

# Technical Newsletter

Jun 2025 Service Operation Team

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- Recommended specifications for AIB-800 profile
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- Cameras and FW versions compatible with Hanwha Vision CloudConnector
- New features of 2<sup>nd</sup> generation X-Series AI camera

### Latest Firmware Information (April 2025 - May 2025)

## Recommended specifications for AIB-800 profile

Info. Type

☐ Quality

## ■ Settings

☐ Repair☐ S/W

- Etc

- **Target model**

- AIB-800

- **Purpose**

- To guide you through setting up profiles for optimal performance of AI BOX events and AI analysis.

### ● Precautions on Setup

## 1) Resolution

- If the resolution of the AI analytics profile exceeds 1080P, the system may get overloaded.

👉 If the AIBox profile's resolution exceeds 1080p, change it to 1080p.

2) FPS

- The reference Resolution/FPS specified for the AI analytics profile is at least 1080p/10fps.

### 3) Profile Output

- For the camera, using one profile only guarantees the proper frame rate, but using multiple profiles simultaneously does not guarantee the transmitted video stream's frame rate.

That is, using two profiles may result in a frame rate of 20fps even if 30fps is set.

👉 It is recommended to use a single profile for the camera.

### ● Recommended specifications for AIB-800 profile

- Profile Setting: [Setup] > [Camera] > [Profile Info]

Check the channel-specific information

Live
Setup

AIB-800
?
W

Camera
▼

Channel setup

Profile info

Camera password

Event
▲

Network
▲

System
▲

Open platform
▲

### Profile info

AIB profile

| Ch | Camera name | IP address | Profile     | Codec | Resolution | Frame rate | Edit |
|----|-------------|------------|-------------|-------|------------|------------|------|
| 1  | CAM 1       | 172.30.1.3 | AIB profile | H264  | 1920x1080  | 10 fps     | ⊗    |
| 2  | CAM 2       | 172.30.1.4 | AIB profile | H264  | 1920x1080  | 10 fps     | ⊗    |
| 3  | CAM 3       | 172.30.1.5 | AIB profile | H264  | 1280x720   | 10 fps     | ⊗    |
| 4  | CAM 4       | 172.30.1.6 | H.264       | H264  | 1920x1080  | 30 fps     | ⊗    |
| 5  | CAM 5       | 172.30.1.7 | H.264       | H264  | 2592x1944  | 30 fps     | ⊗    |
| 6  | CAM 6       | 172.30.1.7 | H.264       | H264  | 1920x1080  | 30 fps     | ⊗    |
| 7  | CAM 7       |            | Virtual     | MPEG  | 800x448    | 1 fps      | ⊗    |
| 8  | CAM 8       |            | Virtual     | MPEG  | 800x448    | 1 fps      | ⊗    |

✓

## Recommended specifications for AIB-800 profile

- Resolution: 1920\*1080 (Full HD)
- FPS: 10fps (Min) or higher
- Recommended to use a single profile for the camera

Prioritizing recorded data to be deleted in case of duplicate sections

- Target model
- Info. Type ☐Quality ☒Settings ☐Repair ☐S/W ☐Etc
- All storage models of Hanwha Vision

● Prioritizing recorded data to be deleted in case of duplicate sections

|                     |  |                   |   |   |                   |   |   |
|---------------------|--|-------------------|---|---|-------------------|---|---|
| Case #1             | <b>If the system time is changed to the past</b><br>→ Delete old recorded data in the following manner: Delete the Oldest First<br><br>e.g.) If the date is changed to the 3 <sup>rd</sup> during normal recording until the 4 <sup>th</sup> . |                   |   |   |                   |   |   |
|                     | Date   | 1                 | 2 | 3 | 4                 | 5 | 6 |
|                     | Recorded Data  | Duplicate Section |   |   |                   |   |   |
|                     |  |                   |   |   | Duplicate Section |   |   |
| Data Deletion Order | 1  |                   | 2 |   | 3                 |   |   |

|                     |  |   |   |   |                    |   |   |
|---------------------|--|---|---|---|--------------------|---|---|
| Case #2             | <b>If the system is replaced and the MAC Address is changed</b><br>→ Delete old recorded data in the following manner: Delete the Oldest First<br><br>e.g.) If the product is replaced due to a 4-day failure and the existing HDD is reused |   |   |   |                    |   |   |
|                     | Date   | 1 | 2 | 3 | 4                  | 5 | 6 |
|                     | Recorded Data  |   |   |   |                    |   |   |
|                     |  |   |   |   | System Replacement |   |   |
| Data Deletion Order | 1  |   |   | 2 |                    |   |   |

|                     |  |   |   |                                  |   |   |   |
|---------------------|--|---|---|----------------------------------|---|---|---|
| Case #3             | <b>A replacement is temporarily used for recording during the repair of the existing system, and then the repaired original system is reinstalled</b><br>→ Delete the sections recorded by the replacement first<br><br>e.g.) If a replacement is used for 3-4 days for product repair |   |   |                                  |   |   |   |
|                     | Date   | 1 | 2 | 3                                | 4 | 5 | 6 |
|                     | Recorded Data  |   |   |                                  |   |   |   |
|                     |  |   |   | Sections recorded by replacement |   |   |   |
| Data Deletion Order | 2  |   | 1 |                                  | 3 |   |   |

● Conclusion

- 1) Recording data overwrite (delete) logic is managed by two items: duplicate data and timestamp.
- 2) If the MAC address changes due to the use of a replacement, the duplicate data recorded during the replacement period is deleted first as data is grouped and managed based on the MAC address.

※ It is recommended to back up the sections recorded by the replacement separately.

Changes to the TNV-C8014RM\_C8034RM GASKET TOP Shape

Info. Type ☐Quality ☐Settings ☒Repair ☐S/W ☐Etc

● Target model

- TNV-C8014RM , C8034RM
- SPB-VAN23W, SPG-VAN23W

● Reason for change

- 방수 성능 향상을 위한 GASKET 형상 변경

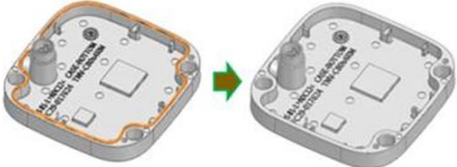
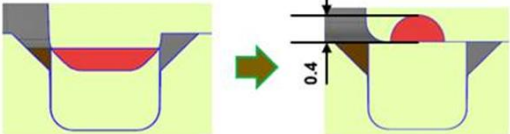
● Details

| No. | Part name   | Before change, LOT number | After change, LOT number |
|-----|-------------|---------------------------|--------------------------|
| 1   | GASKET-TOP  | HP07-001971A              | HP07-001971B             |
| 2   | CASE-BOTTOM | FC29-017624A              | FC29-017624B             |

※ Summary of changes

(Old) Structure where the rib of the bottom cover presses the gasket to waterproof

(New) Waterproofing improved by adding a protrusion to the GASKET. The rib of the bottom has been removed and flattened..

| Parts       | Shape   | Changes  |
|-------------|---|--|
| CASE-BOTTOM |  | Cutting off 0.5mm of the RIB and flattening it (yellow part) |
| GASKET      |  | Changing height and adding bumps                             |

● Service Guide

- The case-bottom material and gasket pair need to be changed

● Effective Date: May 19, 2025

Cameras and FW versions compatible with Hanwha Vision CloudConnector

Info. Type ☐Quality ☐Settings ☐Repair ☒S/W ☐Etc

● Target model

- Hanwha Vision’s P AI/X AI/Q AI/T AI series

● Purpose

- To provide information on the camera series and firmware versions compatible with Hanwha Vision Cloud Connector APP.

● Hanwha Vision Cloud Portal

- Cloud-based solution providing scalability and convenience

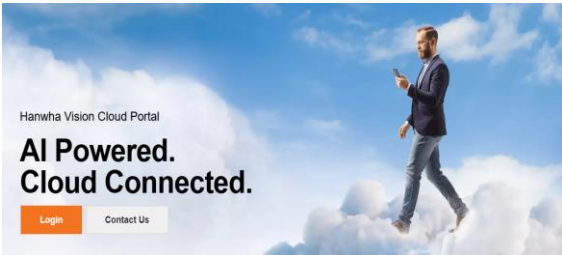
. OnCloud: Cloud-based video security system (VSaaS)

. SightMind: Biz intelligence through video analytics

. HealthPro: Device management . status monitoring

※ We are planning to expand our service area starting with the Americas.

Subscription licensing service



● Hanwha Vision CloudConnector



Download

| Datasheet |  | Manuals   | CAD | Certification                                     | A&E Document | Quick Guide | Online Help | OpenSourceLicense | Firmware |
|-----------|--|-----------|-----|---|--------------|-------------|-------------|-------------------|----------|
| Category  |  | File Name |     |   |              |             |             |                   |          |
|           |  | Firmware  |     | QNV-C8013R_2.21.10_20250424_R216.zip              |              |             |             |                   |          |
|           |  | Firmware  |     | CloudConnector_v_Q_AI_1.8_4_20250411_hva_prod.zip |              |             |             |                   |          |

- Install the CloudConnector APP on compatible P/X/Q/T series cameras to connect to the Hanwha Vision Cloud Portal. Currently, more than 100 cameras are compatible, and it is being updated constantly to expand the compatible models.

- It can also be downloaded from the FW download path of each compatible camera.

● FW versions supported by each compatible camera

| Model Product Line | P AI Series       | X Core Series     | Q Core Series               | T AI Series       |
|--------------------|-------------------|-------------------|-----------------------------|-------------------|
| FW Ver.            | 2.23.01 or higher | 2.23.05 or higher | 2.21.10 / 2.23.01 or higher | 2.21.10 or higher |

- Check the website for the details of product-specific FW version support.

[Direct-to-Cloud Camera Compatibility – Hanwha Vision Support Portal](#)

# New features of 2<sup>nd</sup> generation X-Series AI cameras(1/3)

Info. Type

☐Quality ☐Settings ☐Repair ☐S/W ☒Etc

● Target model

- 6 Types of 2<sup>nd</sup> Generation X-Series AI Camera
- XND-A8084RV, XNO-A9084RV, XNO-A8084R, XNO-A9084R, XNV-A8084R, XNV-A9084R

● New SoC (Wisenet 9)-applied model

- Info on SoC: <https://www.hanwhavision.com/ko/news-center/1611741/>



● New features

- WisePower: Camera power consumption monitoring
- Privacy Masking with 8 Point support: 4Point(old) → 8Point(new) to display a 8point polygonal zone.
- DPM (Dynamic Privacy Mask): object recognition and masking based on WiseAI
- Adding OPUS audio codec, MACsec security protocol, WiseStream, User permissions, some profile Event Rules, including many improvements and changes

● New features (1) : WisePower

- Provides users with various power-related information (request, allocation, maximum, average, current power consumption, PoE class, etc.)
- Reduces power consumption by reducing the IR's visible distance when ECO Mode is set.
- WisePower Setting: [Setup] → [System] → [WisePower]

WisePower

Period

☐ 1 day

☒ 1 week

☐ 1 month

Power monitoring

|                 |        |
|-----------------|--------|
| PoE class(PSE)  | 3      |
| Power requested | 12.95W |
| Power allocated | -      |
| Current power   | 6.5W   |
| Max. power      | 8.72W  |
| Avg. power      | 6.01W  |

Eco mode

☐ Enable



Enabling [Eco Mode] reduces the IR visibility by 50%.

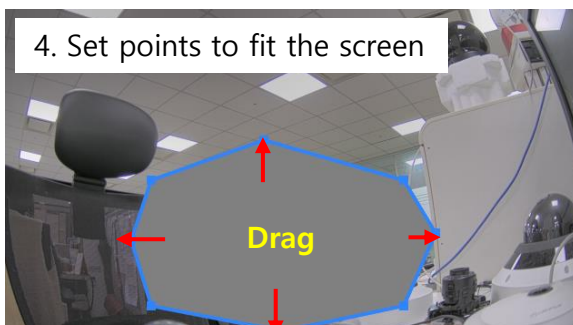
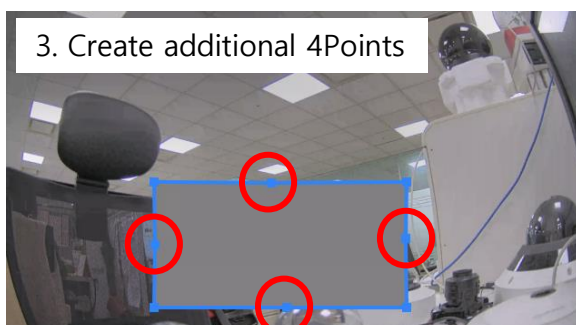
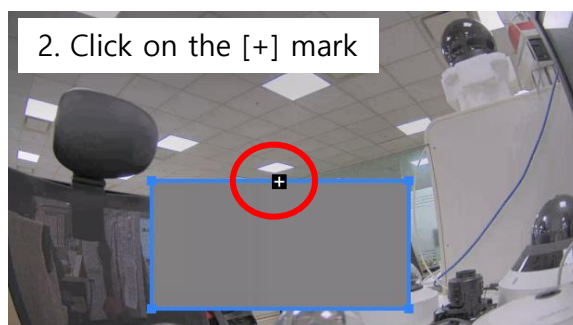
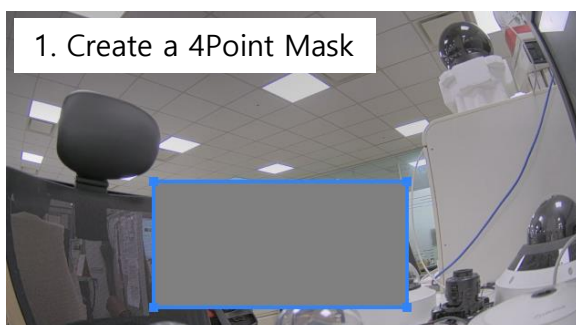
## New features of 2<sup>nd</sup> generation X-Series AI cameras (2/3)

Info. Type

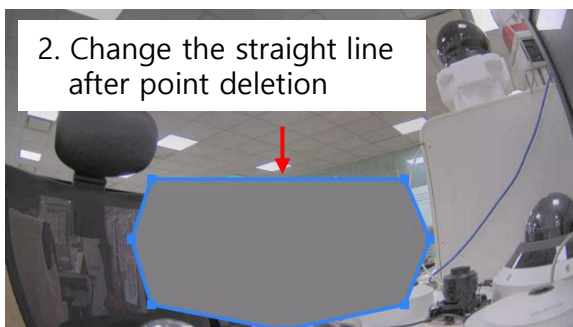
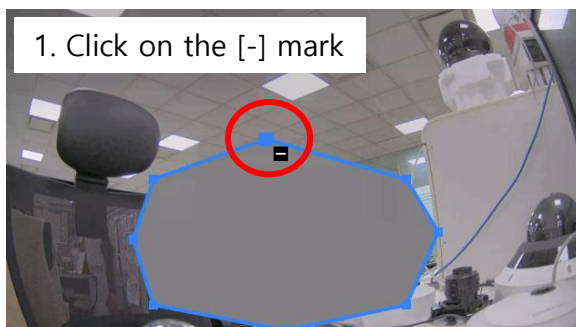
☐Quality ☐Settings ☐Repair ☐S/W ☒Etc

### ● New features (2) : Privacy masking with 8 Point support

- Privacy Masking function expanded by changing from 4-point support to 8-point support.
- After setting the initial 4-point areas, you can add up to 4 points more.
- Privacy Mask Setting : [Setup] → [Video & Audio] → [Video Settings] → Check the [Enable Privacy Area] option
- Point Addition: Set 4 Points → Name the Mask → Click the  mark created when the mouse overlaps in the middle of the line → Add 1 Point → Set the points to fit the screen
- Point Deletion: 8 Points available → Click the  mark created when the mouse overlaps on the Point → Confirm Point deletion
- Example of adding points



- Example of deleting a point





New features of 2<sup>nd</sup> generation X-Series AI cameras (3/3)

Info. Type

☐Quality ☐Settings ☐Repair ☐S/W ☒Etc

● New features (3): DPM (Dynamic Privacy Mask)

- DPM function added to WiseAI App
- Supports objects targeting people, faces, vehicles, and license plates, and provides two types: Color and Mosaic.
- Enabled by checking the [DPM profile] option in the video profile settings, and the DPM setting profile does not support OSD.
- DPM Setting
  - . 1<sup>st</sup> : [Setup] → [Basic] → [Video Profile] → [Profile type] → Check the [DPM Profile] option
  - . 2<sup>nd</sup> : [Open platform] → [WiseAI App] → [Analytics] → [Dynamic Privacy Masking]

Hanwha Vision

Basic

Video profile

User

Date & Time

IP & Port

Video & Audio

Network

Event

Analytics

System

Open platform

|                                  | Name     | Codec | Type           |
|----------------------------------|----------|-------|----------------|
| <input type="radio"/>            | MJPEG    | MJPEG | Record / Event |
| <input checked="" type="radio"/> | H.264    | H.264 | Default / DPM  |
| <input type="radio"/>            | H.265    | H.265 | DPM            |
| <input type="radio"/>            | Live4NVR | H.264 |                |
| <input type="radio"/>            | MOBILE   | H.264 |                |

Name

H.264

Codec

H.264

Profile type

☒ Default profile

☐ E-mail/FTP profile

☐ Edge recording profile

☐ Frame Lock profile

☒ DPM profile

☐ VoIP profile

Hanwha Vision

Exclude area

Object detection

BestShot & Attributes

Line crossing

IVA area

Face mask detection

Social distancing detection

Slip & fall detection

Motion detection

Dynamic privacy masking

Analytics

Statistics

Setup

CH 1

On

Dynamic privacy masking

Object

Person

Face

Vehicle

License plate

Type

☐ Mosaic

☒ Color

Large

Red

Detection condition

Transparency

0



## New update firmware (April, 2025 – May, 2025)

| 구분        | MODEL NAME  | FIRMWARE                              | VER     | DATE       | REMARK  |  |
|-----------|---|---------------------------------------|---------|------------|---|--|
| NVR       | ARN-410S<br>ARN-810S<br>ARN-1610S   | ARN-1610S_5.35.22_250429<br>145241    | 5.35.22 | 2025-05-08 | - Delete fan deletion related logs and events   |  |
|           | QRN-830S<br>XRN-425S<br>XRN-815S  | QRN-1630S_5.35.22_250429<br>145655    |         |            |   |  |
|           | XRN-420S  | XRN-420S_5.35.22_2504291<br>45529     |         |            |   |  |
| NW<br>CAM | PNB-A9001LP   | PNB-A9001LP_2.23.01_2025<br>0327_R31  | 2.23.01 | 2025-04-04 | - Ambarella Chip SDK version updated from v2 to v3<br>※ Wisenet Road AI version update required<br>- SD card related CGI not supported to prevent function conflict<br>※ Function conflict occurs if SD card is used for purposes other than Wisenet Road AI function |  |
|           | PNO-A9081RLP<br>PNV-A9081RLP  | PNO-A9081RLP_2.23.01_202<br>50327_R31 |         |            |   |  |
|           | PNB-A6001   | PNB-A6001_2.23.01_202504<br>14_R105   | 2.23.01 | 2025-04-19 | - Support for [Edge Recording] function of Cloud Connector app<br>※ When [Edge Recording] function is activated, recording and playback functions of the camera are not supported. Recording and playback menu of camera web viewer disappears.                       |  |
|           | PND-A6081RF,RV<br>PNO-A6081R<br>PNV-A6081R  | PNO-A6081R_2.23.01_20250<br>414_R101  |         |            |   |  |
|           | PND-A9081RF,RV<br>PNO-A9081R<br>PNV-A9081R  | PNO-A9081R_2.23.01_20250<br>414_R106  |         |            |   |  |
|           | QNO-C6083R  | QNV-C6083R_2.22.02_20250<br>414_R228  | 2.22.02 |            |   |  |
|           | QND-C8013R<br>QNO-C8013R  | QNV-C8013R_2.21.10_20250<br>414_R214  | 2.21.10 |            |   |  |
|           | QND-C8023R<br>QNO-C8023R  | QNV-C8023R_2.21.10_20250<br>414_R158  |         |            |   |  |
|           | QNO-C8083R  | QNV-C8083R_2.22.02_20250<br>414_R440  | 2.22.02 |            |   |  |
|           | QNO-C9083R  | QNV-C9083R_2.22.02_20250<br>414_R521  |         |            |   |  |
|           | TNV-C7013RC   | TNV-C7013RC_2.23.05_2025<br>0414_R12  | 2.23.05 |            |   |  |
|           | XNB-6002  | XNB-6002_2.23.05_2025041<br>4_R328    |         |            |   |  |
|           | XNB-8003, 9003<br>XND-8083RV<br>XND-8093RV<br>XND-9083RV<br>XNO/V-8083R<br>XNO/V-9083R<br>XNV-8093R | XND-9083RV_2.23.05_20250<br>414_R13   |         |            |   |  |
|           | XND-C6083RV<br>XND-C7083RV<br>XNO/V-C6083R<br>XNO/V-C7083R<br>XNV-C6083                             | XND-C7083RV_2.23.05_2025<br>0414_R12  |         |            |   |  |
|           | XND-C8083RV<br>XND-C9083RV<br>XNO/V-C8083R<br>XNO/V-C9083R  | XND-C9083RV_2.23.05_2025<br>0414_R12  |         |            |   |  |
|           | XNP-C6403(R,RW)<br>XNP-C8253(R)<br>XNP-C8303RW<br>XNP-C9253(R)<br>XNP-C9303RW                       | XNP-C9303RW_2.23.05_202<br>50414_R299 |         |            |   |  |

New update firmware (April, 2025 – May, 2025)

| 구분        | MODEL NAME   | FIRMWARE                              | VER     | DATE       | REMARK  |
|-----------|--|---------------------------------------|---------|------------|---|
| NW<br>CAM | XNP-C7310R<br>XNP-C9310R   | XNP-C9310R_2.23.05_2025<br>0414_R435  | 2.23.05 | 2025-04-19 | - Support for [Edge Recording] function of Cloud Connector app<br>※ When [Edge Recording] function is activated, recording and playback functions of the camera are not supported. Recording and playback menu of camera web viewer disappears. |
|           | XNV-6083RZ<br>XNV-6083Z  | XNV-6083RZ_2.23.05_2025<br>0414_R180  | 2.23.05 |            |   |
|           | XNO-6123R<br>XNV-6123R   | XNV-6123R_2.23.05_20250<br>414_R44    | 2.23.05 |            |   |
|           | XNB-8002<br>XNB-9002<br>XND-8082RF<br>XND-8082RV<br>XND-9082RF<br>XND-9082RV<br>XNO-8082R<br>XNO-9082R<br>XNV-8082R<br>XNV-9082R | XNV-9082R_2.23.05_20250<br>414_R12    | 2.23.05 |            |   |
|           | XNV-8083RZ<br>XNV-8083Z<br>XNV-9083RZ  | XNV-9083RZ_2.23.05_2025<br>0414_R46   | 2.23.05 |            |   |
|           | XNF-9010RS<br>XNF-9010RV<br>XNF-9010RVM  | XNF-9010RV_2.23.05_2025<br>0414_R12   | 2.23.05 | 2025-04-26 |   |
|           | PNB-A9001  | PNB-A9001_2.23.01_20250<br>414_R105   | 2.23.01 | 2025-04-30 |   |
|           | XNB-6003   | XND-6083RV_2.23.05_2025<br>0422_R11   | 2.23.05 | 2025-05-08 |   |
|           | QNE-C8013RL  | QNE-C8013RL_2.22.02_202<br>50424_R259 | 2.22.02 | 2025-05-09 |   |
|           | QNE-C9013RL  | QNE-C9013RL_2.22.02_202<br>50424_R257 | 2.22.02 |            |   |
|           | QNF-C9010  | QNF-C9010_2.21.10_20250<br>424_R277   | 2.21.10 |            |   |
|           | QNV-C6083R   | QNV-C6083R_2.22.02_2025<br>0424_R232  | 2.22.02 |            |   |
|           | QNV-C8011R   | QNV-C8011R_2.22.02_2025<br>0424_R295  | 2.22.02 |            |   |
|           | QNV-C8012  | QNV-C8012_2.22.02_20250<br>424_R249   | 2.22.02 |            |   |
|           | QNV-C8013R   | QNV-C8013R_2.21.10_2025<br>0424_R216  | 2.21.10 |            |   |
|           | QNV-C8023R   | QNV-C8023R_2.21.10_2025<br>0424_R160  | 2.21.10 |            |   |
|           | QNV-C8083R   | QNV-C8083R_2.22.02_2025<br>0424_R444  | 2.22.02 |            |   |
|           | QNV-C9011R   | QNV-C9011R_2.22.02_2025<br>0424_R312  | 2.22.02 |            |   |
|           | QNV-C9011R   | QNV-C9011R_2.22.02_2025<br>0424_R312  | 2.22.02 |            |   |
|           | QNV-C9083R   | QNV-C9083R_2.22.02_2025<br>0424_R524  | 2.22.02 |            |   |
|           | TNV-C8011RW  | TNV-C8011RW_2.22.02_20<br>250424_R240 | 2.22.02 |            |   |
|           | TNV-C8014RM  | TNV-C8014RM_2.21.10_20<br>250424_R140 | 2.21.10 |            |   |
|           | TNV-C8034RM  | TNV-C8034RM_2.21.10_20<br>250424_R97  | 2.21.10 |            |   |

New update firmware (April, 2025 – May, 2025)

| 구분        | MODEL NAME   | FIRMWARE                           | VER      | DATE       | REMARK   |
|-----------|--|------------------------------------|----------|------------|--|
| NW<br>CAM | TNO-C3010TRA   | TNO-C3010TRA_2.21.03_20250422_R321 | 2.21.03  | 2025-04-25 | - Fixed screen breakage and monochrome image exposure issues when changing gain table  |
|           | TNO-C3012TRA   | TNO-C3012TRA_2.21.03_20250422_R336 |          |            |  |
|           | XNB-6000   | XNB-6000_2.10.07_20250423_R11      | 2.10.07  | 2025-05-01 | - Changed to the FE binary where Panasonic motor driver IC was replaced with VM117 due to the discontinuation of the driver IC<br>※ Impossible to earlier firmware |
|           | XND-A8084RV<br>XND-A9084RV<br>XNO-A8084R<br>XNO-A9084R<br>XNV-A8084R<br>XNV-A9084R | XNO-A9084R_25.01.02_20250504_R420  | 25.01.02 | 2025-05-09 | - Improved bit saving performance of codec in WDR mode in low light environment<br>- Open source version update and patch  |
|           | PNM-C9022RV  | PNM-C9022RV_2.23.01_20250509_R71   | 2.23.01  | 2025-05-15 | - Fix LLDP&CDP infinite reboot issue   |
|           | XNF-9013RV   | XNF-9013RV_2.23.06_20250509_R19    | 2.23.06  |            |  |
|           | PNO-A9311R   | PNO-A9311R_2.23.02_20250508_R248   | 2.23.02  | 2025-05-17 | Changes to fix production issues<br>1. Micom firmware upgrade<br>2. Audio output issue fix   |
| Intercom  | TID-600R   | TID-600R_2.12.02_20250502_R2       | 2.12.02  | 2025-05-13 | - Added the feature to send video via SRTP when making SIP calls<br>- Applied [AAC] as a default value for audio codec   |