

IP camera tester

User Manual

(V01.00)



- Thank you for purchasing the IP camera tester. Please read the manual before using the IP camera tester and use properly.
- For using the IP camera tester safely, please first read the 「Safety Information」 carefully in the manual.
- The manual should be kept well in case of reference.
- Keep the S/N label for after-sale service within warranty period. Product without S/N label will be charged for repair service.
- If there is any question or problem while using the IP camera tester, or damages occurred on the product, please contact our technical Department.

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1. Safety information

- ◆ The tester is intended to use in compliance with the local rules of the electrical usage and avoid to apply at the places which are inapplicable for the use of electrics such as hospital, gas station etc.
- ◆ To prevent the functional decline or failure, the product should not be sprinkled or damped.
- ◆ The exposed part of the tester should not be touched by the dust and liquid.
- ◆ During transportation and use, it is highly recommended to avoid the violent collision and vibration of the tester, lest damaging components and causing failure.
- ◆ Don't leave the tester alone while charging and recharging. If the battery is found severely hot, the tester should be powered off from the electric source at once. The tester should not be charged over 8 hours.
- ◆ Don't use the tester where the humidity is high. Once the tester is damp, power off immediately and move away other connected cables.
- ◆ The tester should not be used in the environment with the flammable gas.
- ◆ Do not disassemble the instrument since no component inside can be repaired by the user. If the disassembly is necessary indeed, please contact with the technician of our company.
- ◆ The instrument should not be used under the environment with strong electromagnetic interference.
- ◆ Don't touch the tester with wet hands or waterish things.
- ◆ Don't use the detergent to clean and the dry cloth is suggested to use. If the dirt is not easy to remove, the soft cloth with water or neutral detergent can be used. But the cloth should be tweaked sufficiently.

About Digital Multi-meter

- ◆ Before using, you must select the right input jack, function and range.
- ◆ Never exceed the protection limit values indicated in specifications for each range of measurement.
- ◆ When the tester is linked to a measurement circuit, do not touch unused terminals.
- ◆ Do not measure voltage if the voltage on the terminals exceeds 660V above earth ground.
- ◆ At the manual range, when the value scale to be measured is unknown beforehand, set the

range selector at the highest position.

- ◆ Always be careful when working with voltages above 60V DC or 40V AC, keep fingers behind the probe barriers while measuring.
- ◆ Never connect the meter with any voltage source while the function switch is in the current, resistance, capacitance, diode, continuity, otherwise it will damage the meter.
- ◆ Never perform capacitance measurements unless the capacitor to be measured has been discharged fully.
- ◆ Never measure any of resistance, capacitance, diode or continuity measurements on live circuits.

Visual laser sources

When you turn on visual laser sources, please don't stare at it, or will damage to eyes

When not using it, please turn it off and cover the protective cap.

2. IP Camera Tester Introduction

2.1 General

The 8 inch touch screen IP camera monitor is designed for maintenance and installation of IP cameras, analog cameras, 8MP TVI, 8MP CVI, 8MP AHD, 8MP EX-SDI cameras, as well as testing 4K H.264 /4K H.265 camera via mainstream, The 2048x1536 resolution enables it to display network HD cameras and analog cameras in high resolution. The unit supports many ONVIF PTZ and analog PTZ control. The combination of touch screen and key buttons make the IP camera tester very user-friendly.

The tester is also a great tool for Ethernet network testing. It can test PoE power voltage, PING, and IP address searching. You can use the blue cable tracer to locate individual connected cables from a bundle of cables. Test LAN cable for proper connection termination. Other functions include providing 25.5W PoE power to your camera, HDMI IN and OUT, CVBS loop test, testing IP and analog at the same time, LED Flashlight, DC 12V 3A, DC 24V 2A, power output and much more. Its portability, user-friendly design and many other functions make the




IP tester an essential tool for all installers or technicians.


2.2 Packing list

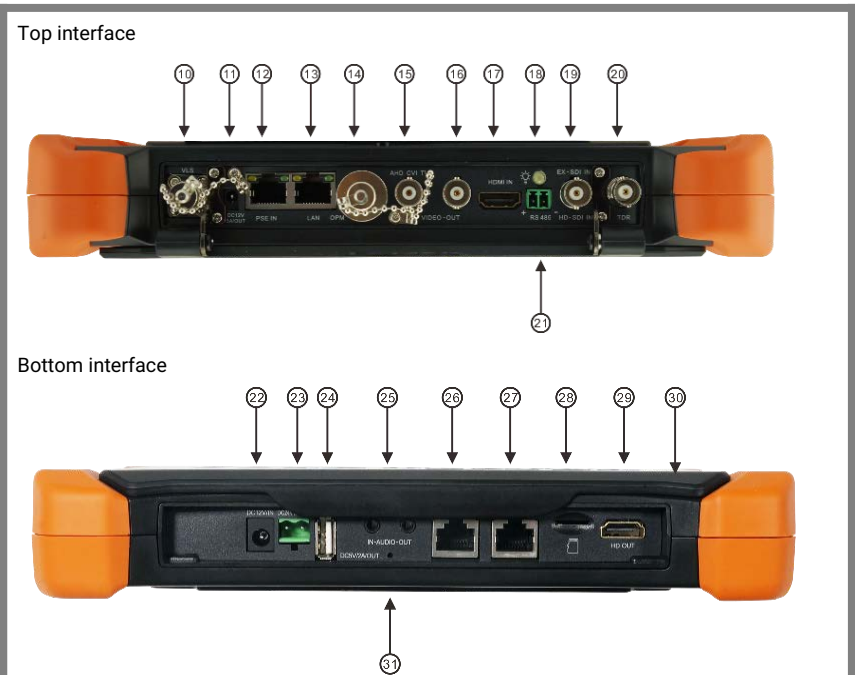
- 1). Tester
- 2). Adaptor DC12V 2A
- 3). Network cable tester
- 4). Polymer lithium ion battery (7.4V DC 7000mAh)
- 5). BNC cable
- 6). RS485 cable
- 7). SC, ST connector (Only for optical power meter)
- 8). Multi-meter test leads one pair of red and black (only for the Multi-meter models)
- 9). Output Power cable
- 10). Audio cable
- 11). TDR alligator clamp (only for TDR models)
- 12). 8GB SD card
- 13). Safety cord
- 14). Tool bag
- 15). Manual

2.3 Function interface



1		Press more than 2 seconds, turn on or off the device, short press to turn on or off the menu display
2		Menu key, press it to call short- menu.
3		Confirm key

4		Return/Close : Return or cancel while setting parameters of the menu, close or decrease the aperture
5		Multimeter interface (Optional)
6		The charge indicator: it lights red while the battery is being charged. As the charging is complete, the indicator turns off automatically
7		The RS485 data transmission indicator: it lights red while the data is being transmitted
8		The data received indicator: it lights red while the data is being received
9		The power indicator: it lights green while the tester is powered on by the adapter



10	Visible red laser source emits Interface (Optional)
11	DC12V3A power output, for provisional DC power supply
12	PSE power sourcing equipment. Tests PoE voltage / LAN port
13	PoE power supply output or LAN test port (Use to test PoE or non-PoE IP camera)
14	Optical power meter interface (Optional)ideo signal output (BNC interface) / cable tracer interface
15	CVBS input /AHD /TVI/CVI Coaxial interface (AHD /TVI/CVI Optional)
16	Video signal output (BNC interface) / cable tracer interface
17	HDMI IN
18	LED lamp
19	EX/HD-SDI input (BNC interface) (Optional)
20	TDR cable test interface (Optional)
21	RS485 Interface: RS485communication for the PTZ
22	DC 12V 2A charging interface
23	DC 24V 2A power output
24	USB 5V 2A power output
25	Audio input/Audio output and earphone interface.
26	UTP cable port: UTP cable tester port/ Cable tracer port
27	RJ45 TDR2.0 port
28	Micro SD card moveable,(comes with 8GB, supports up to 32GB)
29	HDMI output interface
30	Anti-sunlight board
31	Microphone


3. Operation

3.1 Installing the Battery

The tester has built-in lithium ion polymer rechargeable battery. The battery cable inside battery cabin should be disconnected for safety during transportation!

Prior to the use of the instrument, the battery cables inside the battery cabin should be well connected.

Usually it doesn't need to disconnect the cable at the normal use

Pressing the key  continuously can power on or off the tester.




Notice: Please use the original adaptor and connected cable of the device!




When the battery icon is full or the charge indicator turns off automatically, indicate the battery charging is completed.



Notice: When the Charge Indicator  turns off, the battery is approximately 90%

charged. The charging time can be extended for about 1 hour and the charging time within 12 hours will not damage the battery.



Notice: Press the key  several seconds to restore the default settings when the instrument works abnormally.

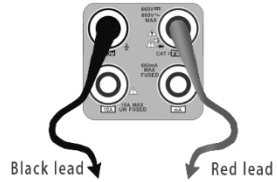
Multi-meter: the red and black multi-meter pen must insert the corresponding port.



Warnings: Instrument communication port is not permitted access circuit voltage over 6V, otherwise damage the tester.



Warnings: Not allow insert multi-meter pen in the current terminal to measure voltage.



3.2 Instrument connection

3.2.1 IP camera connection

Power an IP camera with an independent power supply, then connect the IP camera to the IPC tester's LAN port, if the link indicator of the tester's LAN port is green and the data indicator flickers, it means the IP camera and the IPC tester are communicating. If the two indicators don't flicker, check if the IP camera is powered on or the network cable is not functioning properly.



Note: 1) If the IP camera requires PoE power, then connect the IP camera to the IP tester's LAN port . The tester will supply PoE Power for the IP camera. Click the icon POE to turn the PoE Power off or on.

2) If use the tester's menu to turn off the tester's PoE power supply, the PoE switch and the power sourcing equipment are allowed to connect to the tester's PSE port, and the PoE power will be supplied to the IP camera by the tester's LAN port. On this condition, the tester cannot receive data from IP camera, but the computer connected to the PoE switch can receive the data via the the tester.

Warning: PoE switch or PSE power sourcing equipment only can be connected to tester "PSE IN" port, otherwise will damage the tester.

3.2.2 Analog camera connection



- 1) Connect the camera's video output to the IP tester's VIDEO IN. The image will display on the tester after pushing the PTZ icon.
- 2) CCTV IP Tester "VIDEO OUT" interface connect to the Video input of monitor and optical video transmitter and receiver, the image display on the tester and monitor.

3) Connect the camera or the speed dome RS485 controller cable to the tester RS485 interface. (Note: positive and negative connection of the cable)

3.2.3 HD Coaxial camera connection

* SDI, CVI, TVI, AHD camera are classified as HD coaxial cameras. Hereby the following instruction of how to connect SDI camera to the tester is also applied to CVI, TVI, and AHD camera.



- 1) Connect the SDI camera's video output to the IP tester's "SDI IN" interface, the image will display on the tester. The tester only come with SDI input interface. There is no SDI output interface.
- 2) Connect the SDI camera or the speed dome RS485 controller cable to the tester RS485 interface.

3.2.4 HDMI IN




DVR or other device's HDMI out port connect to tester's HDMI in port, the meter will display input image.


3.2.5 HDMI output


The built in HDMI output port can output live video from an analog or IP camera, recorded files, media files and images to HDTV monitors. Connect an HDMI cable from the IP tester to an HDTV monitor at any time. It supports up to 3840x2160P 30FPS resolution.

3.3 OSD menu

Press the key  2 seconds to turn on

Press the key  again to turn off

short press the key  to enter sleep mode, press it again to test.

If tester works abnormally and cannot be turned off, Press th  several seconds to turn off, the tester reset.

3.3.1 Drop-down Menu

Press and slide at right top right corner twice to open shortcut menu. The shortcut menu includes POE power output, IP settings, Wi-Fi, HDMI IN, CVBS, Video OUT, LAN, Brightness, settings etc.



HDMI: Click HDMI IN to enter, In HDMI IN mode, it can converter test from analog to digital with dual test window IP & HDMI in or Analog & HDMI in.

CVBS: Click icon "CVBS"to enter, you can test IP and analog camera at the same time.

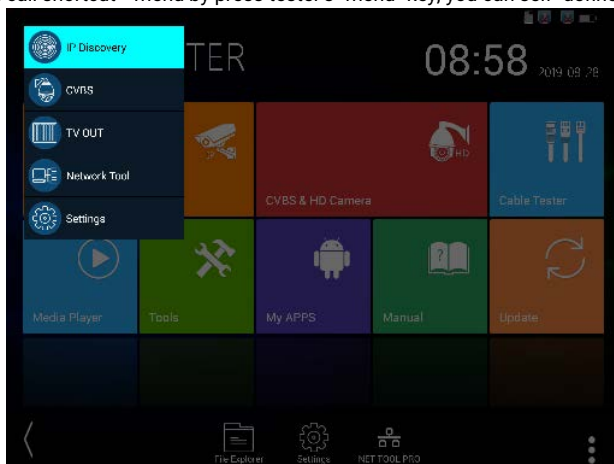
TV OUT: Click TV OUT to enter floating window, connecting the BNC cable to tester and appears analog video monitor interface, it can test circuit and BNC cable whether normal.


LAN: Display network port or WIFI connection real-time upload and download speeds and other network parameters. **Settings:** Enter settings interface.

IP: Enter IP Settings interface. **POE power output:** Turn on or off the tester "PoE power" app.

3.3.2 Short cut-menu

You can call shortcut –menu by press tester's "menu" key, you can self- define shortcut -menu.



Press the key **MENU** , you can turn on it, and switch functions, then  to enter app, tap other area on the screen, to exit the menu.



You can long press any app in the all applications list, it will auto move to shortcut menu . If delete any app in the shortcut menu, please select a app and press several seconds, it will be deleted.

3.3.3 Screen capture

Long press the key "enter", can capture screen interface and save it in any time.

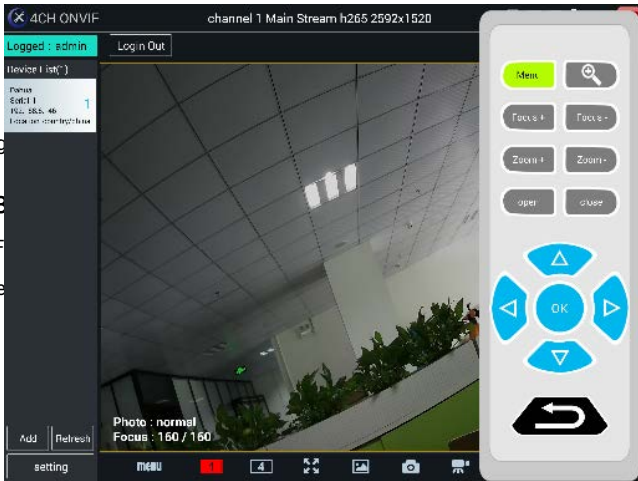


You can c

3.3.4 B

As ONVIF

to call the



right to left,

3.3.5 Link monitor

Tap icon "Link Monitoring" at left corner on the screen, to enter.

It can detect instrument port rate 10/100/1000M, signal quality detection, upload and download speed, etc. in real time. It can be used to detect whether the network video access bandwidth of devices such as NVR is normal.

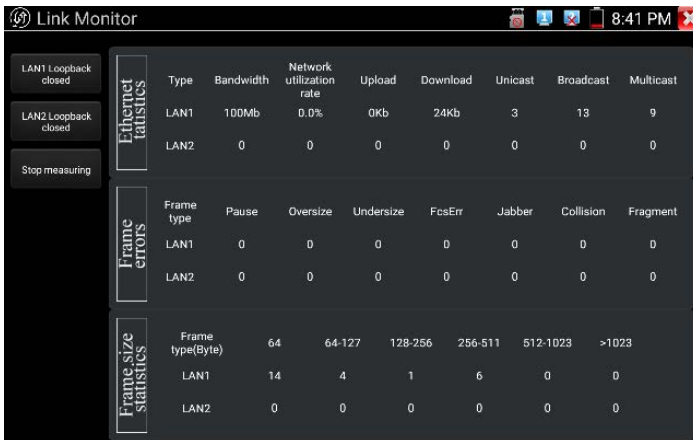


When using a four-core cable to connect to a Gigabit device, would prompt "the link limited".



Advanced link monitor

It is for monitoring CVBS loop, Ethernet statistics, error frame statistics, frame length etc

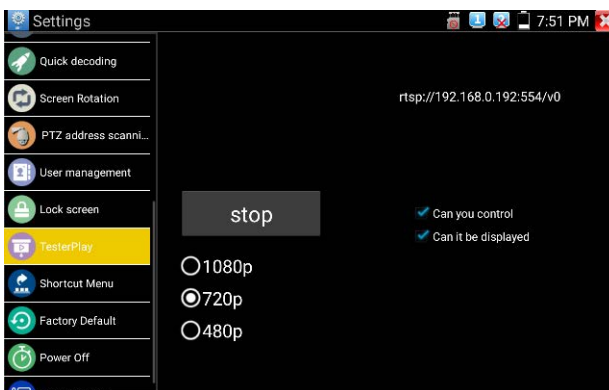


3.3.6 TesterPlay

Mobile screen projection (Only for android version)

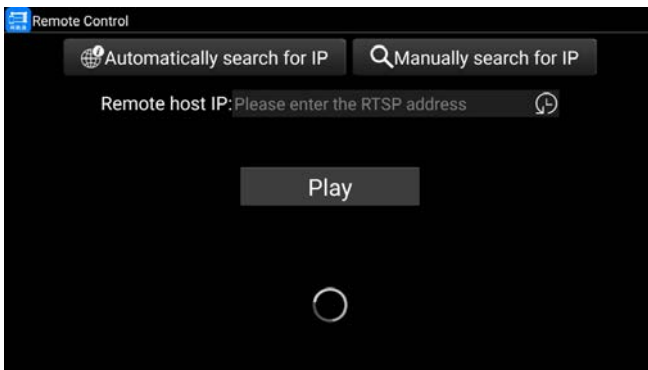
The meter creates WIFI hotspot, connect mobile phone to the tester's WIFI hotspot, or the tester and

mobile phone connect the same Wi-fi network. Download and install Remote control app to mobile phone, Tap "Settings", select "TesterPlay" app, Click "Start" will create the RTSP URL.



Mobile phone enter "Remote control" app, please click "Auto search IP" to search remote host IP, then click "Play" to display the real-time image and control IPC Tester.

If can't find the IP address, can click "Manually search IP", and input tester's rtsp url to remote host IP, such as 192.168.0.186, then click "Play". Please contract supplier for Remote control APP.




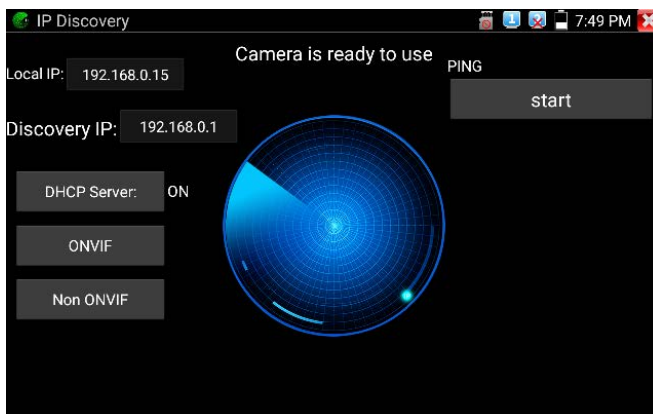
PC screen projection:

Install VLC player in the PC, turn on the VLC player "Media - Open Network Streaming", and

input the RTSP address of on the top instrument two-dimensional code, click "play" to view the screen real-time projection.

3.3.7 IP discovery

Press IP discover  , tester auto-scan the whole network segment IP, as well as auto-modify the tester's IP to the same network segment with the scanned camera's IP.



Local IP: Tester's IP address, Tester can auto-modify the tester's IP to the same network segment with the scanned camera's IP

Discovery IP: Connected tester equipment's IP address. If the camera connected to the tester directly, tester will display the camera's IP address, if tester connects to Local Area Network, it displays the current IP address.

Temp IIP: After searching IP address, the modified tester's IP address will not be saved, if you do not select "Temp IP" the modified tester's IP address will auto-save after searching.

Start: PING function, Click "Start", can PING camera's IP

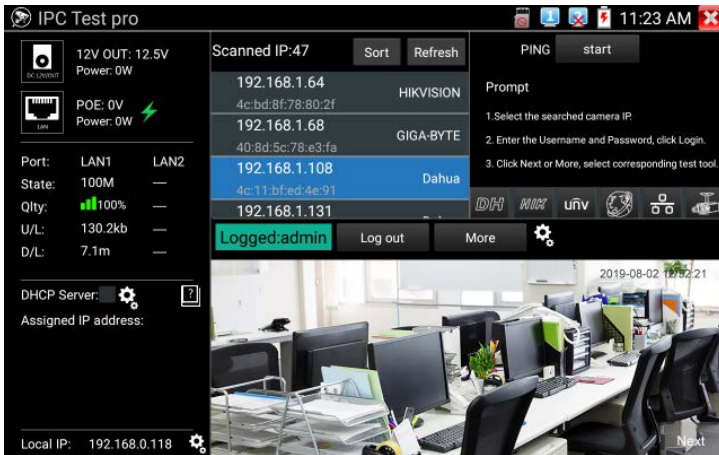
Rapid ONVIF: Rapid ONVIF Quick link

NON ONVIF: NON ONVIF Quick link

Applicability: Using IP discovery app, you don't need to know the first two digits of camera's IP address, it can auto-scan the whole network segment IP, and auto-modify tester's IP address, greatly improved engineering efficiency .

3.3.8 IPC Test pro

Camera test often need to open multiple apps, "IPC TEST PRO" app, using new technology and combine multiple functions to one APP, it can increase efficiency.



Application:

Support multi-segment IP address scan, can visual display camera manufacturer, click IP address to play the image.

Connect IP camera, can supply the power to PoE camera.

Real-time display network port connection status.

By one key to connect camera test tool, browser can login and configure camera.

Batch activate Hikvision and Dahua cameras.

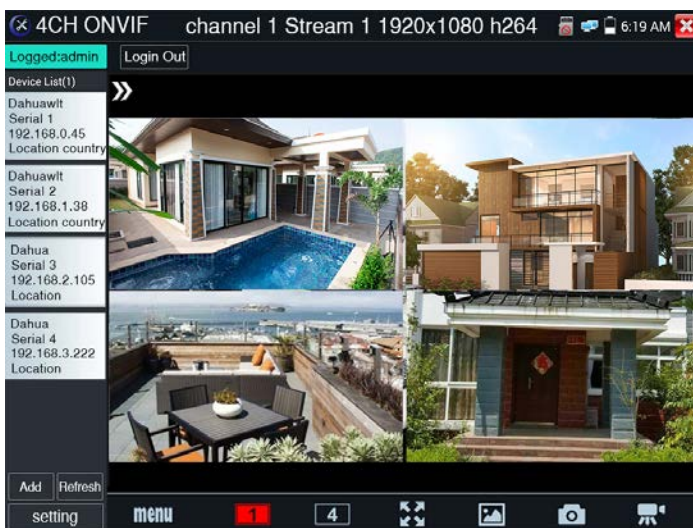
3.3.9 4 channel ONVIF test

4ch ONVIF can display 4K H.265/H.264 camera image by tester mainstream, one key to



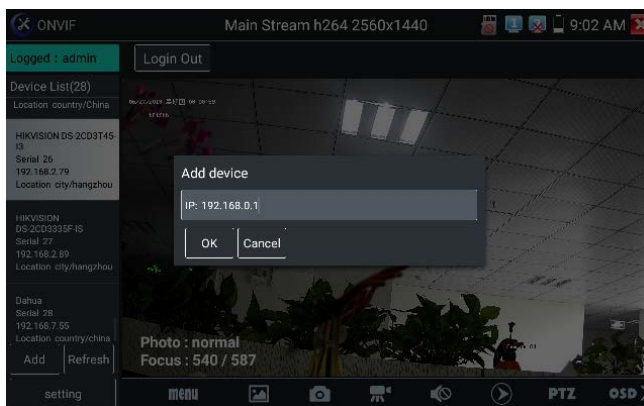
activate Hikvision camera..4ch ONVIF support 4 channels H.264/1080P.

Press **enter** enter Rapid ONVIF function, the meter auto scan all ONVIF cameras in different network



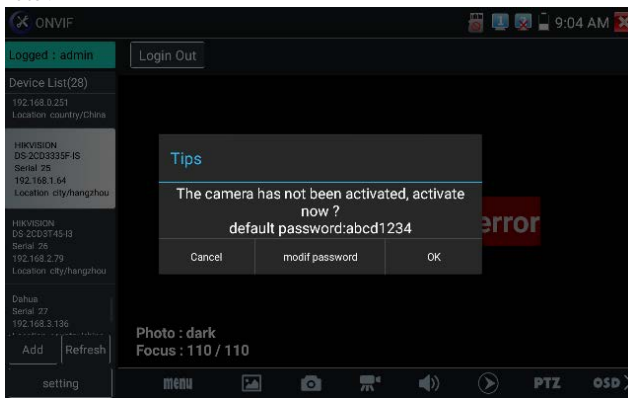
segments. It lists cameras name and IP address on the Left of screen. Tester can auto login camera and display camera image. Factory default use admin password to auto login, if you modified the password, then default use the modified password to log in.

If you select ONVIF Rapid mode, the meter automatically scan different network segments for ONVIF cameras. It lists the camera name and IP address on the Device List. Tester can auto login camera and display camera image.

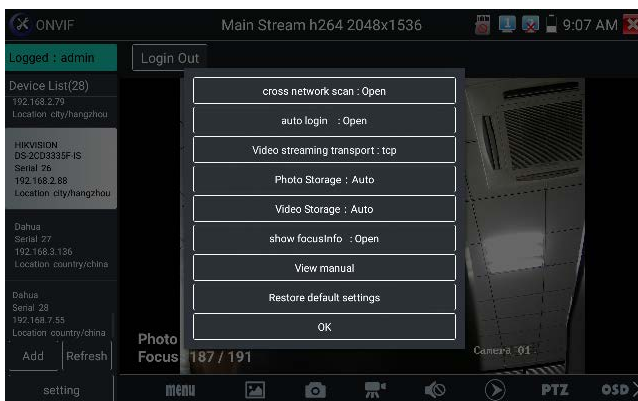


Click the button "Refresh", tester will scan the ONVIF camera again. Click the newly displayed ONVIF camera on the "Device List". The tester will show the IP camera's relative information and settings.

Activate HIKVISION Camera: When connected inactivated HIKVISION Camera, tester can auto recognized, and prompt "The camera have not been activated, activated now?", click "OK" to start activate .



Pop-up settings menu when click the "ONVIF setting" icon in the upper left corner.



Cross network scan: After open this function, enter "Setting - IP Settings - Advanced" to add other network segments IP, Rapid ONVIF function can across network segments to scan camera's IP.

Auto Login: After open this function, tester can auto login camera and display camera image. (The login password is the same with last time, the first time using password is the default password "admin")

Video transmission protocol: UTP and TCP protocol.

Open password cracker: Cracks password of cameras.

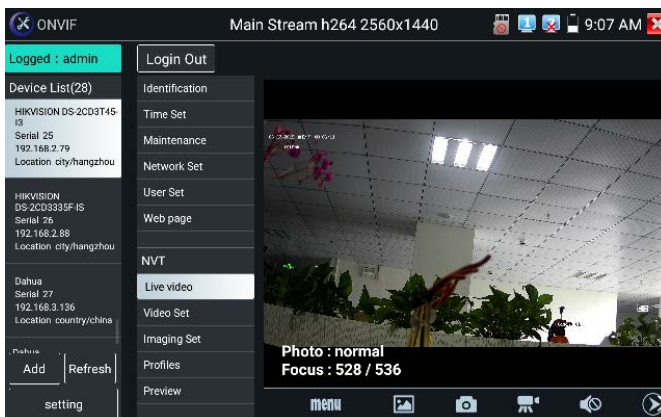
View manual: Open Manual.

Restore Defaults settings: Revert "Rapid ONVIF" to default settings.

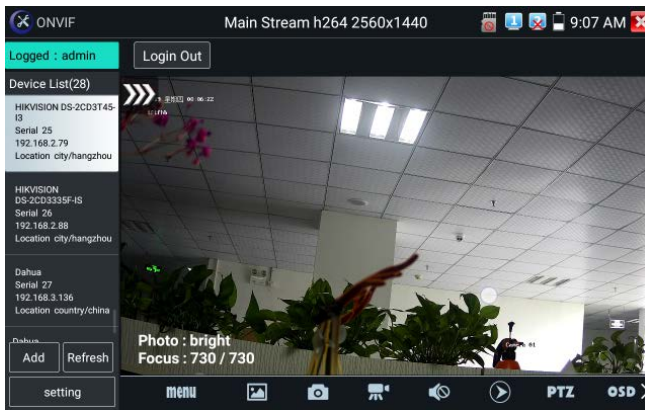
OK: Save the modified parameters.

Click "MENU" icon to open camera setting.

While in the "Live video" menu, click "Video Menu" at the top right of the image to access the following tools: Snapshot, Record, Photo, Playback, PTZ and Settings.



ONVIF PTZ control: Tap the image in the direction you want the PTZ camera to move. Tap the left side of the image to move left, right to go right, up to go up and down to go down. Compatible IP PTZ cameras will rotate accordingly. PTZ rotation direction is displayed on top left corner of the image.



IP camera video settings: Click "Video Set" to enter the IP camera's encoder and resolution settings. Make the desired changes and click "OK" to save.

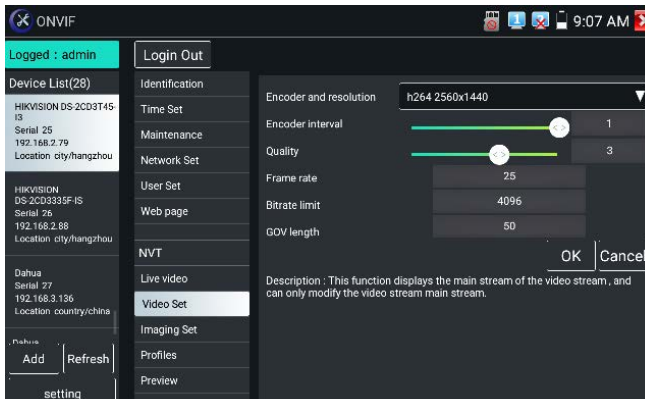
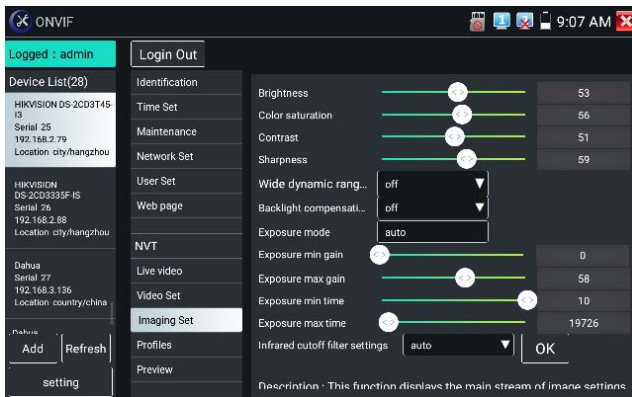


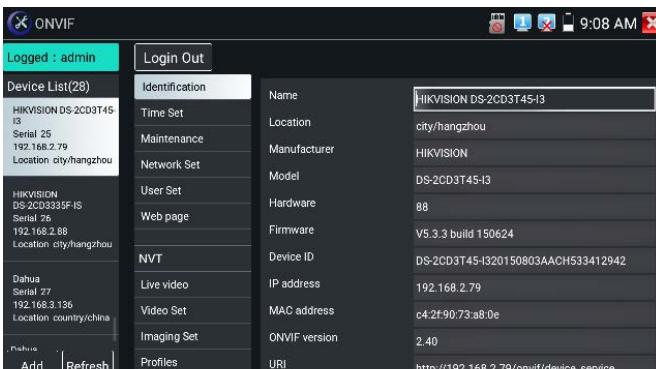
Image setting: Click "Imaging Set" to adjust image brightness, saturation, contrast, sharpness and backlight compensation mode.



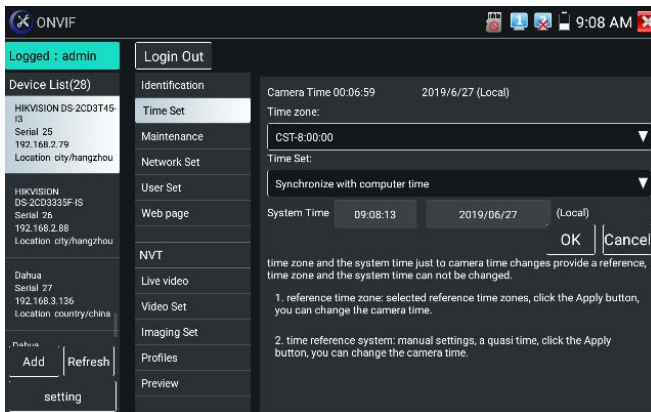
Profiles: Click "profiles", can view video streaming current configuration files, as well as switch between Major stream and minor stream.

Preview pictures: Quickly preview and zoom in or out pictures, automatically and manual refresh.

Identification: Click "Identification" to view information of the camera.



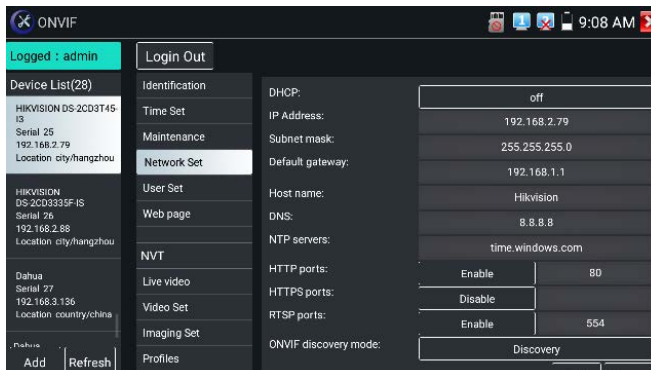
Time set: Click "Time set", Select "Manual set" to set up the time of camera.




Maintenance: For camera software reset or restore to factory settings.



User Set: Modify camera user name, password etc parameters.

Network setting: Click "Network Set" to change the IP address. Some cameras cannot support change IP address, so there is no change after saving.



Zoom in image: Press the  key to enter the zoom mode. Press it again to exit zoom mode. When the image is enlarged tap left, right, up or down on the image to move the whole image on the screen



When the image is enlarged, if not operate on touch screen, it can operate by the keyboard, press the  key to zoom in, press the  key to zoom out, press upward and downward key to move image.

If it is network video input to the tester, as the tester supports resolution up to 1080p, the input image will be very clear after it is enlarged. This is greatly helpful for the installers to ensure the IP camera's video coverage and decide the IP camera's install site.

Image can only be enlarged on SD mode (The icon "ONVIF" is SD mode.)

Select relative function on the bottom Toolbar to operate, "Snapshot", "Record", "Photos", "Video playback", "Storage set", "PTZ control" etc.

Snapshot: Click bottom "snapshot" to screenshot the image and store it to SD card.

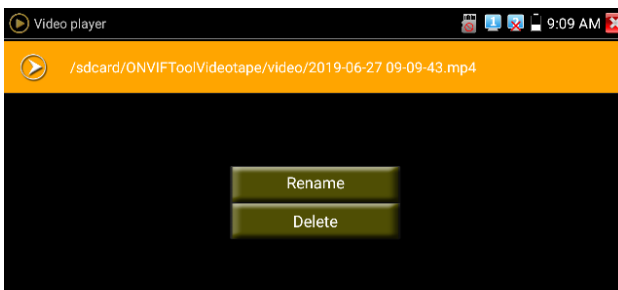
If select manual storage, appears dialog box "Input Name", user-defined the files name(by Chinese character, English letter or digit) to save in SD card, if select "Auto- storage", the tester auto stores the files after snapshot.

Record: When you click bottom the "Record" icon, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the "Stop" icon to stop recording and save the video file to the SD card.

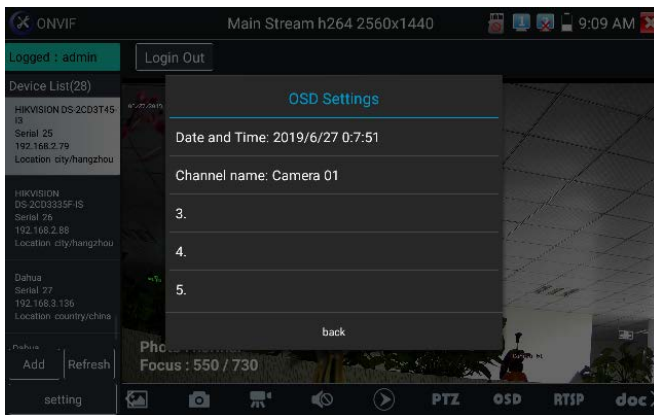


Playback: Click the "Playback" icon to view saved videos. Double click the video you want to play. Click to return to the last menu.

To rename or delete a photo, click and hold on the file until this screen appears:



OSD Menu: Select OSD and pop up the OSD menu. include time, channel name and other optional items.



After channel selecting, you can edit the channel name, modify the display position, and switch the font size. Select "default location" in "content location" is without modification. Select "Customization" to arbitrarily adjust the channel name and display location. Click "OK" and the effects will appear. Press return key or click any area of the screen to return to the upper layer of the interface.

