IEI Integration Corp.

MODEL:

AURA-xxx-RK3576 Series

Panel PC equips Rockchip RK3576 processor, on-board 8GB LPDDR5 memory, 64G eMMC Storage, dual GBE Ethernet port, 10~28V DC input, anti-glare and anti-UV 10-point touchscreen

User Manual

Rev. 1.00 – December 22, 2025

RoHS Lead Free

Revision

Date	Version	Changes
December 22, 2025	1.00	Initial release

Safety Instructions

en Warning! Read the user manual before connecting the system to the power source.

de Vorsicht! Bitte lesen Sie die Bedienungsanleitung, bevor Sie das System an eine Stromquelle anschließen.

fr Attention! Avant de brancher le système à la source d'alimentation, consultez le mode d'emploi.

it Avvertenza! Consultare il manuale utente prima di collegare il sistema all'alimentatore.

es Atención! Lea atentamente este manual del usuario antes de operar la fuente de alimentación.

zh 警告！在將系統連接到電源之前，請仔細閱讀使用手冊。

cn 警告！在将系统连接到电源之前，请仔细阅读使用手册。

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en Warning! To prevent the system from overheating, do not operate it in an area that exceeds the maximum operating temperature described in the user manual.

de Vorsicht! Um eine Überhitzung des Systems zu vermeiden, betreiben Sie es ausschließlich im zulässigen Betriebstemperaturbereich. Dieser ist in der Bedienungsanleitung vermerkt.

fr Attention! Pour éviter la surchauffe du système, ne l'utilisez pas dans une zone dont la température dépasse les limites décrits dans le mode d'emploi.

it Avvertenza! Per evitare che il sistema si surriscaldi, non utilizzarlo in aree che superino la temperatura massima d'esercizio descritta nel manuale utente.

es Atención! Para evitar el excesivo calentamiento del sistema, no opere en las condiciones de temperatura superior a lo recomendado en este manual del usuario.

zh 警告！為防止系統過熱，不要在超過使用手冊上記載的產品工作溫度範圍之外操作此系統。

cn 警告！为防止系统过热，不要在超过使用手册上记载的产品工作温度范围之外操作此系统。

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en Warning! Use only the adapter and power cord approved for this system. Use of another type of adapter may risk fire or explosion. Please refer to the user manual for the power adapter specifications.

de Vorsicht! Nur zugelassene Netzteile und Netzkabel dürfen verwendet werden. Die Benutzung von anderen Netzteilen kann einen Brand oder eine Explosion zur Folge haben. Prüfen Sie die jeweiligen Spezifikationen in der Bedienungsanleitung.

fr Attention! Utilisez exclusivement le câble d'alimentation et l'adaptateur homologués pour ce système. L'utilisation d'un autre type d'adaptateur risquerait de provoquer un incendie ou une explosion. Veuillez référer au mode d'emploi pour les spécifications de l'adaptateur d'alimentation.

it Avvertenza! Utilizzare solo l'adattatore e il cavo di alimentazione approvati per questo sistema. L'uso di un altro tipo di adattatore può causare rischio d'incendio o esplosione. Si prega di fare riferimento al manuale utente per le specifiche sull'alimentazione.

es Atención! Utilice solamente el adaptador de corriente alterna (CA) con Marcas Conformidad otorgadas. Cualquier otro adaptador no otorgado aumenta el riesgo de explosión o incendio. Por favor consulte el manual del usuario para las especificaciones del adaptador de alimentación.

zh 警告！只能使用經過認證、適用於本系統的電源變壓器與電源線。使用不適用的電源變壓器將可能導致火災或爆炸。電源變壓器規格請參考使用手冊。

cn 警告！只能使用经过认证，适用于本系统的电源适配器与电源线。使用不适用的电源适配器将可能导致火灾或爆炸。电源适配器规格请参考使用手册。

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en Warning! Ultimate disposal of this product should be handled according to all national laws and regulations.

de Vorsicht! Die Entsorgung dieses Produkts sollte gemäß allen Bestimmungen und Gesetzen des Landes erfolgen.

fr Attention! La mise au rebut ou le recyclage de ce produit sont généralement soumis aux lois et/ou directives de respect de l'environnement. Renseignez-vous auprès de l'organisme compétent.

it Avvertenza! Lo smaltimento di questo prodotto deve essere eseguito secondo le leggi e i regolamenti locali.

es Atención! La disposición final de residuos de este producto se debe cumplir con las normativas y leyes del país.

zh 警告！本產品的廢棄處理應根據該國家的法律和規章進行。

cn 警告！本产品的废弃处理应根据该国家的法律和规章进行。

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Manual Conventions

WARNING

Warnings appear where overlooked details may cause damage to the equipment or result in personal injury. Warnings should be taken seriously.

CAUTION

Cautionary messages should be heeded to help reduce the chance of losing data or damaging the product.

NOTE

These messages inform the reader of essential but non-critical information. These messages should be read carefully as any directions or instructions contained therein can help avoid making mistakes.

HOT SURFACE

This symbol indicates a hot surface that should not be touched without taking care.

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Introduction

1.1 Overview

Figure 1-1: AURA-xxx-RK3576 Series Panel PC

The AURA-xxx-RK3576 series is a Panel PC powered by the Rockchip RK3576 octa-core processor, offering rich features and a comprehensive peripheral package. Its rugged, stylish design allows it to withstand harsh industrial environments while also enhancing its aesthetics.

The Rockchip RK3576 processor is a high-performance, power-efficient 64-bit ARM octa-core architecture processor. It features 8GB of LPDDR5 memory (up to 16GB) and 64GB of eMMC storage, ensuring optimal support for memory, graphics, and peripheral I/O.

Main peripheral connections include USB 3.2 Gen 1, USB 2.0, serial ports, Ethernet, and CAN. Additionally, the AURA-xxx-RK3576 series features a board-to-board connector for installing an IEI wireless module and an M.2 Key B slot for installing an M.2 storage card and a 4G/5G network card.

1.2 Model Variation

The AURA-xxx-RK3576 Series is preinstalled with Rockchip RK3576 processor,8GB LPDDR5 memory and 64GB eMMC storage. Available with Android and Debian operating systems. The model numbers and model variations are listed below.

Model	Size	OS	I/O Port
AURA-W101-RK3576-CFA	10.1”	Android	2 x GbE 2 x RS232 + 2 x RS485 by 1 x DB9 3 x USB2.0 Type-A 1 x USB3.2 Gen1Type-A 1 x USB3.2 Gen1Type-C 2 x CAN 1 x MIC & Line-out
AURA-W101-RK3576-CFD		Debian	
AURA-W121-RK3576-CFA	12.1”	Android	
AURA-W121-RK3576-CFD		Debian	
AURA-W133-RK3576-CFA	13.3”	Android	
AURA-W133-RK3576-CFD		Debian	
AURA-W156-RK3576-CFA	15.6”	Android	
AURA-W156-RK3576-CFD		Debian	
AURA-W185-RK3576-CFA	18.5”	Android	
AURA-W185-RK3576-CFD		Debian	
AURA-W215-RK3576-CFA	21.5”	Android	
AURA-W215-RK3576-CFD		Debian	
AURA-W238-RK3576-CFA	23.8”	Android	
AURA-W238-RK3576-CFD		Debian	

Table 1-1: Model Variation

1.3 Features

Some of the features of the AURA-xxx-RK3576 Series panel PC include:

- Front-panel hotkey, easy access for panel parameter adjustment
- Speakers positioned at the front, ensuring clear sound delivery even in panel mount
- Supports gloved operation and waterproof protection
- Built-in camera, ideal for AI facial recognition

- Rockchip RK3576 (Quad Cortex-A72 and quad Cortex-A53, 6 TOPS NPU)
- 8GB LPDDR5 & 64GB eMMC
- IP65 compliant front panel with aluminum frame
- Anti-glare and anti-UV PCAP

1.4 Front Panel

The front side of the AURA-xxx-RK3576 Series (**Figure 1-2**) is a flat panel LCD touchscreen surrounded by an aluminum frame.

Figure 1-2: AURA-xxx-RK3576 Series Front View

1.5 Rear Panel

The rear panel has a fan vent, four VESA 75/100 mounting holes and several retention screws. The VESA 75/100 mounting holes are circled in **Figure 1-3**.

Figure 1-3: AURA-xxx-RK3576 Series Rear View

1.6 Bottom Panel

The bottom panel has the following interfaces:

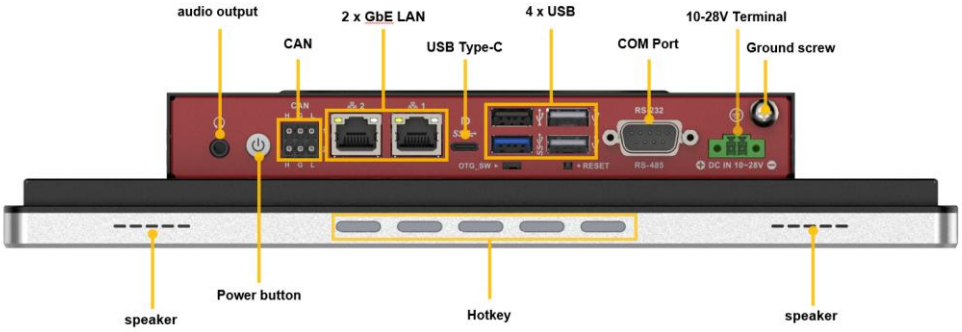


Figure 1-4: AURA-xxx-RK3576 Series Bottom View

1.7 Dimensions

1.7.1 AURA-W101-RK3576 Dimensions

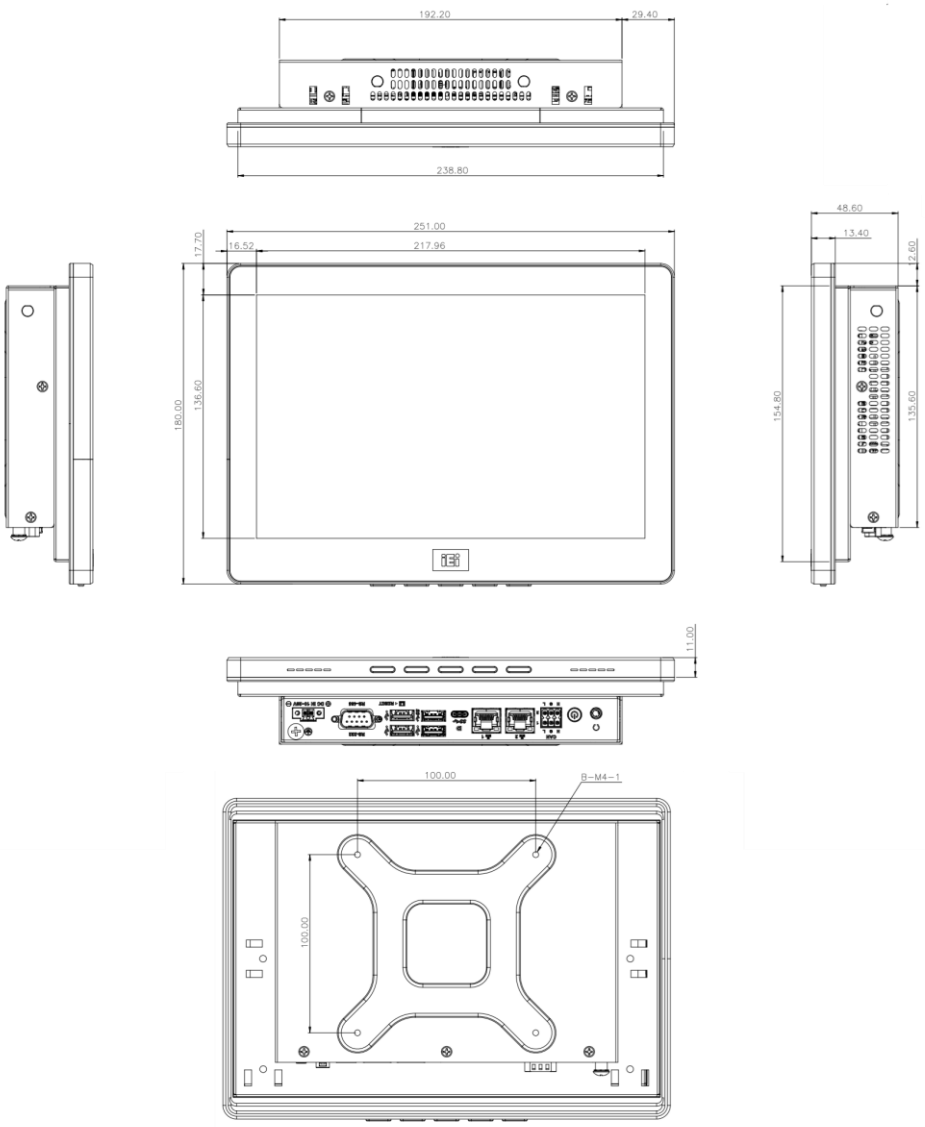


Figure 1-5: AURA-W101-RK3576 Dimensions (Unit: mm)

1.7.2 AURA-W121-RK3576 Dimensions

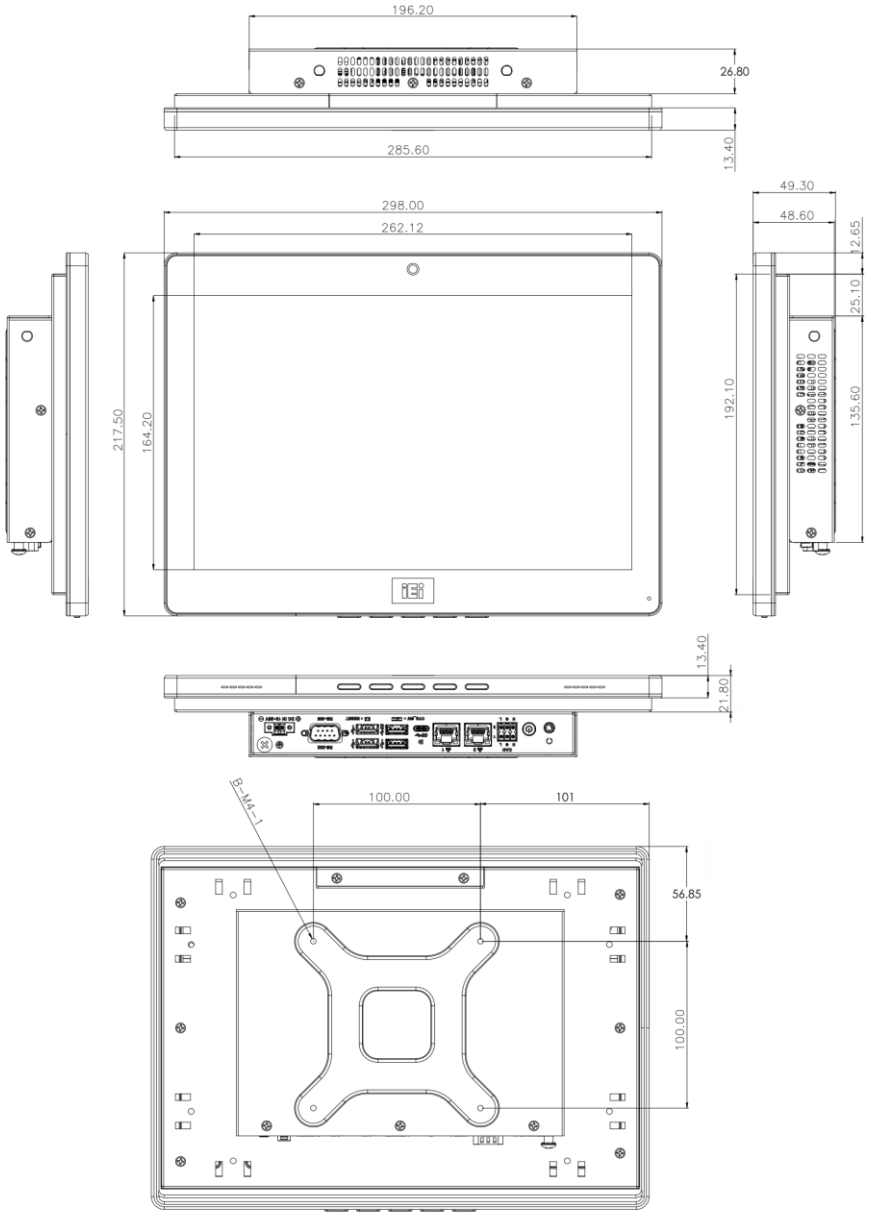


Figure 1-6: AURA-W121-RK3576 Dimensions (mm)

1.7.3 AURA-W133-RK3576 Dimensions

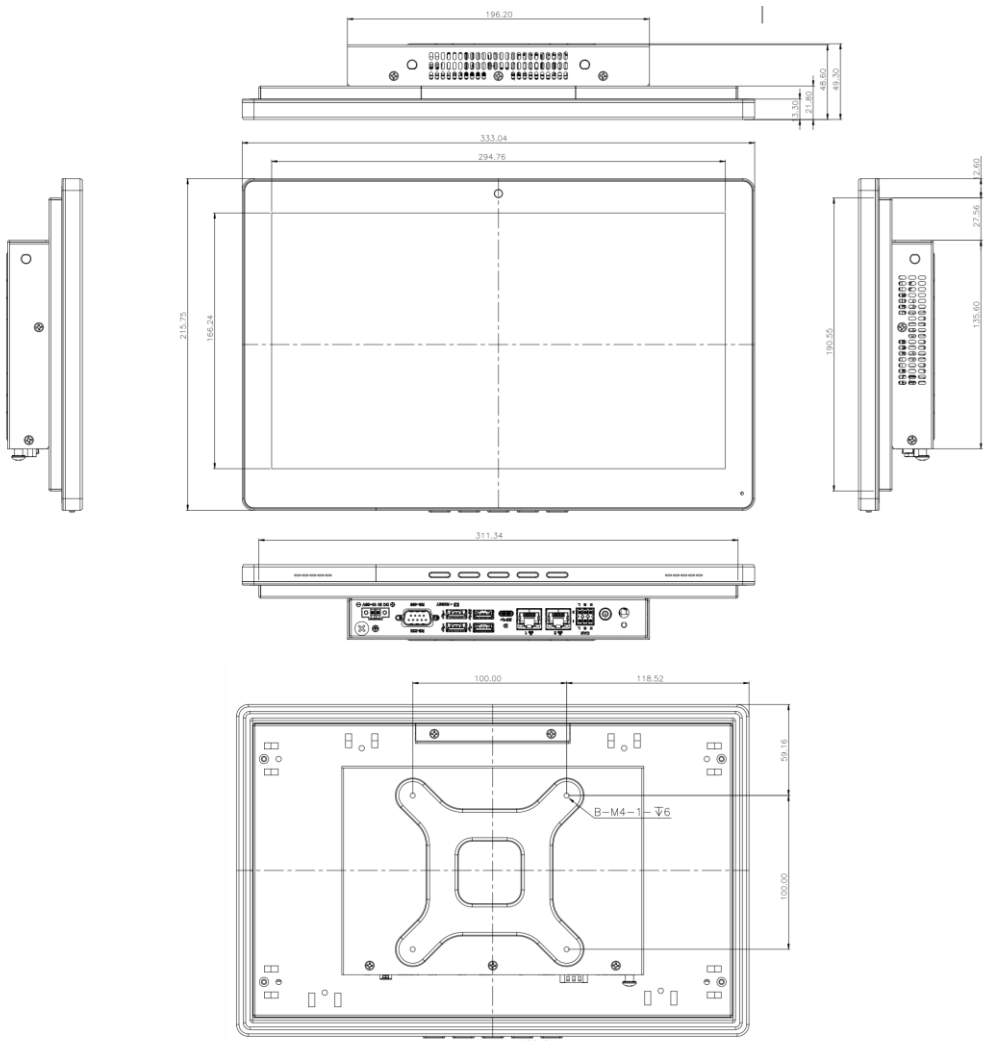


Figure 1-7: AURA-W133-RK3576 Dimensions (mm)

1.7.4 AURA-W156-RK3576 Dimensions

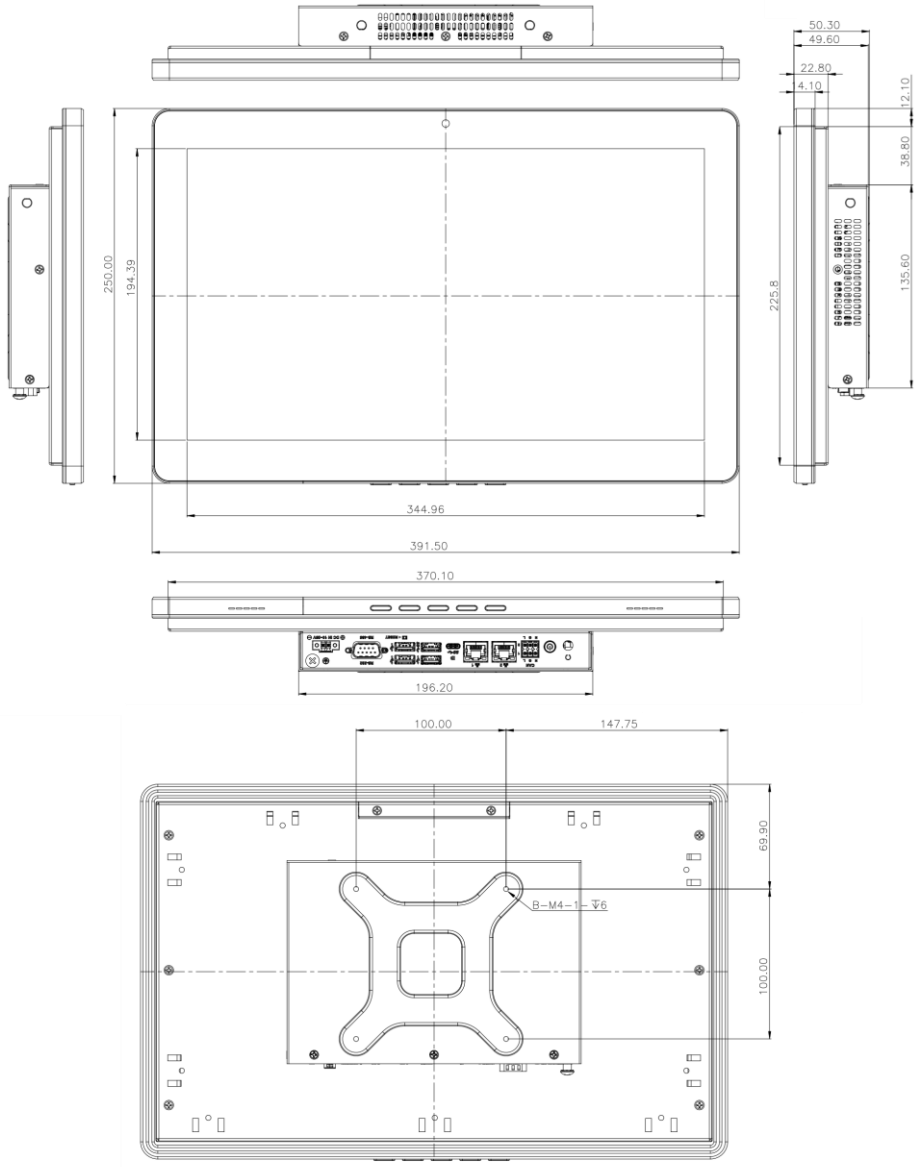


Figure 1-8: AURA-W156-RK3576 Dimensions (mm)

1.7.5 AURA-W185-RK3576 Dimensions

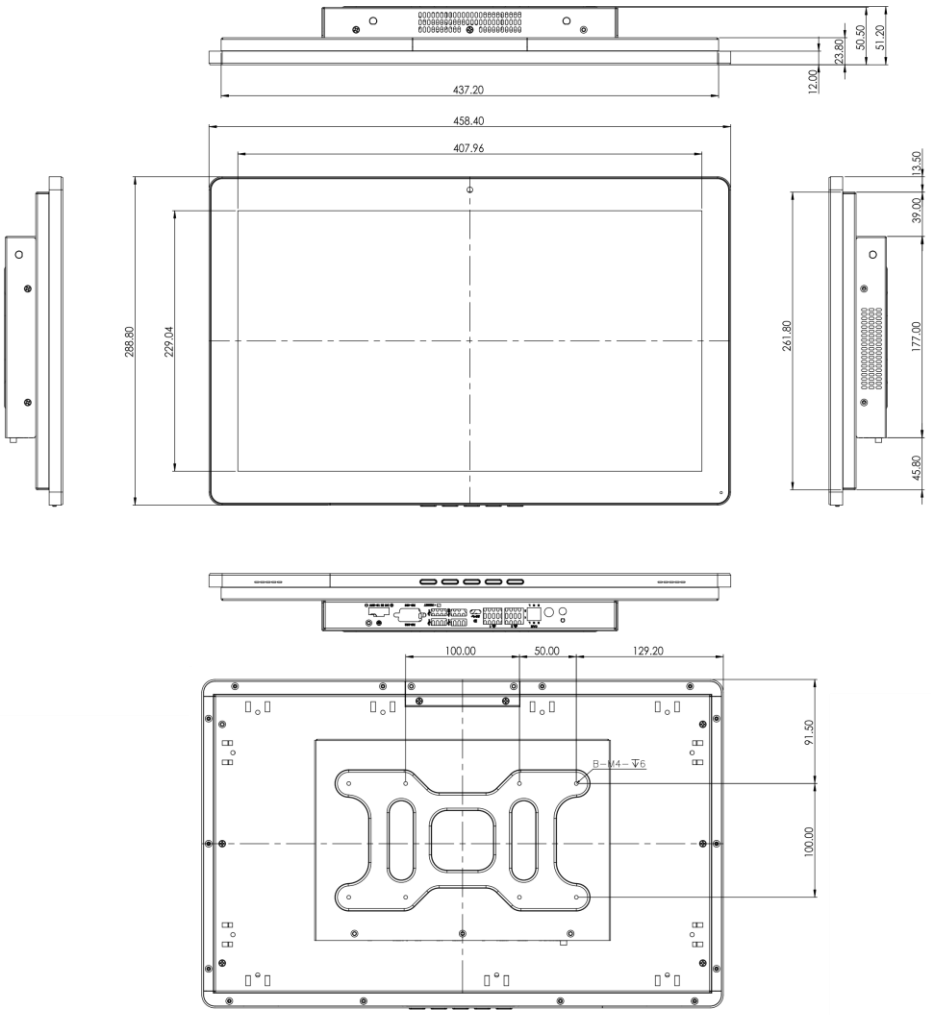


Figure 1-9: AURA-W185-RK3576 Dimensions (mm)

1.7.6 AURA-W215-RK3576 Dimensions

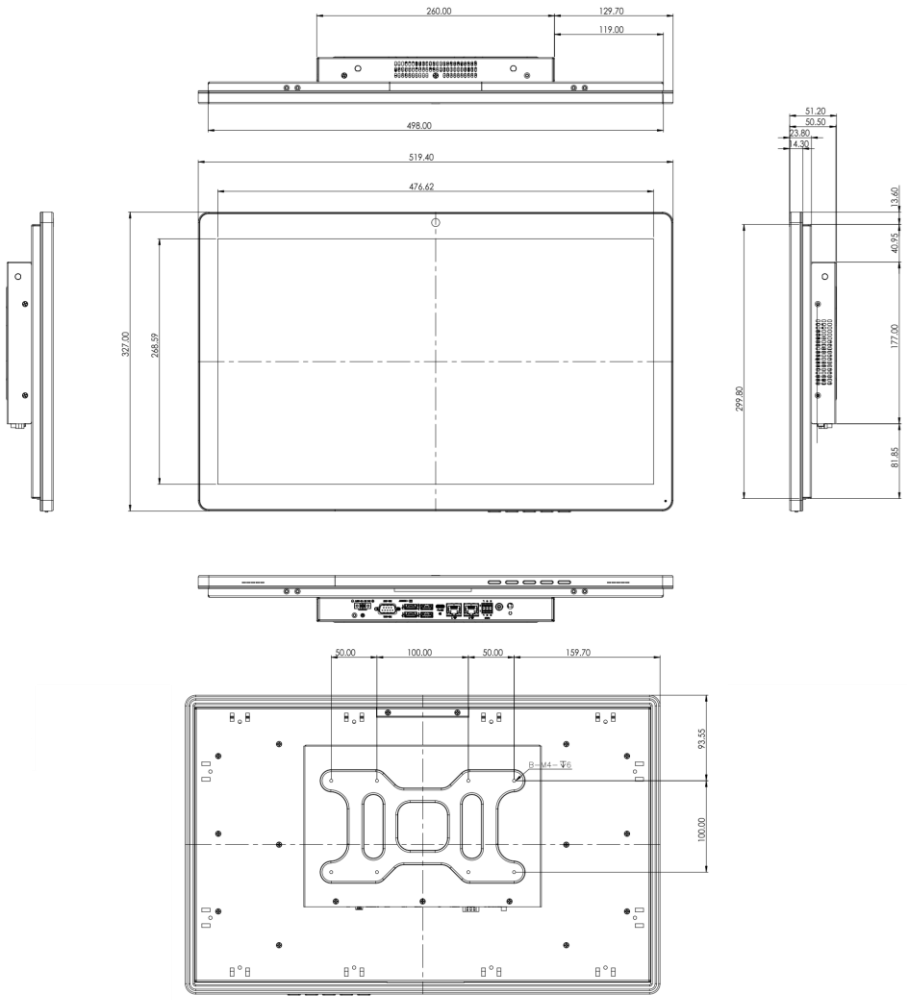


Figure 1-10: AURA-W1215-RK3576 Dimensions (mm)

1.7.7 AURA-W238-RK3576 Dimensions

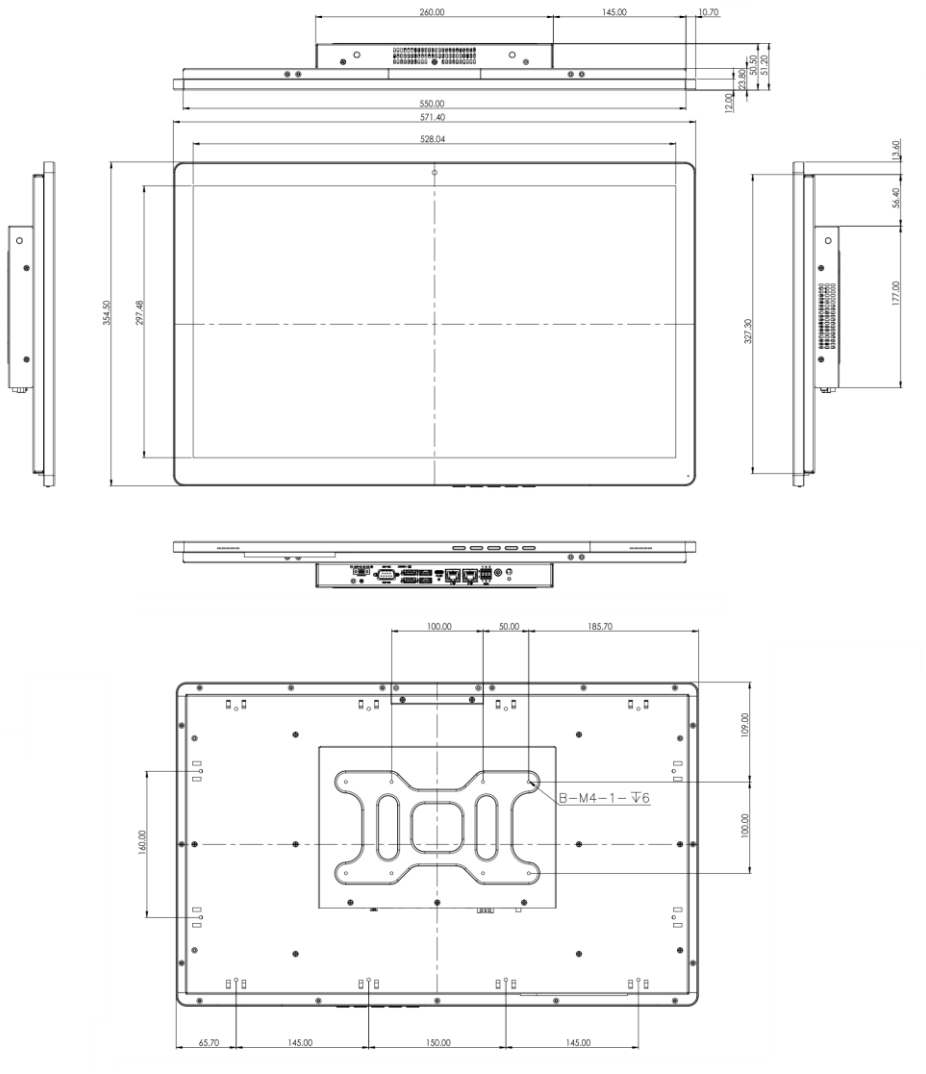


Figure 1-11: AURA-W238-RK3576 Dimensions (mm)

1.8 Specifications

The technical specifications are listed in **Table 1-2** & **Table 1-3** & **Table 1-4.**

	AURA-W101-RK3576	AURA-W121-RK3576	AURA-W133-RK3576
LCD Display	10.1"(16:10)	12.1"(16:10)	13.3"(16:9)
Brightness	400	500	315
Max. Resolution	1280 x 800	1280 x 800	1920 x 1080
Contrast Ratio	800:1	1200:1	1000:1

	AURA-W101-RK3576	AURA-W121-RK3576	AURA-W133-RK3576
LCD Color	16.7M	16.7M	16.7M
Viewing Angle (H-V)	178°/178°	170°/170°	176°/176°
Backlight MTBF (hrs)	30000	50000	30000
Touchscreen	PCAP with USB interface (anti-UV/AG coating)		
Touch Controller	Capacitive: ILITEK		
CPU	Rockchip RK3576 (Quad Cortex-A72 and quad Cortex-A53, 6 TOPS NPU)		
Memory	8GB LPDDR5, up to 16GB		
Ethernet	2 x RJ45 By YT8531C		
Expansion	1 x board to board connector (Only supports IEI wireless modules) 1 x M.2 B Key 3042/52/80 (PCIe Gen2 x1, USB2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key		
I/O Ports and Switches	2 x RS232 & 2 x 485 By 1 x DB9 1 x USB Type-C (USB 3.2 Gen1 + Displayport Alt Mode） 3 x USB2.0 +1x USB3.0 2 x CAN2.0 (6-pin terminal block) 1 x 3-pin terminal block 1 x Power button 1 x Reset button 1 x USB OTG switch 1 x System LED (Orange)		
Audio	1 x Mic in & Line out 2 x internal 2W speaker		
Storage	64GB eMMC NAND FLASH 1 x SD Slot		
Camera	720P Wide Angle Fixed Focus		
Hot Key	5-key Hot Key		
Construction Material	Aluminum front frame and sheet metal rear cover		
Mounting	Panel Mount, Rack Mount, VESA 100		
Enclosure Color	Black		
Dimensions (LxWxH) (mm)	251 x 180 x 48.60	298 x 217.5 x 48.60	333.04 x 215.75 x 48.60
Cutout Dimensions	241.80 x 157.80	288.60 x 195.10	314.34 x193.55
Weight（kg）	1.5kg/3.2kg	2.26kg/3.9kg	2.15kg

	AURA-W101-RK3576	AURA-W121-RK3576	AURA-W133-RK3576
Operating Temperature	-10°C ~ 60°C	-10°C ~ 60°C	-10°C ~ 60°C
Storage Temperature	-20°C ~ 60°C	-20°C ~ 70°C	-20°C ~ 70°C
Humidity	10% to 95%@40℃ (non-condensing)（50%@60℃）		
Vibration	MIL-STD-810H 514.8C-I with SSD		
Shock	IEC68-2-27 half-sine, 5G, 11ms, 100 shocks with SSD		
IP Level	IP 65 compliant front panel		
Safety & EMC	CE/FCC		
Power Input	10-28V DC		
Power Consumption	12V@1.75A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)	12V@2.17A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)	12V@2.25A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)
OS	Android/Debian		

Table 1-2: AURA-W101/W121/W133-RK3576 Specifications

	AURA-W156-RK3576	AURA-W185-RK3576
LCD Display	15.6” (16:9)	18.5” (16:9)
Brightness	450	350
Max. Resolution	1920x1080	1920 x 1080
Contrast Ratio	800:1	1200:1
LCD Color	16.7M	16.7M
Viewing Angle (H-V)	170°/170°	170°/170°
Backlight MTBF (hrs)	50000	50000
Touchscreen	PCAP with USB interface (anti-UV/AG coating)	
Touch Controller	Capacitive: ILITEK	
CPU	Rockchip RK3576 (Quad Cortex-A72 and quad Cortex-A53, 6 TOPS NPU)	
Memory	8GB LPDDR5, up to 16GB	
Ethernet	2 x RJ45 By YT8531C	
Expansion	1 x board to board connector (Only supports IEI wireless modules) 1 x M.2 B Key 3042/52/80 (PCIe Gen2 x1, USB2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key	
I/O Ports and Switches	2 x RS232 & 2 x 485 By 1 x DB9	

	AURA-W156-RK3576	AURA-W185-RK3576
	1 x USB Type-C (USB 3.2 Gen1 + Displayport Alt Mode） 3 x USB2.0 +1x USB3.0 2 x CAN2.0 (6-pin terminal block) 1 x 3-pin terminal block 1 x Power button 1 x Reset button 1 x USB OTG switch 1 x System LED (Orange)	
Audio	1 x Mic in & Line out 2 x internal 2W speaker	
Storage	64GB eMMC NAND FLASH 1 x SD Slot	
Camera	720P Wide Angle Fixed Focus	
Hot Key	5-key Hot Key	
Construction Material	Aluminum front frame and sheet metal rear cover	
Mounting	Panel Mount, Rack Mount, VESA 100	
Enclosure Color	Black	
Dimensions (LxWxH) (mm)	391.5 x 250 x 49.60	458.4 x 288.8 x 50.50
Cutout Dimensions	373.30 x 269	438.20 x 262.80
Weight（kg）	3.27kg/4.8kg	4.73kg/7.2kg
Operating Temperature	-10°C ~ 60°C	-10°C ~ 60°C
Storage Temperature	-20°C ~ 70°C	-20°C ~ 70°C
Humidity	10% to 95%@40℃ (non-condensing)（50%@60℃）	
Vibration	MIL-STD-810H 514.8C-I with SSD	
Shock	IEC68-2-27 half-sine, 5G, 11ms, 100 shocks with SSD	
IP Level	IP 65 compliant front panel	
Safety & EMC	CE/FCC	
Power Input	10-28V DC	
Power Consumption	12V@2.25A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)	12V@2.25A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)
OS	Android/Debian	

Table 1-3：AURA-W156/W185-RK3576 Specifications

	AURA-W215-RK3576	AURA-W238-RK3576
LCD Display	21.5” (16:9)	23.8” (16:9)
Brightness	350	350
Max. Resolution	1920 x 1080	1920 x 1080
Contrast Ratio	1000:1	1000:1
LCD Color	16.7M	16.7M
Viewing Angle (H-V)	178°/178°	178°/178°
Backlight MTBF (hrs)	50000	30000
Touchscreen	PCAP with USB interface (anti-UV/AG coating)	
Touch Controller	Capacitive: ILITEK	
CPU	Rockchip RK3576 (Quad Cortex-A72 and quad Cortex-A53, 6 TOPS NPU)	
Memory	8GB LPDDR5, up to 16GB	
Ethernet	2 x RJ45 By YT8531C	
Expansion	1 x board to board connector (Only supports IEI wireless modules) 1 x M.2 B Key 3042/52/80 (PCIe Gen2 x1, USB2.0) 1 x On-board SIM card socket (hinge type) for M.2 B key	
I/O Ports and Switches	2 x RS232 & 2 x 485 By 1 x DB9 1 x USB Type-C (USB 3.2 Gen1 + Displayport Alt Mode） 3 x USB2.0 +1x USB3.0 2 x CAN2.0 (6-pin terminal block) 1 x 3-pin terminal block 1 x Power button 1 x Reset button 1 x USB OTG switch 1 x System LED (Orange)	
Audio	1 x Mic in & Line out 2 x internal 2W speaker	
Storage	64GB eMMC NAND FLASH 1 x SD Slot	
Camera	720P Wide Angle Fixed Focus	
Hot Key	5-key Hot Key	
Construction Material	Aluminum front frame and sheet metal rear cover	
Mounting	Panel Mount, VESA 100	
Enclosure Color	Black	

	AURA-W215-RK3576	AURA-W238-RK3576
Dimensions (LxWxH) (mm)	519.4 x 327 x 50.50	571.4 x 354.5 x 50.50
Cutout Dimensions	501 x 302	553.20 x 332.50
Weight（kg）	5.69kg/8.4kg	6.65kg/9.4kg
Operating Temperature	0°C ~ 50°C	0°C ~ 50°C
Storage Temperature	-20°C ~ 60°C	-20°C ~ 60°C
Humidity	10% to 95%@40℃ (non-condensing)（50%@60℃）	
Vibration	MIL-STD-810H 514.8C-I with SSD	
Shock	IEC68-2-27 half-sine, 5G, 11ms, 100 shocks with SSD	
IP Level	IP 65 compliant front panel	
Safety & EMC	CE/FCC	
Power Input	10-28V DC	
Power Consumption	12V@2.2A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)	12V@2.1A (Rockchip® RK3576 with 8GB Memory, 64G eMMC, Debian OS)
OS	Android/Debian	

Table 1-4: AURA-W215/W238-RK3576 Specifications

Chapter

2

Unpacking

2.1 Unpacking

To unpack the panel PC, follow the steps below:

WARNING!

The front side LCD screen has a protective plastic cover stuck to the screen. Only remove the plastic cover after the panel PC has been properly installed. This ensures the screen is protected during the installation process.

Step 1: Use box cutters, a knife or a sharp pair of scissors that seals the top side of the external (second) box.

Step 2: Open the external (second) box.

Step 3: Use box cutters, a knife or a sharp pair of scissors that seals the top side of the internal (first) box.

Step 4: Lift the monitor out of the boxes.

Step 5: Remove both polystyrene ends, one from each side.

Step 6: Pull the plastic cover off the panel PC.

Step 7: Make sure all the components listed in the packing list are present.

2.2 Packing List

The AURA-xxx-RK3576 Series panel PC is shipped with the following components:

Quantity	Item	Image
1	AURA-xxx-RK3576 Series panel PC	
1	TERMINAL BLOCKS 1x2 (P/N: 33502-000203-RS)	
1	TERMINAL BLOCKS 2x3 (P/N: 33502-000672-RS)	
1	Screw pack (P/N: 44033-040062-RS)	
1	Panel mount kit pack	

Table 2-1: Packing List

If any of the above items are missing or damaged, contact the distributor or sales representative immediately.

2.3 Optional Items

The following items are optional accessories for the AURA-xxx-RK3576 Series:

Item	AURA-W101/W121/W133/W156	AURA-W185/W215/W238
Stand	STAND-C19-R10 STAND-A21-R10	STAND-C19-R10 STAND-A21-R10
Wall	AFLWK-19B	AFLWK-19B
Power Adapter	63040-010060-211-RS	

Item	AURA-W101/W121/W133/W156	AURA-W185/W215/W238
Power Cord	32702-000202-100-RS (EU)	
DC Power Cable	32102-045700-100-RS	

Table 2-2: Optional Items

Chapter

3

Installation

3.1 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the maintenance of the panel PC may result in permanent damage to the panel PC and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AURA-xxx-RK3576 Series. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AURA-xxx-RK3576 Series is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: Before handling the board, touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring the AURA-xxx-RK3576 Series, place it on an anti-static pad. This reduces the possibility of ESD damaging the AURA-xxx-RK3576 Series.
- ***Only handle the edges of the PCB***: When handling the PCB, hold the PCB by the edges.

3.2 Installation Precautions

When installing the panel PC, please follow the precautions listed below:

- **Power turned off**: When installing the panel PC, make sure the power is off. Failing to turn off the power may cause severe injury to the body and/or damage to the system.
- **Certified Engineers**: Only certified engineers should install and modify onboard functionalities.

- **Mounting**: The AURA-xxx-RK3576 Series is a heavy device. When mounting the system onto a rack, panel, wall or arm, please make sure that at least two people are assisting with the procedure.
- **Anti-static Discharge**: If a user opens the rear panel of the panel PC, to configure the jumpers or plug in added peripheral devices, ground themselves first and wear an anti-static wristband.

3.3 Installation and Configuration Steps

The following installation steps must be followed.

Step 1: Unpack the panel PC.

Step 2: Install a M.2 module.

Step 3: Mount the panel PC.

Step 4: Connect peripheral devices to the panel PC.

Step 5: Configure the system.

3.4 Removing the Back Cover

To access the AURA-xxx-RK3576 Series internally the back cover must be removed. To remove the back cover, please follow the steps below.

WARNING:

Before any internal installation procedures are carried out on the system, make sure the system is turned off and cooled down for 15 minutes. Failing to turn off the system before opening it can cause permanent damage to the system and serious or fatal injury to the user.

Step 1: Remove the retention screws from the back cover (**Figure 3-1**).

Figure 3-1: AURA-xxx-RK3576 Series Back Cover Retention Screws

Step 2: Slide the back cover in the direction of the arrow, and then lift the back cover off the chassis. See **Figure 3-2**.

Figure 3-2: Remove the Back Cover

3.5 M.2 Module Installation (Optional)

The M.2 B-key slot allows installation of M.2 3042/52/80 cards. To install an M.2 card into the AURA-xxx-RK3576 Series Panel PC, please follow the steps below.

Step 1: Remove the back cover. See **Section 3.4** above.

Step 2: Locate the M.2 card slot. Remove the preinstalled retention screw on the standoff of the M.2 card slot as shown in **Figure 3-3**.

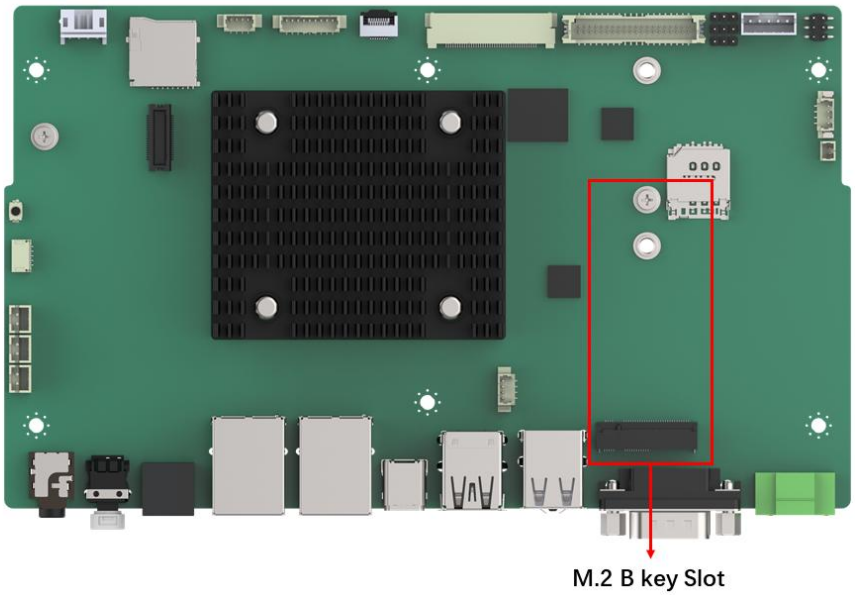


Figure 3-3: M.2 Slot Location

Step 3: Line up the notch on the M.2 module with the notch on the connector. Slide the M.2 module into the socket at an angle of about 20º.

Step 4: Secure the M.2 module with the retention screw. Push the other end of the M.2 module down and secure the module with the previously removed retention screw**. (Figure 3-4)**

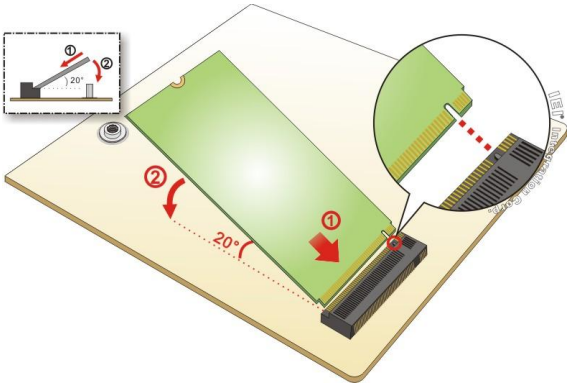


Figure 3-4: M.2 Module Installation

Step 5: Replace the back cover and secure it using retention screws.

3.6 SIM Module Installation

The SIM card slot allows installation of the SIM card based on M.2 B-key signals. To install a SIM card, please follow the steps below.

Step 1: Slide the upper cover to the release position according to the direction of the unlocking symbol **(See Figure 3-5).**

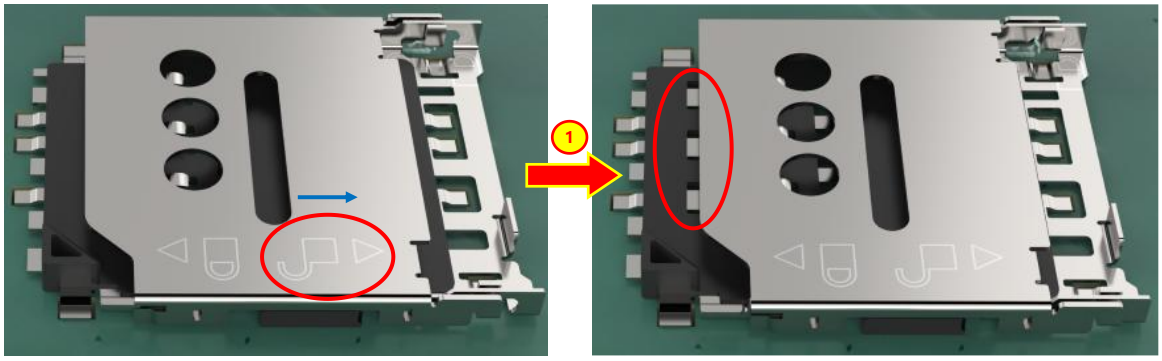


Figure 3-5: Slide the Upper Cover to the Release Position

Step 2: Open the upper cover of the SIM slot, and orient the SIM card to align with the notch of the SIM slot **(See Figure 3-6).**

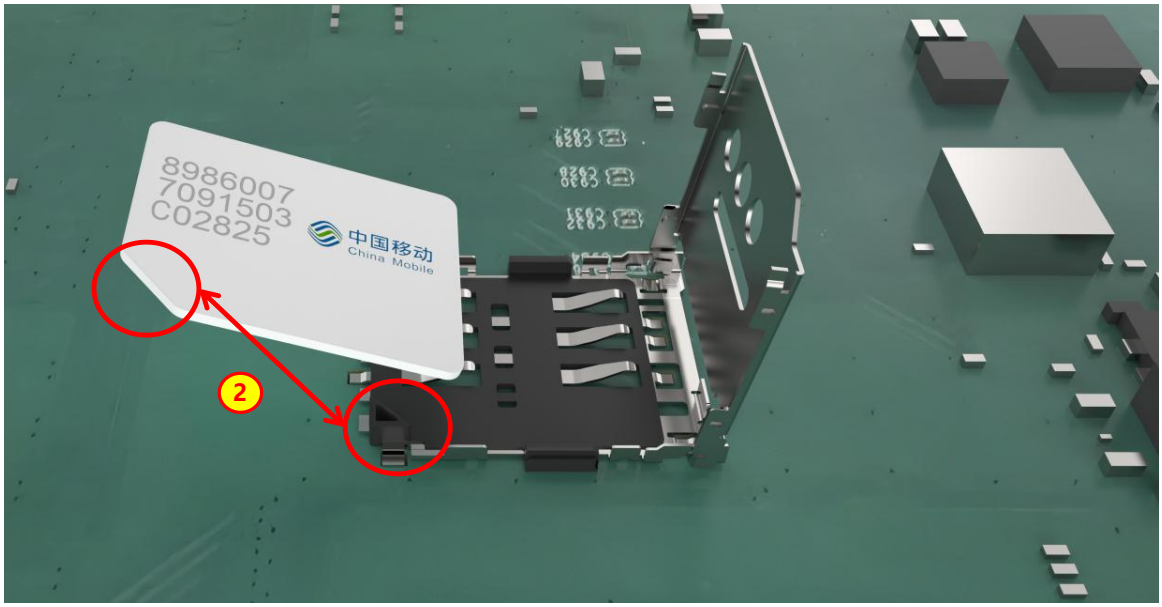


Figure 3-6: Open the Upper Cover of the SIM Slot

Step 3: Place the SIM card onto the SIM card slot, then close the upper cover of the SIM card slot **(See Figure 3-7).**

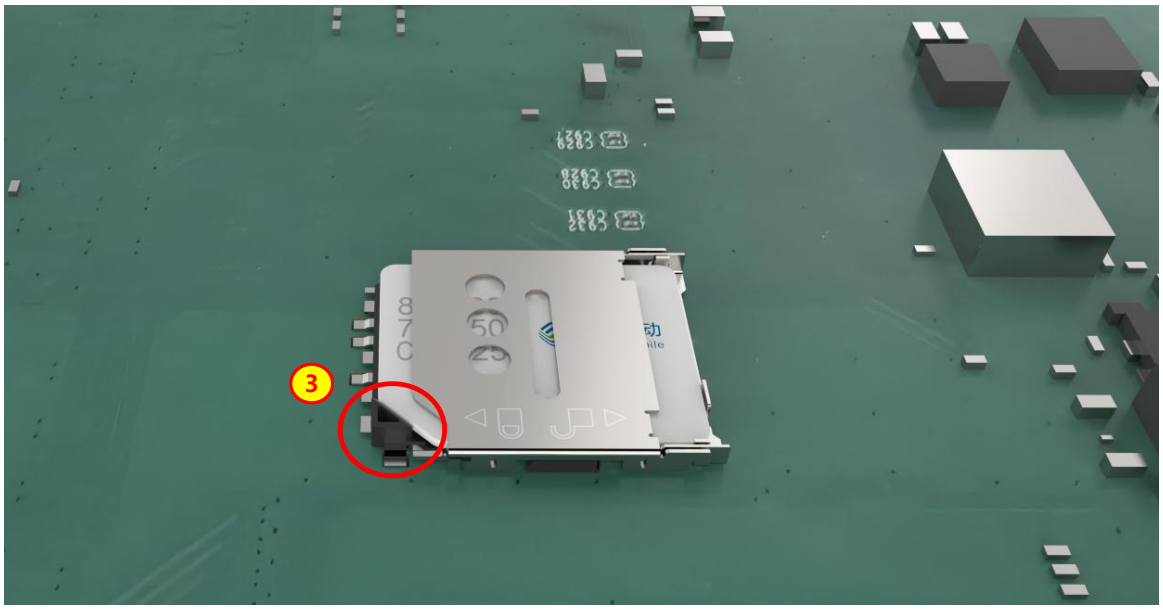


Figure 3-7: Install the SIM Card and Close the Upper Cover

Step 4: Slide the upper cover to the lock position according to the direction of the locking symbol **(See Figure 3-8).**

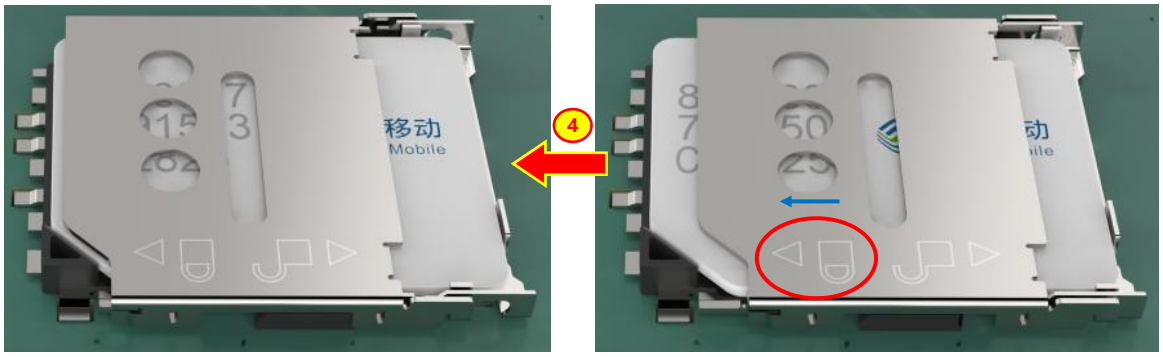


Figure 3-8: Slide the Upper Cover to the Locking Position

3.7 Wi-Fi Module Installation

The IEI's board to board Wi-Fi module is an optional accessory. You can purchase it from IEI. Note that you have to purchase a Wi-Fi module, internal antenna and external antenna.

To install the Wi-Fi module, follow the steps below.

Step 5: Locate the board-to-board Wi-Fi module slot (see **Section 5.1**). Remove the preinstalled retention screw on the standoff of the board-to-board slot (**Figure 3-9**).

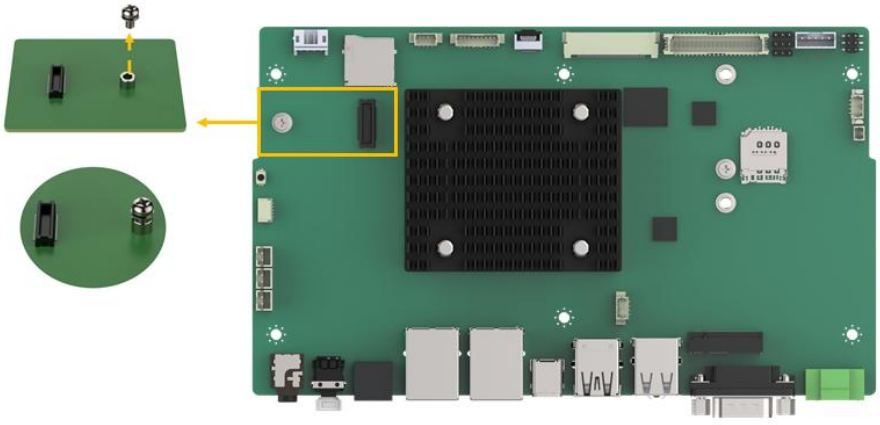


Figure 3-9: Remove the Retention Screw

Step 6: Line up the notch on the Wi-Fi module with the notch on the connector. Insert the Wi-Fi module into the socket (**Figure 3-10**).

Figure 3-10: Insert the Wi-Fi Module

Step 7: Secure the fixing screws and connect antennas (**Figure 3-11**).

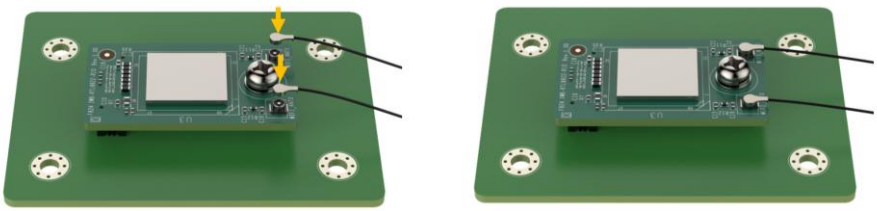


Figure 3-11: Connect Antennas

3.8 Mounting the System

WARNING!

When mounting the AURA-xxx-RK3576 Series panel PC, it is advisable to have more than one person help with the installation to prevent accidental damage to the panel and avoid personal injury.

The methods of mounting the AURA-xxx-RK3576 Series are:

- Panel mounting
- Rack mounting
- Stand mounting
- Wall mounting

The mounting methods are described in the following sections.

3.8.1 Panel, Rack and Cabinet Installation

To mount the AURA-xxx-RK3576 Series panel PC into a panel, please follow steps 1-5.

For rack and cabinet installation, please follow steps 1-7.

NOTE:

For the AURA-xxx-RK3576 Series panel PC, all mounting kit must be installed (**Figure 3-12**).

Figure 3-12: AURA-xxx-RK3576 Series Panel Mount Kit Installation

Step 1: Select the position on the panel to mount the AURA-xxx-RK3576 Series.

Step 2: Cut out a section of the panel that corresponds to the rear panel dimensions of the AURA-xxx-RK3576 Series. The recommended cutout sizes are shown below (**Figure 3-13, Figure 3-14 , Figure 3-15 , Figure 3-16 , Figure 3-17, Figure 3-18 , Figure 3-19**).

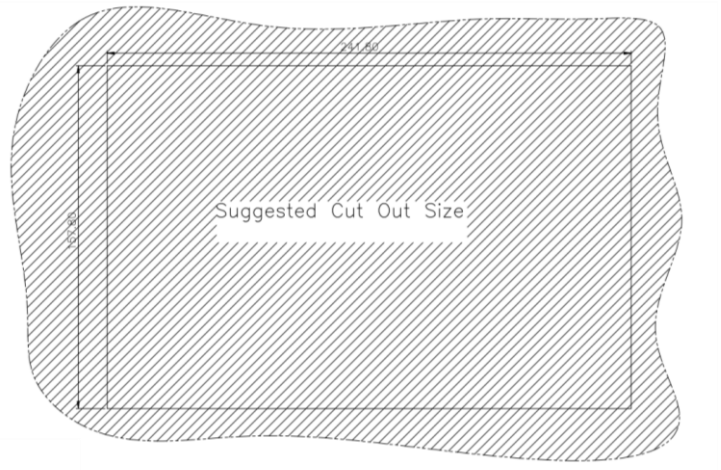


Figure 3-13: AURA-W101-RK3576 Panel Cutout Dimensions

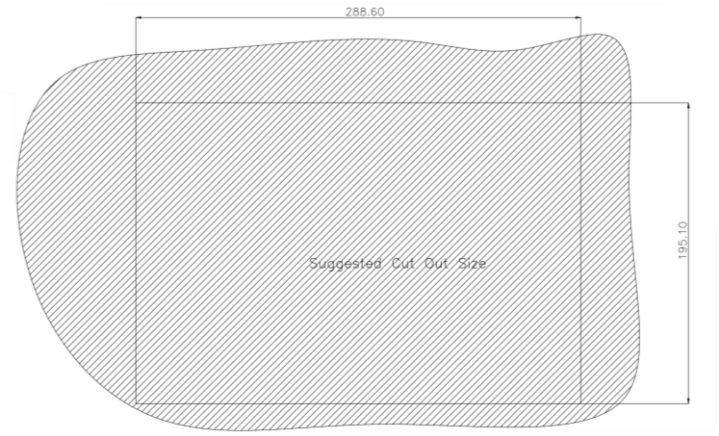


Figure 3-14: AURA-W121-RK3576 Panel Cutout Dimensions

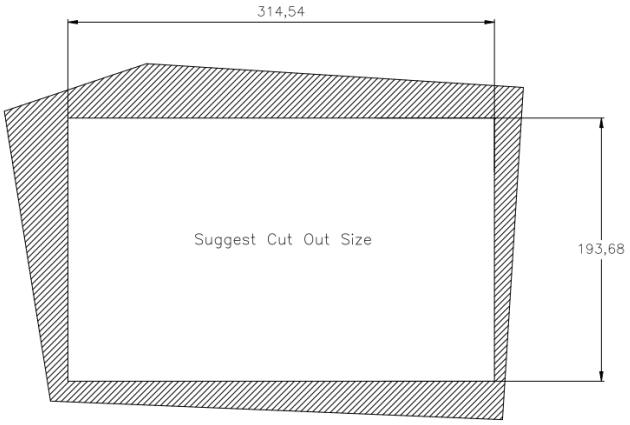


Figure 3-15: AURA-W133-RK3576 Panel Cutout Dimensions

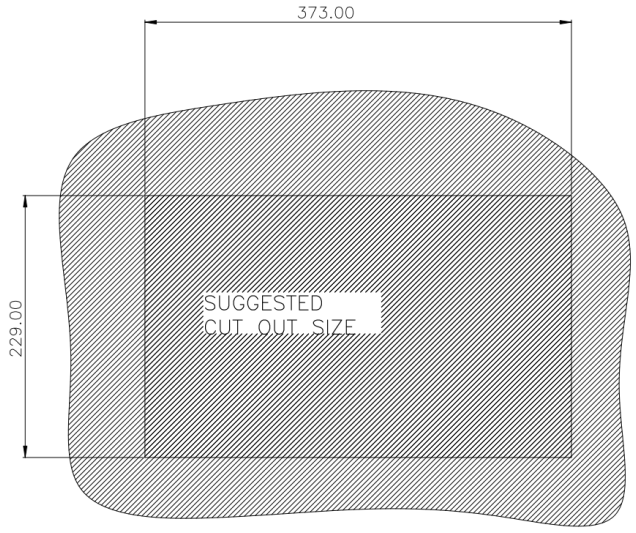


Figure 3-16: AURA-W156-RK3576 Panel Cutout Dimensions

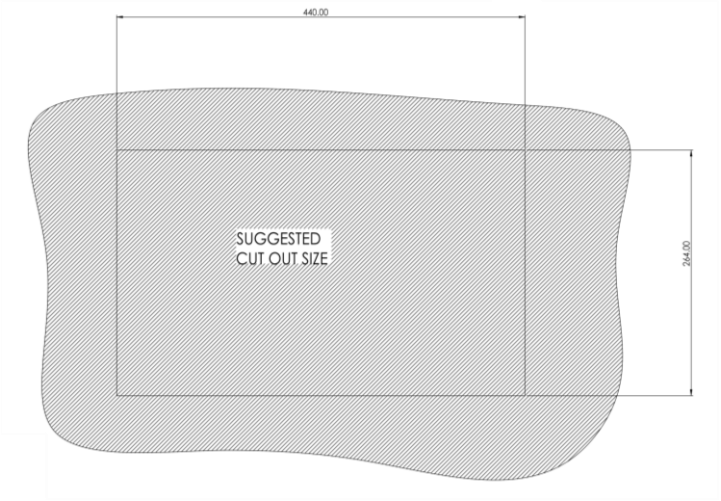


Figure 3-17: AURA-W185-RK3576 Panel Cutout Dimensions

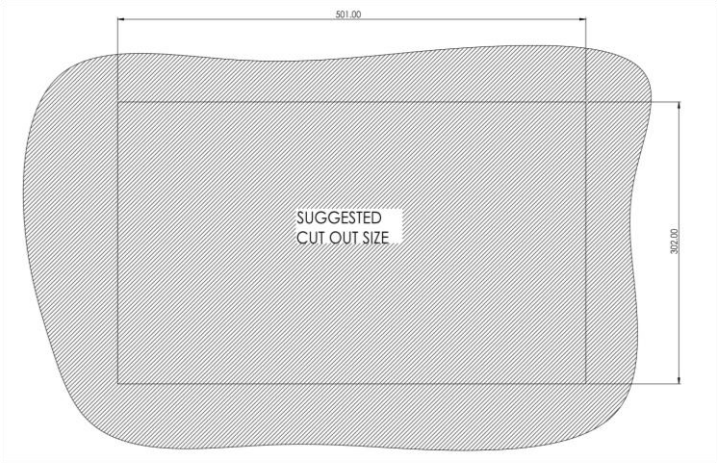


Figure 3-18: AURA-W215-RK3576 Panel Cutout Dimensions

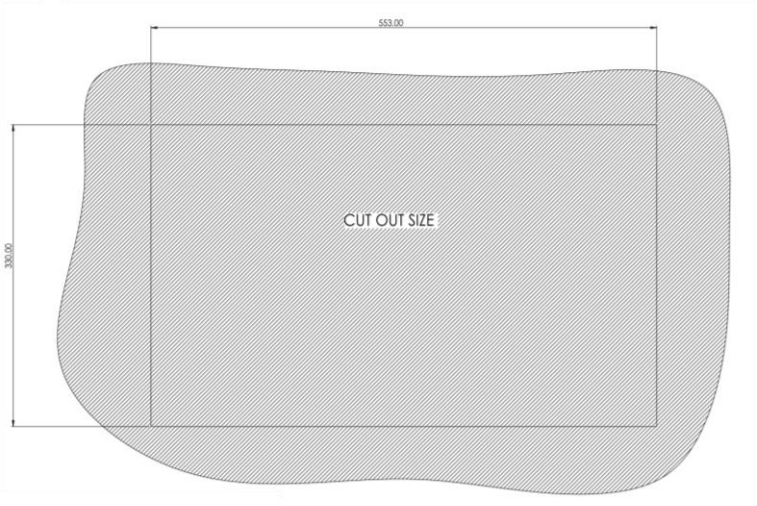


Figure 3-19: AURA-W238-RK3576 Panel Cutout Dimensions

Step 3: Slide the AURA-xxx-RK3576 Series through the hole until the aluminum frame is flush against the panel (**Figure 3-20**).

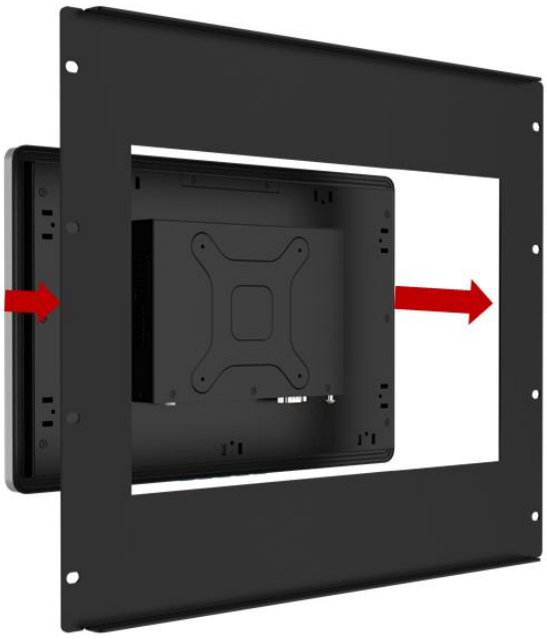


Figure 3-20: Machine mounted to panel

Step 4: Insert the panel mount kit into the prefabricated holes along the rear edge of the AURA-xxx-RK3576 Series (**Figure 3-21**). The required number of mounting clamps may vary by models.

Figure 3-21: Installation Panel Mount Kit

Step 5: Tighten the screws that pass through the mounting clamps until the plastic caps at the front of all the screws are firmly secured to the panel (**Figure 3-22**).

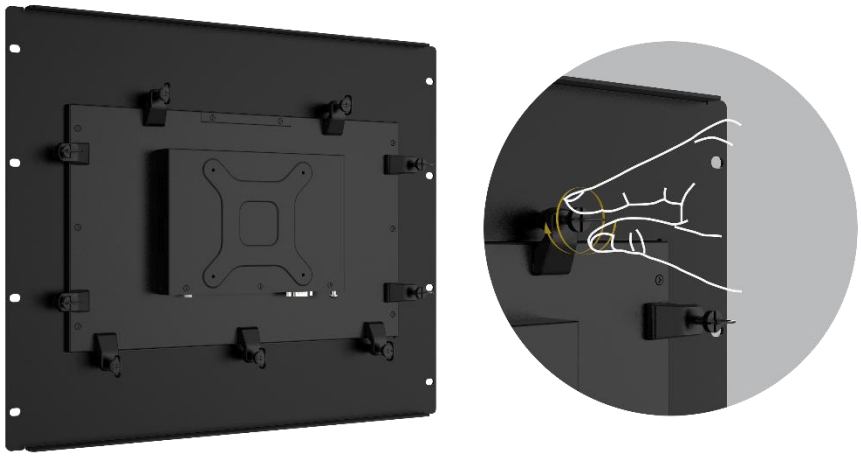


Figure 3-22: Tighten the Mounting Screws

NOTE:

For the AURA-xxx-RK3576 Series panel PC, models W101/ W121/ W133/ W156/ W185 support rack mounting, but models W215/W238 do not.

Step 6: Slide the AURA-xxx-RK3576 Series with the attached rack/cabinet bracket into a rack or cabinet (**Figure 3-23**).

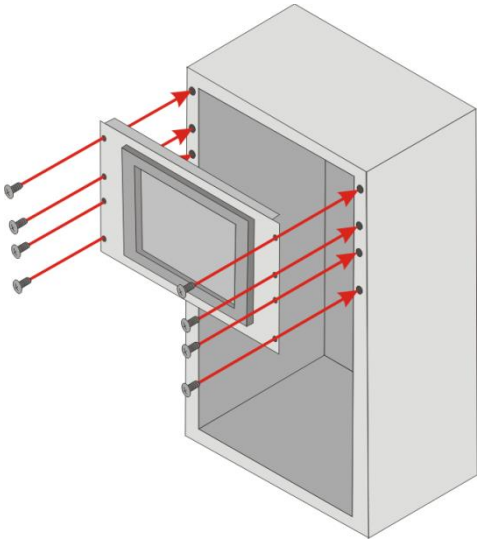


Figure 3-23: Install into a Rack/Cabinet

Step 7: Once the flat panel PC with the attached rack/cabinet bracket has been properly inserted into the rack or cabinet, secure the front of the rack/cabinet bracket to the front of the rack or cabinet (**Figure 3-23**).

3.8.2 Stand Mounting

To mount the AURA-xxx-RK3576 Series using the stand mounting kit, please follow the steps below.

Step 1: Locate the screw holes on the rear of the AURA-xxx-RK3576 Series. This is where the bracket will be attached.

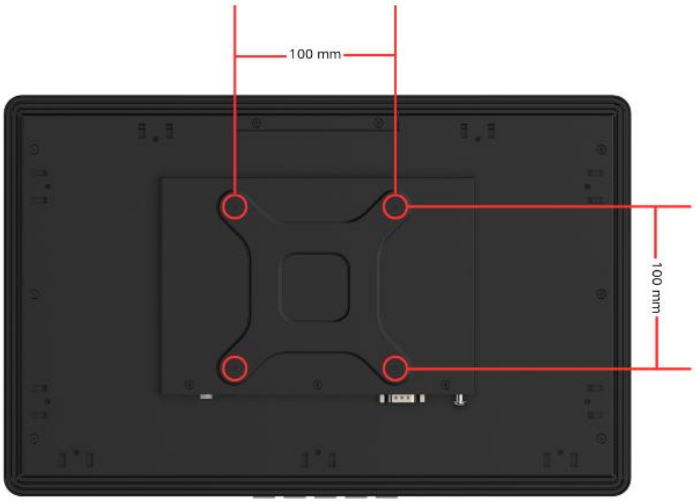


Figure 3-24: Stand Mounting Retention Screw Holes

Step 2: Align the bracket with the screw holes.

Step 3: To secure the bracket to the AURA-xxx-RK3576 Series, insert the retention screws into the screw holes and tighten them.

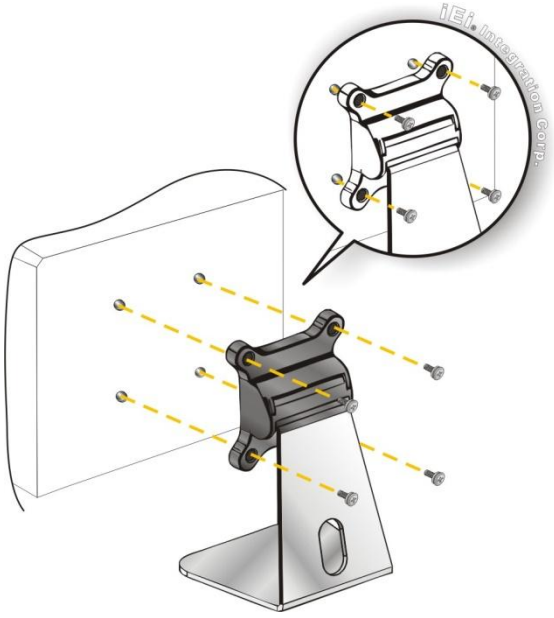


Figure 3-25: Stand Mounting (Stand-Cxx)

3.8.3 Wall Mounting

To mount the AURA-xxx-RK3576 Series panel PC onto a wall, please follow the steps below.

Step 1: Select the location on the wall for the wall-mounting bracket.

Step 2: Carefully mark the locations of the four bracket screw holes on the wall.

Step 3: Drill four pilot holes at the marked locations on the wall for the bracket retention screws.

Step 4: Align the wall-mounting bracket screw holes with the pilot holes.

Step 5: Secure the mounting bracket to the wall by inserting the retention screws into the four pilot holes and tightening them (**Figure 3-26**).

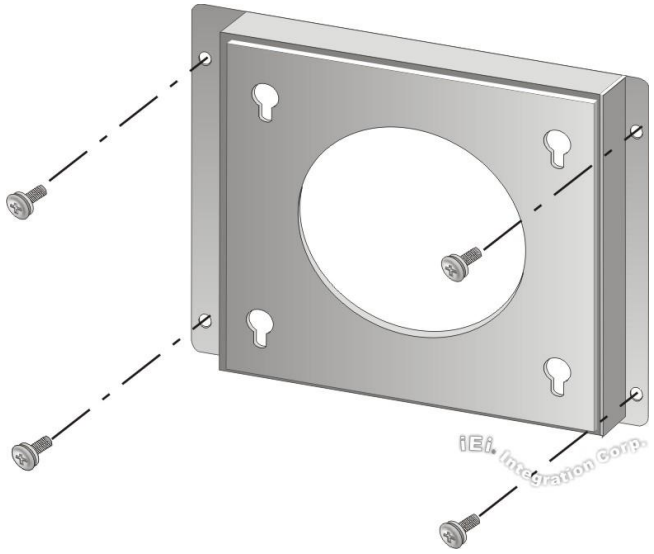
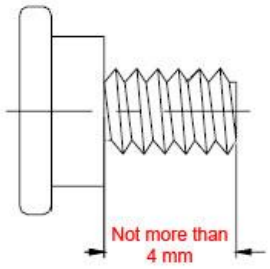


Figure 3-26: Wall-mounting Bracket

Step 6: Insert the four monitor mounting screws provided in the wall mounting kit into the four screw holes on the real panel of the monitor and tighten until the screw shank is secured against the rear panel (**Figure 3-27**).

WARNING:

Please use the M4 screws provided in the wall mount kit for the rear panel. If the screw is missing, the thread depth of the replacement screw should be not more than 4 mm.



Step 7: Align the mounting screws on the monitor rear panel with the mounting holes on the bracket.

Step 8: Carefully insert the screws through the holes and gently pull the monitor downwards until the monitor rests securely in the slotted holes (**Figure 3-27**). Ensure that all four of the mounting screws fit snuggly into their respective slotted holes. Always keep the AURA-xxx-RK3576 in landscape orientation when mounting on the wall.

NOTE:

In the diagram below the bracket is already installed on the wall.

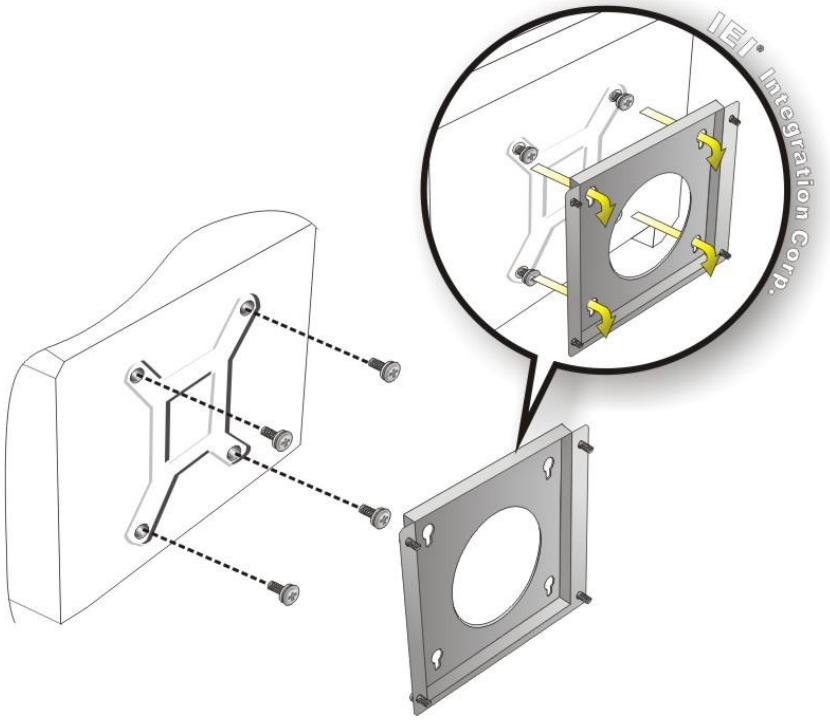


Figure 3-27: Mount the Chassis

Step 9: Secure the panel PC by fastening the retention screw of the wall-mounting bracket (**Figure 3-28**).

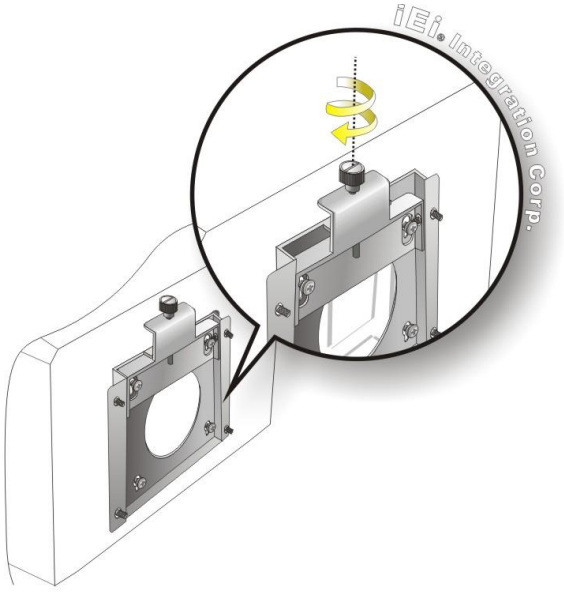


Figure 3-28: Secure the Panel PC

3.9 Powering On the System

To power on the system, follow the steps below:

Step 8: Either connect the power adapter to the power jack or connect the power cable to the 2-pin power input terminal block. **DO NOT** connect both power connectors to a power source at the same time. The pinouts of the power input connectors are shown below.

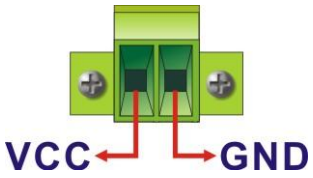


Figure 3-29: Power Input Connector Pinouts

Step 9: Toggle the power switch on the I/O panel to the constant on position (**I**) to power on the system.

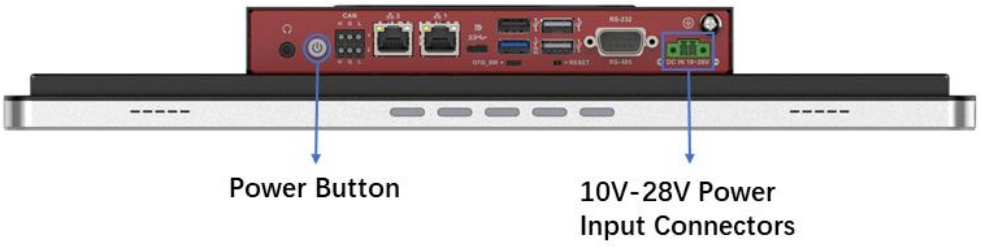


Figure 3-30: Power Connectors and Power Switch

3.10 Reset the System

The reset button enables users to reboot the system when the system is turned on. The reset button location is shown in **Figure 3-31**. Press the reset button to reboot the system.

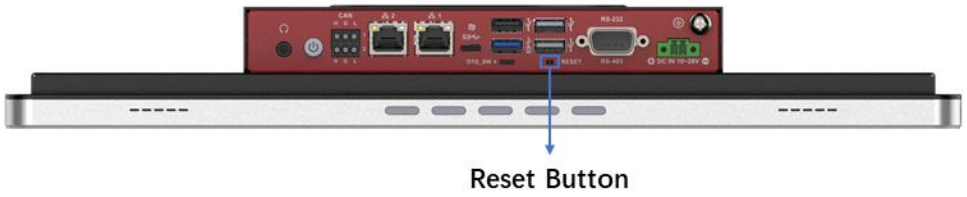


Figure 3-31: Reset Button Location

3.11 Hotkey

AURA-xxx-RK3576 Series products equipped with five physical hotkeys at the bottom for quick access to frequently used functions.

	Increase the audio output volume
	Decrease the audio output volume
	Increase the screen display brightness
	Decrease the screen display brightness
	Short press: Triggers the device to switch between power-on and standby states; Long press: Forces the device to power off;

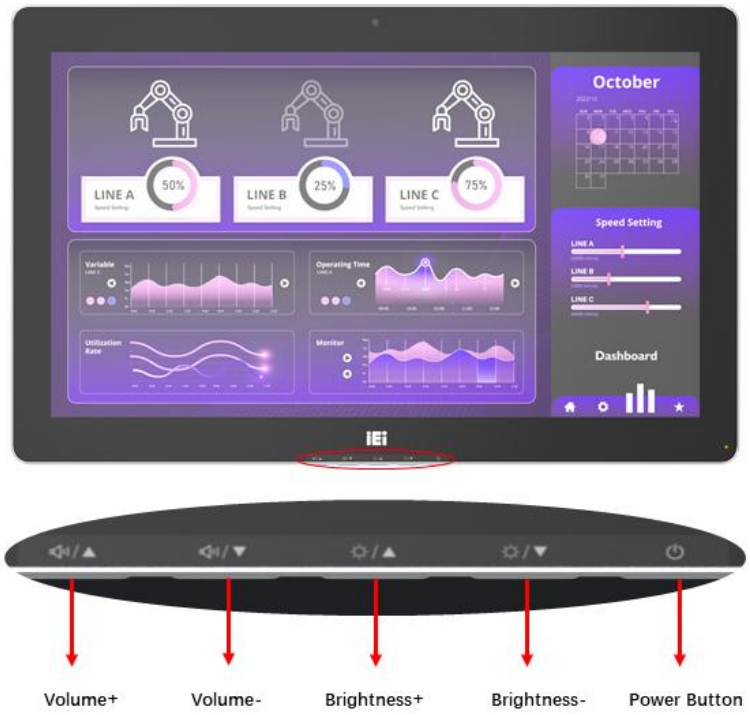


Figure 3-32: Hotkey

Chapter

4

System Maintenance

4.1 System Maintenance Introduction

If the components of the AURA-xxx-RK3576 Series fail they must be replaced. Please contact the system reseller or vendor to purchase the replacement parts. Back cover removal instructions for the AURA-xxx-RK3576 Series are described below.

4.2 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the maintenance of the AURA-xxx-RK3576 Series may result in permanent damage to the AURA-xxx-RK3576 Series and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AURA-xxx-RK3576 Series. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AURA-xxx-RK3576 Series is accessed internally, or any other electrical component is handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: - Wearing a simple anti-static wristband can help to prevent ESD from damaging the board.
- ***Self-grounding***: - Before handling the board touch any grounded conducting material. During the time the board is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: - When configuring the AURA-xxx-RK3576 Series, place it on an anti-static pad. This reduces the possibility of ESD damaging the AURA-xxx-RK3576 Series.
- ***Only handle the edges of the PCB***: - When handling the PCB, hold the PCB by the edges.

4.3 Turn off the Power

WARNING:

Failing to turn off the system before opening it can cause permanent damage to the system and serious or fatal injury to the user.

Before any maintenance procedures are carried out on the system, make sure the system is turned off.

4.4 Reinstalling the Cover

WARNING:

Failing to reinstall the cover may result in permanent damage to the system. Please make sure all coverings are properly installed.

When maintenance procedures are complete, please make sure the back cover is replaced.

Chapter

5

Interface Connectors

5.1 Peripheral Interface Connectors

The AURA-xxx-RK3576 Series panel PC motherboard comes with a number of peripheral interface connectors and configuration jumpers. The connector locations are shown in **Figure 5-1** and **Figure 5-2**. The Pin 1 locations of the on-board connectors are also indicated in the diagrams. The connector pinouts for these connectors are listed in the following sections.

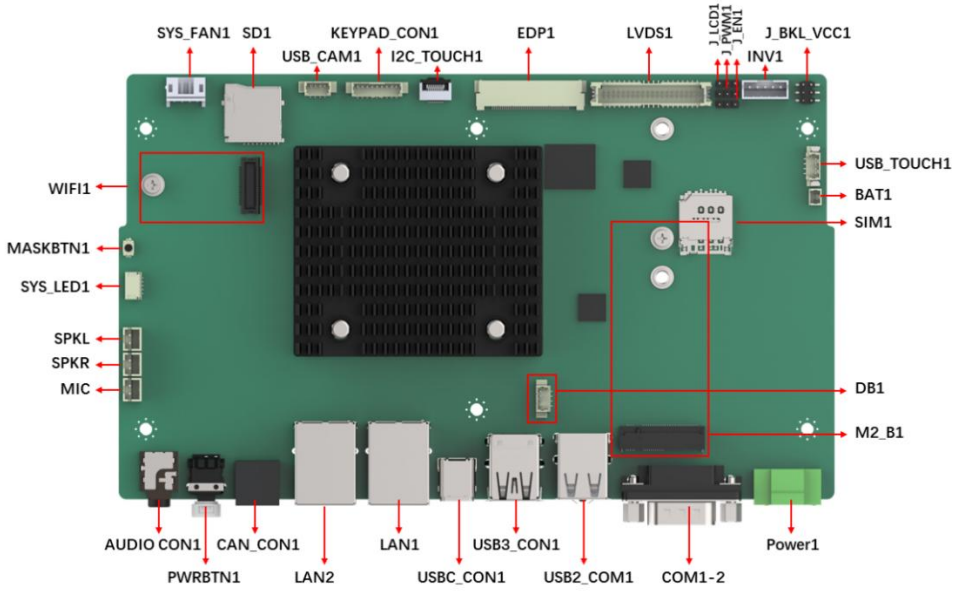


Figure 5-1: Main Board Layout Diagram (Front Side)

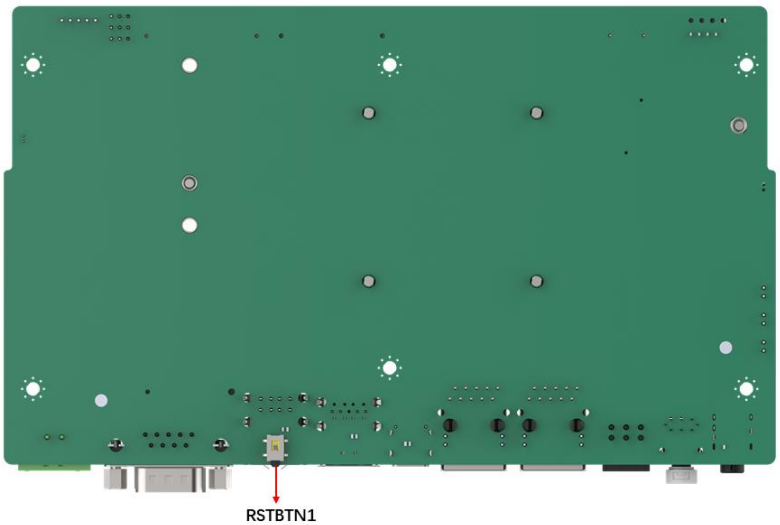


Figure 5-2: Main Board Layout Diagram (Solder Side)

5.2 Internal Peripheral Connectors

Internal peripheral connectors are found on the motherboard and are only accessible when the motherboard is outside of the chassis. The table below shows a list of the peripheral interface connectors on the AURA-xxx-RK3576 Series motherboard. Pinouts of these connectors can be found in the following sections.

Connector	Type	Label
Touch Panel Connector	4-pin wafer, p=1.25mm	USB_TOUCH1
Battery Connector	2-pin wafer, p=1.25mm	BAT1
Camera Connector	4-pin wafer, p=1.25mm	USB_CAM1
For LVDS Control	6-pin wafer, p=2.00mm	INV1
FAN Connector	4-pin wafer, p=2.00mm	SYS_FAN1
SYS LED Connector	5-pin wafer, p=1.00mm	SYS_LED1
Speaker Left Connector	2-pin wafer, p=1.25mm	SPKL
Speaker Right Connector	2-pin wafer, p=1.25mm	SPKR
Microphone	2-pin wafer, p=1.25mm	MIC
Keypad Connector	9-pin wafer, p=1.25mm	KEYPAD_CON1
Debug Connector	4-pin wafer, p=1.25mm	DB1
LVDS BKL VCC	6-pin Header, p=2.00mm	J_BKL_VCC1
LVDS LCD VDD	3-pin Header, p=2.00mm	J_LCD1
LVDS BKL Control	3-pin Header, p=2.00mm	J_PWM1
LVDS BKL Enable	3-pin Header, p=2.00mm	J_EN1
I2C Touch Panel Connector	6-pin Connector, p=1.25mm	I2C_TOUCH1
WIFI Connector	WIFI Connector	WIFI1
LVDS Panel Connector	40-pin Connector, p=1.25mm	LVDS1
EDP Panel Connector	40-pin Connector p=0.5mm	EDP1
M.2 B KEY Slot	M.2 B KEY Slot 3042/52/80	M2_B1

Table 5-1: Peripheral Interface Connectors

5.2.1 Touch Panel Connector (USB_TOUCH1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC5V0_USB_HUB1	2	HUB_USB_N_5
3	HUB_USB_P_5	4	GND

Table 5-2: Touch Panel Connector (USB_TOUCH1) Pinouts

5.2.2 Battery Connector (BAT1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	V_BAT	2	GND

Table 5-3: Battery connector (BAT1) Pinouts

5.2.3 Camera Connector (USB_CAM1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	P5V_USB2_CAMREA	2	USB_N_4_L
3	USB_P_4_L	4	GND

Table 5-4: Camera Connector (USB_CAM1) Pinouts

5.2.4 For LVDS Control (INV1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	BKL_PWR	2	BKL_PWR
3	LCD0_ENABKL	4	LCD0_BRIGHTNESS
5	GND	6	GND

Table 5-5: For LVDS Control (INV1) Pinouts

5.2.5 FAN Connector (SYS_FAN1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+V12S_FAN	2	GND
3	FAN_TACH	4	FAN_PWM

Table 5-6: FAN Connector (SYS_FAN1) Pinouts

5.2.6 SYS LED Connector (SYS_LED1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC_3V3_S0	2	HDD_LED
3	GND	4	NA
5	GND		

Table 5-7: SYS LED Connector (SYS_LED1) Pinouts

5.2.7 Speaker Left Connector (SPKL)

PIN NO.	DESCRIPTION
1	AUD_SPKLN
2	AUD_SPKLP

Table 5-8: Speaker Left Connector (SPKL) Pinouts

5.2.8 Speaker Right Connector (SPKR)

PIN NO.	DESCRIPTION
1	AUD_SPKRN
2	AUD_SPKRP

Table 5-9: Speaker Right Connector (SPKL) Pinouts

5.2.9 Microphone (MIC)

PIN NO.	DESCRIPTION
1	MIC2P
2	MIC2N

Table 5-10: Microphone (MIC) Pinouts

5.2.10 Keypad Connector (KEYPAD_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+V5A_Keypad	2	+V12A_Keypad
3	Volume+	4	Volume-
5	Brightness+	6	Brightness-
7	PWRBTN_SW#	8	GND
9	+V3P3DSW_Keypad		

Table 5-11: Keypad Connector (KEYPAD_CON1) Pinouts

5.2.11 Debug Connector (DB1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	UART0_RX_M0_DEBUG
3	UART0_TX_M0_DEBUG	4	GND

Table 5-12: Debug Connector (DB1) Pinouts

5.2.12 LVDS BKL VCC (J_BKL_VCC1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC_3V3_Ext	2	J_BKL_PWR
3	VCC5V0_DEVICE_S0	4	J_BKL_PWR
5	VCC12V_DCIN	6	J_BKL_PWR

Table 5-13: LVDS BKL VCC (J_BKL_VCC1) Pinouts

5.2.13 LVDS LCD VDD (J_LCD1)

PIN NO.	DESCRIPTION
1	VCC_3V3_Ext
2	VCC_LCD_R
3	VCC5V0_DEVICE_S0

Table 5-14: LVDS LCD VDD (J_LCD1) Pinouts

5.2.14 LVDS BKL Control (J_PWM1)

PIN NO.	DESCRIPTION
1	VCC_3V3_Ext
2	LCD0_BRIGHTNESS
3	VCC5V0_DEVICE_S0

Table 5-15: LVDS BKL Control (J_PWM1) Pinouts

5.2.15 LVDS BKL Enable (J_EN1)

PIN NO.	DESCRIPTION
1	VCC_3V3_Ext
2	LCD0_ENABKL
3	VCC5V0_DEVICE_S0

Table 5-16: LVDS BKL Enable (J_EN1) Pinouts

5.2.16 I2C Touch Panel Connector (I2C_TOUCH1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	TP_RST
3	TP_INT	4	I2C_SDA_TP
5	I2C_SCL_TP	6	VCC3V3_TP
7	NA	8	GND

Table 5-17: I2C Touch Panel Connector (I2C_TOUCH1) Pinouts

5.2.17 WIFI Connector (WIFI1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	UART4_RTSN_M1	4	SDIO_D0_M0_WIFI
5	UART4_TX_M1	6	SDIO_D1_M0_WIFI
7	UART4_RX_M1	8	SDIO_D2_M0_WIFI
9	UART4_CTSN_M1	10	SDIO_D3_M0_WIFI
11	GND	12	SDIO_CMD_M0_WIFI

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
13	SAI2_LRCK_M0	14	SDIO_CLK_M0_WIFI
15	SAI2_SDO_M0	16	GND
17	SAI2_SDI_M0	18	WIFI_REG_ON_H
19	SAI2_SCLK_M0	20	WIFI_WAKE_HOST_H
21	GND	22	BT_WAKE_HOST_H
23	32KOUT_RTC2WIFI	24	HOST_WAKE_BT_H
25	GND	26	BT_REG_ON_H
27	GND	28	WLAN_PEN_3V3
29	NA	30	GND
31	VCC_3V3_WIFI	32	WF_GPIO_10
33	VCC_3V3_WIFI	34	WF_GPIO_11
35	VCC_3V3_WIFI	36	GND
37	VCC_3V3_WIFI	38	GND
39	NA	40	GND

Table 5-18: WIFI Connector (WIFI1) Pinouts

5.2.18 LVDS Panel Connector (LVDS1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	A0M_L	4	A1M_L
5	A0P_L	6	A1P_L
7	GND	8	GND
9	A2M_L	10	CLK1M_L
11	A2P_L	12	CLK1P_L
13	GND	14	GND
15	A3M_L	16	A4M_L
17	A3P_L	18	A4P_L
19	GND	20	GND
21	A5M_L	22	A6M_L
23	A5P_L	24	A6P_L
25	GND	26	GND

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
27	CLK2M_L	28	A7M_L
29	CLK2P_L	30	A7P_L
31	GND	32	GND
33	GND	34	GND
35	VCC_LCD_BEAD	36	VCC_LCD_BEAD
37	VCC_LCD_BEAD	38	VCC_LCD_BEAD
39	VCC_LCD_BEAD	40	VCC_LCD_BEAD

Table 5-19: LVDS Panel Connector (LVDS1) Pinouts

5.2.19 EDP Panel Connector (EDP1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	NA	2	GND
3	EDP_TX3_DN_L	4	EDP_TX3_DP_L
5	GND	6	EDP_TX2_DN_L
7	EDP_TX2_DP_L	8	GND
9	EDP_TX1_DN_L	10	EDP_TX1_DP_L
11	GND	12	EDP_TX0_DN_L
13	EDP_TX0_DP_L	14	GND
15	EDP_AUXN_L	16	EDP_AUXP_L
17	GND	18	EDP_LCD_VCC
19	EDP_LCD_VCC	20	EDP_LCD_VCC
21	EDP_LCD_VCC	22	NA
23	GND	24	GND
25	GND	26	GND
27	EDP_HPD	28	GND
29	GND	30	GND
31	GND	32	EDP1_BKLT_EN_R
33	EDP1_BRIGHTNESS_R	34	NA
35	NA	36	BKL_POWER
37	BKL_POWER	38	BKL_POWER
39	BKL_POWER	40	NA

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION

Table 5-20: EDP Panel Connector (EDP1) Pinouts

5.2.20 M.2 KEY B Slot (M2_B1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	NA	2	VCC_3V3_M2
3	GND	4	VCC_3V3_M2
5	GND	6	FULL_CARD
7	USB_P_7_C	8	W_DISABLE1#
9	USB_N_7_C	10	NA
11	GND	12	NA
13	NA	14	NA
15	NA	16	NA
17	NA	18	NA
19	NA	20	NA
21	NA	22	NA
23	NA	24	NA
25	NA	26	GNSS_DISABLE_N
27	GND	28	NA
29	NA	30	UIM1_RFU_RST_N
31	NA	32	UIM1_RFU_CLK
33	GND	34	UIM1_RFU_DATA
35	NA	36	UIM1_PWR
37	NA	38	NA
39	GND	40	NA
41	PCIE0_RXN	42	NA
43	PCIE0_RXP	44	NA
45	GND	46	NA
47	PCIE0_TXN	48	NA
49	PCIE0_TXP	50	MINIPCIE20_PERSTn_3V3_L
51	GND	52	MINIPCIE20_CLKREQn_3V3_L

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
53	PCIE0_REFCLKN	54	MINIPCIE20_WAKEn_3V3_L
55	PCIE0_REFCLKP	56	NA
57	GND	58	NA
59	NA	60	NA
61	NA	62	NA
63	NA	64	NA
65	NA	66	M2_WWAN_SIM1_DET
67	PESET_N	68	NA
69	NA	70	VCC_3V3_M2
71	GND	72	VCC_3V3_M2
73	VIO_CFG_KEYB	74	VCC_3V3_M2
75	NA		

Table 5-21: M.2 KEY B Slot (M2_B1) Pinouts

5.3 External Interface Panel Connectors

The table below lists the rear panel connectors on the AURA-xxx-RK3576 Series motherboard. Pinouts of these connectors can be found in the following sections.

Connector	Type	Label
SD Card Connector	SD Card	SD1
SIM Card Connector	SIM Card	SIM1
DC IN Connector	DC IN	POWER1
RS-232/485	DB-9	COM1-2
Dual USB2 Connector	USB 2.0	USB2_CON1
USB3&USB2 Connector	USB 3.0&USB2.0	USB3_CON1
Type C Connector	USB 3.0&Display	USBC_CON1
RJ45 LAN Connector	RJ45	LAN1
RJ45 LAN Connector	RJ45	LAN2
CAN Connector	6-pin Header, p=3.5mm	CAN_CON1

Connector	Type	Label
Power BTN	Power BTN	PWRBTN1
Reset BTN	Reset BTN	RSTBTN1
AUDIO Connector	AUDIO Connector	AUDIO_CON1

Table 5-22: Rear Panel Connectors

5.3.1 DC IN Connector (POWER1)

PIN NO.	DESCRIPTION
1	PW_VIN
2	GND

Table 5-23: DC IN Connector (POWER1) Pinouts

5.3.2 RS-232/485 (COM1-2)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RS232_RXD1	2	RS232_TXD1
3	RS232_RXD2	4	RS232_TXD2
5	GND	6	RS485_DATA1-
7	RS485_DATA1+	8	RS485_DATA2-
9	RS485_DATA2+		

Table 5-24: RS-232/485 (COM1-2) Pinouts

5.3.3 Dual USB2 Connector (USB2_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC5V_DUAL_USB2	2	USB_N_1_L
3	USB_P_1_L	4	GND
5	VCC5V_DUAL_USB2	6	USB_N_2_L
7	USB_P_2_L	8	GND

Table 5-25: Dual USB2 Connector (USB2_CON1) Pinouts

5.3.4 USB3&USB2 Connector (USB3_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC5V0_USB30_OTG0	2	USB2_HOST1_DN_L
3	USB2_HOST1_DP_L	4	GND
5	USB3_HOST1_SSRXN_L	6	USB3_HOST1_SSRXP_L
7	GND	8	USB3_HOST1_SSTXN_L
9	USB3_HOST1_SSTXP_L	10	VCC5V0_USB2_HOST1
11	USB2_HOST2_DN_L	12	USB2_HOST2_DP_L
13	GND		

Table 5-26: USB3&USB2 Connector (USB3_CON1) Pinouts

5.3.5 Type C Connector (USBC_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
A1	GND	A2	USB3_TX1P_DP_TX1P_L
A3	USB3_TX1P_DP_TX1N_L	A4	VBUS5V0_TYPEC
A5	TYPEC_CONN_CC1	A6	HDMI_DATA1#
A7	HDMI_DATA0	A8	TYPEC_SBU1
A9	VBUS5V0_TYPEC	A10	USB3_RX2N_DP_TX2N_L
A11	USB3_RX2N_DP_TX2P_L	A12	GND
B1	GND	B2	USB3_TX2P_DP_TX3P_L
B3	USB3_TX2P_DP_TX3N_L	B4	VBUS5V0_TYPEC
B5	TYPEC_CONN_CC2	B6	USB2_OTG0_DP_L
B7	USB2_OTG0_DM_L	B8	TYPEC_SBU2
B9	VBUS5V0_TYPEC	B10	USB3_RX1N_DP_TX0N_L
B11	USB3_RX1N_DP_TX0P_L	B12	GND

Table 5-27: Type C Connector (USBC_CON1) Pinouts

5.3.6 RJ45 LAN Connector (LAN1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
R1	MD0+_C_PHY0	R2	MD0-_C_PHY0
R3	MD1+_C_PHY0	R4	MD1-_C_PHY0

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
R5	0.1uF to GND	R6	0.1uF to GND
R7	MD2+_C_PHY0	R8	MD2-_C_PHY0
R9	MD3+_C_PHY0	R10	MD4-_C_PHY0
L1	LED_1000#_PHY0	L2	LED_100#_PHY0
L3	LED_LNK#_ACT_PHY0	L4	LED0_CFG_EXT_PHY0

Table 5-28: RJ45 LAN Connector (LAN1) Pinouts

5.3.7 RJ45 LAN Connector (LAN2)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
R1	MD0+_C_PHY1	R2	MD0-_C_PHY1
R3	MD1+_C_PHY1	R4	MD1-_C_PHY1
R5	0.1uF to GND	R6	0.1uF to GND
R7	MD2+_C_PHY1	R8	MD2-_C_PHY1
R9	MD3+_C_PHY1	R10	MD4-_C_PHY1
L1	LED_1000#_PHY1	L2	LED_100#_PHY1
L3	LED_LNK#_ACT_PHY1	L4	LED0_CFG_EXT_PHY1

Table 5-29: RJ45 LAN Connector (LAN2) Pinouts

5.3.8 CAN Connector (CAN_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	CAN1L	2	GND
3	CAN1H	4	CAN2L
5	GND	6	CAN2H

Table 5-30: CAN Connector (CAN_CON1) Pinouts

5.3.9 AUDIO Connector (AUDIO_CON1)

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
R1	MIC_INP_PHONE	R2	GND
R3	HP_DET_CN	R4	GND
R5	HPOUT_L_C	R6	GND

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION

Table 5-31: AUDIO Connector (AUDIO_CON1) Pinouts

Appendix

A

Regulatory Compliance

DECLARATION OF CONFORMITY

CE

This equipment is in conformity with the following EU directives:

- EMC Directive (2014/30/EU)
- Low-Voltage Directive (2014/35/EU)
- RoHS II Directive (2011/65/EU, 2015/863/EU)
- Ecodesign Directive 2009/125/EC

If the user modifies and/or install other devices in the equipment, the CE conformity declaration may no longer apply.

If this equipment has telecommunications functionality, it also complies with the requirements of the Radio Equipment Directive 2014/53/EU.

English IEI Integration Corp declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Български [Bulgarian] IEI Integration Corp. декларира, че този оборудване е в съответствие със съществените изисквания и другите приложими правила на Директива 2014/53/EU.
Česky [Czech] IEI Integration Corp tímto prohlašuje, že tento zařízení je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
Dansk [Danish] IEI Integration Corp erklærer herved, at følgende udstyr overholder de væsentlige krav o øvrige relevante krav i direktiv 2014/53/EU.
Deutsch [German] IEI Integration Corp, erklärt dieses Gerät entspricht den grundlegenden Anforderungen und den weiteren entsprechenden Vorgaben der Richtlinie 2014/53/EU.
Eesti [Estonian] IEI Integration Corp deklareerib seadme seadme vastavust direktiivi 2014/53/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

Español [Spanish] IEI Integration Corp declara que el equipo cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU.
Ελληνική [Greek] IEI Integration Corp ΔΗΛΩΝΕΙ ΟΤΙ ΕΞΟΠΛΙΣΜΟΣ ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU.
Français [French] IEI Integration Corp déclare que l'appareil est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU.
Italiano [Italian] IEI Integration Corp dichiara che questo apparecchio è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU.
Latviski [Latvian] IEI Integration Corp deklarē, ka iekārta atbilst būtiskajām prasībām un citiem ar to saistītajiem noteikumiem Direktīvas 2014/53/EU.
Lietuvių [Lithuanian] IEI Integration Corp deklaruoja, kad šis įranga atitinka esminius reikalavimus ir kitas 2014/53/EU Direktyvos nuostatas.
Nederlands [Dutch] IEI Integration Corp dat het toestel toestel in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Malti [Maltese] IEI Integration Corp jiddikjara li dan prodott jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/EU.
Magyar [Hungarian] IEI Integration Corp nyilatkozom, hogy a berendezés megfelel a vonatkozó alapvetõ követelményeknek és az 2014/53/EU irányelv egyéb elõírásainak.
Polski [Polish] IEI Integration Corp oświadcza, że wyrobu jest zgodny z zasad iczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/EU.
Português [Portuguese] IEI Integration Corp declara que este equipamento está conforme com os requisitos essenciais e outras disposições da irectiva 2014/53/EU.

Româna [Romanian] IEI Integration Corp declară că acest echipament este in conformitate cu cerinţele esenţiale şi cu celelalte prevederi relevante ale Directivei 2014/53/EU.
Slovensko [Slovenian] IEI Integration Corp izjavlja, da je ta opreme v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Slovensky [Slovak] IEI Integration Corp týmto vyhlasuje, že zariadenia spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EU.
Suomi [Finnish] IEI Integration Corp vakuuttaa täten että laitteet on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish] IEI Integration Corp förklarar att denna utrustningstyp står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.

FCC WARNING

This equipment complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

Federal Communication Commission Interference Statement

This equipment has been assembled with components that 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 in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Appendix

B

Safety Precautions

WARNING:

The precautions outlined in this chapter should be strictly followed. Failure to follow these precautions may result in permanent damage to the AURA-xxx-RK3576 Series.

B.1 Safety Precautions

Please follow the safety precautions outlined in the sections that follow:

B.1.1 General Safety Precautions

Please ensure the following safety precautions are adhered to at all times.

- ***Follow the electrostatic precautions*** outlined below whenever the device is opened.
- ***Make sure the power is turned off and the power cord is disconnected*** whenever the AURA-xxx-RK3576 Series is being installed, moved or modified.
- ***To prevent the risk of electric shock, make sure power cord is unplugged from wall socket.*** To fully disengage the power to the unit, please disconnect the power cord from the AC outlet. Refer servicing to qualified service personnel. The AC outlet shall be readily available and accessible.
- ***Do not apply voltage levels that exceed the specified voltage range***. Doing so may cause fire and/or an electrical shock. Use a power cord that matches the voltage of the power outlet, which has been approved and complies with the safety standard of your particular country.
- ***Electric shocks can occur*** if the AURA-xxx-RK3576 Series chassis is opened when it is running. To avoid risk of electric shock, this device must only be connected to a supply mains with protective earth.
- ***Do not drop or insert any objects*** into the ventilation openings of the AURA-xxx-RK3576 Series.

- ***If considerable amounts of dust, water, or fluids enter the* device**, turn off the power supply immediately, unplug the power cord, and contact the AURA-xxx-RK3576 Series vendor.
- **DO NOT**:
  - Drop the device against a hard surface.
  - Strike or exert excessive force onto the LCD panel.
  - Touch any of the LCD panels with a sharp object
  - In a site where the ambient temperature exceeds the rated temperature

B.1.2 Anti-static Precautions

WARNING:

Failure to take ESD precautions during the installation of the AURA-xxx-RK3576 Series may result in permanent damage to the AURA-xxx-RK3576 Series and severe injury to the user.

Electrostatic discharge (ESD) can cause serious damage to electronic components, including the AURA-xxx-RK3576 Series. Dry climates are especially susceptible to ESD. It is therefore critical that whenever the AURA-xxx-RK3576 Series is opened and any of the electrical components are handled, the following anti-static precautions are strictly adhered to.

- ***Wear an anti-static wristband***: Wearing a simple anti-static wristband can help to prevent ESD from damaging any electrical component.
- ***Self-grounding***: Before handling any electrical component, touch any grounded conducting material. During the time the electrical component is handled, frequently touch any conducting materials that are connected to the ground.
- ***Use an anti-static pad***: When configuring or working with an electrical component, place it on an anti-static pad. This reduces the possibility of ESD damage.
- ***Only handle the edges of the electrical component***: When handling the electrical component, hold the electrical component by its edges.

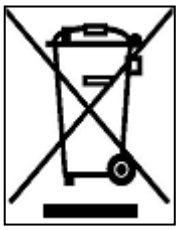
B.1.3 Product Disposal

CAUTION:

Risk of explosion if battery is replaced by an incorrect type. Only certified engineers should replace the on-board battery.

Dispose of used batteries according to instructions and local regulations.

- Outside the European Union–If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority so as to comply with the correct disposal method.
- Within the European Union–The device that produces less waste and is easier to recycle is classified as electronic device in terms of the European Directive 2012/19/EU (WEEE), and must not be disposed of as domestic garbage.



EU-wide legislation, as implemented in each Member State, requires that waste electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes monitors and electrical accessories, such as signal cables or power cords. When you need to dispose of your display products, please follow the guidance of your local authority, or ask the shop where you purchased the product. The mark on electrical and electronic products only applies to the current European Union Member States.

Please follow the national guidelines for electrical and electronic product disposal.

B.2 Maintenance and Cleaning Precautions

When maintaining or cleaning the AURA-xxx-RK3576 Series, please follow the guidelines below.

WARNING:

- For safety reasons, turn-off the power and unplug the panel PC before cleaning.
- If you dropped any material or liquid such as water onto the panel PC when cleaning, unplug the power cable immediately and contact your dealer or the nearest service center. Always make sure your hands are dry when unplugging the power cable.

B.2.1 Maintenance and Cleaning

Prior to cleaning any part or component of the AURA-xxx-RK3576 Series, please read the details below.

- Except for the LCD panel, never spray or squirt liquids directly onto any other components. To clean the LCD panel, gently wipe it with a piece of soft dry cloth or a slightly moistened cloth.
- The interior of the device does not require cleaning. Keep fluids away from the device interior.
- Be cautious of all small removable components when vacuuming the device.
- Never drop any objects or liquids through the openings of the device.
- Be cautious of any possible allergic reactions to solvents or chemicals used when cleaning the device.
- Avoid eating, drinking and smoking within vicinity of the device.

B.2.2 Cleaning Tools

Some components in the AURA-xxx-RK3576 Series may only be cleaned using a product specifically designed for the purpose. In such case, the product will be explicitly mentioned in the cleaning tips. Below is a list of items to use when cleaning the AURA-xxx-RK3576 Series.

- ***Cloth***– Although paper towels or tissues can be used, a soft, clean piece of cloth is recommended when cleaning the device.
- ***Water or rubbing alcohol***–A cloth moistened with water or rubbing alcohol can be used to clean the device.
- ***Using solvents***–The use of solvents is not recommended when cleaning the device as they may damage the plastic parts.
- ***Vacuum cleaner***–Using a vacuum specifically designed for computers is one of the best methods of cleaning the device. Dust and dirt can restrict the airflow in the device and cause its circuitry to corrode.
- ***Cotton swabs***–Cotton swaps moistened with rubbing alcohol or water are excellent tools for wiping hard to reach areas.
- **Foam swabs**–Whenever possible, it is best to use lint free swabs such as foam swabs for cleaning.

Appendix

C

Hazardous Materials Disclosure

The details provided in this appendix are to ensure that the product is compliant with the Peoples Republic of China (China) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product, and is applicable to China RoHS only.

A label will be placed on each product to indicate the estimated "Environmentally Friendly Use Period" (EFUP). This is an estimate of the number of years that these substances would "not leak out or undergo abrupt change." This product may contain replaceable sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the following table.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
Housing	O	O	O	O	O	O
Display	O	O	O	O	O	O
Printed Circuit Board	O	O	O	O	O	O
Metal Fasteners	O	O	O	O	O	O
Cable Assembly	O	O	O	O	O	O
Fan Assembly	O	O	O	O	O	O
Power Supply Assemblies	O	O	O	O	O	O
Battery	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all of the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006 (now replaced by GB/T 26572-2011).

此附件旨在确保本产品符合中国 RoHS 标准。以下表格标示此产品中某有毒物质的含量符合中国 RoHS 标准规定的限量要求。

本产品上会附有"环境友好使用期限"的标签，此期限是估算这些物质"不会有泄漏或突变"的年限。本产品可能包含有较短的环境友好使用期限的可替换元件，像是电池或灯管，这些元件将会单独标示出来。

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (CR(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
壳体	O	O	O	O	O	O
显示	O	O	O	O	O	O
印刷电路板	O	O	O	O	O	O
金属螺帽	O	O	O	O	O	O
电缆组装	O	O	O	O	O	O
风扇组装	O	O	O	O	O	O
电力供应组装	O	O	O	O	O	O
电池	O	O	O	O	O	O

O: 表示该有毒有害物质在该部件所有物质材料中的含量均在 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求以下。

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 (现由 GB/T 26572-2011 取代) 标准规定的限量要求。