



DH_NVR2XXX-I_MuI_
V4.001.0000000.1.R.200930

Release Notes

ZHEJIANG DAHUA VISION TECHNOLOGY CO., LTD.

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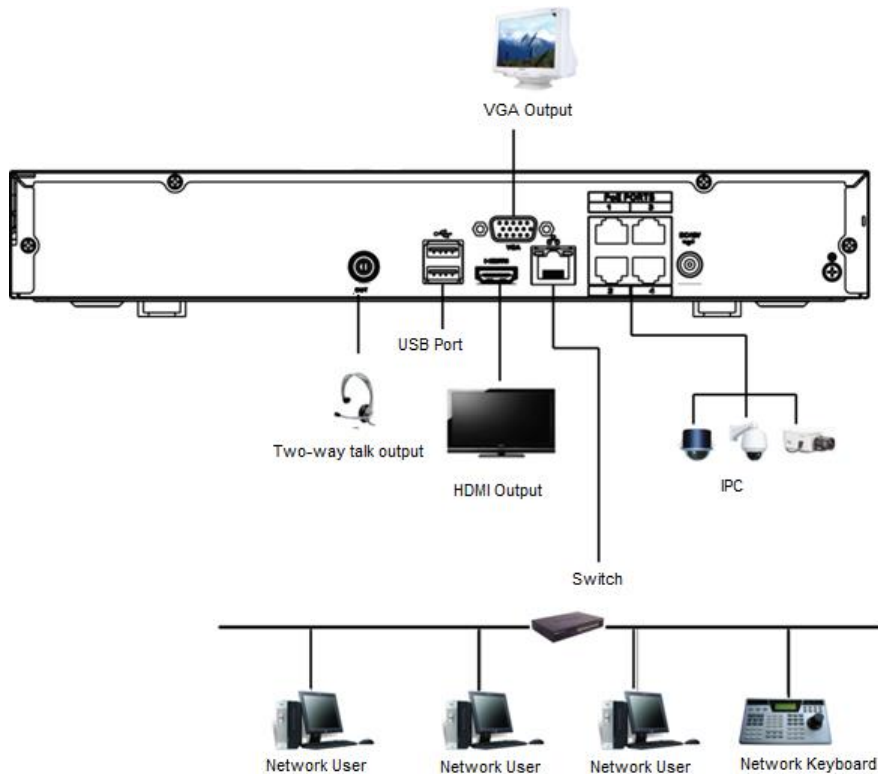
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1.1 Overview

Item	Description
Product name	NVR2XXX-I Series
Version	V4.001.0000000.1
Software package information	DH_NVR2XXX-I_Mul_V4.001.0000000.1.R.200930.zip
Onvif Version	2.4.1
OS requirement	None
Release date	2020-09-30

1.2 Product Introduction

This product is a smart NVR device that integrates intelligent image processing technology, network technology, storage technology and hardware technology. It supports accessing to IPCs and provides functions such as local live view, multi-screen display, real-time storage on local HDD, fast operation by mouse, and remote management and control. This product is suitable for face detection and recognition at entrances/exits, and perimeter protection of people and vehicles.



1.3 New Features

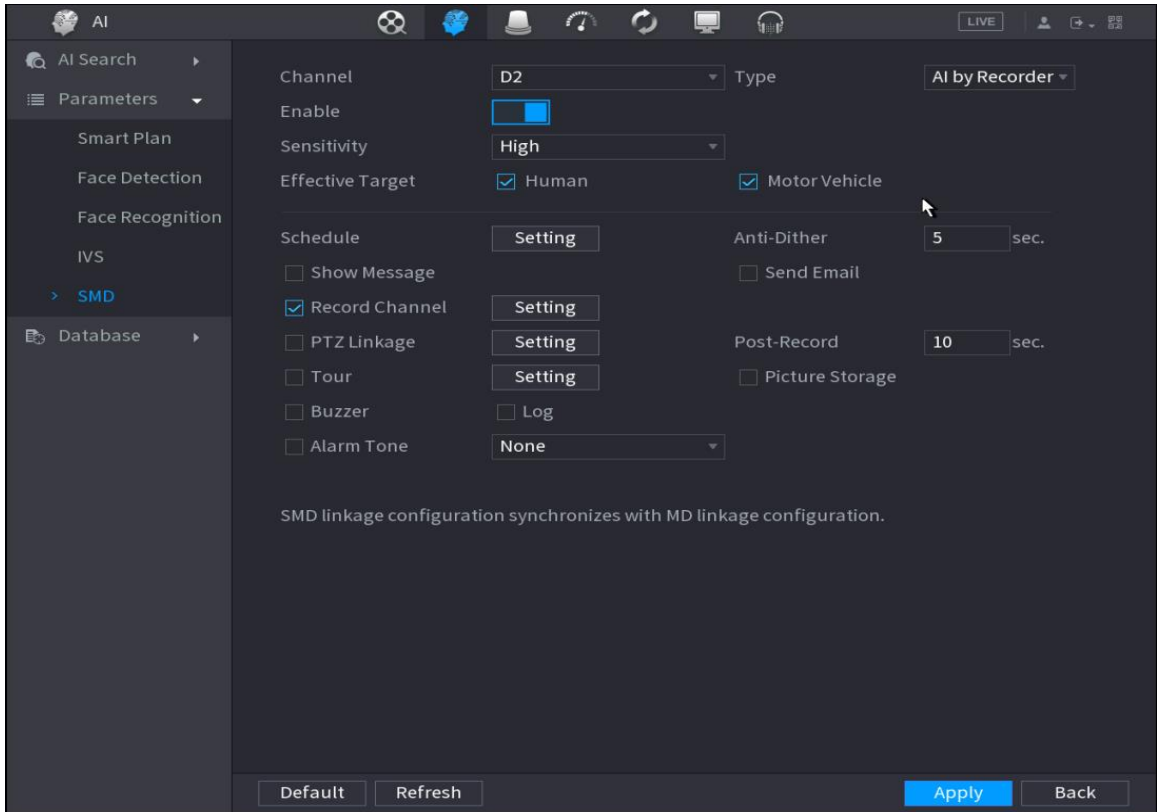
Feature	Description
SMD (AI by NVR)	Supports 4-channel SMD (sub stream). Supports configuring enable switch, sensitivity, detection target. the linkage configuration of MD. Supports displaying filtered playback by human and vehicle in general playback. Supports SMD bounding box for human and vehicle in live view. Supports SMD bounding box for human and vehicle in playback. Supports searching and exporting results in SDM. Playback of the SMD event is modified to 10 s before the event occurred.
Perimeter Protection (AI by NVR)	2-channel perimeter protection (sub stream).
Face Recognition (AI by NVR)	1-channel face detection and comparison (main stream).
Long-distance PoE transfer	Supports 10Mbps and 200 m transfer capability for general PoE transfer. Supports power management.
VGA/HDMI non-simultaneous output	The default setting is VGA/HDMI simultaneous output. And the max. output of HDMI is 4K. When non-simultaneous output is enabled, the HDMI port does not support 4K output.
License exception notification	If the license is missing or the verification failed, a warning icon will be shown in the middle of the screen.

1.4 Instructions for New Features

1.4.1 SMD (AI by NVR)

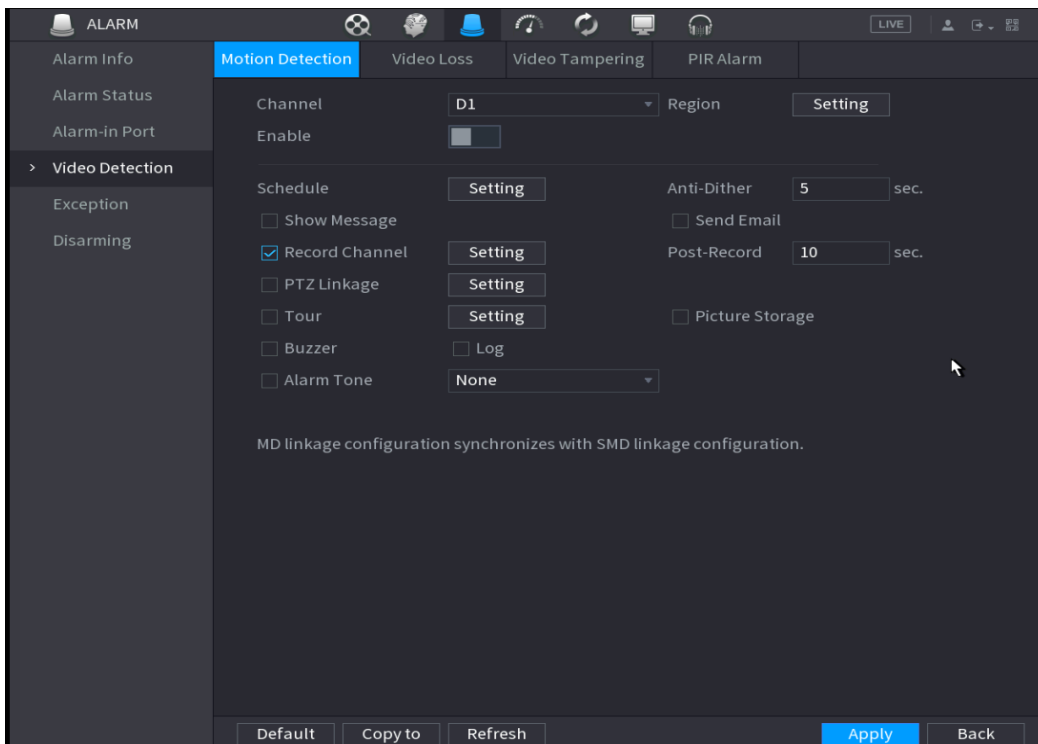
Supports 4-channel sub stream SMD (AI by NVR). Based on the MD function, SMD is aimed to improve the practical value of motion detection by intelligently analyzing and distinguishing human and vehicle in videos. Alarm event will be triggered only when human or vehicle is detected.

- i. **SMD configuration:** Includes enable switch, sensitivity and detection target.



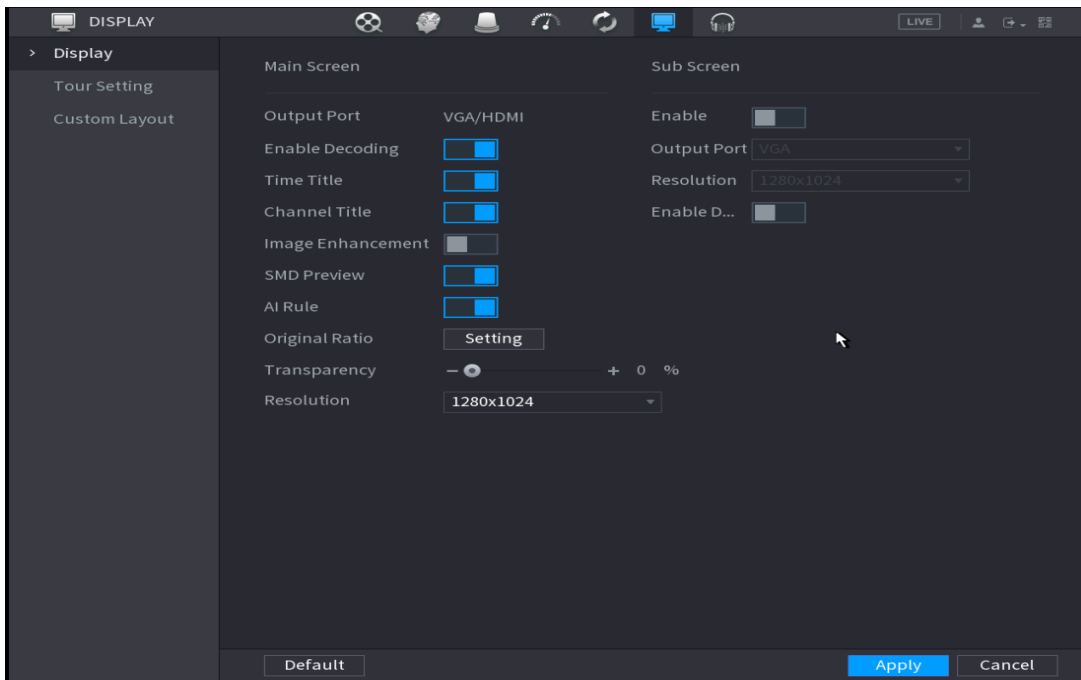
ii. **SMD alarm configuration**

- SMD reuses alarm configuration of MD.
- When SMD is enabled, MD will be enabled synchronously and its alarm configuration will be applied to SMD.
- When MD is disabled, SMD will be disabled synchronously.
- When SMD is disabled, MD continues working.

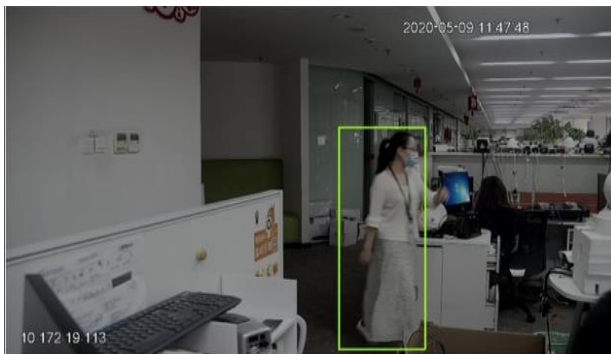


iii. **SMD bounding box displayed on human and vehicle in live view**

You can enable **SMD Preview** on the **Display** interface to display SDM bounding box on human and vehicle.

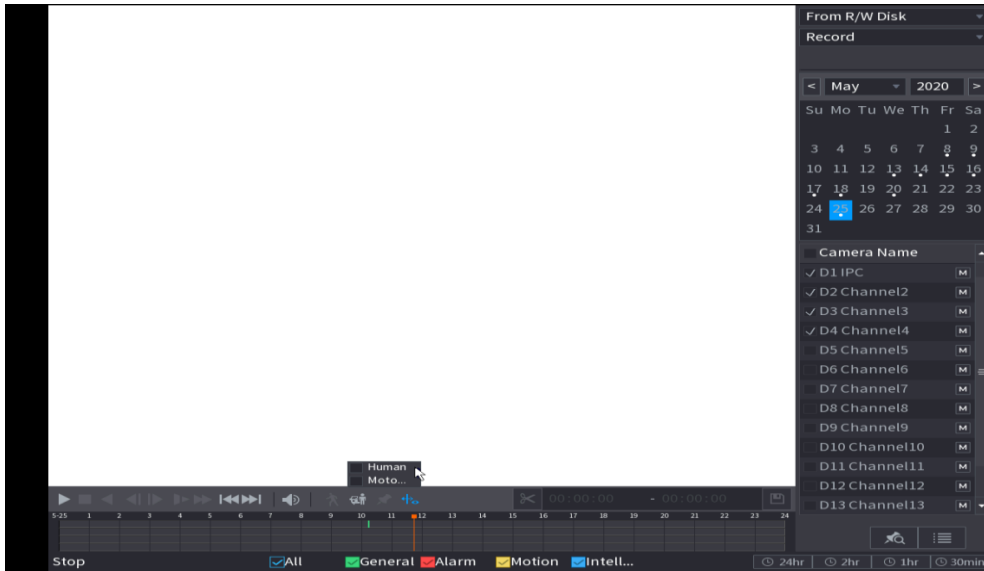


SMD bounding box is displayed as follows, flashing in every 2 seconds.



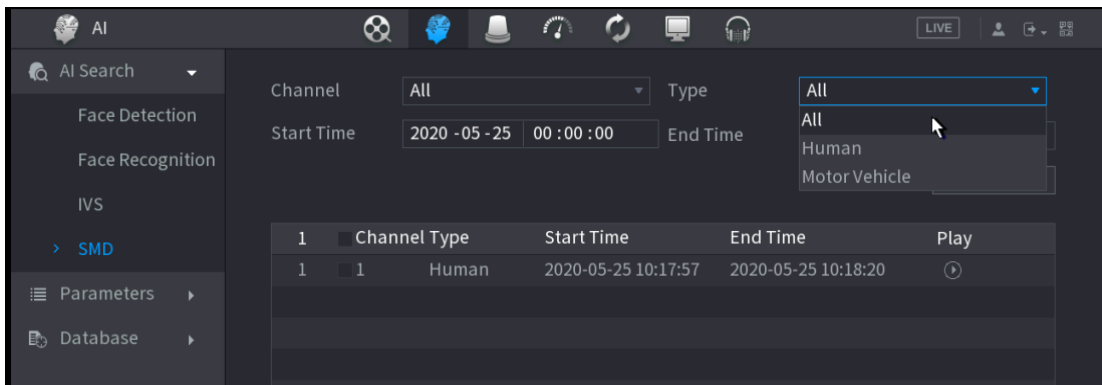
iv. **Filtered search and playback for human and vehicle**

- Search result files are displayed in the color of blue.
- Video playback by filtered result of human and vehicle.




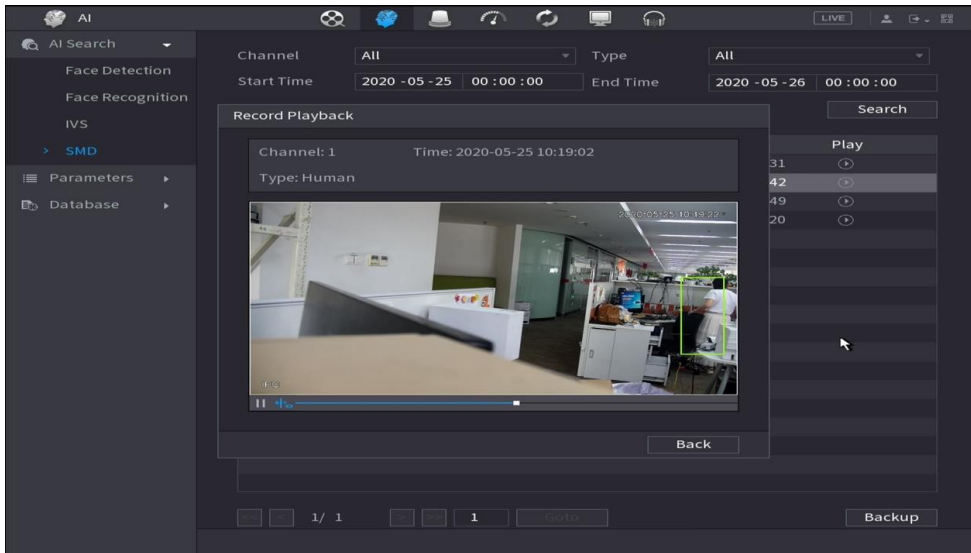
v. **SMD search**

You can search for SDM event on the **AI** interface by time, channel, human and vehicle. Playback of the SMD event is 10 s before the event occurred.



vi. **SMD playback**

You can directly play videos in **Playback** column from start time to end time by filtered results. Click , and then a player will be prompted to play video.



1.4.2 Perimeter Protection (AI by NVR)

1. **Configuration:** Supports 2-channel sub stream perimeter protection (AI by NVR) of human and vehicle (except for attributes). Set up to 10 intrusion and tripwire rules; record linkage, snapshot (panoramic), local external alarm output, IPC external alarm output, voice prompt, buzzer, log.

2. **Live view:** Supports displaying detection bounding box. Displays object category (human, motor vehicle, and non-motor vehicle), event type, event trigger time, cutout, object category; and the attribute is not supported. Count the number of people and vehicles, and display up to 50 historical snapshots; associate with the record playback of the event 10 s forward and backward. Supports filtering the panels based on the panel types.

3. **Search and playback:** Pictures are retrieved by channel, time, event type and target type. Associate search results with the record playback of the event 10 s forward and backward, and export search results as Excel file and picture (panoramic), and back up video and picture (panoramic).

Snapshot database capacity: 300,000.

1.4.3 Face Detection and Recognition (AI by NVR)

Face Detection: Supports 1-channel main stream face detection which can detect up to 12 faces in the channel screen. Set detection region, record linkage, snapshot (panoramic picture, face picture), local external alarm output, IPC external alarm output, voice prompt, buzzer, and log.

Face recognition: Front FD + front FR, rear FD + rear FR; Normal/stranger mode; deploy multiple face databases and set the similarity thresholds respectively. When the similarity reaches/does not reach the (stranger) threshold, the client software gives an alarm prompt, and triggers record linkage, snapshot (panoramic), local external alarm output, IPC external alarm output, voice prompt, buzzer, log, preset, or email.

Live view: Display detection bounding box. Display event type, event triggering time and face snapshot. Total number of faces: Count the number of face pictures within 24 hours, and display up to 50 historical snapshots; associate with the record playback of the event 10 s forward and backward; export and quickly add face pictures to the list database. Panel filtering: Filter panels by panel type and attribute.

Face search and playback: Search pictures by channel, time, face attribute and similarity. Associate search results with the record playback of the event 10 s forward and backward, and export search results as Excel, and backup video and picture.

Snapshot database capacity: 300,000.

1.4.4 Long-distance PoE Transfer

Supports 10Mbps and 200 m transfer capability for general PoE transfer.

IPCs in the following table have been tested for this feature. And the test is passed.

Material No.	Model	PoE Standard	PoE Hardware Solution (PD chip)
1.0.01.04.32090	DH-IPC-HFW1230S1N-0280B-S4 (DH-IPC-HFW1230S1P-S4)	AF	DH2100S
1.0.01.04.32215	DH-IPC-HFW1330S1N-0360B-S4 (IPC-HFW1330S1-S4)	AF	DH2100S
1.0.01.04.31741	DH-IPC-HFW2231SN-S-0280B-S2 (IPC-HFW2231S-S-S2)	AF	DH2100S
1.0.01.04.29193	DH-IPC-HDBW5541EP-ZE-0735 (IPC-HDBW5541EP-Z5E)	AT	DH2101D
1.0.01.04.29752	DH-IPC-HDW5241HP-AS-PV-0280B (IPC-HDW5241H-AS-PV)	AF	DH2100S
1.0.01.04.28038	DH-IPC-HD4140X-E2 (IPC-HD4140XP-3D)	AF	DH2100S

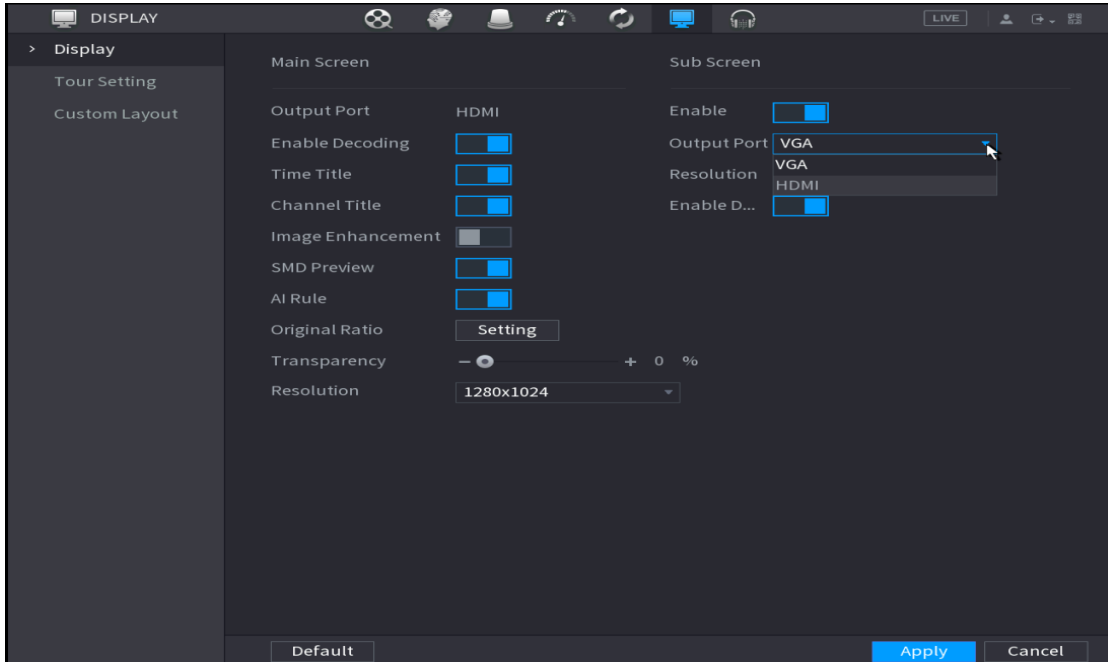
Supports PoE power management. The PoE power table is as follows.

Model	Adapter	Overall Time-sharing Strategy	HDD Number	PoE Port Number	PoE Power (not degrading below 45 °C)
DHI-NVR2104-P-I/NVR2104-P-I/DH-NVR2104HS-P-I/DHI-NVR2104HS-P-I/NVR2104HS-P-I	53V, 1.13A	/	0/1	4	Single port: 25.5W Total: 38W
DH-NVR2204-P-I/DHI-NVR2204-P-I/NVR2204-P-I	53V, 1.81A	Support	0/1	4	Single port: 25.5W Total: 72W
			2	4	Single port: 25.5W Total: 60W
DHI-NVR2108-8P-I/NVR2108-8P-I/DH-NVR2108HS-8P-I/DHI-NVR2108HS-8P-I/NVR2108HS-P-I	53V, 1.81A	/	0/1	8	Single port: 25.5W Total: 72W
DH-NVR2208-8P-I/DHI-NVR2208-8P-I/NVR2208-8P-I	54V, 2.22A	Support	0/1	8	Single port: 25.5W Total: 96W
			2	8	Single port: 25.5W Total: 80W

DHI-NVR2216-16P-I/NVR2216-16P-I	12V, 5A/52V, 2.5A	/	0/1	16	Single port: 25.5W Total: 130W
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1.4.5 VGA/HDMI Non-simultaneous Output

When it is set to 1 VGA/1 HDMI simultaneous video output (default), the maximum resolution of HDMI is 4K; when it is set to 1 VGA/1 HDMI non-simultaneous video output, the maximum resolution of HDMI is 1080P.



1.4.6 License Exception Notification

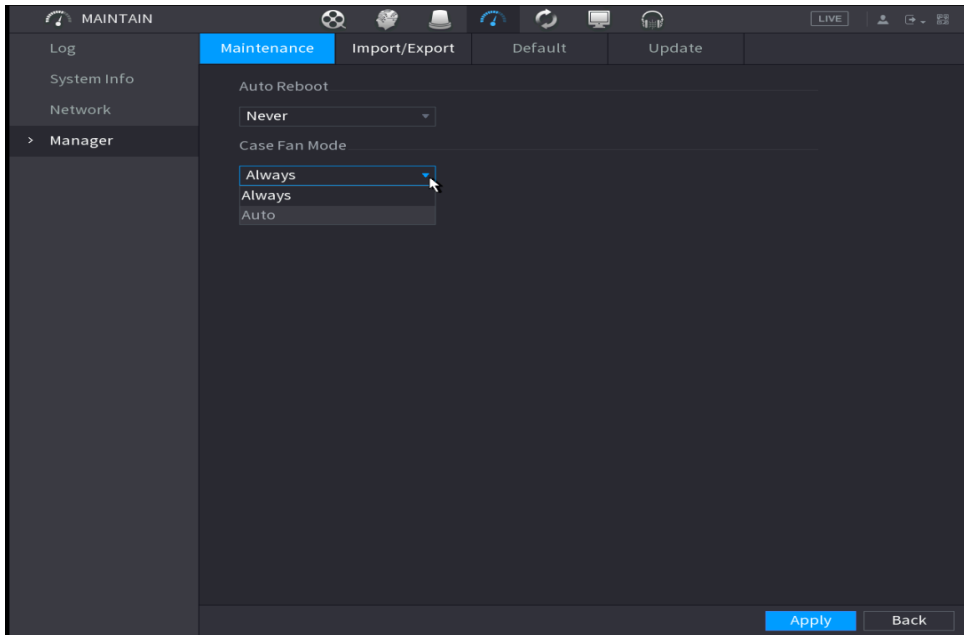
The device will verify license during booting up. If the verification failed, the following icon will be shown on the screen, contact the after-sale service for further information. This function is available on select models.



1.4.7 Case Fan Setting

Case fan mode: Always, Auto.

When it is set to Always, the fan is working constantly; when it is set to Auto, the fan works according to case temperature.



1.5 Fixed Bugs

1. Solved the problem of temporary black screen caused by exceeding decoding capability on NVR2X-I series when switching split windows numbers..
2. Removed the confirmation dialog box of decreasing live view resolution when AI is enabled on NVR2X-I series.

1.6 Compatibility

This series uses the security baseline version 2.1.

1.7 Software Environment

Model	Version
DH-IPC-HFW1230S1N-0280B-S4	2.6.01.05.18182
DH-IPC-HFW1330S1N-0360B-S4	2.6.01.05.18176
DH-IPC-HDPW1431R1N-ZS-2812-S4	2.6.01.05.19023
DH-IPC-HFW2231SN-S-0280B-S2	2.6.01.05.19476
DH-IPC-HDW2431TP-AS-0280B-S2	2.6.01.05.18993
DH-IPC-HFW2531TP-ZAS-27135-S2	2.6.01.05.19020
DH-IPC-HFW2831TP-ZAS-27135-S2	2.6.01.05.19020
DH-IPC-HDW3241TP-ZAS-27135	2.6.01.05.16622
DH-IPC-HFW3441TP-ZS-27135	2.6.01.05.16643
DH-IPC-HDBW5541EP-ZE-0735	2.6.01.05.16076
DH-IPC-HFW5442EP-ZE-2712	2.6.01.05.16076
DH-IPC-HDW5241TMP-AS-0280B	2.6.01.05.16084
DH-IPC-HDW5241HP-AS-PV-0280B	2.6.01.05.16076
DH-IPC-HDW5241TMP-AS-LED-0280B	2.6.01.05.16084
DH-SD29204UE-GN	2.6.01.05.16119
DH-SD6CE230U-HNI	2.6.01.05.12738
DH-SD-6C3223UB-HNP(ZJ)-A, 1.0.01.07.12901	2.6.02.05.00668; 2.6.01.05.16098
DH-PTZ1C203UE-GN	2.6.01.05.16119
DH-SD49425XB-HNR	2.6.02.05.00757; 2.6.01.05.17936
DH-SD49425XB-HNR	2.6.01.05.17936
DHI-VTO7541G	2.6.01.18.03516
DHI-VTO2202F-P	2.6.01.18.03843
DHI-DSS7016D-S2	2.7.01.02.01173
DSS Pro	2.7.01.02.00833
DSS Express	2.7.01.02.00599
DHI-DSS4004-S2	2.7.01.02.00562
SmartPSS	2.7.01.10.00066
gDMSS/iDMSS/Imou	2.7.03.01.00154 2.7.09.01.00202
Smartplayer	2.8.02.01.00303
CONFIG TOOL	2.8.03.01.00070
PlaySDK/NetSDK	2.8.01.01.01035 /2.8.01.01.00991
DiskManager	2.1.02.01.16426
NKB1000	2.6.01.09.00625
NKB5000	2.6.01.09.00662
DH-SD-29D204UE-GN-WD	2.6.01.05.16113
DH-SD-49D216UE-GN-D	2.6.01.05.12751
DH-SD6C82FA-GN	2.6.01.05.12751
DH-SD6C82FB-GN	2.6.01.05.12751
DH-SD6C84FX-GN-A	2.6.01.05.16458
DH-SD-1A1404XB-GNR-D	2.6.01.05.16458

Model	Version
DH-SD6C82F-GNP(ZJ)-A	2.6.01.05.16098
DH-IPC-X12-D	2.6.01.05.18907
DH-IPC-HDW1230C-A-V2	2.6.01.05.18907
DH-IPC-T13-A	2.6.01.05.18172
DH-IPC-HFW2130M-I1	2.6.01.05.07248
DH-IPC-HDW2235C-A-V2 (2.1mm wide-angle eyeball camera)	2.6.01.05.10831
DH-IPC-HFW2233M-I1	2.6.01.05.17698
DH-IPC-HDW2433C-A	2.6.01.05.10835
DH-IPC-HFW4243M-I1	2.6.01.05.16017
DH-IPC-HDW4636C-A	2.6.01.05.16436
DH-IPC-HFW4838M-I1	2.6.01.05.18038
DH-IPC-PDBW4638-B270	2.6.01.05.18039
DH-IPC-HD4140X-E2	2.6.01.05.18040
DH-IPC-HFW4243K-ZFD-LED	2.6.01.05.18037
DH-IPC-HDW4443DH-AS-PV	2.6.01.05.16017
DH-DSS7016D-1I	2.6.01.13.00134
H8900	2.7.01.08.02075
C9100	2.7.01.01.00482
DH-NVD0105DH-4K	2.6.01.11.00358
DH-NVD0905DH-4K	2.6.01.11.00362

1.8 Pending Issues

None.

1.9 Update Guide

1. You can upgrade the NVR by ConfigTool, web and USB flash drive. For details, see Upgrade Guide.
2. Services such as recording and live view will be paused during the upgrade process. The NVR works normally after upgrade and rebooting.
3. The upgrade does not affect previous settings of the NVR.
4. Do not power off during the upgrade process, or the NVR will not boot up properly.

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