HD Video and Audio Decoder

User Manual
UD01111B
User Manual

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About this Manual

This Manual is applicable to DS-6900UDI Decoder.

The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

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Regulatory information

FCC information

FCC compliance: This equipment has been tested and found to comply with the limits for 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.

FCC conditions

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

EU Conformity Statement

This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Low Voltage Directive 2006/95/EC, the EMC Directive 2004/108/EC, the RoHS Directive 2011/65/EU.

2012/19/EU (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.recyclethis.info.

2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info.
Safety Instruction

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss.

The precaution measure is divided into “Warnings” and “Cautions”

Warnings: Serious injury or death may occur if any of the warnings are neglected.

Cautions: Injury or equipment damage may occur if any of the cautions are neglected.

<table>
<thead>
<tr>
<th>Warnings</th>
<th>Cautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow these safeguards to prevent serious injury or death.</td>
<td>Follow these precautions to prevent potential injury or material damage.</td>
</tr>
</tbody>
</table>

**WARNING**

Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.

In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.

Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100~240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.

Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.

Please make sure that the plug is firmly connected to the power socket.

If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.
Preventive and Cautionary Tips

Before connecting and operating your device, be advised of the following tips:

- Ensure unit is installed in a well-ventilated, dust-free environment.
- Unit is designed for indoor use only.
- Keep all liquids away from the device.
- Ensure environmental conditions meet factory specifications.
- Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the unit as a result of dropping it may cause damage to the sensitive electronics within the unit.
- Use the device in conjunction with an UPS if possible.
- Power down the unit before connecting and disconnecting accessories and peripherals.
- Improper use or replacement of the battery may result in explosion. Replace with the same or equivalent type only. Dispose of used batteries according to the instructions provided by the battery manufacturer.
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Chapter 1 Introduction

1.1 Description

Designed for the high-definition video monitoring system, DS-6900UDI Decoder is developed on the basis of embedded hardware platform, ensuring high reliability and stability of system running. DS-6900UDI Decoder is capable of simultaneous decoding video for 16-ch@12MP, 32-ch@8MP, 48-ch@5MP, 80-ch@3MP, 128-ch@1080p simultaneous decoding, and outputting decoded video via BNC, VGA, or HDMI interfaces, and it also supports multiple video stream formats like H.265, H.264+, H.264 and MPEG4. The decoded video can be displayed on video wall or large screen.

1.2 Features

Powerful Decoding Capability

- DS-6901UDI provides HDMI, VGA, and BNC output interfaces.
- Up to 16-ch decoding at 12 MP resolution (DS-6916UDI).
- DS-6904UDI, DS-6908UDI, DS-6910UDI, DS-6912UDI, DS-6916UDI provide HDMI (adaptable to DVI-D) and BNC output interfaces
- Up to 4K (3840 × 2160@30HZ) via HDMI interface (only for even interface), and up to 1080p@60HZ via VGA interface.
- PS, RTP, TS, ES, HIK encapsulation formats.
- Supports window opening and window roaming
- Three encoding levels: baseline, main, and high-profile.
- Access by panoVu network camera.

Multiple Decoding Control Modes

- Two decoding modes: active decoding and passive decoding.
- Decoding output of remote video files.
- Supports HiDDNS.
- Decoding on video wall by directly linking cameras or by stream media forwarding.
- Gets stream and decodes via URL.
- Remotely controls DVR’s or DVS’s PTZ via transparent channel.
- Two-way audio.
- Supports multi-screen control with PC installed with RSC server.
• Supports Wi-Fi module access to display the signal from ISO/Android mobile phone or pad on video wall.
• Configurable LED width and height parameters when the LED is connected.

Integrated Capability
• Decoding video/audio stream accessed by ONIVF, RTP/RTSP protocols.
• Provides complete software development kit (SDK) for third-party developers.
• Port link aggregation technology (Ethernet Channel).

Maintenance Management
• Remotely get, configure, export and import parameters.
• Remotely reboot, restore default settings and upgrading via web browser or client software.
Chapter 2 Panels and Connections

2.1 Front Panel

● Front panel of DS-6901UDI

Figure 2-1 Front Panel of DS-6901UDI

Table 2-1 Description of DS-6901UDI Front Panel

<table>
<thead>
<tr>
<th>No.</th>
<th>LED Indicator &amp; Interface</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>POWER</td>
<td>Power indicator</td>
</tr>
<tr>
<td>2</td>
<td>LINK</td>
<td>Network connection indicator</td>
</tr>
<tr>
<td>3</td>
<td>Tx/Rx</td>
<td>Data transmitting/receiving status indicator</td>
</tr>
<tr>
<td>4</td>
<td>HDMI video output</td>
<td>HDMI output for decoded video</td>
</tr>
<tr>
<td>5</td>
<td>VGA video output</td>
<td>VGA output of decoded video</td>
</tr>
<tr>
<td>6</td>
<td>Audio output</td>
<td>Audio output, 3.5mm connector</td>
</tr>
<tr>
<td>7</td>
<td>Video output</td>
<td>Video output, BNC connector</td>
</tr>
</tbody>
</table>

● Front Panel of DS-6904/6908UDI

Figure 2-2 Front Panel of DS-6904/6908UDI
Table 2-2 Description of DS-6904/6908UDI Front Panel

<table>
<thead>
<tr>
<th>LED Indicator &amp; Interface</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Power</td>
<td>Power indicator</td>
</tr>
<tr>
<td>2 HDD1</td>
<td>Hard disk 1 indicator (Reserved)</td>
</tr>
<tr>
<td>3 HDD2</td>
<td>Hard disk 2 indicator (Reserved)</td>
</tr>
<tr>
<td>4 USB</td>
<td>USB 2.0 interface</td>
</tr>
<tr>
<td>5 GE2</td>
<td>Local management network interface 2</td>
</tr>
<tr>
<td>6 G2</td>
<td>10/100/1000 Mbps Ethernet interface 2</td>
</tr>
<tr>
<td>7 RS-232 serial interface</td>
<td>Connect to RS-232 devices, e.g., PC etc.</td>
</tr>
<tr>
<td>8 GE1</td>
<td>Local management network interface</td>
</tr>
<tr>
<td>9 G1</td>
<td>10/100/1000 Mbps Ethernet interface</td>
</tr>
<tr>
<td>10 LAN</td>
<td>LAN 10/100 Mbps Ethernet interface</td>
</tr>
</tbody>
</table>

**NOTE**

DS-6904UDI provides 4-ch HDMI output interfaces and other interfaces are the same with DS-6908UDI.

- Front Panel of DS-6910/6912/6916UDI

![Figure 2-3 Front Panel of DS-6916UDI]
### Table 2-3 Description of DS-6916UDI Front Panel

<table>
<thead>
<tr>
<th>LED Indicator &amp; Interface</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDD1</td>
<td>Hard disk 1 indicator (Reserved)</td>
</tr>
<tr>
<td>HDD2</td>
<td>Hard disk 2 indicator (Reserved)</td>
</tr>
<tr>
<td>POWER</td>
<td>Power indicator</td>
</tr>
<tr>
<td>LAN</td>
<td>10/100 Mbps Ethernet interface</td>
</tr>
<tr>
<td>G1</td>
<td>10/100/1000 Mbps Ethernet interface</td>
</tr>
<tr>
<td>GE1</td>
<td>Local management network interface</td>
</tr>
<tr>
<td>RS-232 serial interface</td>
<td>Connect to RS-232 devices, e.g., PC etc.</td>
</tr>
<tr>
<td>USB</td>
<td>USB 2.0 interface</td>
</tr>
<tr>
<td>GE2</td>
<td>Local management network interface 2</td>
</tr>
<tr>
<td>G2</td>
<td>10/100/1000 Mbps Ethernet interface 2</td>
</tr>
</tbody>
</table>

#### 2.2 Rear Panel

- **Rear Panel of DS-6901UDI**

![Figure 2-4 Rear Panel of DS-6901UDI](image)

### Table 2-5 Description of DS-6901UDI Rear Panel

<table>
<thead>
<tr>
<th>Interface</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE IN/OUT</td>
<td>Two-way audio input/output, 3.5mm connector</td>
</tr>
<tr>
<td>RS-232 serial interface</td>
<td>Connect to RS-232 devices, e.g., PC.</td>
</tr>
<tr>
<td></td>
<td>Interface</td>
</tr>
<tr>
<td>---</td>
<td>-------------------</td>
</tr>
<tr>
<td>3</td>
<td>LAN</td>
</tr>
<tr>
<td>4</td>
<td>RS-485 serial interface</td>
</tr>
<tr>
<td>5</td>
<td>Alarm in</td>
</tr>
<tr>
<td></td>
<td>Alarm out</td>
</tr>
<tr>
<td>6</td>
<td>Power supply</td>
</tr>
<tr>
<td>7</td>
<td>Power supply</td>
</tr>
</tbody>
</table>

- **Rear Panel of DS-6908UDI**

![Figure 2-5 Rear Panel of DS-6908UDI](image)

---

**Table 2-6 Description of DS-6908UDI**

<table>
<thead>
<tr>
<th>Interface</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wi-Fi Reserved</td>
</tr>
<tr>
<td>2</td>
<td>Audio output BNC connector</td>
</tr>
<tr>
<td>3</td>
<td>Video output BNC connector</td>
</tr>
<tr>
<td>4</td>
<td>HDMI video output HDMI output of decoded video</td>
</tr>
<tr>
<td>5</td>
<td>DVI video input DVI input of decoded video</td>
</tr>
<tr>
<td>6</td>
<td>VGA video input VGA input of decoded video</td>
</tr>
<tr>
<td>7</td>
<td>LINE IN/OUT Two-way audio input/output, 3.5mm connector</td>
</tr>
<tr>
<td>8</td>
<td>RS-485 serial interface Connect to RS-485 devices, e.g., keyboard.</td>
</tr>
<tr>
<td>9</td>
<td>Alarm in 8 alarm inputs</td>
</tr>
<tr>
<td>10</td>
<td>Power indicator</td>
</tr>
</tbody>
</table>
Rear Panel of DS-6916UDI

**Figure 2-6 Rear Panel of DS-6916UDI**

<table>
<thead>
<tr>
<th>Interface</th>
<th>Connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 WiFi</td>
<td>Reserved</td>
</tr>
<tr>
<td>2 Audio output</td>
<td>BNC connector</td>
</tr>
<tr>
<td>3 Video output</td>
<td>BNC connector</td>
</tr>
<tr>
<td>4 HDMI video output</td>
<td>HDMI output of decoded video</td>
</tr>
<tr>
<td>5 DVI video input</td>
<td>DVI input of decoded video</td>
</tr>
<tr>
<td>6 VGA video input</td>
<td>VGA input of decoded video</td>
</tr>
<tr>
<td>7 LINE IN/OUT</td>
<td>Two-way audio input/output, 3.5mm connector</td>
</tr>
<tr>
<td>8 RS-485 serial interface</td>
<td>Connect to RS-485 devices, e.g., keyboard, etc.</td>
</tr>
<tr>
<td>9 Alarm in</td>
<td>8 alarm inputs</td>
</tr>
<tr>
<td>10 Power</td>
<td>Power indicator</td>
</tr>
<tr>
<td>11 GND</td>
<td></td>
</tr>
</tbody>
</table>

**NOTE**

DS-6910UDI provides 10 HDMI output interfaces, DS-6912UDI provides 12 HDMI output interfaces and other interfaces are the same with DS-6916UDI.
Chapter 3 Getting Started

Purpose

You are required to activate the decoder first by setting a strong password for it before you can use the device. And you can configure the basic network parameters. Activation via Web Browser and Client Software are all supported.

NOTE

For the first-time user, the default user name of DS-6900UDI is admin, and the default IP address is 192.0.0.64.

3.1 Activation via SADP Software

SADP software is used for detecting the online device, activating the camera, and resetting the password.

Get the SADP software from the supplied disk or the official website, and install the SADP according to the prompts. Follow the steps to activate the camera.

Step 1 Run the SADP software to search the online devices.

Step 2 Check the device status from the device list, and select the inactive device.

Figure 3-1 SADP Interface
Step 3 Create a password and input the password in the password field, and confirm the password.

Step 4 Click **OK** to save the password.

---

**WARNING**

**STRONG PASSWORD RECOMMENDED**—We highly recommend that you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

You can check whether the activation is completed on the popup window. If activation failed, please make sure that the password meets the requirement and try again.

Step 5 Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the checkbox of **Enable DHCP**.

![Modify Network Parameters](image)

**Figure 3-2 Modify the IP Address**

Step 6 Input the password and click the **Save** button to activate your IP address modification.

### 3.2 Activation via Web Browser

Step 1 Power on the decoder, and connect the decoder to the network.

Step 2 Input the IP address into the address bar of the web browser, and click Enter to enter the activation interface.
Step 3 Create a password and input the password into the password field.

**WARNING**

**STRONG PASSWORD RECOMMENDED**—We highly recommend that you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

Step 4 Confirm the password.

Step 5 Click **OK** to save the password and enter the live view interface.

### 3.3 Activation via Client Software

The client software is versatile video management software for multiple kinds of devices.

Get the client software from the supplied disk or the official website, and install the software according to the prompts. Follow the steps to activate the camera.

Step 1 Run the client software and the Video Wall interface pops up, as shown in the figure below.
Step 2 Click the **Device Management** icon to enter the Device Management interface, as shown in the figure below.

Step 3 Check the device status from the device list, and select an inactive device.

Step 4 Click the **Activate** button to pop up the Activation interface.

Step 5 Create a password and input the password in the password field, and confirm the password.
**WARNING**

**STRONG PASSWORD RECOMMENDED**—We highly recommend that you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. We recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

---

Step 6 Click **OK** button to start activation.

Step 7 Click the **Modify Netinfo** button to pop up the Network Parameter Modification interface, as shown in the figure below.

---

Step 8 Change the device IP address to the same subnet with your computer by either modifying the IP address manually or checking the **DHCP** checkbox.

Step 9 Input the password to activate your IP address modification.
Chapter 4 Decoder Configuration and Operation by Web Browser

**NOTE**

You shall acknowledge that the use of the product with the Internet access might be under network security risks. For avoidance of any network attacks and information leakage, please strengthen your own protection. If the product does not work properly, contact with your dealer or the nearest service center.

**Purpose**

You can configure and operate the device by Web browser or the iVMS-4200 Video Wall Client Software. In this chapter, the operation and management of the decoder by the Web browser is provided.

**NOTE**

The tested Web browsers include: IE 8.0+, Chrome 18.0+, Firefox 5.0+, and Safari 5.02+.

Step 1 Open the Web browser and input the IP address of Decoder (e.g., http://192.168.0.0).

Step 2 Login to the device.

![Login Interface](image)

Figure 4-1 Login Interface

- If the device has not been activated, you need to active the device first before login.
1. Set the password for admin user account.
2. Click OK to login the device.

**WARNING**

**STRONG PASSWORD RECOMMENDED**—We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. We recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

- If the device is already activated, enter the user name and password in the login interface, and click the Login button.

The following interface is shown after successful login.

![Figure 4-3 Enter Web Page](image-url)
4.1 Decoder Configuration

4.1.1 Checking Device Information

**Purpose**

You can check the information of the device in the device information interface, such as the Device Type, Device Serial No., Firmware Version, Decoding Version, Web Version, Plugin Version etc.

Click **Configuration > System > System Settings > Basic Information** to view Device Type, Device Serial No., Firmware Version, DSP Version, etc.

![NOTE]

The device name can be edited.

![Figure 4-4 Checking Device Information]

4.1.2 Configuring Time Settings

**Purpose**

You can set the time for the decoder in the **Time Settings** interface.

Step 1 Click **Configuration > System Settings > Time Settings** to enter the following interface:
Step 2 Configure the time synchronization by NTP server or manually.

- **Configuring Time Sync by NTP Server**

  A Network Time Protocol (NTP) Server can be configured on your device to ensure the accuracy of system date/time.

  If the device is connected to a Dynamic Host Configuration Protocol (DHCP) network that has time server properties configured, the camera will synchronize automatically with the time server.

  Enable the **NTP** function by checking the checkbox, and configure the following settings:

  - **NTP Server**: IP address of NTP server.
  - **NTP Port**: Port of NTP server.

- **Configuring Time Synchronization Manually**

  If the device is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the device is set up in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.

**NOTE**

If the device is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the device is set up in a more customized network, NTP software can be used to establish a NTP server used for time synchronization.
Enable the **Manual Correction** function and then click icon ☑️ to set the system time from the pop-up calendar.

![Configure Time Manually](image)

**Figure 4-7 Configure Time Manually**

Step 3 Select the time zone that is closest to the device’s location from the drop-down list.

Step 4 Click **Save** to save the settings.

### 4.1.3 Configuring RS-485/RS-232 Serial Port

#### Configure RS-232 Parameters

Step 1 Click **Configuration > System Settings > RS232** to enter the following interface:

![Configure RS-232 Settings](image)

**Figure 4-8 Configure RS-232 Settings**
Step 2 Configure the RS-232 parameters, including the baud rate, data bit, stop bit and parity type.

Step 3 Select the Operating Mode of RS-232 as Console or Transparent Channel.

- **Console**: use the RS-232 serial port for debugging the decoder.
- **Transparent Channel**: use the RS-232 serial port as the transparent channel.

Step 4 Click **Save** to save the settings.

**Configure RS-485 Parameters**

Step 1 Click **Configuration > System Settings > RS485** to enter the following interface:

![RS-485 Configuration Interface](image)

**Figure 4-9 Configure RS-485 Settings**

Step 2 Configure the RS-485 parameters, including the baud rate, data bit, stop bit and parity type.

Step 3 Click **Save** to save the settings.

### 4.1.4 Configuring Basic Network Settings

**Purpose**

You can set the network parameters for the decoder in the parameter configuration interface.

Step 1 Click **Configuration > Network > TCP/IP** to enter the general network settings interface.
Configure Basic Network Settings

Figure 4-10 Configure Basic Network Settings

Step 2 Set the network parameters, including the NIC, IP Address, Subnet Mask, Gateway, and DNS Server.

**NOTE**

The DS-6904/6908/6910/6912/6916UDI provides multiple NICs for selection.

Step 3 Click **Save** to save the settings.

4.1.5 Configuring DDNS Settings

**Purpose**

If your device is set to use PPPoE as its default network connection, you may set Dynamic DNS (DDNS) to be used for network access.

Prior registration with your DDNS Provider is required before configuring the system to use DDNS.

Step 1 Click **Configuration > Network > DDNS** to enter the DDNS Settings interface:

Step 2 Check the **Enable DDNS** checkbox to enable this feature.

Step 3 Select **DDNS Type**. Five different DDNS types are selectable: IPServer, DynDNS, PeanutHull, HiDDNS and NO-IP.

- DynDNS
  3. Enter **Server Address** for DynDNS (e.g., members.dyndns.org).
  4. Enter the **User Name** and **Password** registered in the DynDNS website.
  5. In the **Domain** text field, enter the domain obtained from the DynDNS website.
  6. Click **Save** to save the settings.
**IPServer**

1. Enter server address for IPServer.
2. Click Save to save the settings.

**NOTE**

For the IP Server, you have to apply a static IP, subnet mask, gateway and primary DNS from the ISP. The **Server Address** should be entered with the static IP address of the PC that runs IP Server software.

**PeanutHull**

1. Enter User Name and Password obtained from the PeanutHull website.
2. Click Save to save the settings.
HiDDNS

1. Enter the **Server Address** of the HiDDNS server: [www.hik-online.com](http://www.hik-online.com).

2. Enter the **Domain Name** of the device. You can register the alias of the device domain name in the HiDDNS server first and then enter the alias to the domain name in the decoder; you can also enter the domain name directly on the decoder to create a new one.

*NOTE*

If a new alias of the device domain name is defined in the decoder, it will replace the old one registered on the server.

3. Click **Save** to save the settings.
After having successfully registered the device on the HiDDNS server, you can access your device via Web browser or client software with the Device Domain Name (device name).

4.1.6 Stream Settings

Purpose
The stream configuration refers to the auto stream switch between main stream and sub stream.

Step 1 Click Configuration > Decoding Configuration > Stream Configuration to enter stream configuration interface.

![Figure 4-15 Stream Configuration Interface](image)

Step 2 Check the check box of **Auto-Switch Stream Type** to enable auto switch between main stream and sub stream.

Step 3 Click **Save** button to save the settings.

NOTE
When a screen is split into more than 16 windows, the main stream will automatically switch to sub stream to lower the bandwidth.

4.1.7 Synchronous Output Settings

Purpose
All video outputs of the device can be configured to be synchronous.

Step 1 Click Configuration > Decoding Configuration > Synchronous Output Settings to enter the synchronous output settings interface.
Step 2 Click the **Sync Out** button to enable the synchronization of all outputs. The following message box pops up.

![Figure 4-17 Enable Synchronous Output](image)

Step 3 Click **OK** to confirm the settings.

4.1.8 Transparent Channel

*Purpose*

The Transparent Channel refers to the transmission channel used for forwarding data between the decoder and the encoder without operating on the data.

Step 1 Click Configuration > Decoding Configuration > Transparent Channel to enter transparent channel interface.
Step 2 Select a transparent channel from the list to configure.

Step 3 Click Modify to modify the parameters of the selected transparent channel.

Step 4 Select the Local Serial Port and the Remote Serial Port to RS-485 or RS-232.

Local Serial Port: the serial port used as the transparent channel by the decoder.

Remote Serial Port: the serial port used as the transparent channel by the encoding device.

You can click Delete to pop up the following dialog box and click OK to delete the selected channel.
4.1.9 Managing User Account

The user accounts can be managed in this interface.

Step 1 Click Configuration > System > User Management to enter the account management interface.

![User Management Table]

Figure 4-20 Configure User Account

Step 2 You can add, modify or delete the user account, as well as configure operating permissions for each user account.

![Add User Account and Set Permission]

Figure 4-21 Add User Account and Set Permission

**NOTE**

For the admin user, only the password can be modified.
STRONG PASSWORD RECOMMENDED—We highly recommend that you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. We recommend that you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

4.1.10 Importing/Exporting Configuration Files

**Purpose**

The configuration files of the device can be imported from or exported to local device for backup, which maintains convenient parameters configuration.

**Step 1** Click **Configuration > System > Maintenance** to enter the parameters import/export interface:

![Figure 4-22 Import/Export Configuration File](image_url)

**Step 2** Click **Browse** to select the file from the local directory and then click the **Import** button to import a configuration file. Click **Device Parameters** to export parameters.

4.1.11 Maintenance

Click **Configuration > System > Maintenance** to perform Reboot, Upgrade, and Default operations.

**Upgrading the Device**

**Step 1** Click **Browse** to search the upgrading files.

**Step 2** Click **Upgrade** to upgrade it.

![Figure 4-23 Device Management](image_url)
NOTE

- When logging in the device for first time, please install the plug-in according to the prompt on the screen.
- The device will restart after completing the upgrade.

Restoring the Default Settings

Click **Default** to restore the completed factory settings of the decoder.

Or

Click **Restore** to restore a part of the factory settings of the decoder.

![Default Settings](image)

Figure 4-24 Default Settings

Rebooting the Device:

Click **Reboot** to reboot the device.

![Reboot](image)

Figure 4-25 Reboot the Device
4.2 Setting Video Wall Layout

**Purpose**

To realize the display of the decoded video on the video wall, you must set the Video Wall Configuration in the first place so as to link the video output with video wall.

**Step 1** Click **Video Wall Configuration** to enter the corresponding interface.

![Image](image1.png)

**Figure 4-26 Enter Video Wall Configuration Interface**

**Step 2** You can use the default video wall layout or click ![add layout icon](image2.png) to add a new layout. Enter the number of screens in row and column and up to 16 × 20 split screens are available.

![Image](image3.png)

**Figure 4-27 Split Screen Configuration**

**Step 3** Click **OK** to finish the adding of the video wall information.

**Step 4** Click and drag the output channels from the left-side list to the display screen.

**Step 5** Move the cursor to the window, and icon ![close window icon](image4.png) automatically appears in the upper-right corner of the window. Click ![close window icon](image4.png) to close the window.
4.3 Decoding Output Configuration

**Purpose**

Decoding Output Configuration includes resolution configuration and output mode configuration.

Step 1 Click **Video Wall Configuration** to enter the corresponding interface.

Step 2 In the output list, there are two kinds of video output signals, respectively BNC and HDMI. Right click one of BNC signal sources and select **Resolution Configuration** to pop up the interface as Figure 4.30.
Step 3 Choose one of the resolutions from the drop down list. Check the checkbox of **Batch Configuration** to set the same configuration for other outputs with same signal source.

Step 4 Right click one of the HDMI signal sources.

![Figure 4-31 Decoding Output Configuration](image)

Step 5 Select **Output Mode Configuration** to pop up the interface as Figure 4.32. The output mode is with HDMI and DVI available. Check the checkbox of **Batch Configuration** to set the same configuration for other HDMI outputs.

![Figure 4-32 Output Mode Configuration](image)

### 4.4 Decoding Operation

**Purpose**

After configuration has done according to 4.2 Setting Video Wall Layout, the decoding video on the video wall can be realized in this section.

Step 1 Click **Video Wall** to enter video wall interface.
Table 4-1 Description of Video Wall

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Camera: the camera added in the Web</td>
</tr>
<tr>
<td>2</td>
<td>Scene: the Web supports up to 8 scenes by default, capable of independent scene configuration and fast switching</td>
</tr>
<tr>
<td>3</td>
<td>TV Wall: TV Wall operation interface</td>
</tr>
<tr>
<td>4</td>
<td>Shortcut toolbar: decoding screen layout, save the scene, delete all windows, refresh all windows, at bottom</td>
</tr>
</tbody>
</table>

4.4.2 Adding a Encoding Device

Step 1 Click **Add** to add new encoding devices.
Step 2 Input **Device Name**, **IP Address**, **Port**, **Password**, **Area Name** and **Channel Number**. Check the checkbox of **Get Stream by Stream Media** to lower the network load of the device.

![Add Camera Interface](image)

**Figure 4-35 Add Camera Interface**

Step 3 Select one of the areas or one channel of the encoding device, and click **Modify** to modify corresponding parameters.

![Modify Area](image)

**Figure 4-36 Modify Area**
Step 4 Select one area or one channel of encoding device and click **Delete** to delete the encoding device.

4.4.3 Decoding on the Video Wall

Step 1 Drag the channel from the left side list to realize the decoding in the selected window.
Step 2 Select one decoding window and click to set the decoding screen layout with 1/4/6/8/9/12/16/25/36 split screen available.

![Split Screen Interface](image)

**Figure 4-40 Split Screen Interface**

Step 3 Right click the selected window and the following interface shows up.

![Decoding Channel Interface](image)

**Figure 4-41 Decoding Channel Interface**

- **Stop Decoding**: stop decoding
- **Decoding Status**: check the decoding status.
Click **More** to check the decoding information of each channel.

- **Turn on Audio**: enable the audio in the corresponding window.
- **Decoding Delay**: choose the type of decoding delay. The default mode is the same with medium real time and fluency.

### 4.4.4 Video Wall Roaming

Step 1 Drag one camera from the left side list to the video wall layout to enable decoding in the corresponding window automatically.

Step 2 Drag the decoding window randomly to realize the window roaming on the Video Wall.
Step 3 Select one of the roaming windows, and click to realize split screen in the selected roaming window with 1/4/6/8/9/16/25/36 available.

Step 4 Generally the selected window is at top by default. Click to place the selected window at bottom.

**NOTE**

Roaming and fluent video cannot be realized in the window with the signal outputted via BNC interfaces.

### 4.4.5 Setting Scene

**Purpose**

Different video wall layouts are saved as different scenes and up to 8 scenes can be added. You can easily view the required live videos on the video wall by calling the scene.

Step 1 In the Video Wall interface drag the channel from the left side list to realize the decoding in the selected window.
Step 2 Click **Save** to save the scene directly and click **Save as** to pop up the following dialog box.

![Save as Interface](image)

Figure 4-47 Save as Interface

Step 3 Input the **Name** and click **OK** to save the scene.

![Scene List](image)

Figure 4-48 Scene List

Step 4 Select one of the scenes you have configured. Click ![call scene](image) to call the scene.

You can also click ![rename](image) to rename the scene, or click ![delete](image) to delete the scene.
Chapter 5 Decoder Configuration and Operation by Client Software

Run the disk of iVMS-4200 Video Wall Client Software, and double click the icon to install it in your PC. In this chapter, the basic procedure of operating the decoder by the software is described.

The following figure shows the main interface after accessing to the software:

![Main Interface](image)

**Figure 5-1 Main Interface**

### NOTE

The software is capable of many functions for controlling and managing many devices. In this manual, only the operation related to the decoder is introduced.

#### 5.1 Adding an Encoding/Decoding Device

Step 1 Click **Device Management** tab to enter the Device Management interface.
Step 2 Click the **Add Device** and you can add device manually by means of IP address/domain, IP segment and HiDDNS.

![Add Device by IP/Domain](image)

Step 3 You can add the device by detecting the online devices. The active online decoding devices in the same local subnet with the software are displayed on the list. Select the decoder and click **Add to Client** to add the decoder.
5.2 Configuring Video Wall Settings

5.2.1 Configuring Video Wall Layout

Adding a Video Wall Layout

Step 1 Click Video Wall tab to enter the Video Wall setting interface.
Step 2 You can use the default video wall layout or click and select Add Video Wall to a new video wall layout.

**NOTE**
You can modify the default video wall, but not allowed to delete it.
Step 3 Edit the video wall name, and the number of screens in row and column.

Step 4 Click **Add** to finish video wall adding.

![Figure 5-8 Add Video Wall](image)

**NOTE**

- Up to 5 video walls can be added to the client software.
- The total number of display windows of the video wall is 16 × 20.
- The range of the row number is between 1 and 16, and column number between 1 and 20.

Step 5 Click and drag the output channels from the left-side list to the display window on the right.
You can select a linked display window and click Cancel to release the linkage, or click Cancel All to release all the linked windows.

Modifying a Video Wall Layout

Choose **Modify Video Wall** to edit current video wall’s layout, name and decoding outputs.
Deleting a Video Wall Layout

Choose **Delete Video Wall** and the information dialog box pops up. Click **OK** to delete the selected video wall.

![Figure 5-11 Delete Video Wall](image.png)

---

### 5.2.2 Modifying the Decoding Output

**Step 1** In the Add/Modify Video Wall interface, select a decoding output and click the ▶️ to edit the video output parameters.

![Figure 5-12 Add/Modify Video Wall Interface](image.png)

**Step 2** Select the resolution from the drop-down list.

**Step 3** Edit the width and height (pixel) of LED display when the LED is connected.
The value of LED width and height cannot exceed the resolution you selected.

- The supported min. value of LED width and height is 288*288.
- When the value of LED width or height is set to 0, the LED resolution is not enabled.

**5.3 Displaying Video on Video Wall**

**Purpose**

After the settings of the encoding device, decoding device and video wall, the video stream from the encoding devices can be decoded and displayed on the Video Wall.

**NOTE**

After enable decoding and displaying, the captured picture of the video from the encoding device displays on the Video Wall interface. And the real-time live view is shown on the physical video wall.

**5.3.1 Decoding and Displaying Video**

Step 1 Enter the Video Wall interface.
Step 2 Click scene to display the scene interface. Click + to add a new scene, click ✎ to edit the name for the scene, and click ✗ to delete the scene.

NOTE

Up to 8 scenes can be added.

Step 3 Click and drag the camera from the left side list to the display window of video wall. The video stream from the camera will be decoded and displayed on the Video Wall.

You can select a decoding window and then double click a camera to decode and display the video. You can also click and hold the Ctrl or Shift key to select multiple cameras and then drag them to the video wall.
NOTE

You can move the cursor to the preview window and click ■ in the lower-left corner to stop decoding.

Step 4 Select a decoding window and click  to set the split screen with 1/4/6/8/9/12/16/25/36 available.

Step 5 If the decoded camera supports PTZ control, you can click  beside PTZ to activate the PTZ control panel.

![PTZ Interface](image)

Figure 5-16 PTZ Interface

Step 6 Right-click on a playing window to activate the decoding management menu, as shown below:

NOTE

The menu differs depending on the devices.

![Right-click Menu](image)

Figure 5-17 Right-click Menu
● **Stop/Start Decoding**: stop/start the decoding.
● **Start/Stop Live View**: stop/start the live view of the decoded video.
● **Start/Pause Successive Decoding**: start/pause the cycle decoding. This function is only supported by decoder.
● **Enable Audio**: turn on/off the audio of the decoding video.
● **Decoding Status**: view the status of the decoding channel, like decoding status and stream type.
● **Stick at Bottom**: generally the selected window is at top by default. Click **Stick at Bottom** to place the selected window at bottom.
● **Lock/Unlock**: the locked decoding window is unable to do any operation.
● **Set Alarm Window**: display the video triggered by event or alarm input on Video Wall.
● **Screen Control**: enter the screen control when the RSC server is added. Please refer to Chapter 5.5 for details.

![Figure 5-18 Video Wall Display](image)
### Table 5-1 Decoding Toolbar

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🔗</td>
<td>Start Decoding</td>
</tr>
<tr>
<td>🔴</td>
<td>Stop Decoding</td>
</tr>
<tr>
<td>⏪</td>
<td>Stop All Window</td>
</tr>
<tr>
<td>🔒</td>
<td>Enable All VCA Decoding</td>
</tr>
<tr>
<td>🔒</td>
<td>Disable All VCA Decoding</td>
</tr>
<tr>
<td>🔜</td>
<td>Open Roaming Window</td>
</tr>
<tr>
<td>🔜</td>
<td>Open the Window via Coordinate</td>
</tr>
<tr>
<td>🔖</td>
<td>Refresh</td>
</tr>
</tbody>
</table>

![NOTE]

The bottom bar lists several functions, but the decoder only supports **Window** and **Log**, since the iVMS-4200 Video Client Software is not only available for decoder but also for other devices.

### 5.3.2 Configuring Playback

**Purpose**

The video file is supported to be played back on the video wall.

!!! NOTE

Playback function is only supported by decoder.

**Step 1** Click and drag the camera on the left-side list to the display window of video wall, or you can open a window if supported.

**Step 2** Click **Window** at the bottom to unfold more configuration and operation toolbar.

**Step 3** Click **Start Playback** to start searching the video files of the camera.
Step 4 If the record file is of current day, the video file can be played back automatically. If not, you can set the search condition on the search panel (click \[\] to show the date and click **More Search Conditions** to specify more conditions), and click **Search** to find the video file.

The following icons are available for controlling the playback:

![Playback Toolbar](image)

<table>
<thead>
<tr>
<th>Icon</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Pause/Start" /></td>
<td>Pause/Start the playback</td>
</tr>
<tr>
<td><img src="image" alt="Delete View" /></td>
<td>Delete View</td>
</tr>
<tr>
<td><img src="image" alt="Slow Forward" /></td>
<td>Slow Forward</td>
</tr>
<tr>
<td><img src="image" alt="Fast Forward" /></td>
<td>Fast Forward</td>
</tr>
<tr>
<td><img src="image" alt="Start/Stop Clipping" /></td>
<td>Start/Stop Clipping</td>
</tr>
<tr>
<td><img src="image" alt="Capture" /></td>
<td>Capture</td>
</tr>
</tbody>
</table>

### 5.3.3 Configuring Cycle Decoding

*Purpose:*
Cycle decoding refers to you can configure multiple video streams in a video output and the interval time in switching video streams.

Step 1 Click and drag the camera from the left-side list to the display window of video wall, or you can open a window if supported.

Step 2 Click and drag a group to the window.

Step 3 Click to set the switching interval for the cycle decoding and click to start decoding. You can view the cycle decoding on the physical video wall. You can click to stop cycle decoding.

![Figure 5-20 Cycle Decoding](image)

---

### 5.3.4 Window Configuration

**Purpose:**

You can set the window as the alarm window to display the video triggered by event or alarm input on the video wall, you can also set the decoding delay and image parameters.

Step 1 Click and drag the camera from the left-side list to the display window of the video wall, or you can open a window if supported.

Step 2 Click **Window Configuration** to pop up the configuration dialog box.
Step 3 Configure the parameters as needed. The window status shows the current status of the selected window.

- **Alarm Window**: display the video triggered by the event or alarm input on the selected window of the video wall.
- **Decoding Delay**: set the delay status of the decoding according to the actual needs.

NOTE

Functions like Fluent Video, Smart Decoding, 3D DNR, Defog, and Low Illumination are not supported by DS-6900UDI.

5.4 Remote Screen Control

**Purpose**

Installed with the RSC Server, it allows you to show your PC screen on the Video Wall. Perform the following procedure to configure the RSC server and get your screen shown on the Video Wall.

5.4.1 Configuring the RSC Server

Step 1 Install the RSE Server, which enables the PC screen to be displayed on the Video Wall, and double-click RSC Server to run it.
Step 2 You can click the **Status** to check the server information, including the IP address, name, port, password of the server, and the connected device number.

Step 3 Click the **Settings** to check the directory of saving the program files, enable or disable the feature of Auto-Run when OS starts, and select the language (Chinese/English).

### 5.4.2 Remote Screen Control via RSC Server

Step 1 Enter the Video Wall page and click + in the Camera list area, or click + Add Device on Device Management page, to add the RSC server.
Step 2 Enter the parameters to add the RSC server. Please refer to Chapter 5.1 Adding an Encoding/Decoding Device to add the RSC server.

**NOTE**

The default user name is admin and the server password is 12345 and we highly recommend you to change the default password to avoid the security problem.

Step 3 The successfully added RSC server is listed in the camera list.

Step 4 On the camera list, click and drag the RSC server to the video output window.
Step 5 Right click on the window and select **Screen Control** to remotely control the signal source.

**NOTE**

The RSC server supports the screen control for 1-channel video output only.

Step 6 You can use the toolbar on the window’s upper right corner to realize the operations for image, video, PPT and remark.
Click to display all the image files in the directory set in the RSC Sever.

Figure 5-29 Screen Control Interface (1)

Click to display all the video files in the directory set in the RSC Sever.

Figure 5-30 Screen Control Interface (2)

Click to display all the PPT files in the directory set in the RSC Sever.
5.5 Remote Configuration

*Purpose*

In the remote configuration interface, you can configure the parameters of the added device, including the system, network, event, etc.

Step 1 On the Device Management interface, click to select an added device from the list and click **Remote Configuration** to enter Remote Configuration interface.
Step 2 Configure the system parameters, network parameters and event parameters on the Remote Configuration.

5.6 Configuring Multi-Port Link Aggregation

Purpose

The Multi-Port Aggregation (Ethernet Channel) is port link aggregation technology or port-channel architecture used for the connection between the switches.

Step 1 Click Remote Configuration>Network>MultiPortJoin to enter the Multi-Port Aggregation Settings interface.

Step 2 Select a link number from the list.

Step 3 Check the checkbox to select the network interfaces to form a channel-group link, which can effectively enhance the link transmission bandwidth.
The port link aggregation is not supported by DS-6901UDI.

The switch connected to DS-6900UDI must be configured with the port link aggregation as well.

Two adjacent network interfaces cannot be selected to form a link. Example, you can select Network Interface 1 and Network Interface 3, or Network Interface 2 and Network Interface 4.

The network interface 1 corresponds to the GE1 interface, network interface 2 to G1, network interface 3 to GE2, and network interface 3 to G2 on the rear panel.

The G1 and G2 can be used as 2G switch when the network interface 2 and network interface 4 are configured in port link aggregation.
Chapter 6 Display via Wi-Fi Connection

Purpose

With the Wi-Fi module connected, the DS-6900UDI supports displaying the signal from mobile phone or pad via AirPlay (ISO) or DLNA (Android) to the video wall or other display units.

Step 1 Insert the Wi-Fi module to the DVI video input connector on the rear panel of the device.

Step 2 Use your phone or pad to search and connect the Wi-Fi network (default ID: DIRECT-TV-DONGLE-XXXXXX, default password: 12345678)

Step 3 Open the browser of your phone or pad and input https://192.168.211.161 in the address field to enter the settings page.

Step 4 Configure the HDMI Dongle parameters, including the Name, Hotspot Password, Device Display Output and the Soft-Ap Frequency.

NOTE

The Soft-Ap Frequency parameter must be consistent to the phone or pad performance.

Step 5 Turn on the AirPlay (ISO) or DLNA (Android) to start playing the signal from the phone to the connected display unit. Please refer to the user manual of your phone for the details of AirPlay or DLNA instructions.
Chapter 7 Appendix

7.1 Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>DS-6901UDI</th>
<th>DS-6904UDI</th>
<th>DS-6908UDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video/Audio Output</td>
<td>VGA and DVI-I Input</td>
<td>/</td>
<td>WSXGA: 1680×1050@60Hz, WXGA: 1440×900@60Hz, WXGA: 1280×800@60Hz, 1366×768@60Hz, 1080p: 1920×1080@50/60Hz, 1080i: 1920×1080@50/60Hz, UXGA: 1600×1200@60Hz, XVGA: 1280×960@60Hz, 720p: 1280×720@50Hz/60Hz, SXGA: 1280×1024@60Hz, XGA: 1024×768@60Hz</td>
</tr>
<tr>
<td>Video/Audio Output</td>
<td>HDMI Output</td>
<td>1-ch</td>
<td>4-ch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4K: 3840×2160@30Hz (for even interface only), 1080p: 1920×1080@50/60Hz, WSXGA: 1680×1050@60Hz, UXGA: 1600×1200@60Hz (for even interface only), 720p: 1280×720@50Hz/60Hz, SXGA: 1280×1024@60Hz, XGA: 1024×768@60Hz</td>
</tr>
<tr>
<td>Video/Audio Output</td>
<td>VGA Output</td>
<td>1-ch</td>
<td>/</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1080p: 1920×1080@50/60Hz, WSXGA: 1680×1050@60Hz, SXGA: 1280×1024@60Hz, 720p: 1280×720@50Hz/60Hz, XGA: 1024×768@60Hz</td>
</tr>
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<td>BNC Output</td>
<td>1-ch</td>
<td>2-ch, 1 DB 15</td>
<td>4-ch, 1 DB 15</td>
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<tr>
<td>Audio/Video Decoding</td>
<td>Decoding Resolution</td>
<td>Up to 12MP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Decoding Channel</td>
<td>16-ch</td>
<td>32-ch</td>
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<tr>
<td>Decoding Capability</td>
<td>12MP@20fps: 2-ch 8MP@30fps: 4-ch 5MP@30fps: 6-ch 3MP@30fps: 10-ch 1080p@30fps: 16-ch</td>
<td>12MP@20fps: 4-ch 8MP@30fps: 8-ch 5MP@30fps: 12-ch 3MP@30fps: 20-ch 1080p@30fps: 32-ch 12MP@20fps: 8-ch 8MP@30fps: 16-ch 5MP@30fps: 24-ch 3MP@30fps: 40-ch 1080p@30fps: 64-ch</td>
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<tr>
<td>---------------------</td>
<td>---------------------------------</td>
<td>---------------------------------</td>
<td></td>
</tr>
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<td>Split Screen</td>
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<td>1/4/6/8/9/12/16/25</td>
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</tr>
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<td>External Interface</td>
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<td></td>
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<td>Network Interface</td>
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<td>2; 10/100/1000 Mbps self-adaptive Ethernet interface 16; 10M/100Mbps self-adaptive Ethernet interface</td>
<td></td>
</tr>
<tr>
<td>Serial Interface</td>
<td>1 RS-232 (RJ 45), 1 RS-485</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-Way Audio In</td>
<td>1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two-Way Audio Out</td>
<td>1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Audio Output</td>
<td>1-ch 4-ch, 1 DB 15 8-ch, 1 DB 15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alarm In</td>
<td>8-ch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alarm Out</td>
<td>8-ch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power Supply</td>
<td>12 VDC</td>
<td>100 to 240 VAC</td>
<td></td>
</tr>
<tr>
<td>Power Consumption</td>
<td>≤ 15 W</td>
<td>≤ 70 W</td>
<td></td>
</tr>
<tr>
<td>Working Temperature</td>
<td>-10° C to 55° C (14° F to 131° F)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working Humidity</td>
<td>10% to 90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions (W × D × H)</td>
<td>220 × 148 × 45 mm (8.66” × 5.83” × 1.77”)</td>
<td>440 × 311 × 44.5 mm (17.32” × 12.24” × 1.75&quot;)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>≤ 1.2 kg (2.65 lb)</td>
<td>≤ 5.2 kg (11.4 lb)</td>
<td></td>
</tr>
</tbody>
</table>
## Table 7-2 DS-6910/6912/6916 UDI Specification

<table>
<thead>
<tr>
<th>Model</th>
<th>DS-6910UDI</th>
<th>DS-6912UDI</th>
<th>DS-6916UDI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video/Audio Output</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VGA and DVI-I Input</td>
<td>WSXGA: 1680×1050@60Hz</td>
<td>WXGA: 1440×900@60Hz</td>
<td>WXGA: 1280×800@60Hz, 1366×768@60Hz, 1080p: 1920 × 1080@50/60Hz</td>
</tr>
<tr>
<td></td>
<td>1080I: 1920 × 1080@50/60Hz</td>
<td>UXGA: 1600 × 1200@60Hz</td>
<td>XVGA: 1280 × 960@60Hz</td>
</tr>
<tr>
<td></td>
<td>720p: 1280 × 720@50Hz/60Hz</td>
<td>SXGA: 1280 × 1024@60Hz</td>
<td>XGA: 1024 × 768@60Hz</td>
</tr>
<tr>
<td><strong>Video/Audio Output</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDMI Output</td>
<td>10-ch</td>
<td>12-ch</td>
<td>16-ch</td>
</tr>
<tr>
<td></td>
<td>4K: 3840 × 2160@30Hz (for even interface only)</td>
<td>1080p: 1920 × 1080@50/60Hz</td>
<td>WSXGA: 1680×1050@60Hz</td>
</tr>
<tr>
<td></td>
<td>UXGA: 1600 × 1200@60Hz (for even interface only)</td>
<td>720p: 1280 × 720@50Hz/60Hz</td>
<td>SXGA: 1280 × 1024@60Hz</td>
</tr>
<tr>
<td></td>
<td>XGA: 1024 × 768@60Hz</td>
<td></td>
<td>XGA: 1024 × 768@60Hz</td>
</tr>
<tr>
<td><strong>BNC Output</strong></td>
<td>5-ch, 2 DB 15</td>
<td>6-ch, 2 DB 15</td>
<td>8-ch, 2 DB 15</td>
</tr>
<tr>
<td><strong>Audio/Video Decoding</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Resolution</td>
<td>Up to 12MP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Channel</td>
<td>80-ch</td>
<td>96-ch</td>
<td>128-ch</td>
</tr>
<tr>
<td>Decoding Capability</td>
<td>12MP@20fps: 10-ch</td>
<td>12MP@20fps: 12-ch</td>
<td>12MP@20fps:16-ch</td>
</tr>
<tr>
<td></td>
<td>8MP@30fps: 20-ch</td>
<td>8MP@30fps: 24-ch</td>
<td>8MP@30fps: 32-ch</td>
</tr>
<tr>
<td></td>
<td>5MP@30fps: 30-ch</td>
<td>5MP@30fps: 36-ch</td>
<td>5MP@30fps: 48-ch</td>
</tr>
<tr>
<td></td>
<td>3MP@30fps: 50-ch</td>
<td>3MP@30fps: 60-ch</td>
<td>3MP@30fps: 80-ch</td>
</tr>
<tr>
<td></td>
<td>1080p@30fps: 80-ch</td>
<td>1080p@30fps: 96-ch</td>
<td>1080p@30fps: 128-ch</td>
</tr>
<tr>
<td>Split Screen</td>
<td>1/4/6/8/9/12/16/25/36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| External Interface | Network Interface | 2; 10/100/1000 Mbps self-adaptive management network interface  
2; 10/100/1000 Mbps self-adaptive Ethernet interface  
16; 10M/100 Mbps self-adaptive Ethernet interface |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial Interface</td>
<td>1 RS-232 (RJ 45), 1 RS-485</td>
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</tr>
<tr>
<td>Two-Way Audio In</td>
<td>1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)</td>
<td></td>
</tr>
<tr>
<td>Two-Way Audio Out</td>
<td>1-ch, 3.5 mm connector (2.0 Vp-p, 1 k Ω)</td>
<td></td>
</tr>
</tbody>
</table>
| Audio Output      | 10-ch, 2 DB 15  
12-ch, 2DB 15  
16-ch, 2 DB 15 | |
| Alarm Input       | 8 | |
| Alarm Out         | 8 | |
| General           | Power Supply      | 100 to 240 VAC | |
|                   | Power Consumption | ≤ 108 W | |
|                   | Working Temperature | -10° C to +55° C (+14° F to +131° F) | |
|                   | Working Humidity  | 10% to 90% | |
|                   | Dimensions (W × D × H) | 440 × 311 × 80 mm (17.32" × 12.24" × 3.15") | |
|                   | Weight            | ≤ 6.4 kg (14.11 lb) | |
7.2 FAQ

- Why cannot ping the decoder?
  - Check the cable and the switch.
  - Please refer to Chapter 3 to configure the IP address of the decoder.

- Why cannot connect the decoder with client software?
  - Check the decoder IP address.
  - Cable is connected.
  - User name and password of decoder are correct.

- Why cannot play back the record files in DVR with decoder?
  - Check the DVR network connection.
  - Check the parameters of the playback file.
  - Check if there are files existed in the selected time duration.

- Why cannot decode the stream transported by stream media server?
  - Check the network connection between decoder and stream media server.
  - Check if the stream media server port is connected with the port added on decoder.
## 7.3 List of Third-party IP Cameras Access

<table>
<thead>
<tr>
<th>IP Camera Manufacturer</th>
<th>Model</th>
<th>Supported Video Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panasonic</td>
<td>SP306H</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP336H</td>
<td></td>
</tr>
<tr>
<td>Sony</td>
<td>SNC-CH220</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SNC-RH124</td>
<td></td>
</tr>
<tr>
<td>Axis</td>
<td>P5532</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Q7404</td>
<td>H.265+, H.265, H.264, H.264+, MJPEG, MPEG4,</td>
</tr>
<tr>
<td>Sanyo</td>
<td>VCC-HD2500P</td>
<td></td>
</tr>
<tr>
<td>Samsung</td>
<td>SND-5080P</td>
<td></td>
</tr>
<tr>
<td>Bosch</td>
<td>NBC265P</td>
<td></td>
</tr>
<tr>
<td>Zavio</td>
<td>D5110</td>
<td></td>
</tr>
<tr>
<td>Arecont</td>
<td>AC1305M</td>
<td></td>
</tr>
<tr>
<td>Pelco</td>
<td>IX30DN-ACFZHB3</td>
<td></td>
</tr>
<tr>
<td>Onvif</td>
<td>Supported</td>
<td></td>
</tr>
</tbody>
</table>