



Network Traffic Camera
(for Checkpoint and Intersection Violation System)

Quick Start Guide

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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 of this Manual at the Hikvision website (<https://www.hikvision.com/en/>).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

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Regulatory Information

FCC Information

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.


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


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 EMC Directive 2014/30/EU, the LVD Directive 2014/35/EU, 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

Industry Canada ICES-003 Compliance

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
 NOTE	Provides additional information to emphasize or supplement important points of the main text.
 WARNING	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
 DANGER	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

Laws and Regulations	Use of the product must be in strict compliance with the local laws and regulations. Please shut down the device in prohibited area.
Power Supply	<ul style="list-style-type: none"> ● Use of the product must be in strict compliance with the local electrical safety regulations. ● Use the power adapter provided by qualified manufacturer. Refer to the product specification for detailed power requirements. ● It is recommended to provide independent power adapter for each device as adapter overload may cause over-heating or a fire hazard. ● Make sure that the power has been disconnected before you wire, install, or disassemble the device. ● DO NOT directly touch exposed contacts and components once the device is powered up to avoid electric shock. ● DO NOT use damaged power supply devices (e.g., cable, power adapter, etc.) to avoid electric shock, fire hazard, and explosion. ● DO NOT directly cut the power supply to shut down the device. Please shut down the device normally and then unplug the power cord to avoid data loss. ● DO NOT block the power supply equipment to plug and unplug conveniently. ● Make sure the power supply has been disconnected if the power adapter is idle. ● Make sure the device is connected to the ground firmly.

<p>Transportation, Use, and Storage</p>	<ul style="list-style-type: none"> ● To avoid heat accumulation, good ventilation is required for a proper operating environment. ● Store the device in dry, well-ventilated, corrosive-gas-free, no direct sunlight, and no heating source environment. ● Avoid fire, water, and explosive environment when using the device. ● Avoid lightning strike for device installation. Install a lightning arrester if necessary. ● Keep the device away from magnetic interference. ● Avoid device installation on vibratory surface or places, and avoid equipment installation on vibratory surface or places subject to shock (ignorance may cause device damage). ● DO NOT touch the heat dissipation component to avoid burns. ● DO NOT expose the device to extremely hot, cold, or humidity environments. For temperature and humidity requirements, see device specification.
<p>Maintenance</p>	<ul style="list-style-type: none"> ● If smoke, odor, or noise arises from the device, immediately turn off the power, unplug the power cable, and contact the service center. ● If the device is abnormal, contact the store you purchased it or the nearest service center. DO NOT disassemble or modify the device in any way (For the problems caused by unauthorized modification or maintenance, the company shall not take any responsibility). ● Keep all wrappers after unpacking them for future use. In case of any failure occurred, you need to return the device to the factory with the original wrapper. Transportation without the original wrapper may result in damage to the device and the company shall not take any responsibility.
<p>Network</p>	<ul style="list-style-type: none"> ● Please enforce the protection for the personal information and the data security as the device may be confronted with the network security problems when it is connected to the Internet. Please contact us when the device might exist network security risks. ● Please understand that you have the responsibility to configure all the passwords and other security settings about the device, and keep your user name and password.
<p>Data</p>	<p>DO NOT disconnect the power during formatting, uploading, and downloading. Or files may be damaged.</p>

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Chapter 1 Introduction

1.1 Overview

Integrated with video collection, smart encoding compression, and network transmission, network traffic camera can capture pictures and recognize vehicle features, such as license plate number, vehicle type, vehicle color, and vehicle brand. It is widely used in highway safety checkpoint, city safety checkpoint, and intersections.

1.2 Key Feature

- Supports H.265/H.264.
- Multiple application modes, e.g., checkpoint single I/O, checkpoint vehicle detector, RS-485 radar, mixed-traffic lane, and video analysis E-police.
- Supports violation detection, e.g., driving on the lane line, red light running, wrong-way driving, prohibition violation, etc., which can effectively prevent violations.
- Supports dual shutters, enabling the camera to capture while video monitoring.
- Supports flash light control according to brightness condition and time schedule, enabling the camera to capture while IO output.
- Supports multiple supplement light types, e.g., strobe, burst, etc.
- Supports violation image composition, forming full evidence for enforcement.



NOTE

Functions may vary with different models. Please refer to actual product.

1.3 System Requirement

- Operating System: Microsoft Windows XP SP1 and above version/Vista/Win 7/Win 10/Server 2003/Server 2008 32bits.
- CPU: 1.0 GHz or higher.
- RAM: 1 G or higher.
- Display: 1024 × 768 resolution or higher.
- Web Browser: Internet Explorer 8.0 and above version, Mozilla Firefox 5.0 and above version.

1.4 Appearance and Interfaces

1.4.1 Appearance

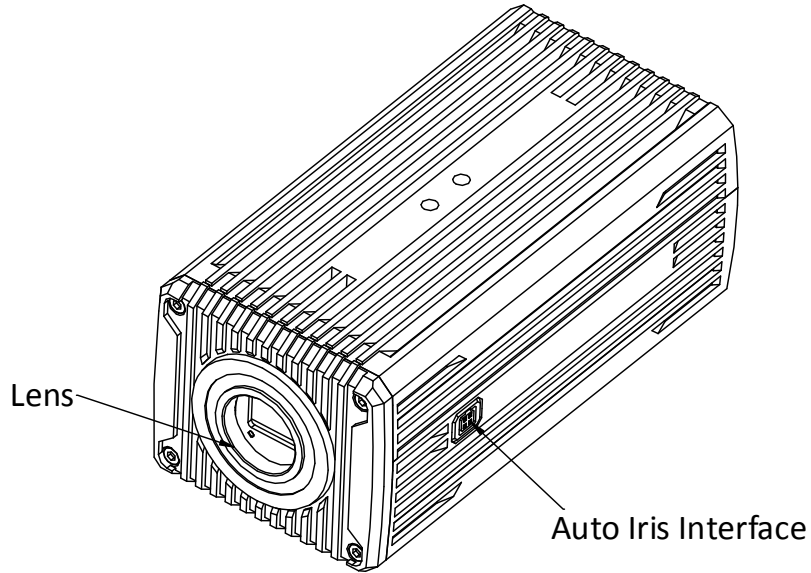


Figure 1-1 Appearance

1.4.2 Interfaces

The interfaces are mainly located on the rear panel.

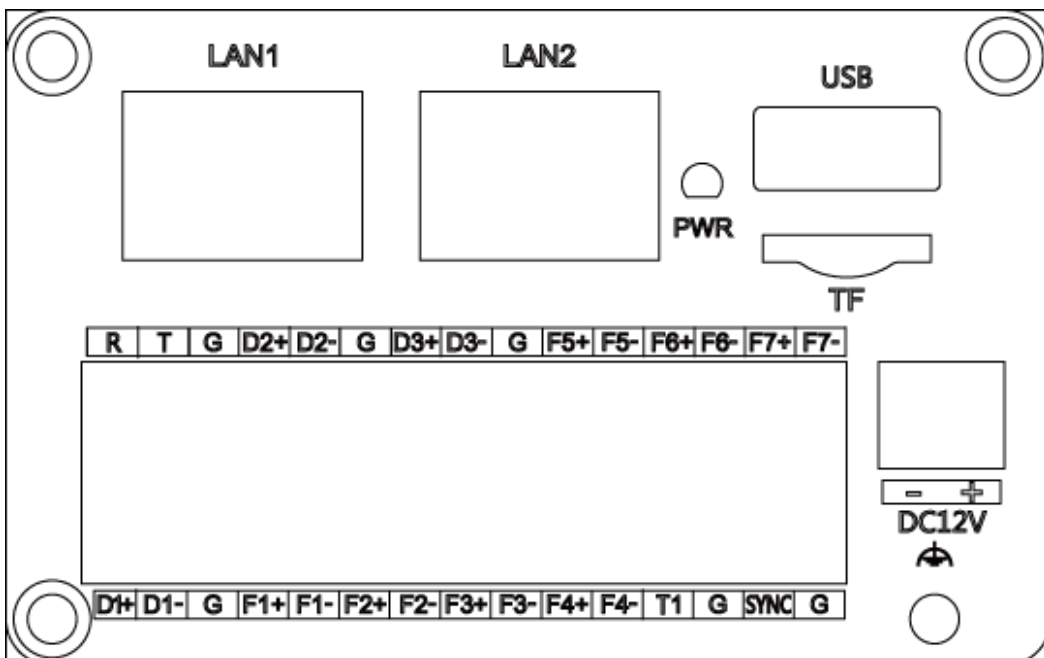



Figure 1-2 Rear Panel

Table 1-1 Rear Panel Interface

Interface	Description
LAN1/LAN2	10/100/1000 M Ethernet interface
TF	TF card slot
PWR	Power indicator
	Ground
RTG	RS-232 interface for debugging and temperature shield control via transparent channel.
D1-D3	RS-485 interface, for transferring RS-485 input information (such as radar, vehicle detector, etc.).
SYNC	Synchronization input
T1	Input trigger
F1-F7	Flash light trigger output
USB	USB interface
12 VDC	12 VDC power input

 **NOTE**

The USB interface can only be connected to USB flash drive. It is not allowed to charge other devices or connect other loads.

Chapter 2 Construction Solution

2.1 Construction Solution I

The following construction takes example of 3 MP camera in the scene of bidirectional 4 lanes without speed detection.

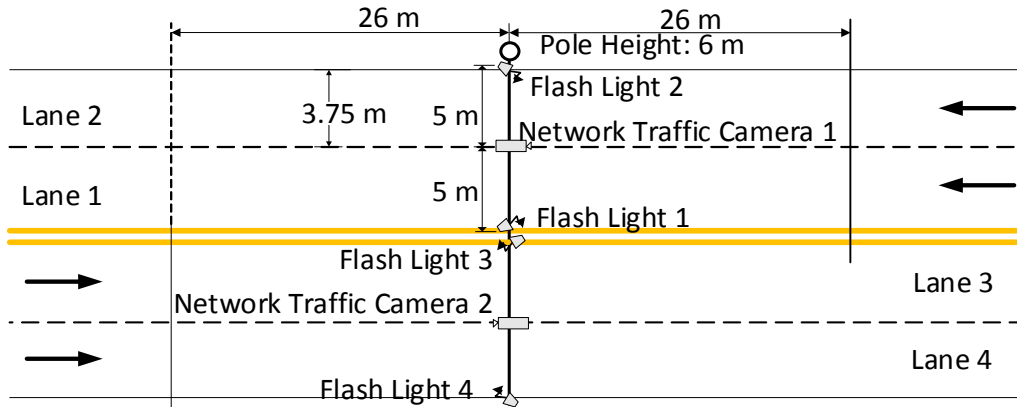


Figure 2-1 Construction Solution for 3 MP Camera

- The pole height is 6 m. We recommend that captured position should be 26 m or above horizontal distance from the camera to meet LPR requirement.
- Flash light is built in the guard shield for light supplement of multiple lanes, improving license plate capture and recognition rate.
- The camera will capture multiple pictures continuously. To guarantee the second picture quality, the picture bottom in captured position should be 18 to 20 m horizontal distance from the pole.

2.2 Construction Solution II

The following construction takes example of 9 MP camera in the scene of bidirectional 6 lanes with radar speed detection.

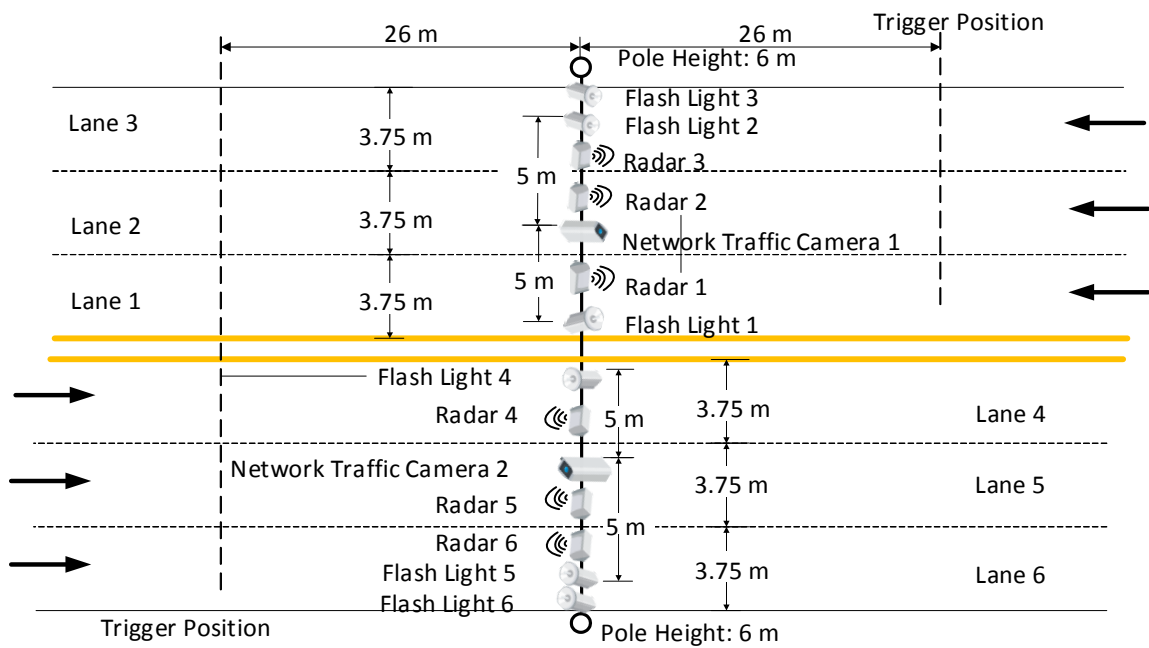


Figure 2-2 Construction Solution for 9 MP Camera

- The pole height is 6 m. We recommend that captured position should be 26 m or above horizontal distance from the camera to meet LPR requirement.
- Flash light is built in the guard shield for light supplement of multiple lanes, improving license plate capture and recognition rate.
- The camera will capture multiple pictures continuously. To guarantee the second picture quality, the picture bottom in captured position should be 18 to 20 m horizontal distance from the pole.

NOTE

Radar is used for speed detection.

Chapter 3 Installation

3.1 Install Lens

Step 1 Pull out the sensor protective cover. Install the lens, and rotate it 90 clockwise until it is fixed.

Step 2 Connect the lens cable plug to the auto iris interface.



NOTE

If the camera only supports manual iris, skip step 2.

3.2 Insert TF card

Install the TF card according to arrow direction as shown in the Figure 3-1.



NOTE

If you want to take out the TF card, press it inwards lightly to pop it up.

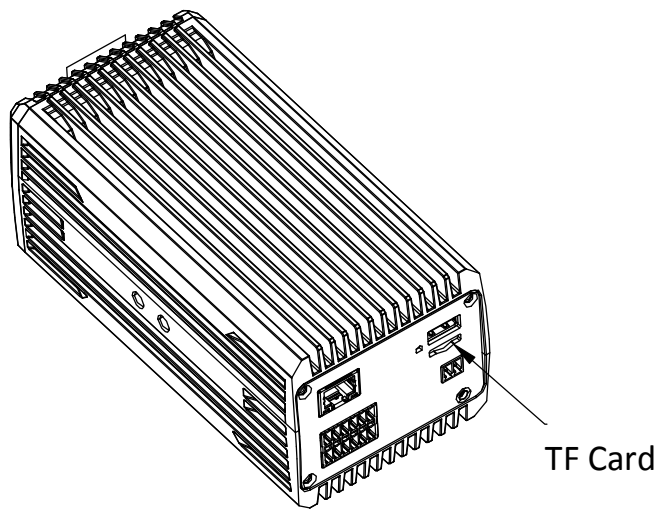


Figure 3-1 Install TF Card

3.3 Insert Guard Shield

Step 1 Pull upward the buckle, and take hook off the guard shield cover. Open the guard shield.

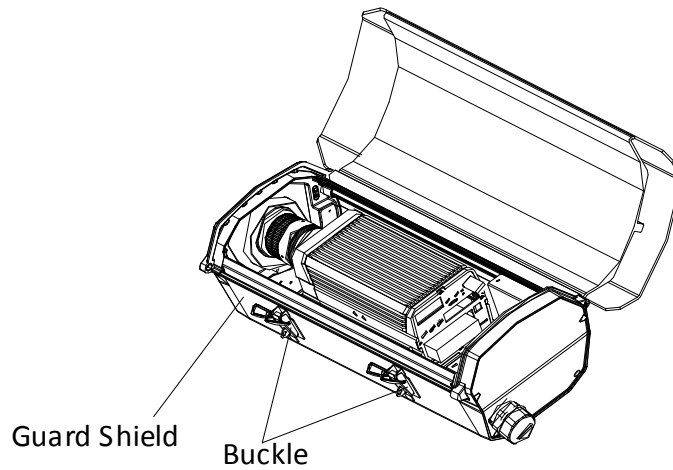


Figure 3-2 Open Guard Shield

Step 2 Take off the bottom plate from the guard shield, and fix the camera on it by included screws.

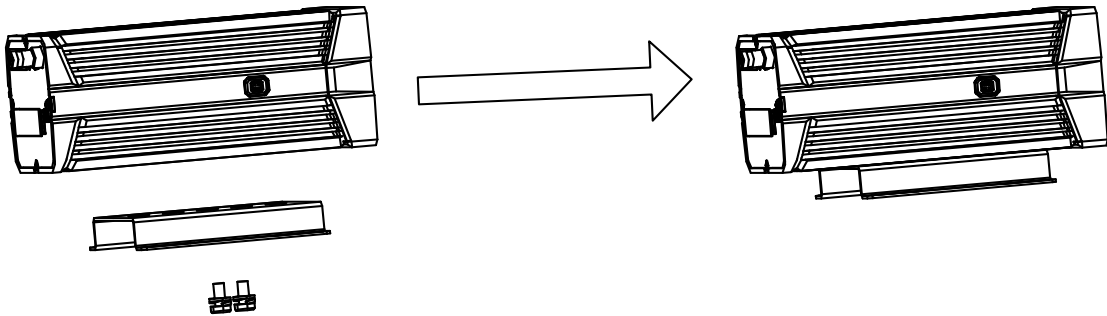


Figure 3-3 Fix Camera on Bottom Plate

Step 3 Fix the guard shield cover on the camera.

Step 4 Connect the cable with the camera, and thread the cable through the hole in bottom.

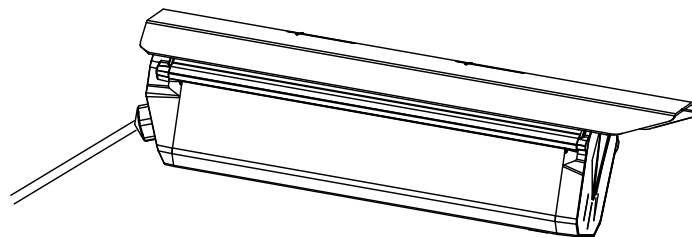


Figure 3-4 Connect Camera with Cable

3.4 Install Camera on Horizontal Pole

NOTE

Cardan joint consists of 2 parts. Upper part includes 2 screw holes, and lower part is connected with hoop.

Step 1 Install the hoop.

- 1) Loosen the hoop screws and open the hoop.
- 2) Pull the hoop ring, and shrink the hoop to the thickness of the horizontal pole.
- 3) Install the hoop bracket on the horizontal pole.

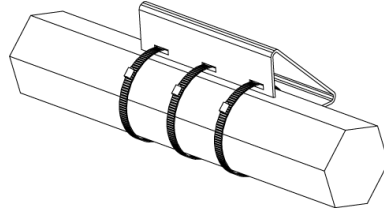


Figure 3-5 Install Hoop

Step 2 Align the screw holes at the bottom of the cardan joint with the hoop, screw in, and tighten the screws, to install the cardan joint on the hoop.

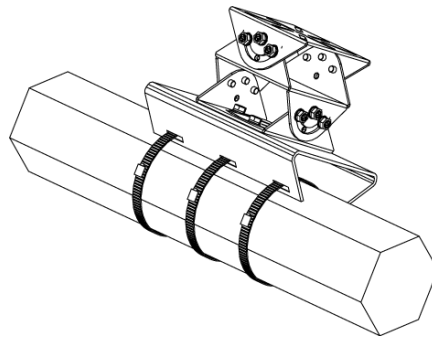


Figure 3-6 Install Cardan Joint

Step 3 Fix the whole camera with sun shield on the horizontal pole with the cardan joint.

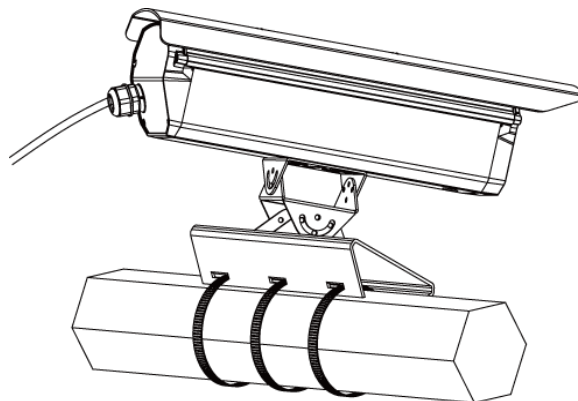


Figure 3-7 Fix Camera on Horizontal Pole

Chapter 4 Network Connection

NOTE

- You shall acknowledge that the use of the product with 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, please contact with your dealer or the nearest service center.
- To ensure the network security of the camera, we recommend you to have the camera assessed and maintained termly. You can contact us if you need such service.

Before you start:

To view and configure the camera via a LAN, you need to connect the camera in the same subnet with your computer, and install the SADP to search and change the IP address of the camera.

4.1 Wire over LAN

The following figures show the two ways of cable connection between a camera and a computer.

- Directly connect the camera to the computer with a network cable.
- Set camera over the LAN via a switch or a router.

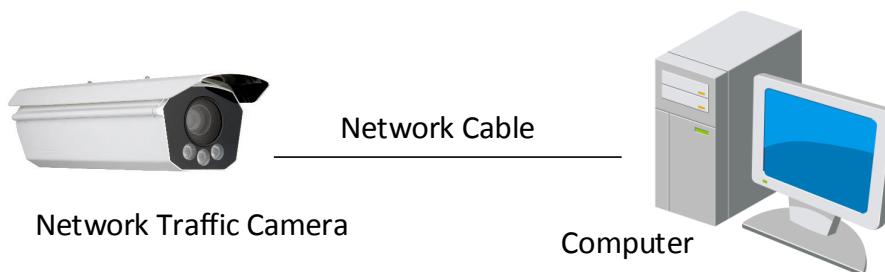


Figure 4-1 Direct Connection

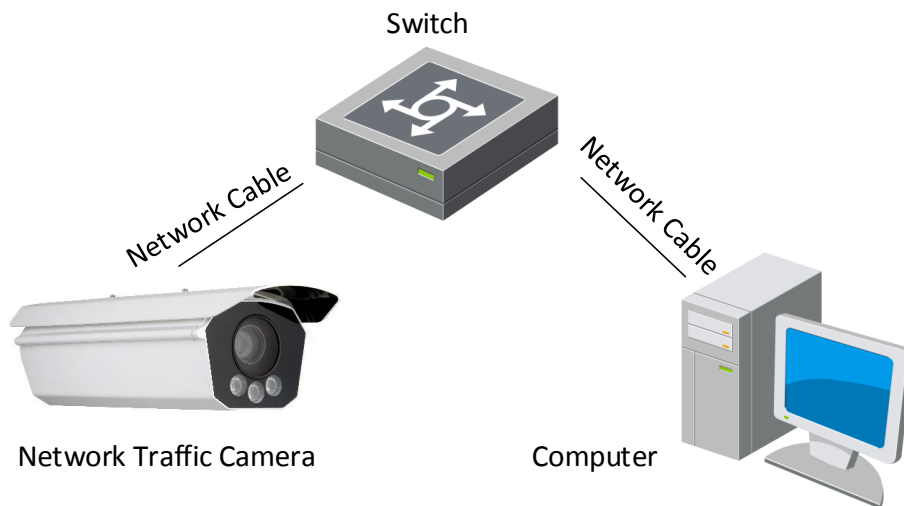


Figure 4-2 Connection via a Switch or a Router

4.2 Activate the Camera

You are required to activate the camera first by setting a strong password for it before you can use it. Multiple activation methods are supported. Here we take example of activation via web browser and SADP.

NOTE

Refer to the user manual of client software for the activation via client software.

4.2.1 Activate via SADP Software

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

NOTE

Get the SADP software from the official website, and install the SADP according to the prompts.

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.

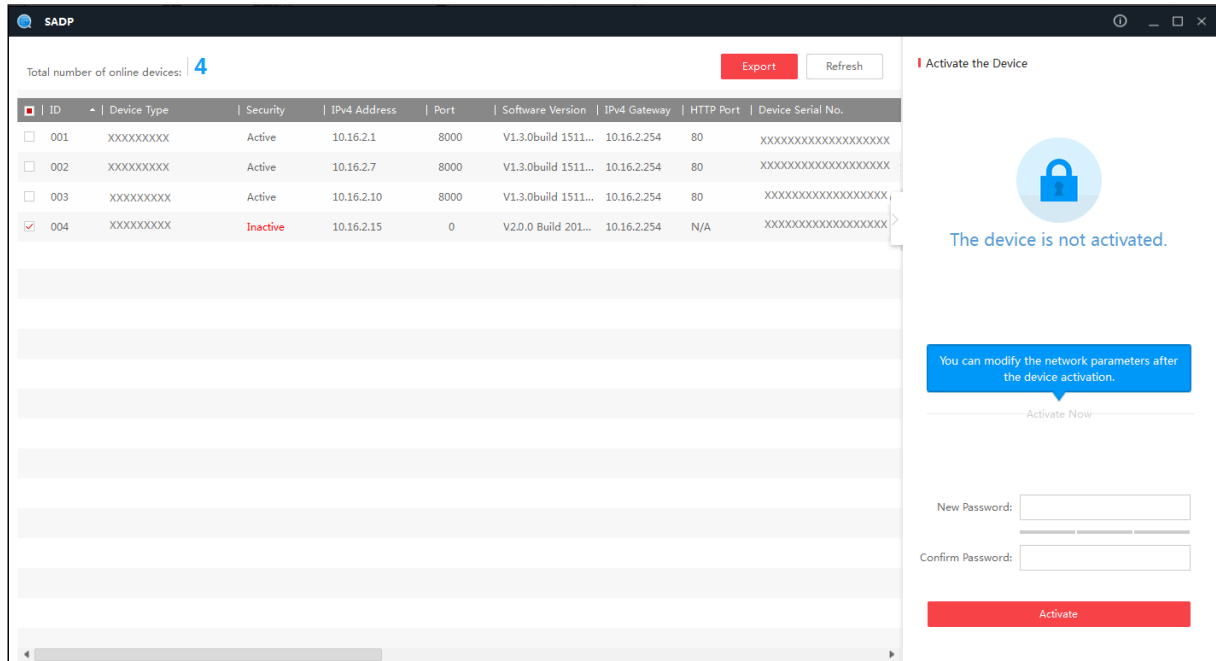


Figure 4-3 SADP Interface

Step 3 Create a password, and confirm it.

Step 4 Click **Activate** to activate 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. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.

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

Modify Network Parameters

Enable DHCP

Device Serial No.: XXXXXXXXXXXX

IP Address: 10.16.2.15

Port: 0

Subnet Mask: 255.255.255.0

Gateway: 10.16.2.254

IPv6 Address:

IPv6 Gateway:

IPv6 Prefix Length: 0

HTTP Port: 0

Security Verification

Admin Password: ●●●●●●

Modify

[Forgot Password](#)

Figure 4-4 Modify Network Parameters

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

4.2.2 Activate via Web Browser

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

Step 2 Input the IP address into the address bar of the web browser, and press Enter to enter the activation interface.

Activate

User Name admin

Password

Valid password range [8-16]. You can use a combination of numbers, lowercase, uppercase and special character for your password with at least two kinds of them contained.

Confirm Password

OK

Figure 4-5 Activation Interface (Web)

Step 3 Create a password.

**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. And we recommend 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.

4.3 Login

You can log in to the camera via web browser.

Step 1 Open the web browser.

Step 2 In the browser address bar, enter the IP address of the camera, and press the **Enter** key to enter the login interface.

Step 3 Enter **User Name** and **Password**.

Step 4 Click **Login**.

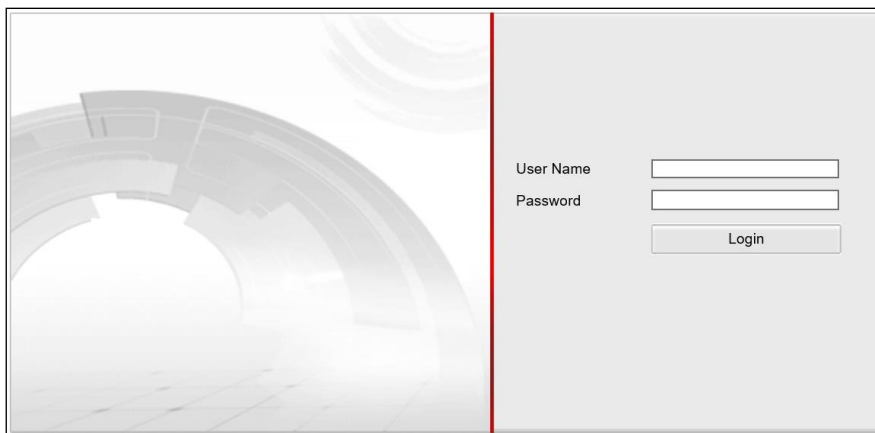


Figure 4-6 Login

Step 5 Install the plug-in before viewing the live video and operating the camera. Follow the installation prompts to install the plug-in.

**NOTE**

You may have to close the web browser to install the plug-in. Please reopen the web browser and log in again after installing the plug-in.



See Far, Go Further