СОМ	2 x RS232/422/485 port (Selectable by BIOS)
	DVI	1 x DVI Output
Front	HDMI	1 x HDMI Output
External I/O	Audio	1 x Audio in, 1 x Audio out
	Expansion Port	2 x 2.5" SSD Slot
	LAN	2 x LAN
	Power Button	1 x Power Button
	Reset Button	1 x Reset Button
Rear External I/O	DIDO	8 x Isolated DIDO, 4 In/ 4out (Optional) (Programmable by S/W AP Jumper)
	NMEA Port	8 x NMEA 0183 (Optional)
Power Management	Power Input	24V DC In (Approval by Certificate) 9~36V DC Input Accpetable
	Construction	Aluminum housing
Mechanical	Color	Black
Specifications	Mounting	VESA / Wall-mount / Desktop
	Dimensions	316 x 207 x 62.1 mm
	Operating Temp.	-15 to +55 deg. C
	Operating Humidity	5% to 95% (non-condensing)
Environment	Storage Temp.	-20 to +60 deg. C
	Vibration	0.7g@DNVGL CG0339(Class A)
	Shock	15G, 11ms duration
Standards & Certificates	Safety	IEC 60945 4th Edition (Test Report Available), CE / FCC

Appendix B: System Dimensions



Appendix C: Software Developer Support

You can download drivers and Software Development Kit (SDK) and Drivers from <u>Winmate</u> <u>Download Center</u>.

Winmate Download Center

<u>http://www.winmate.com /</u>>Support > Download Center > Embedded Computing > I330EAC-ITW





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