

Integrated Terminal Series

AMS-R2X Integrated Terminal

User Manual
(V1.0)






Foreword

The objective of this section is to ensure that users can effectively utilize the product by following the instructions in this manual, thereby preventing potential hazards or damage to property during operation. Prior to using this product, we strongly advise reading this product manual attentively and storing it securely for future reference.

Overview

This manual offers comprehensive guidance on operating and utilizing the AMS-R2X Integrated Smart Terminal.

Symbol conventions

Symbol	Function
 Illustration	Explanatory text, this type of text serves to supplement and elucidate the main content. It provides additional information and clarification to enhance understanding.
 Caution	Cautionary text, this text serves as a reminder to users about critical operations or potential risks of harm and property damage. Failure to take precautions could result in accidents, equipment damage, or business interruption. Exercise care to prevent any such occurrences.
 Danger	Dangerous text, this text indicates a potential high-risk situation. Failure to take precautions could lead to significant danger, potentially resulting in harm or loss of life. Extreme caution is advised to avoid such risks.

Revision History

Version	Revision Notes	Editor	Date
V1.0	Initial Release	Chester Huang	2025/11/28

Important Notes

This manual provides a comprehensive overview of the device's features, general principles, and methods for installation and operation. It is essential for users to thoroughly read this manual before proceeding with installation and use.

Usage Guidelines

To prevent damage to this product or any connected devices, it should only be used within the specified range. Please adhere to the following guidelines:

- 1) Avoid Exposure to Rain or Moisture, do not expose the device to rain or moisture.
- 2) Electrical Safety: To prevent the risk of electric shock, do not open the casing. Installation and maintenance should only be performed by qualified technicians.
- 3) Operating Conditions:
Use the product within the specified temperature, humidity, and power supply specifications.
- 4) Cleaning Instructions:
When cleaning the device lens, use a dry, soft cloth. For stubborn stains, use a mild, neutral cleaner and gently wipe. Avoid using strong or corrosive cleaners to prevent scratches on the lens, which may affect image quality.

Electrical Safety

Installation and use of this product must strictly adhere to local electrical safety standards.

Handle with Care during Transport

During transportation, storage, and installation, precautions should be taken to avoid heavy pressure, severe vibrations, or immersion that may cause damage to the product.

No Unauthorized Disassembly

Users should refrain from disassembling the product, as there are no user-serviceable parts. Damages resulting from user disassembly are not covered under warranty.

Magnetic Field Interference

At specific frequencies, electromagnetic fields may impact the device's image. This product is classified as Class A. In a residential environment, it may cause radio interference, and users should take appropriate measures.

FCC Compliance Statements

FCC ID:Z7A-AMS-R2X

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: 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.

RF Exposure Compliance

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: During the testing process, certain functions were modified via software to meet the limit requirements.

Indoor Client 6XD statement

1. FCC regulations restrict the operation of this device to indoor use only.
2. The device will only associate and connect with a low-power indoor access point or subordinate device and never directly connect to other client devices.
3. The device will always initiate transmission under the control of a low-power indoor AP or subordinate except for brief transmissions before joining a network. These short messages will only occur if the client has detected an indoor AP or subordinate operating on a channel. These brief messages will have a time-out mechanism such that if it does not receive a response from an AP it will not continually repeat the request.
4. Transmissions will be lower or equal to the power advertised by the indoor low-power access point or subordinate and never above the maximum output power allowed by the FCC grant for equipment class 6XD.
5. Prohibited for control of or communications with unmanned aircraft systems, including drones.

IC Wi-Fi 6E Statement:

Devices shall not be used for control of or communications with unmanned aircraft systems.

Low-power indoor access points and indoor subordinate devices shall bear statements acknowledging both of the following restrictions in the user manual and, where feasible, in a conspicuous location on the device.

Operation shall be limited to indoor use only.

Operation on oil platforms, automobiles, trains, maritime vessels and aircraft shall be prohibited except for on large aircraft flying above 3,048 m (10,000 ft).

L'équipement ne doit pas être utilisé pour le contrôle ou la communication des systèmes d'aéronefs sans pilote. Les points d'accès intérieurs de faible puissance et les accessoires intérieurs doivent indiquer les restrictions suivantes dans le manuel de l'utilisateur et, si possible, à un endroit bien en vue de l'appareil: Le fonctionnement doit être limité à un usage intérieur. Il est interdit de travailler sur les plates - formes pétrolières, les voitures, les trains, les navires maritimes et les aéronefs, à l'exception des gros aéronefs de plus de 3 048 mètres (10 000 pieds).

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Getting Started

1.1 Panel



No.	Silkscreen	Remark
1	LAN	1 x RJ45 Port, for connecting with Ethernet, 10/100/1000 Base-T and PoE++ PoE ++ PD (IEEE 802.3bt Class 6(51W)) default configuration
2	DC 12V	1 x power port, DC12V, connector with locking Barrel Connector
3	SPIDER	1x RJ12 port, for serial communication.
4	AUDIO	1 x RJ45 Port, for connecting with audio extend module
5	USB	2 x USB-A, USB2.0 USB-1: 5V/500mA USB-2: 5V/1500mA For connecting with USB devices such as TV Control, mouse, keyboard and microphone.
6	HDMI	1 x Female HDMI port to connect with HDMI display. HDMI OUT 1 supports HDMI 1.4 and CEC, resolution up to 4K@30Hz
7	TYPE-C	1 x USB-C, USB 2.0, for Manufacturer device communication

8	IR OUT	1 x 3.5 mm port, for connecting with IR emitter for TV Control.
9	MIC	3 x Omnidirectional microphone
10	Indicator	1 x 3-color LED, for indicating unit status
11	Optical Camera	1 x 3X optical zoom camera, supports to up to 4KP30 3X Digital Zoom
12	Light	1 x Light sensor, for assisting night vision
14	Speaker	3 x 3W speakers
13	IR LED	IR LED's for assisting with night vision
15	Reset	Quick press: Reboot button; Press and hold for 3 seconds to power on or off Press and hold for more than 7 seconds to force a restart

1.2 Use of Device

1. Check the hardware packaging list to confirm that the packaging is complete and the accessories are complete.
2. Connect each interface cable to the corresponding device.
3. After the correct connection, turn on the power of the host, press the power button, wait for about 10 seconds,- After powering on, the terminal startup screen will be displayed on the TV screen. (Note: Please switch the signal source input of the TV screen to HDMI input mode).

1.3 Video Out

HDMI output: Connect the device and monitor correctly through HDMI video cable, select the correct input source on the monitor, and the terminal system interface will appear.

1.4 System Interface

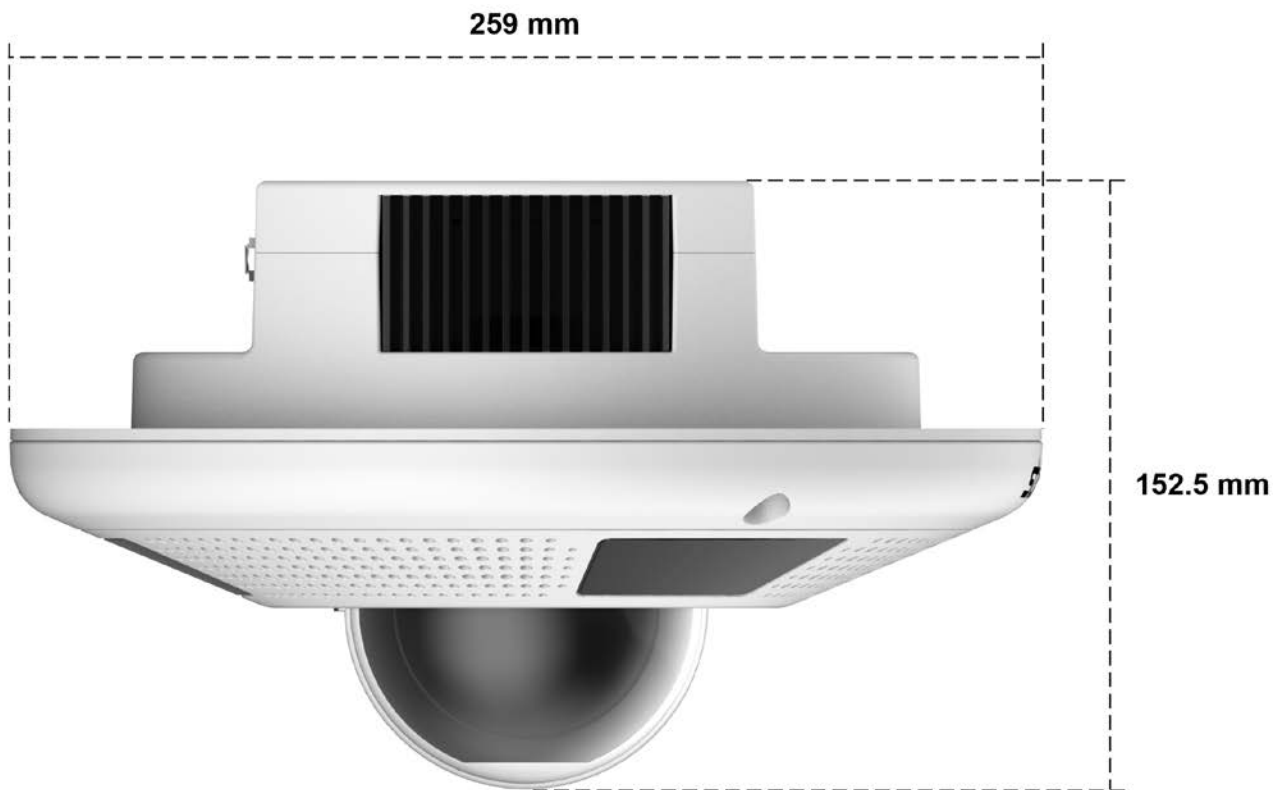
AMS-R2X comes with Android 14, which is the native version of Android.

1.5 Product Description

The AMS-R2X is a high-performance all-in-one sensor that integrates high-definition audio and video capture, intelligent interaction, and multi-scene adaptability. Powered by Android 14, the device delivers robust AI processing capability and supports Wi-Fi 6E, Bluetooth 5.2, and dual-mode power input via PoE++ or DC. For visual performance, the device supports video output up to 4K@30Hz resolution and is equipped with a 3x optical zoom lens featuring intelligent person tracking. With an integrated light sensor and built-in fill light, it delivers exceptional image quality even in low-light environments. For audio capabilities, it features 360° omnidirectional pickup and high-fidelity speakers for an immersive audiovisual experience. Furthermore, it supports daisy-chaining of audio modules to adapt to various room sizes and scenarios. . .

Note: This unit is for indoor use only. The functions of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) within the band 5150-5350 MHz for this device are restricted to indoor use

1.5.1 Dimension



1.5.2 Accessories

When opening the package, please check and confirm all the accessories that should be provided. The accessories that come with the product are shown in Table 2-1:

Product Name	Quantity	● Standard ○ Optional
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AMS-R2X Sensor	1	●
Power Adapter	1	●

1.6 Features

Maintenance and troubleshooting

2.1 Product maintenance

- 1) If the equipment is not used for a long time, please turn off the power switch when not in use, and disconnect the AC power adapter from the AC socket.
- 2) When removing dust from the device casing, please use soft cloth or tissue paper to avoid scratches.
- 3) When cleaning the device lens, please use a dry soft cloth to wipe it. If the dirt is serious, please use a neutral detergent to wipe it gently. Do not use strong or corrosive cleaners to avoid scratching the lens and affecting the image quality. For example, can use an alcohol-soaked cotton cloth to wipe it.

2.2 Troubleshooting

1) Video output has no picture

Solution:

- a. Check whether the power supply of the device is connected properly and whether the power indicator light is on.
- c.
- b. Check whether the video output and video monitor connection cables are normal.

2) The image sometimes disappears

Solution:

Check whether the video output and video monitor connection cables are normal

Who to contact with issues??

PoE++ and DC

DC and PoE power supply priority: DC>PoE

1) When PoE and DC are connected to R2X at the same time, R2X will take power from DC first and not from PoE.

3.

2) Due to the characteristics of the PoE chip, when R2X is connected to a PoE switch, the PoE module itself will generate a 2W load to maintain communication with the PoE switch in real time

3) There are the following 4 scenarios for PoE++ and DC power supply strategies.

Connect DC first and then POE, DC first	Work normal
Connect POE first and then DC, DC first, power will be switched to DC	R2-X will restart and then work normal.
DC and POE are connected at the same time removing POE	Work normal
DC and POE are connected at the same time removing DC	R2-X restart and then work normal

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