PSI Displays Ltd

www.psiddisplays.co.uk

Model No: IP403

4.0” LCD Test Monitor - User Manual

IP – AHD – TVI – CVI – CVBS

（V01.10）

- 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.

2. IP Camera Tester Introduction

2.1 General

The 4 inch IPS touch screen IP camera monitor is designed for maintenance and installation of IP cameras, analogue cameras, TVI, CVI AHD cameras, as well as testing 4K H.264 /4K H.265 camera by mainstream, The 800x480 resolution enables it to display network HD cameras and analogue cameras in high resolution. The unit supports many ONVIF PTZ and analogue 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. Other functions include providing 24W PoE power to your camera, PING and IP address searching LED Flashlight, DC 12V 3A 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 1A

4) Polymer lithium ion battery (7.4V DC 2400mAh)

5). BNC cable

6). RS485 cable

7). Output Power cable

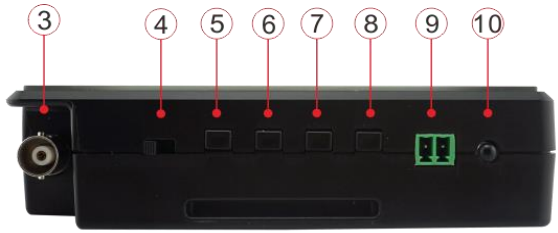
8). Audio cable

9). Tool bag

2.3 Function interface

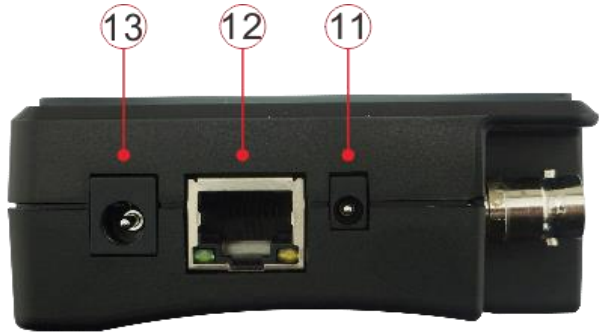
1		The charge indicator: it lights red while the battery is being charged. As the charging is complete, the indicator turns off automatically
2		The RS485 data transmission indicator: it lights red while the data is being transmitted

Top interface



Left interface

Right interface



Bottom interface

3	Video image signal input（BNC interface）/ AHD,CVI and TVI input (BNC interface) **(Optional)**
4	Power battery switch
5	Return/Close: Return or cancel while setting parameters of the menu, close or decrease the aperture
6	Confirm key (Long press it to capture screen interface)
7	Function switching key
8	Press more than 2 seconds, turn on or off the device, short press to turn on or off the menu display

9	RS485 Interface: RS485communication for the PTZ
10	LED lamp
11	DC12V3A power output, for provisional DC power supply
12	PoE power supply output or LAN test port (Use to test PoE or non-PoE IP camera)
13	DC12V 1A charging interface
14	Audio input
15	Micro SD card moveable, supports up to 32GB

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.

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.

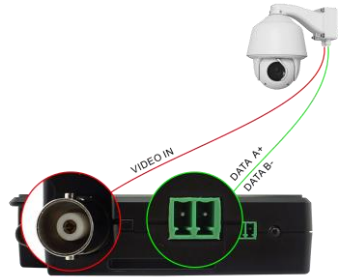
3.2 Instrument connection

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: 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 on the icon labeled POE to turn the PoE Power off or on.

3.2.2 Analog camera connection

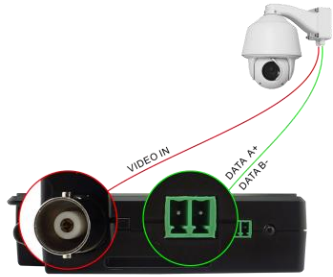


(1) Connect the camera's video output to the IP tester's VIDEO IN. The image will display on the tester after pushing the PTZ icon

(2) 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

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



(1) Connect the CVI camera's video output to the IP tester's "Video IN" interface, the image will display on the tester. The tester only come with CVI input interface. There is no CVI output interface.

(2) Connect the CVI camera or the speed dome RS485 controller cable to the tester RS485 interface.

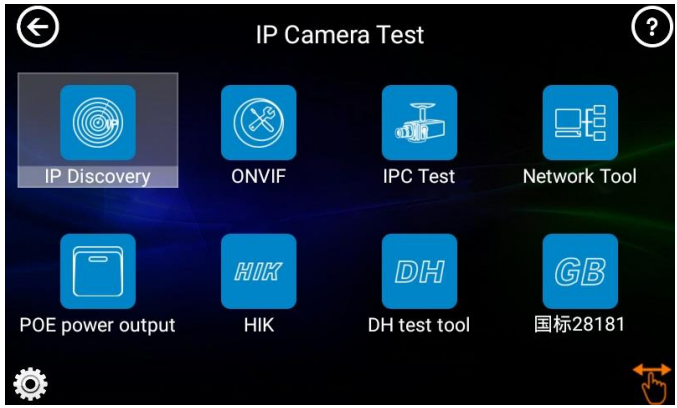
3.3 OSD menu

- Press the key ⏻ 2 seconds to turn on
- Press the key ⏻ 2 seconds to turn off
- Short press the key ⏻ to enter sleep mode, press it again to test if tester work abnormally and cannot be turned off , Press the key ⏻ several seconds to turn off, the tester reset

3.3.1 Lite mode & Normal mode

- Lite mode: You can easy find corresponding apps

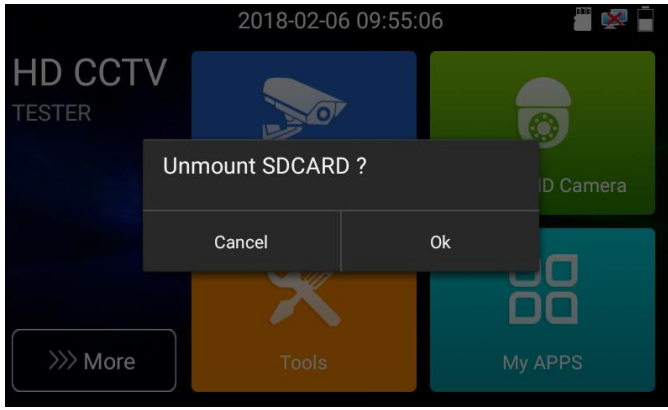
- In Lite mode, click the finger icon in the lower right corner till to yellow, long press the icon to move the function icon to other items. Do not click the finger icon and long press the application icon, can move the icon in folder.



Normal mode

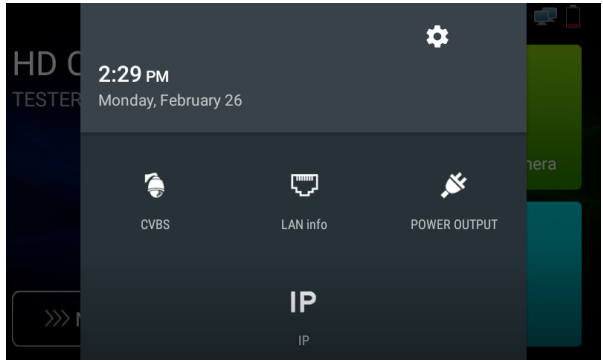
- Tap the screen and slide left or right to change menu.

Click SD card, install or remove SD card.



3.3.2 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, HDMI IN, CVBS, TV OUT, LAN, settings etc.



CVBS: Click icon “CVBS” to open CVBS application.

LAN: Display network port 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.

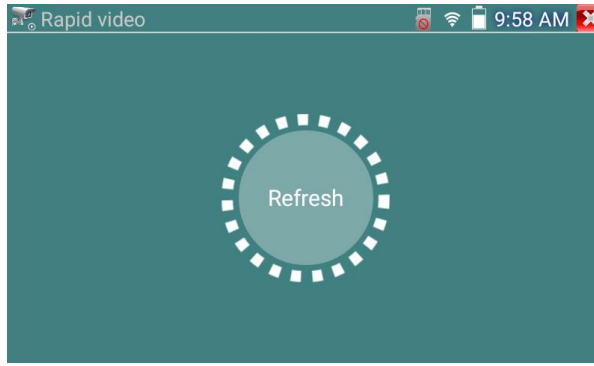
3.3.3 Screen capture

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

You can go file management to view “file management –sdcard- Pictures—Screenshots”.

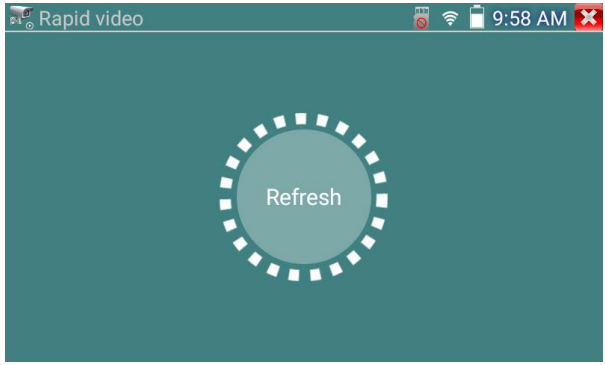
3.3.4 Rapid video

Press enter function, One key to detect all network cameras and auto play the images.



Auto log in and display camera image. Detailed operation refer to ONVIF function

After exit ONVIF app, Click Refresh to search ip address.



3.3.5IP discovery

Press IP discovery , 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 IP： 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

IPC TEST: IPC TEST 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.

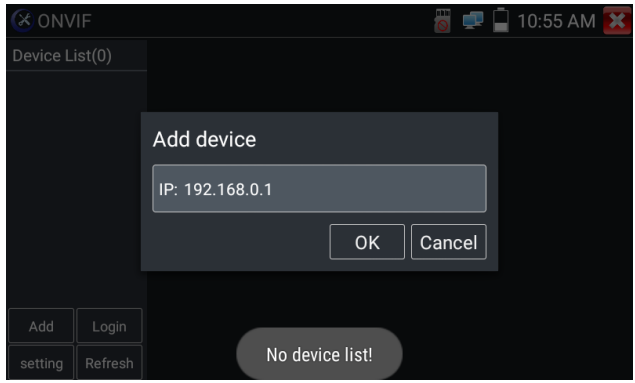
3.3.6 Rapid ONVIF test

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

Press enter 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

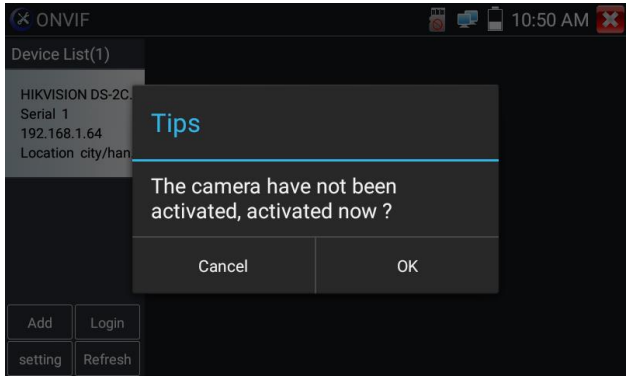
display camera image. Factory default use admin password to auto login, if you modified the password, then default use the modified password to login

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.

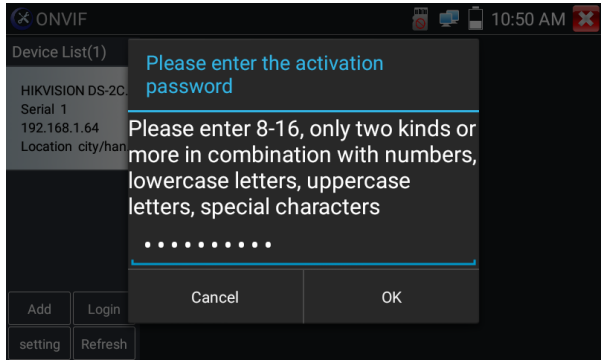


Click the button “Refresh”, tester will scan the ONVIF camera again. Click the newly displayed ONVIF camera on the “Device List”. The tester will show the IP camera’s relative information and settings.

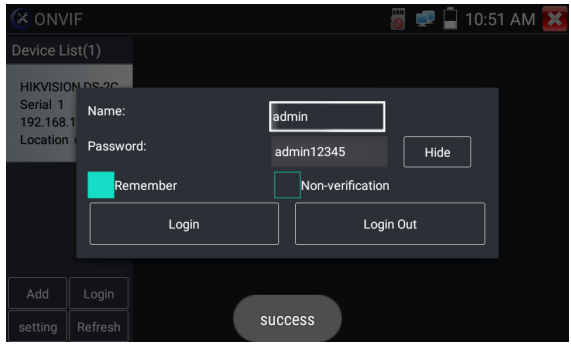
Activate HIKVISION Camera: When connected unactivated HIKVISION Camera, tester can auto recognized ,And prompt "The camera is not active, you need to activate it", click "OK" to start activate .



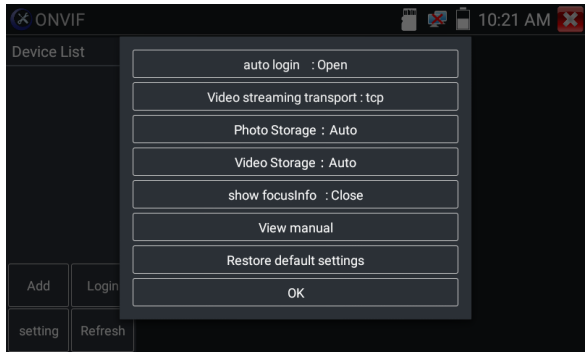
Enter a new password for the camera



When comes out “activate success” prompt, click login to display camera image.



Pop-up settings menu when click the “ONVIF setting ” icon in the upper left corner



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

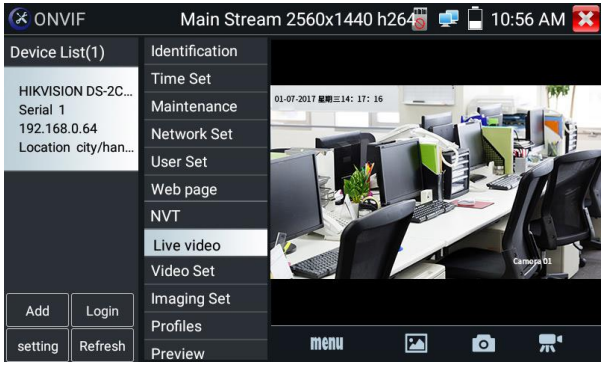
Show focusInfo: Focus Information.

View manual: Open Manual

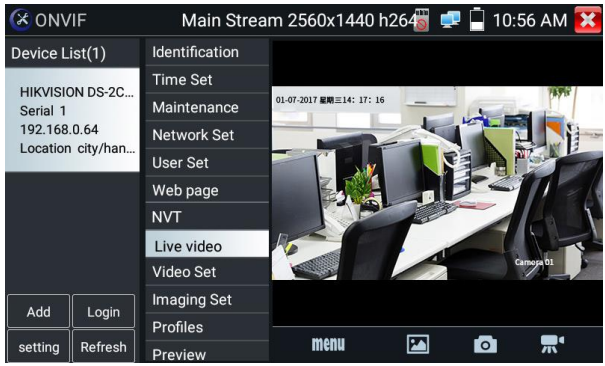
Restore Defaults: Revert “Rapid ONVIF” to default settings

Confirm: Save the modified parameters

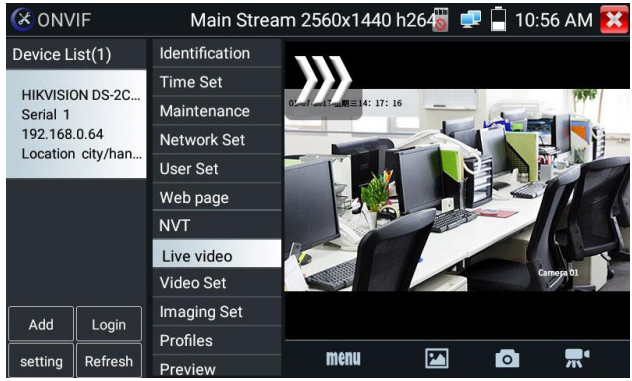
Click “MENU” icon to open camera setting .



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.

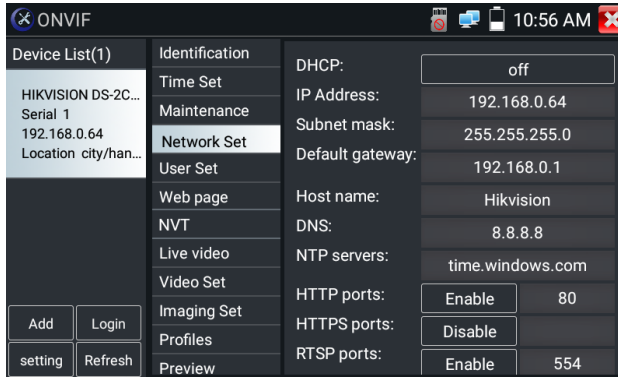
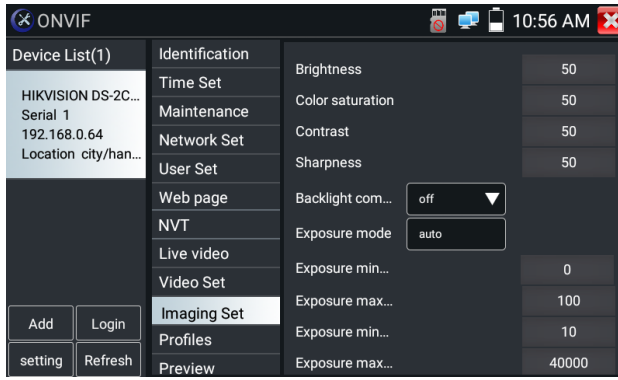
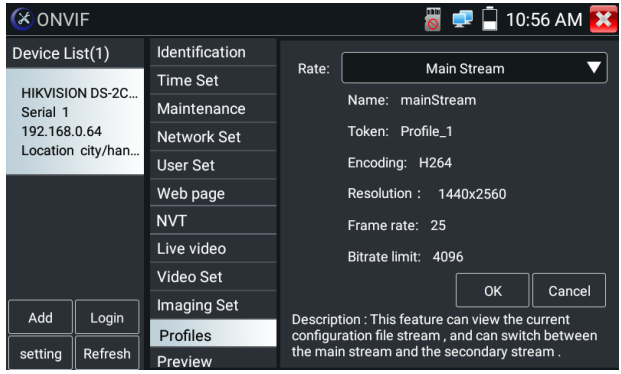


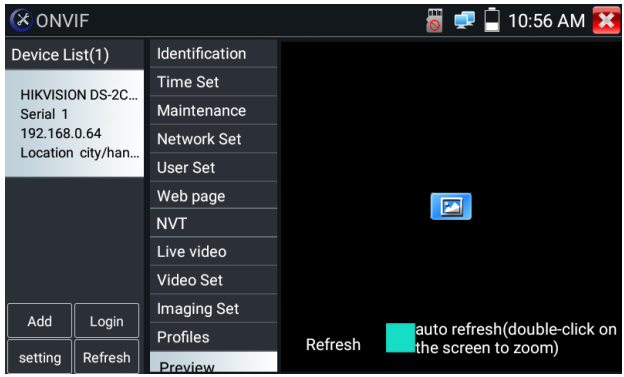
Image setting: Click “Imaging Set” to adjust image brightness, saturation, contrast, sharpness and backlight compensation mode.



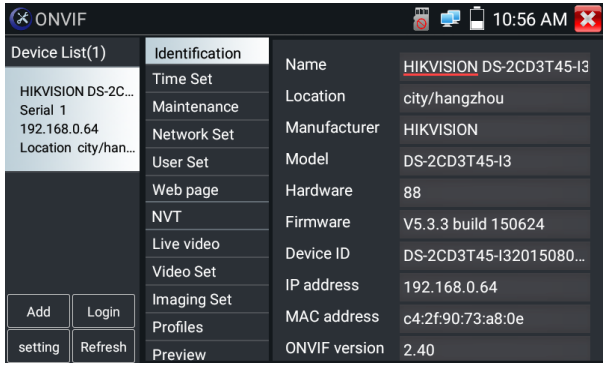
Profiles: Click “profiles", can view video streaming current configuration files, as well as switch between Major stream and minor stream.



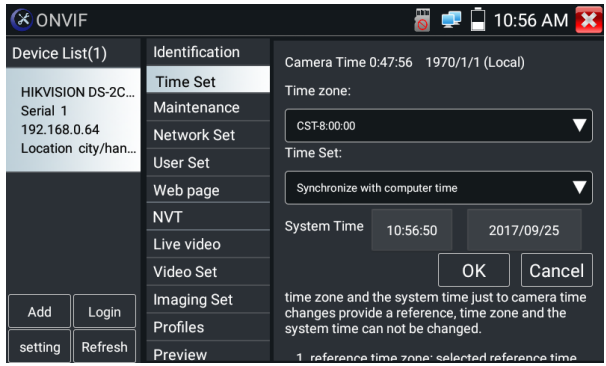
Preview pictures: Quickly preview and zoom in or out pictures, automatically and manual refresh



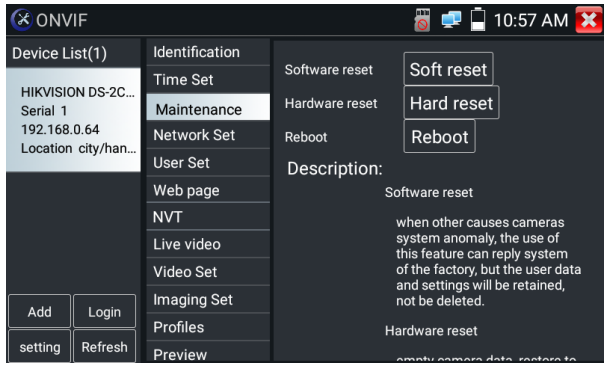
Identification: click “Identification” to view information of the camera



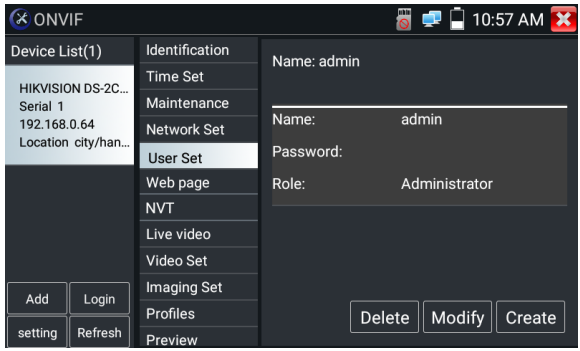
Time set: click “Time set”, Select " Manual set" to set up the time of camera



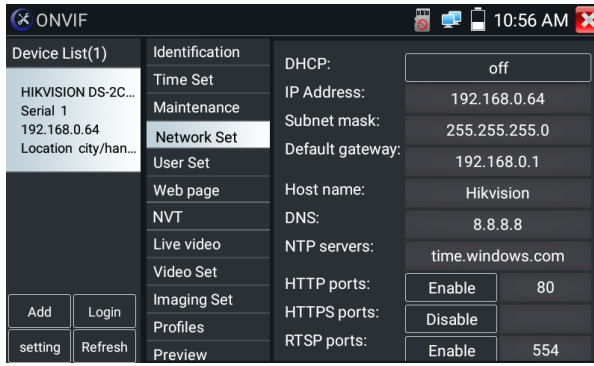
Maintenance: For camera software reset or restore to factory settings.



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.



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.)

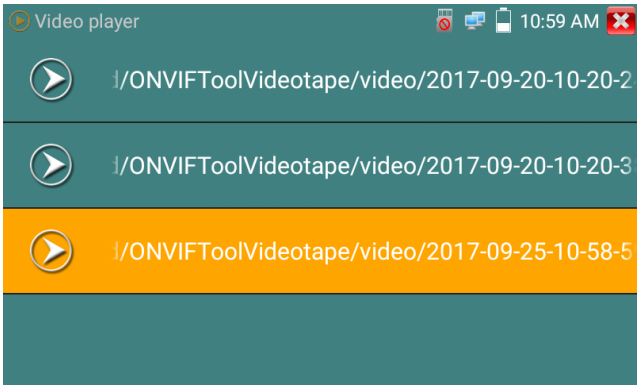
Select relative function on the bottom Toolbar to operate, “Snapshot” , “Record”, “Photos ”, “Video playback”, “Storage set”, “PTZ control” etc.

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

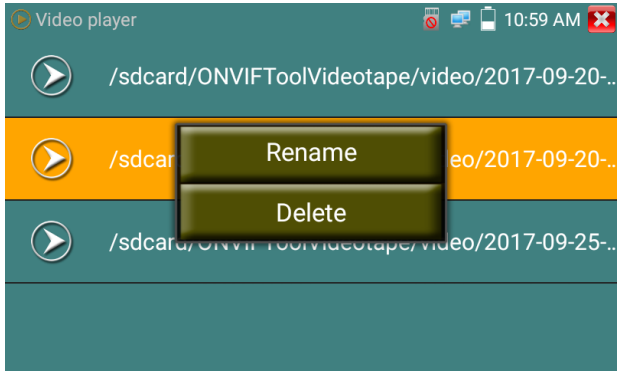
if select manual storage, appears dialog box “Input Name”, user-defined the files name(by Chinese character, English letter ,or digit) to save in SD card, if select “Auto- storage” ， the tester auto stores the files after snapshot.

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:



Video files can play in the Video player on the main menu.

PTZ

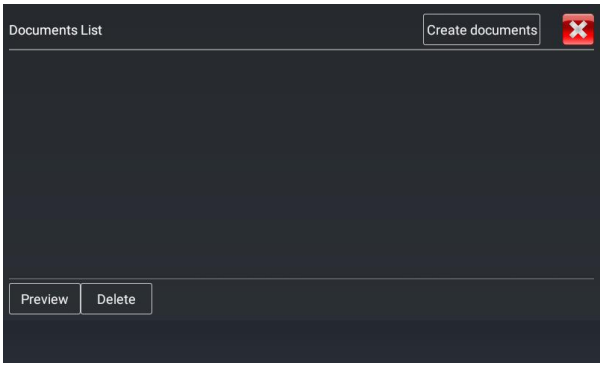
Set pre-set position: Move the camera to pre-set position, enter the pre-set number on the Bottom right corner to complete position pre-set.

Call the pre-set position: Select the pre-set number on the left, click "Call" to call pre-set

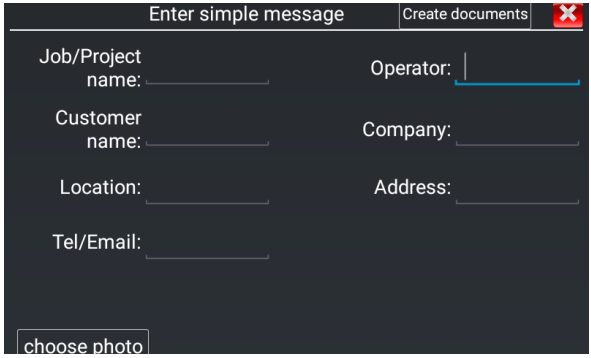
PTZ Speed set: Horizontal and Vertical Speed set

RTSP: Get RTSP address of the current camera

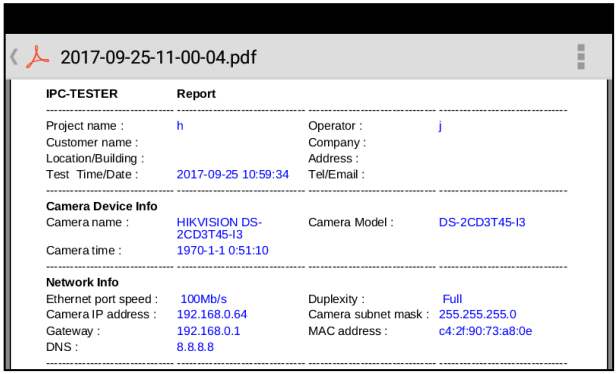
Doc: Auto generate test reports document of camera, click "Create document". Click Preview to view the report document



Enter the camera test information, click "Create Document" to complete the report.



Click doc menu again, you can preview the report document.



Icons description: the description of function icons on the bottom toolbar

3.3.7 IP camera test

Display image from the 4K H.265 camera by mainstream

Click icon to enter IP camera test

Note: Currently, the IPC Test App only supports some brands' specific IP cameras these include specific models made by ACTI, AXIS, Dahua, Hikvision, Samsung, and many more. If the camera is not fully integrated, please use the ONVIF or RTSP apps.

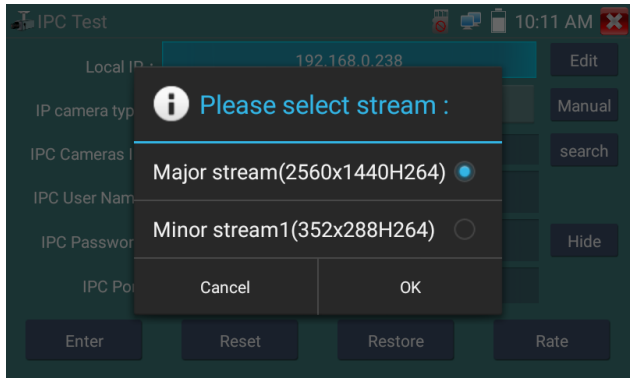
IPC test interface

Local IP: This is the tester's IP address. Click "Edit" to enter "IP setting" and change the tester's IP address settings

IP camera type: Click on the IP Camera type to select the Manufacturer and model number of the integrated IP camera

Manual: Click IP camera type, list Honeywell, Kodak,Tiandy, Aipu-waton, ACTi,WoshiDA IP camera etc. If the brand has offered official original protocols, pls select camera type, input IP camera address, user name and password, click" official" to enter the camera image display interface (Currently, only support DAHUA official protocols)

Stream code: When test camera via RTSP, you can select mainstream or sub stream to test (if camera's RTSP have not been start or without, it will tip "auto match fail, please witch to manually selecting"



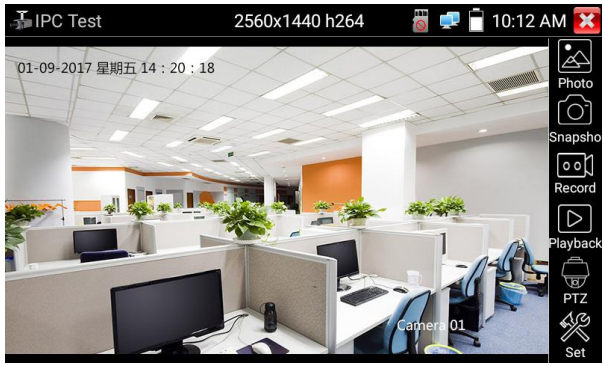
IP Camera's IP: Enter the IP camera's IP address manually or click "Search" to auto-scan for the IP camera's IP address. It is better to directly connect the IP camera to the tester so the search results will only display the camera's IP address. If the tester is connected to a PoE switch, it will find and display several IP address's.

IPC User Name: Enter IP camera's user name

IPC Password: Enter IP camera's login password

IPC Port: When you select the IP camera type, it will default the camera's port number and doesn't need to be changed.

After all settings are completed, click "Enter" to view the live video



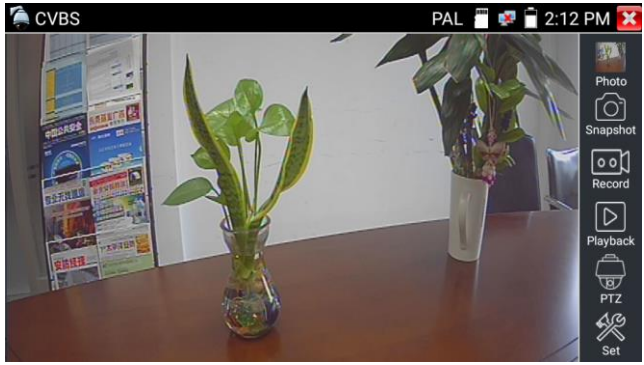
If IP address setting has error or IP camera is not connected. The tester prompts “Network Error”

Click to quit from image display and return to IP camera test interface.

Once you are viewing video on the IPC Test app, you will see the “Video Menu” icon on the top right. This button will give you access to Snapshot, Record, Photo, Playback, PTZ, and Set. Please refer to the ONVIF section to use these functions.

3.3.8 Video monitor test

Analog camera test and PTZ control, click icon to enter



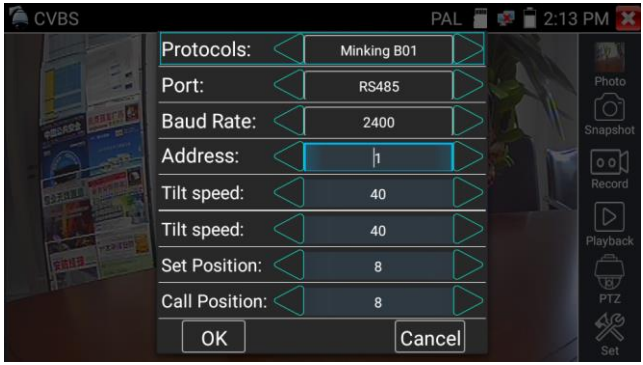
Select relative function on the right side Toolbar to operate functions including “Photos”, “Snapshot” , “Record”, “Playback” , “PTZ” , “Set” ,

Click , or press “Return” to quit.

Click the screen twice quickly, can be full zoom in on the touch screen.

(1) PTZ controller parameter setting

Select and click icon “PTZ”, to enter PTZ setting:



A. **Protocol**

Use the up and down arrow keys to move the yellow cursor to the "protocol ", set corresponding Protocol and support more than thirty PTZ protocols. Such as Pelco-D, Samsung, Yaan, LiLin, CSR600, Panasonic, Sony-EVI etc.

B. Port

Click and move, to "port" Select the communication port for the PTZ camera controlling (RS485)

C. **Baud**

Move the yellow cursor to "Baud", Select the baud rate according to baud rate of the PTZ camera. (150/300/600/1200/2400/4800/9600/19200/57600/115200)

D. Address

Set the ID according the ID of PTZ camera (0~254), the setting address data must be consistent the speed dome address.

E. Pan speed: Set the pan speed of PTZ camera (0~63)

F. Tilt speed: Set the tilt speed of PTZ camera (0~63)

G. Set pre-set position (Set PS)

Click and select "Set PS", set and save pre-set position number (1~128),

H. Call the pre-set position (Go ps)

Click and select "Set PS", set and save pre-set position number (1~128), click "sure" to save,

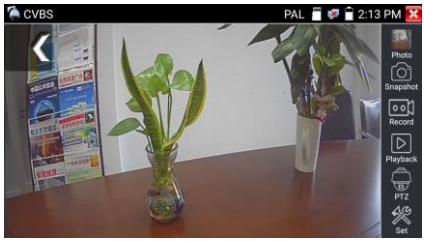
Call some special pre-set number, can call the dome camera menu

Check and set the protocols, address, interface and baud, all must be consistent with the dome camera,

then the IPC tester can test. After setting the parameter, the tester can control the PTZ and lens.

To control PTZ by screen touch:

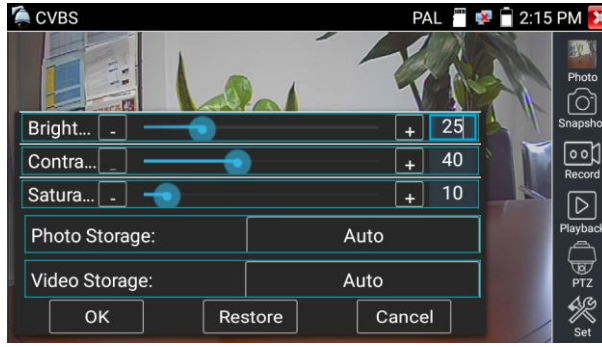
Tap left, right, upward and downward on the touch screen to control the PTZ rotation direction. By two fingers move outward and inward on the touch screen to zoom in and out the PTZ.



2) Video and storage setting

Click icon “set” to enter and set analogue video image brightness, contrast, colour saturation, as well as the file storage way after snapshot and recording, support auto-storage and manual storage.

When select manual storage, user can name and store the files.



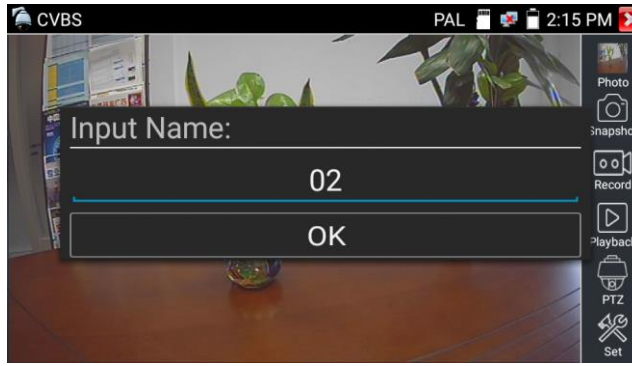
For analogue video input, as the resolution is 720*480, it is normal that the zoom in image is not clear. But for network digital video input, as it supports resolution up to 960*540, the zoom in image is still very clear. This is very helpful for IP camera installation.

(3) Snapshot

Click the icon “Snapshot”, when the video in, to take a picture and save the current video frame in the

SD card as JPEG file.

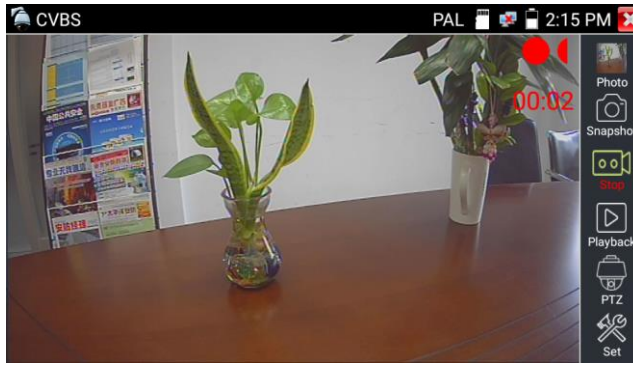
If the unit is set to the manual mode an “Input Name” pop up box will appear and you can enter a title for the snapshot. If the unit is set up to automatically set file names, this box will not pop up.



(4) Video record

When you click 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 “Record” icon again to stop recording and save the video file to the SD card.

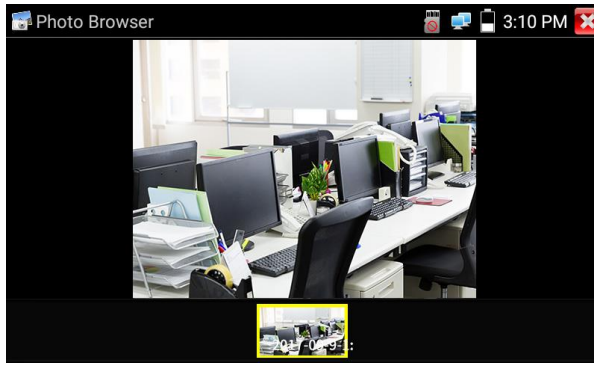
if select manual storage, before recording begins, appears dialog box “Input Name”, user-defined the files name (by Chinese character, English letter or digit) to store in SD card, tester will hereby store the files in SD card after recording . if select “Auto-storage”, tester will auto store the files in SD card after recording.



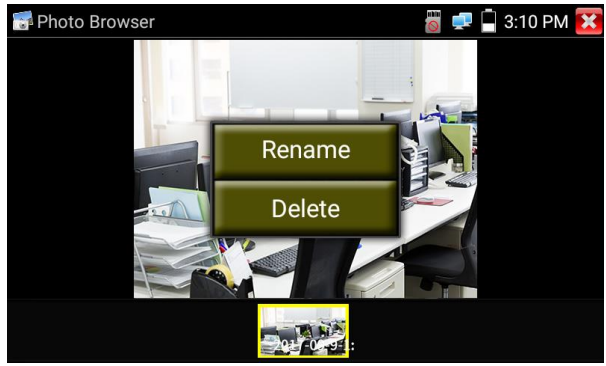
(5) Photo

Click the icon “photo” to enter, click the selected thumbnail photo to display it on the screen.

Double-tap the image you want to view to make it full screen. Double-click again the photo to return.

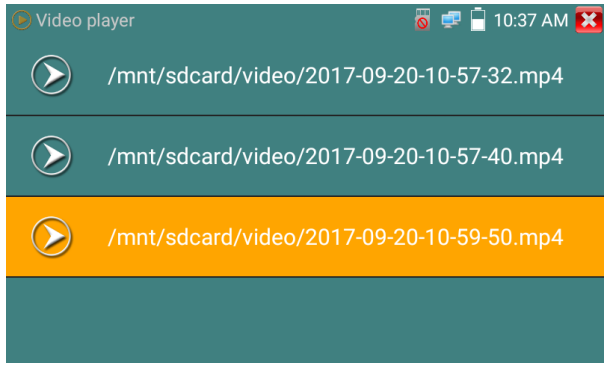


To rename or delete an image, click and hold on the file until this screen below appears.

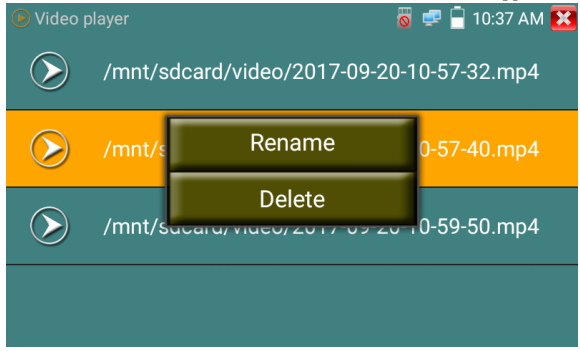


(6) Recorded video playback

Click the “Playback” icon to view your recorded videos. Tap on the video file image you want to watch.



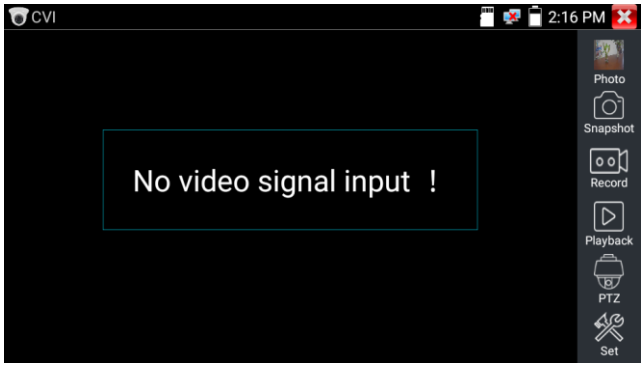
To rename or delete a video, click and hold on the file until this screen appears:



Video files also can play in the main menu “Video Player".

3.3.9 CVI camera test

HD CVI camera, CVI dome camera test and PTZ control, click icon to enter



When HD CVI signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows

1280x720P 25FPS / 1280x720P 30FPS / 1280x720P 50FPS / 1280x720P 60FPS

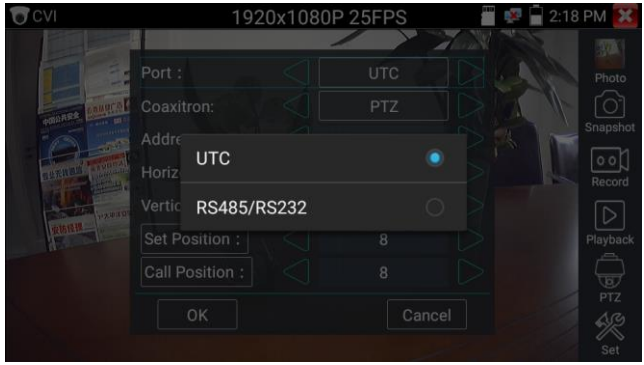
1920x1080P 25FPS / 1920x1080P 30FPS/2560x1440P 25FPS/2560x1440P 30FPS/

（1）PTZ control

1.1 Coaxial PTZ control

Click the icon “PTZ” on the right toolbar to do the corresponding setting.

“Port”: select coaxial control



Enter PTZ address to perform parameters setting

Operation instructions, please refer to “3.3.8 PTZ (1) Video monitor test”.

The PTZ address in the tester must be consistent with the dome camera or decoder, then the IPC tester can test. After setting the parameter, the tester can control the PTZ and lens.

To control PTZ by screen touch:

Tap left, right, upward and downward on the touch screen to control the PTZ rotation direction, PTZ cameras will rotate accordingly. By two fingers move outward and inward on the touch screen to zoom in and out the PTZ.

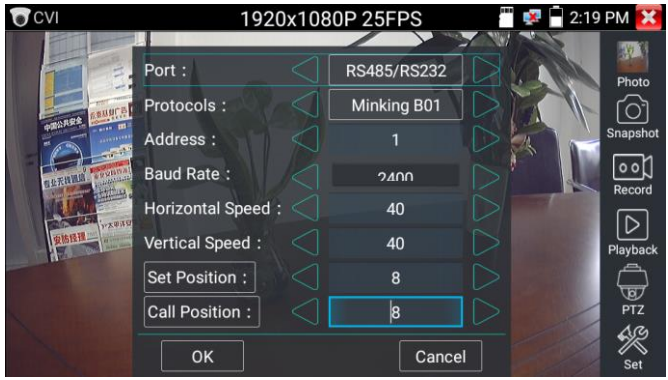
Set pre-set position:

Move the PTZ camera to the pre-set position, the Tap it and input pre-set position number. Tap “Set position” to complete set pre-set position.

Call pre-set position:

Tap the pre-set position area, input pre-set position number. Tap “call position” to complete call pre-set position.

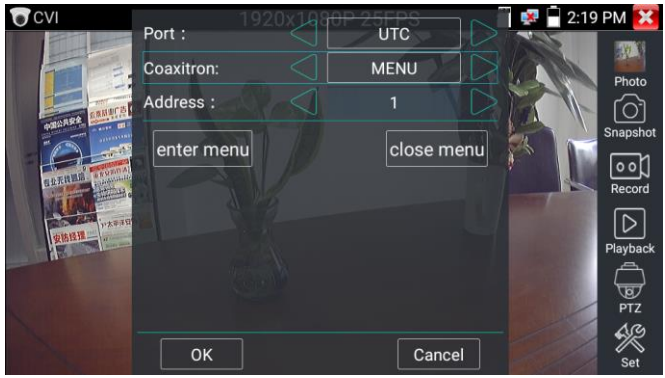
1.2 RS485 control



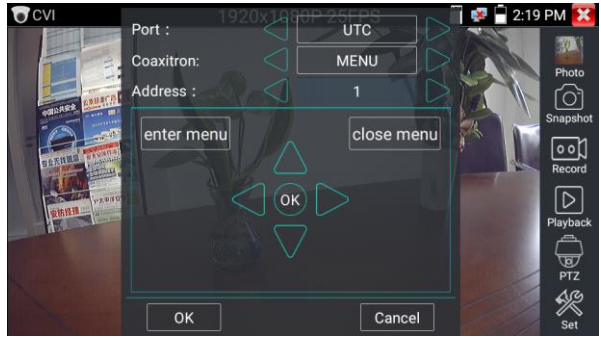
Operation instructions, please refer to “3.3.8 PTZ (1) PTZ control parameters setting”

（2）Coaxial camera menu setting

Tap icon “UTC”, select “menu setting” to enter the dome camera menu

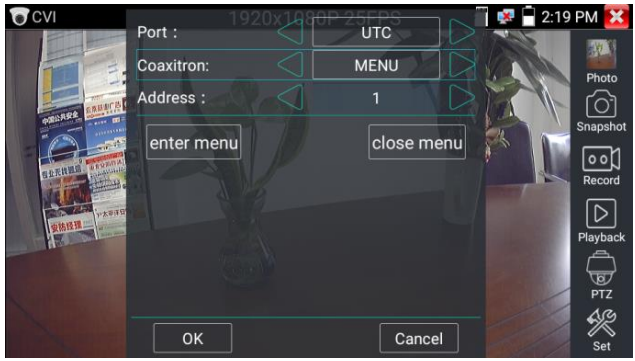


Input calling dome camera menu address code, after finishing the parameter settings, you can press the key "Enter" or click the icon to call the dome camera menu.



set the parameters by

(3) Snapshot, record, photo viewer and video play back, please refer to “3.3.8 PTZ (1) Video monitor test”. Tap “close menu” to close camera menu

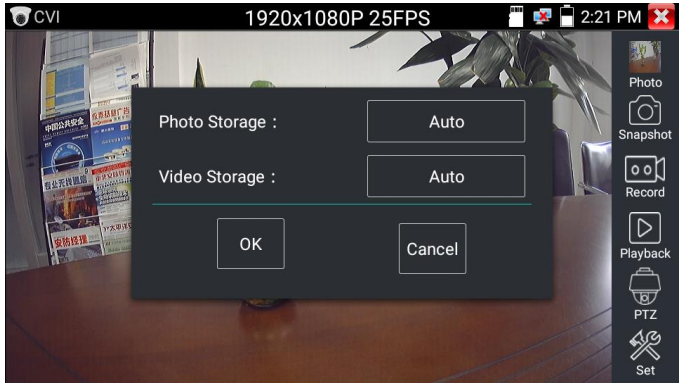


(4) Save setting

Click icon “Set” on the right toolbar to enter storage setting.

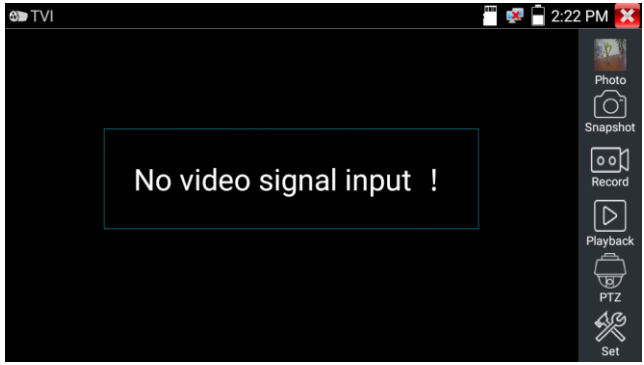
Support auto-storage and manual storage.

When select manual storage, user can name and store the files.



3.3.10 TVI camera test

HD TVI camera, TVI dome camera test and PTZ control, Click icon to enter

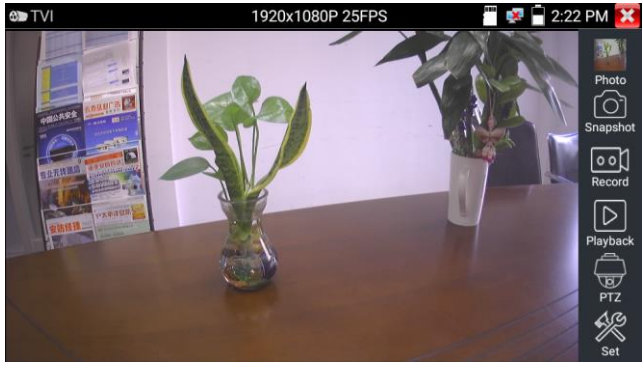


When HD TVI signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows:

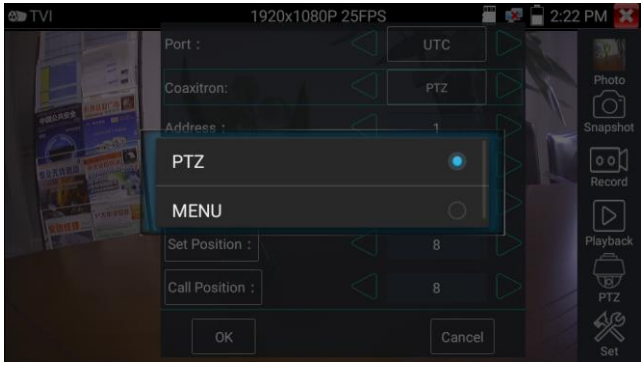
1280x720P 25FPS / 1280x720P30FPS / 1280x720P 50FPS / 1280x720P 60FPS

1920x1080P 25FPS / 1920x1080P 30FPS / 1920x1080P 50FPS / 1920x1080P 60FPS /2048x1536P 18FPS/2048x1536P 25FPS/2048x1536P 30FPS /2560x1440P 15 FPS/2560x1440P 25 FPS/2560x1440P 30 FPS/2688x1520P 15FPS/2592x1944P 12.5FPS/2592x1944P 20FPS/ 3840 x 2160P 15 FPS

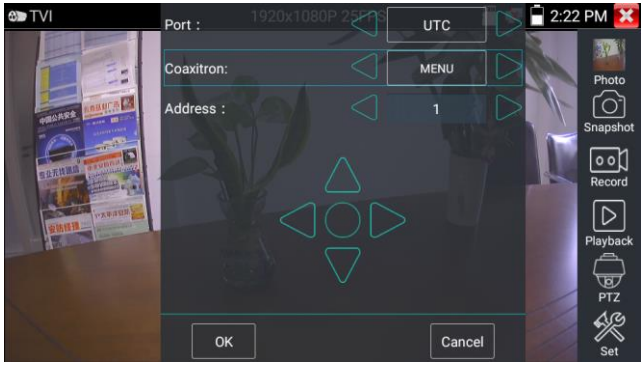


Coaxial camera menu settings

Tap icon “UTC”, select “menu setting” to enter the dome camera menu



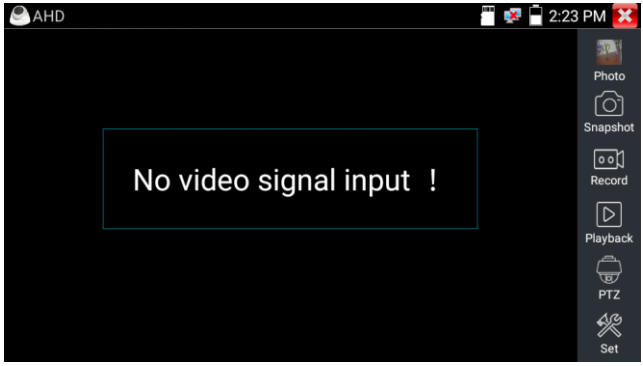
Input calling dome camera menu address code, after finishing the parameter settings, you can press the key “Enter” or click the icon to call the dome camera menu



More operation instructions (such as PTZ control, coaxial camera menu setting, snapshot, recording and playback etc), please refer to “3.3.9 CVI camera test”

3.3.11 AHD camera test

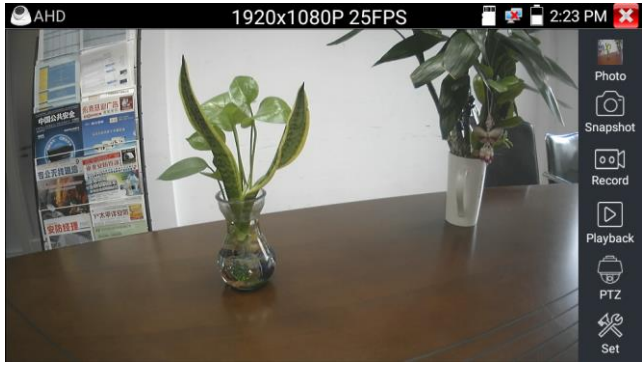
AHD camera, AHD dome camera test and PTZ control, Click icon to enter



When AHD signal input, the tester will display the image resolution on the top bar. Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows:

1280x720P 25FPS / 1280x720P 30FPS / 1920x1080P 25FPS / 1920x1080P 30FPS/2048x1536P 18FPS/2048x1536P 25FPS/2048x1536P 30FPS /2560x1440P 15 FPS/2560x1440P 25 FPS/ 2560x1440P 30 FPS/2592x1944P 12.5FPS/2592x1944P 20FPS



(1) Coaxial PTZ control

UTC control: select “PTZ control or PTZ control-2” (AHD camera has two different order, if select

“PTZ” cannot control, pls go “PTZ-2”)

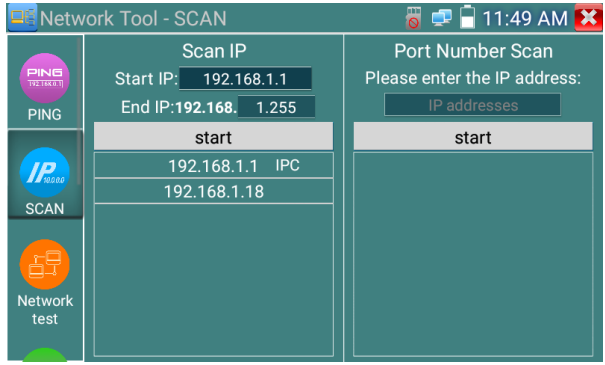
If to coaxial PTZ control the AHD camera, no parameters setting is needed.

More operation instructions please refer to “3.3.9 CVI camera test”

3.3.12 Network tool

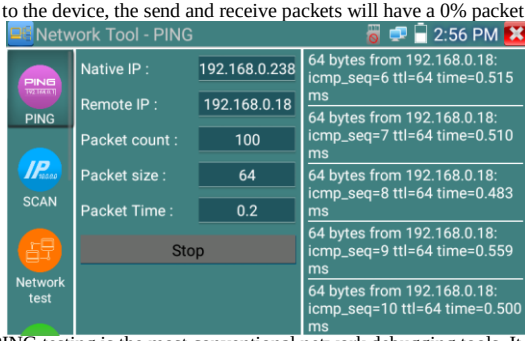
（1）IP address scan

Connect the cable to the LAN port, click icon to enter, Set your IP address search range by changing the Start and End IP addresses. Click the “Start” button to scan the IP address range. You can also input an IP address in the Port Number Scan to scan for open ports.



（2）PING Test

Connect a network cable to the LAN port and click the icon to open the PING tool. You can set your LOCAL (native) IP address, Remote IP address (e.g. IP camera), Packet count, Packet Size, Packet time and Timeout. Press “Start” to start pinging. If the IP camera or network device is not configured properly or not plugged in, it will say “Destination host unreachable” or have 100% packet loss. If the tester connects to the device, the send and receive packets will have a 0% packet loss.



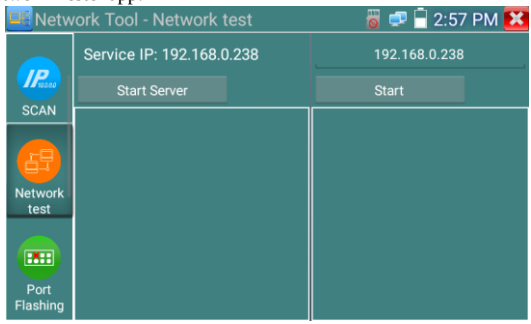
Application: PING testing is the most conventional network debugging tools. It is used for testing if the connected IP camera or other network equipment’s Ethernet port is working normally and the IP address is correct.

It’s normal that the first data packet will be lost when test start.

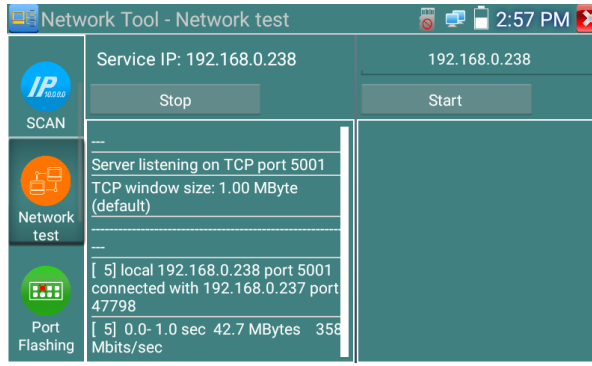
（3）Network test (Ethernet bandwidth test)

Network test (Ethernet bandwidth test)

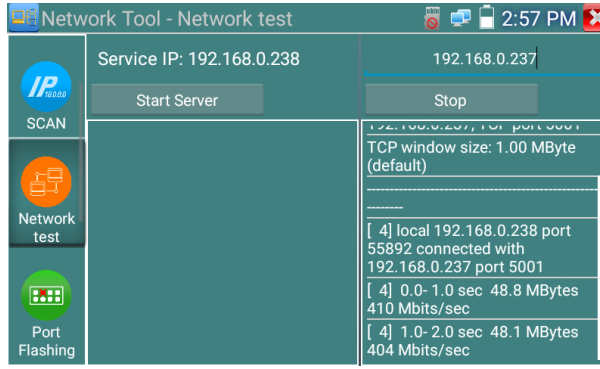
To use the Network tester, you will need two IP testers. One is used as a Server and the other as a Client. Both devices must be on the same network segment in order to communicate. Click the icon to open the Network Tester app.



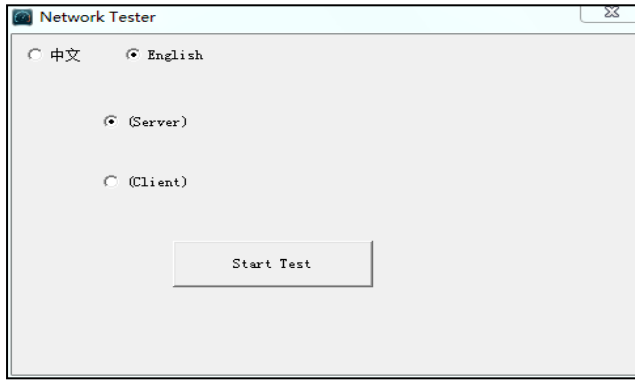
a) **Start the server:** Click “Start Server” button to use the tester as a Server. It will display its IP address at the top of the screen.



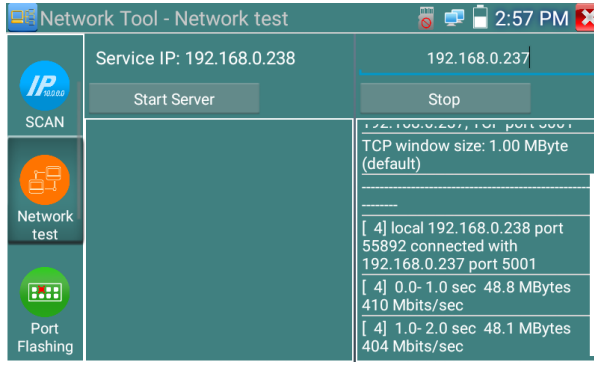
b). Start send packet test: Using the other IP tester, type in the Server's IP address at the top right corner of the screen. This app is used to send packets for network speed testing. Click the “Start” button to send the packets and start testing.



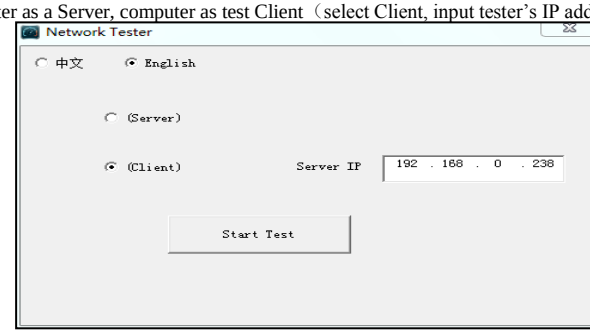
Network bandwidth testing can also be tested with a computer using compatible network bandwidth testing software. Install network bandwidth testing software on a computer, as a test Client or Server, to do the mutual testing with the tester. If use computer as the server, the computer IP address is :192.168.0.237



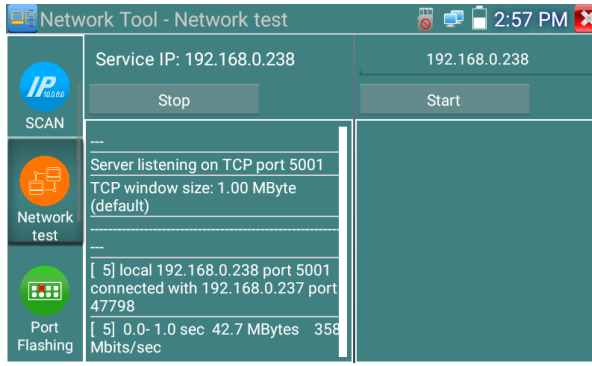
Tester as Client, tester's IP address is:192.168.0.238. The Server and the Client are at the same network segment, but with different IP address. Input Server's IP address 192.168.0.237 in the tester and click "Start" to test network bandwidth.



Or use tester as a Server, computer as test Client（select Client, input tester's IP address to test）

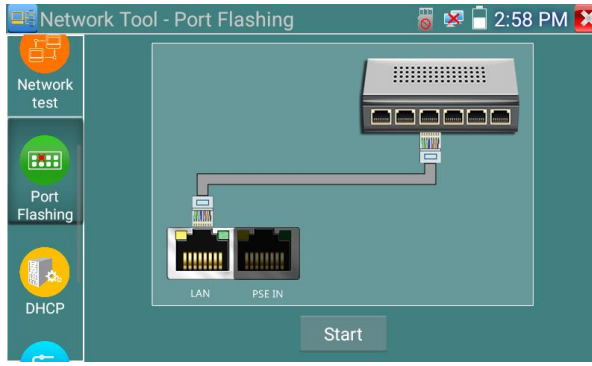


When use tester as Server, shows results:

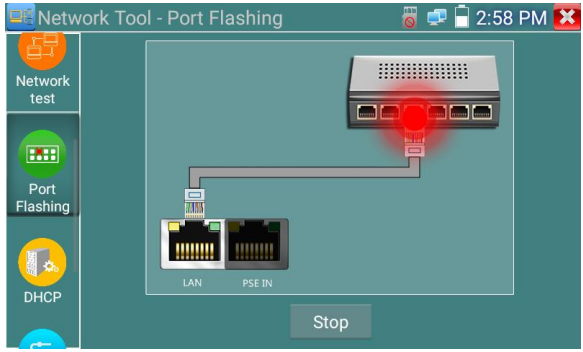


（4）Port Flashing

Connect a network cable to the meter's "LAN" port, click the icon to open the Port Flashing app. Click "Start". The IP tester sends a unique signal to make the connected LAN port of the switch flash.



If the tester and PoE switch are connected well, the LAN port of POE switch flash at special frequency, If not, no any changes on the LAN port

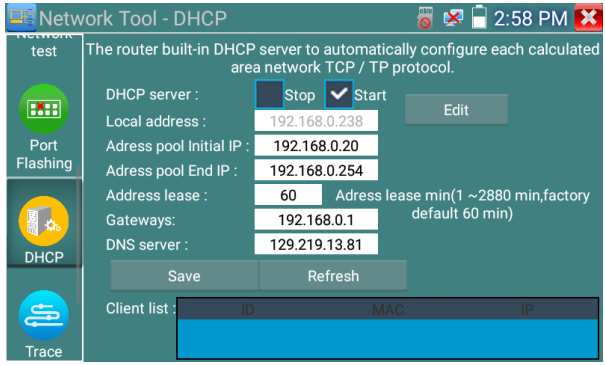


Application:

The tester will send special signals to make the connected LAN port flicker at special frequency, which will enable the installers to easily and quickly find the connected Ethernet cable. This function can prevent mistakenly insertion or disconnection non-corresponding cable to artificially interrupt network connection.

（5）DHCP server

Click on the DHCP icon to open the DHCP server app. Select the “Start” check box at the top and make any desired changes to the network settings. Click “Save” to start assigning dynamic IP addresses for IP cameras and other networked devices. Click the “Refresh” button to check your Client list.



（6）Trace route

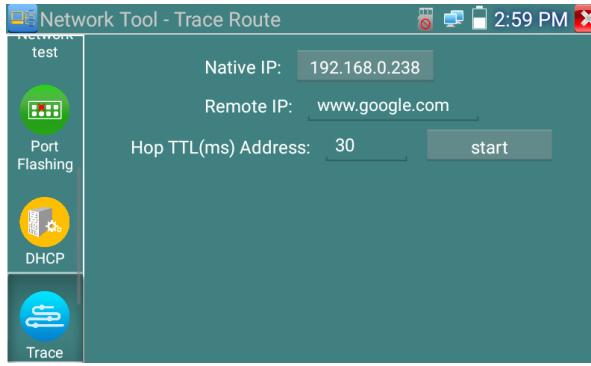
It is used to determine path of the IP packet access target.

Note: Trace route testing results only for reference, for accurate test route tracking, Pls use professional

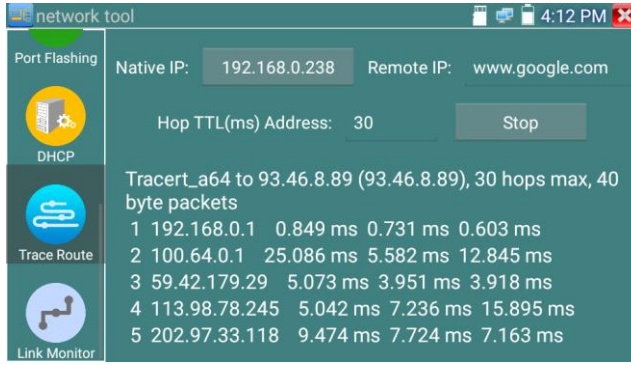
Ethernet tester.

Click on the Trace Route icon to enter trace route

Input tracking IP address or domain name in the Remote Host IP. Set maximum hop count, normally default is 30.



Click “start” to trace the goal address

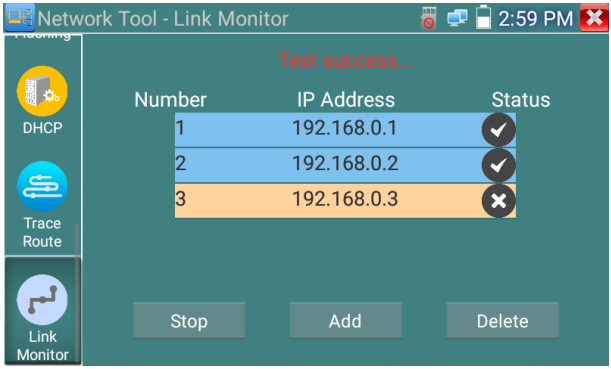


（7）Link monitor

Click the icon to open the Link Monitor app. This app is used to see if an IP address is occupied by other network devices. This will avoid new address conflicts

Click “Add” and enter the desired IP address. To test different network segments, click the “Settings” icon on the main menu and go to IP Settings and make the desired changes. Once the desired IP addresses are added to the Link Monitor list, click “Start”. If the IP address status shows a check mark

the IP address is occupied. If the IP address status shows an X the IP address is available. Click “Stop” to stop the testing



Application:

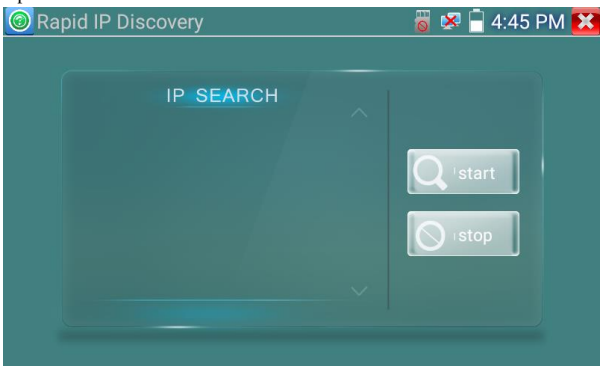
Add an IP camera or other network device to the current network group, the new IP address must not be occupied, otherwise it will result IP conflicts and stop the equipment normal working. Link monitor can check if the new setting IP address is occupied.

3.3.13 Rapid IP Discovery

Connect the cable to tester’s LAN port. Press to enter Rapid IP Discovery app.

Click “Start” to search all IP address of connected equipment’s in whole network segment.

Click “Stop” to stop work.

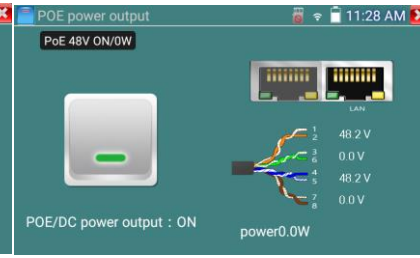


3.3.14 PoE power / DC12V 3A power output

When the tester is turned on, the DC12V power output functions are automatically turned on.

To use the PoE Power Output function, click on the icon and change the switch “ON” or “OFF”.

The IP camera needs to be connected to the LAN port before you turn PoE Power on. If the IP camera Supports PoE, the PoE power is delivered via pins 1, 2, 3, and 6 on the LAN port. The IP tester will display “48V ON” at the top of the screen when the POE power is still on.



Note:

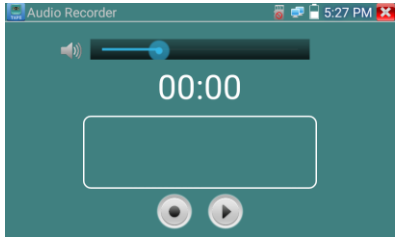
1. Don’t input power into the “DC12/3A OUTPUT” port.
2. Don’t output this DC12V/3A power to the DC12V/IN port of the IP camera tester to avoid destroy
3. The IPC tester power output is close to 3A, if the IP camera’s power is over 3A, the tester will auto enter protection mode. Disconnect all the connections of the tester and then connect the tester with power adaptor to resume the tester.
4. Before turning on the PoE power output, please make sure the IP camera supports PoE power. Otherwise it may damage the IP camera.

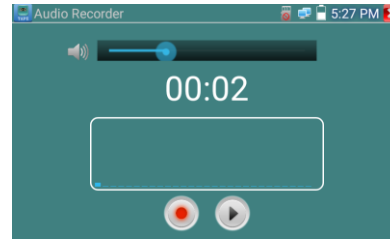
5 Make sure you plug in your IP camera to the LAN port prior to turning on PoE power

6. Make sure the tester is full charged or more than 80% charged, otherwise the tester will shows “low power”, “not able to supply power”.

3.3.15 Audio Record

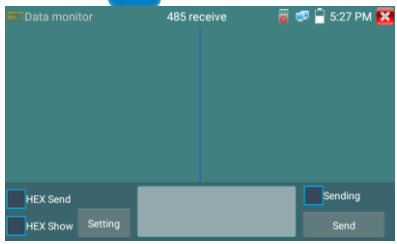
Connect an audio device to the IP tester's audio input port. Click the icon to enter the Audio Recorder app. Click the red button to stop, and the unit will prompt you to save the recording

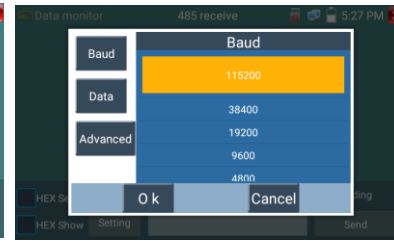




3.3.16 Data monitor

Pls click icon to enter





Click "Setting" to choose the baud rate of RS485/RS232; it must be the same as the DVR or the Control keyboard. The DVR or Control keyboard send the code to the tester, if it can be read, the protocol will shown on the upper right, like Pelco D, if not, like P:---

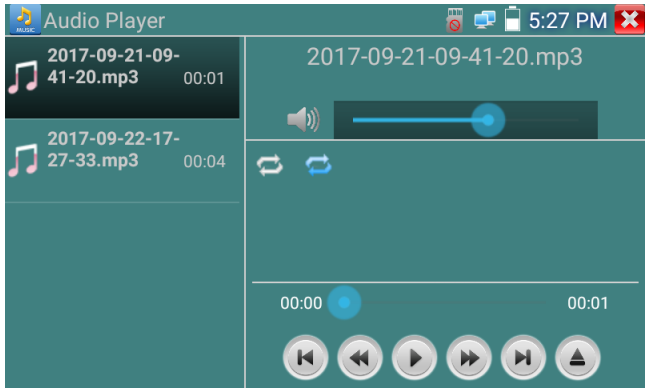
While the tester receives the code, press the "Return" key to empty.

Though the RS485 port, display the PTZ control code of the multifunctional keyboard or the DVR. Controller can check the status of the RS485 transmission through the code on the display. (The RS485 communication rate must be the same.)

Application: Check the RS485 communication states of the video optical transmitter whether normal. Engineer can analyse the protocol and check the data through the displayed code.

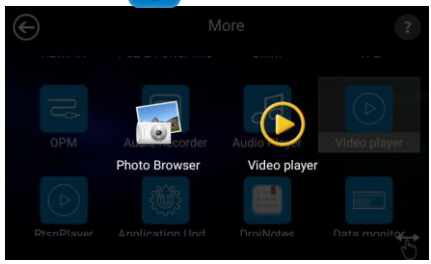
3.3.17 Audio player

Click the icon to enter. The audio player only supports MP3 format Audio files.



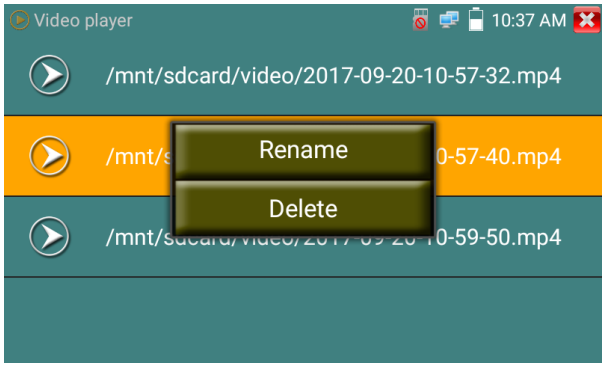
3.3.18 Media Player

Click the icon to enter.



The Media player can browse video and image files. It supports the video formats of MP4, H.264, MPEG4, and MKV. The IP tester recorded files can play directly via the Media player. The Media player will automatically display the video files from the SD card. Click on the desired file to play. Click RETURN to exit. 1

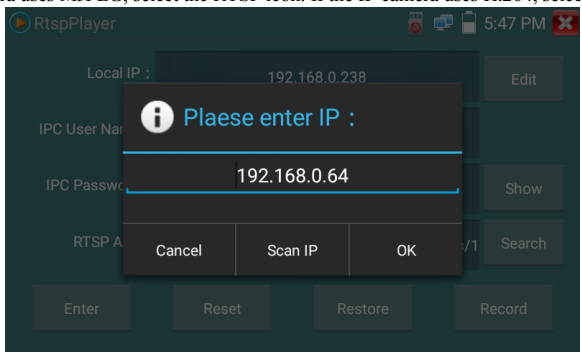
To rename or delete an existing file, press the file name for a few seconds until the screen below appears. You can then rename or delete the file by pressing the desired option.



3.3.19 RTSP Player

The RTSP Player app will allow you to view the RTSP video stream from an IP camera. If you were unable to view your camera via the ONVIF or IPC Test apps, it is possible your camera will have an RTSP stream and you can view live video.

From the main menu, select the “APP Tool” folder and then select the “RTSP Player” to open the app. If the IP camera uses MJPEG, select the RTSP icon. If the IP camera uses H.264, select the “RTSP HD” icon.



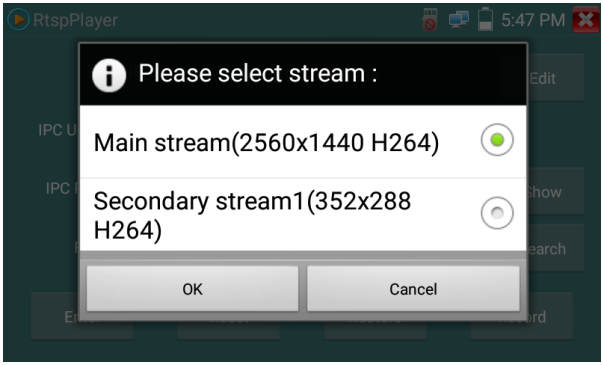
Local IP: This is the IP testers IP address.

RTSP Add: This is where you can manually enter the IP camera’s RTSP URL or click on Search to search the network for cameras that use an RTSP stream.

IPC Username: Enter the IP camera’s user name.

IPC Password: Enter the IP camera’s password.

Once you have entered all the necessary information, select Enter at the bottom left to view the RTSP stream.



Note: in the event the ip tester does not auto detect the RTSP stream, refer to the specific camera manufacturer for the specific RTSP stream url. you may find this on line with a search of the camera model number and the word RTSP.

3.3.20 Hik test tool

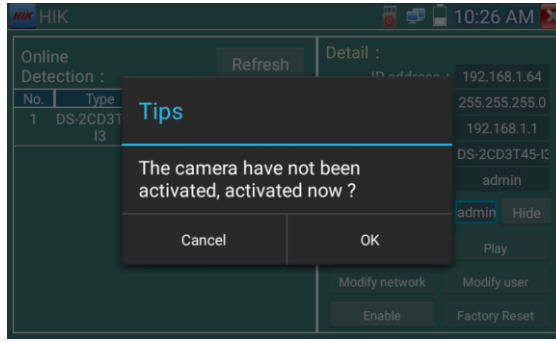
Hik test tool app is design for activating and debugging Hikvision camera, can auto-identify

Un activated hikvision camera, also can display image from the Hikvision camera.

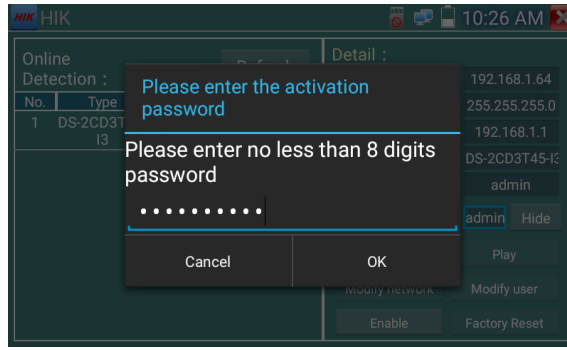
Tap icon

to enter

1. **Hikvision activation：** When connect the unactivated Hikvison camera to the tester, it will auto identify and display “Unactivate” at safety mode. Select needed activate the camera, click bottom right corner button “Enable”, pop-up “the camera is not activate, activate now”?

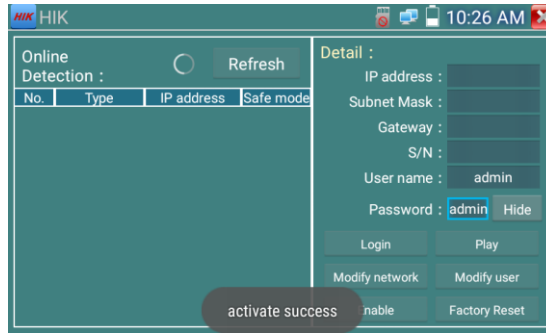


2.Input password： Input new password, tap “ok” to activate



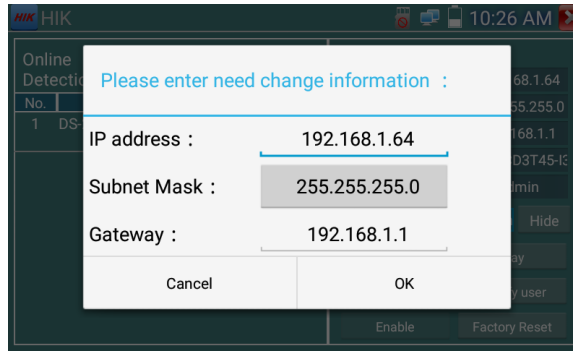
3. Confirm activation

After activating the camera, the program default modifies the camera IP. Activated multiple cameras in the local area Network, and pop-up menu to modify IP, improve project efficiency.

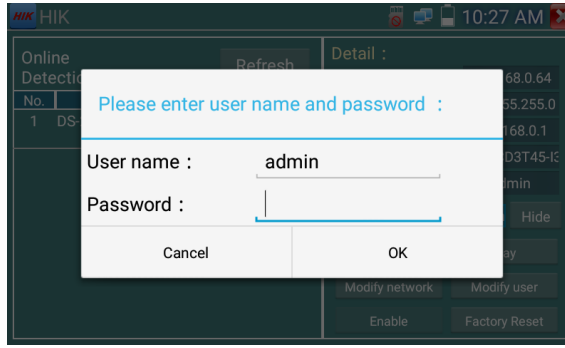


Play: Display image from the camera

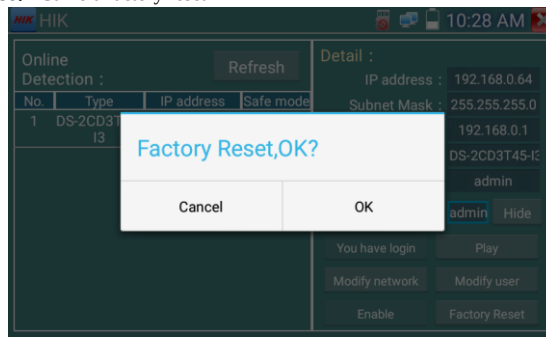
Modify network information: Change the camera IP address, subnet mask and gateway etc.



Modify user information: Modify the camera's user name and password.



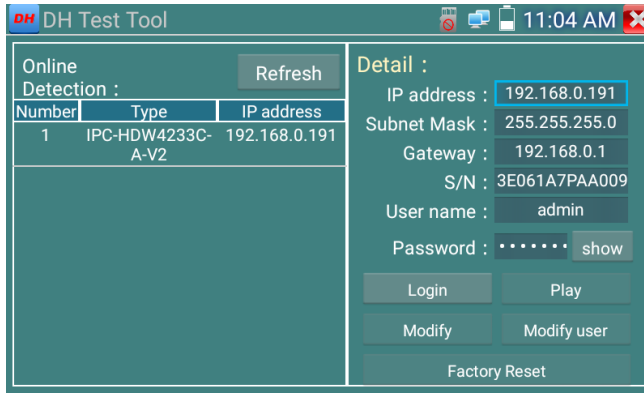
Factory Reset: Camera factory reset



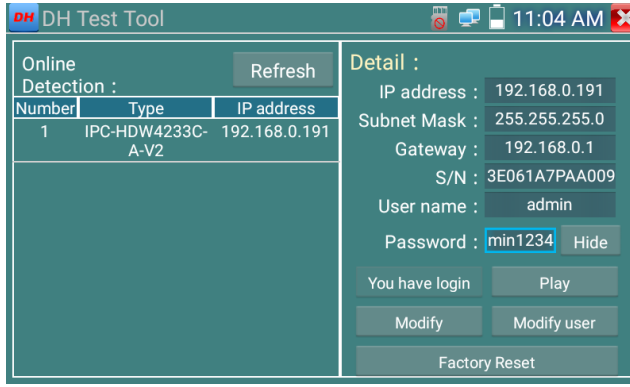
3.3.21 Dahua test tool

Dahua test tool is developed for installation and debugging of the Dahua IP camera, it can display image, and modify IP, user name and password etc. Making Dahua camera test more convenient and quickly.

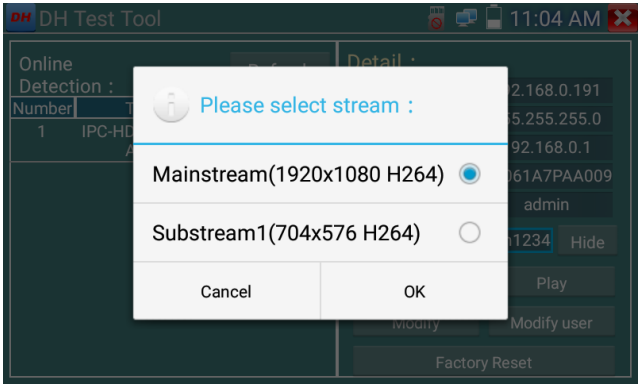
Click “DH” icon , to enter Dahua test tool.



Select the camera of the online detection menu, if the camera support non-verification login, you can click “play” directly, and view the image.

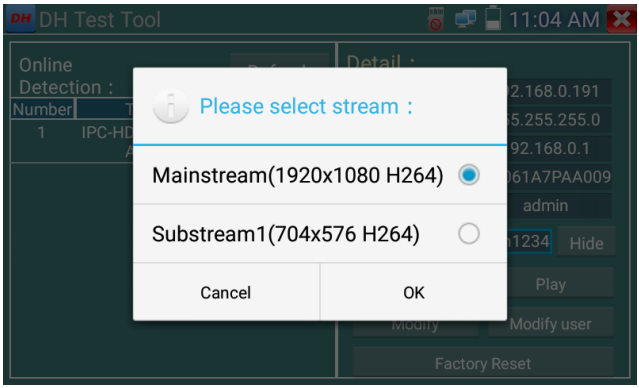


Pop up stream menu, select mainstream or second stream to test

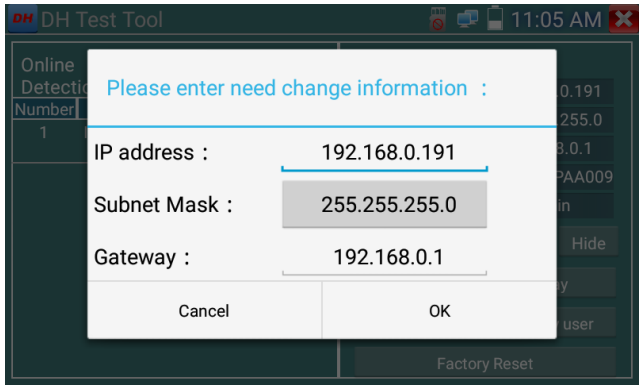


If the camera not supports non-verification login, pls select “camera” of online detection menu, and input correct user name and password, then click “log in”. After logging successful, you can test it.

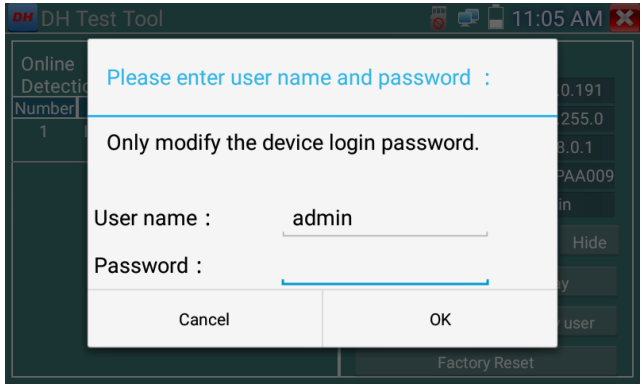
Play: select mainstream or seconded stream, IP camera live video display



Modify network information: modify camera parameter, such as ip address, subnet mask, gateway etc.



Modify user information: modify camera user name and password, which is ONVIF, Dahua test tool, IPC TESTE user name and password, not web user name and password.

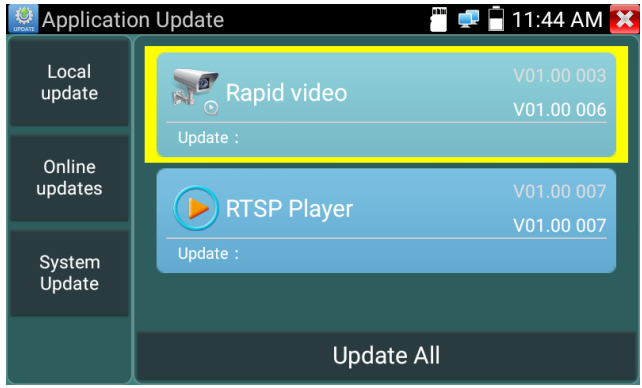


Factory reset setting: camera will be soft reset, and the device's user name, password and network set will be saved. The other settings and information will be factory reset.

3.3.22 Update

Copy the downloaded update file to SD card "update" directory, if no directory, please create one.

Click the icon to open the Update menu. Select “Local Update” to update via the SD card or select “Online Update” to check for updates on the internet. If there are applications that need updating, the applications will be listed in the interface, click related applications, update to the latest version.

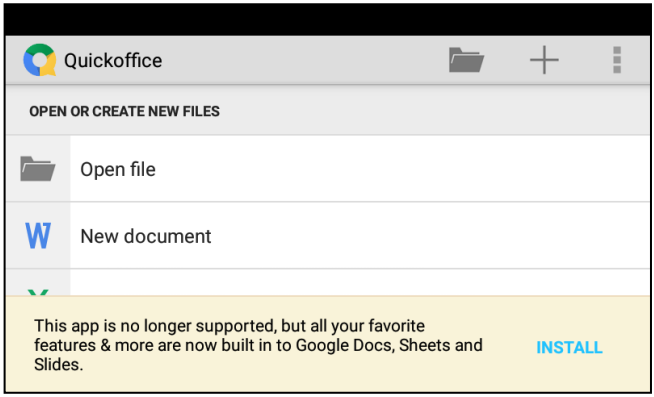


Online update: Connect the Internet to update the apps.

System update: Connect the Internet to update systems.

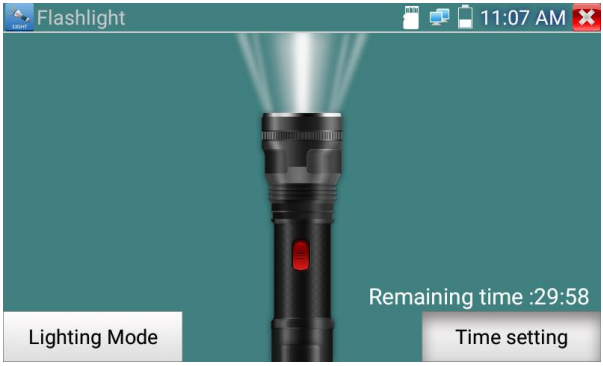
3.3.23 Office

Quick office app (support excel, word, ppt format) doc. editable



3.3.24 LED Flashlight

It is convenient for the installation or maintenance in the evening or in the dark. Click icon to enter.



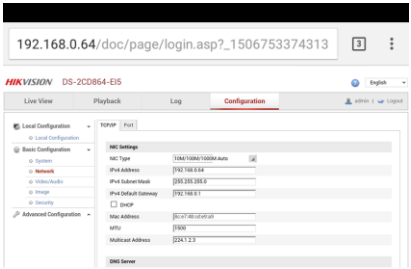
While in the flashlight app, click the red button to turn on the LED lamp. Press it again to turn it off. If you don't press the red button to shut off the lamp and press the button to exit the app, the lamp will stay on. Click the Time Setting button to set a timer that will shut off the lamp.

3.3.25 Browser

Click icon to enter

Type in the camera's IP address and press "Go" to access the IP camera's interface.

NOTE: You will not be able to view live video in the web browser. For viewing video, use the IP tester's live camera view Apps



The IP camera and IP tester be on the same network segment for the browser to interface with the camera. If they are not in the same segment, press "RETRUN" to exit. Open the "Settings" app from the main menu to change the IP tester's network settings to match those of the IP camera.

3.3.26 Notepad:

Notepad can be used to record the important testing results, click the key "Save" to save the contents. Notepad can auto record the storage date and time.

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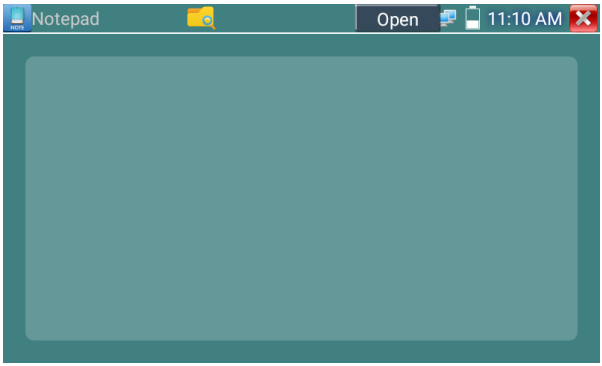
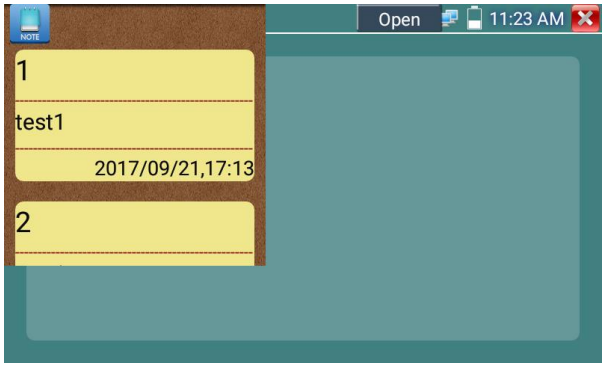


pls click to view the notepad, all saving contents display. Click each record bar to show the

details. Press the record bar for several seconds, prompt whether delete it



3.3.27 System Setting

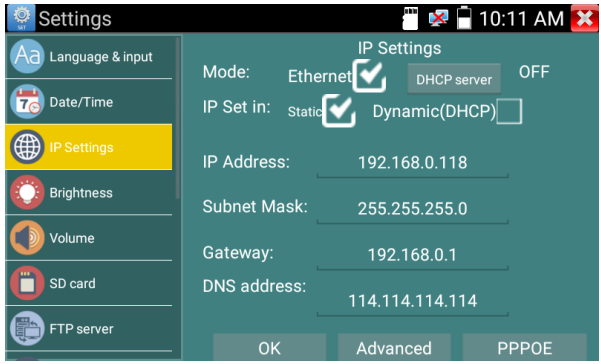
Click icon to enter

Language: Select your desired language: English, Chinese, Korean, Russian, Italian, Polish, Spanish, French or Japanese.

Typewriting: You can select typewriting or install other typewriting:

Date/Time: Set the Date/time of the IP tester

IP setting: Manually set the IP address, Subnet Mask, Default Gateway and DNS address or select "Dynamic allocation" to use DHCP. To test multiple network segments, click "Advanced" and then click "Add" to enter another IP address for the IP tester

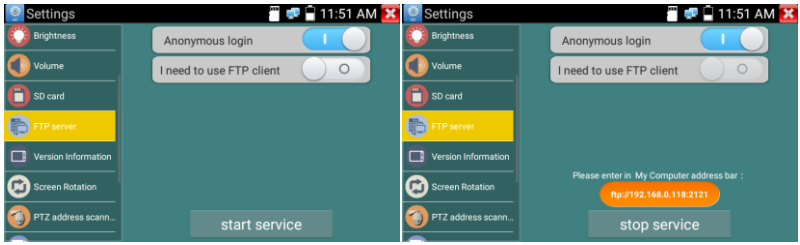


Brightness: Set the desired brightness of the IP tester and adjust the sleep time settings.

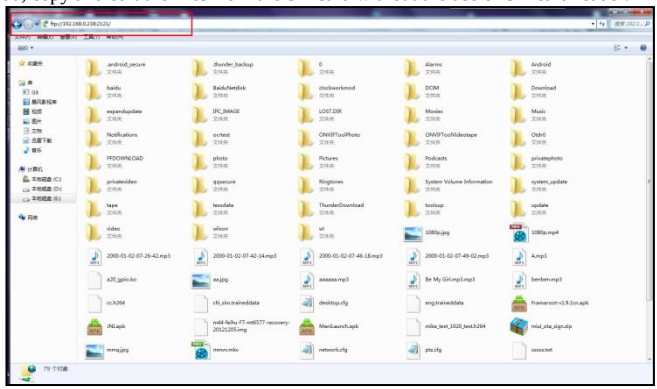
Volume: Set volume level

SD Card: Displays SD Card Capacity. You can also format the SD card or unmount it before removing it.

FTP server: Once the IP tester connects to a network, a computer can be used to read the SD card files via FTP



Start the FTP server and then input the tester's FTP address in the PC's address bar. This will enable the PC to read, copy and edit the files from the SD card without the use of SD card reader.



Version information: Shows applications version information, if press any apps icon several seconds to uninstall

Screen display rotation: Click on "Screen Rotation" to flip the IP tester's display 180 degrees. This function is very convenient for the user to connect the LAN cable on the bottom of the unit without having to flip the unit itself.

PTZ address scan: You can toggle the PTZ Address scan off or on before entering the "PTZ controller" app. This needs to be turned on in order to use the PTZ Scan feature of the PTZ app.

Online Registration: Online update need register first, after the tester connect to network, then fill registration information to register

User Feedback: If you have any comments or suggestions for the tester, please connect it to network and write your feedback.

Lock Screen: The meter default is not locked. You can choose password Lock screen, pattern Lock

screen or “NO”

Password Lock Screen: Set password, you can input digitals, letters or characters as password, input it again to confirm. When the meter is in standby mode or turn it on, you can input your password to enter.

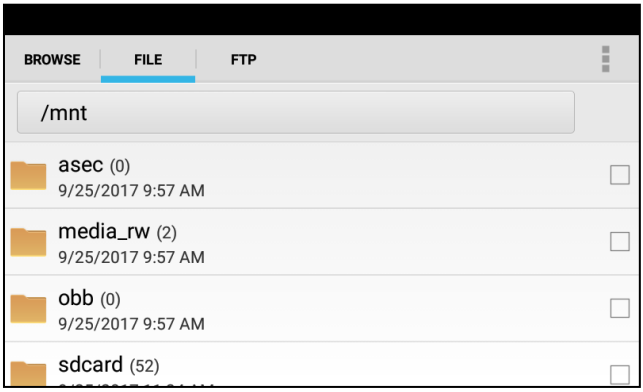
Pattern Lock Screen: Drawing a pattern to lock. While the meter is in standby mode or turn it on, you can input your pattern to enter.

Modify Lock screen password, you need input lock password again. Select password Lock screen or pattern Lock screen to reset lock screen password. After reset pattern lock screen, you need to draw a new lock pattern.

Restore the factory settings: If the tester to restore factory settings, all your personal files and apps will be removed.

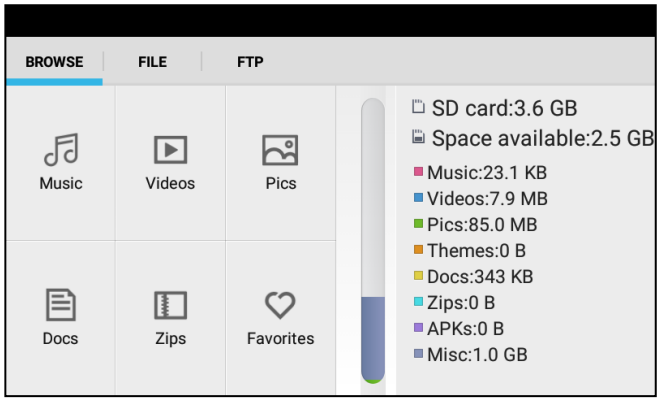
3.3.28 File explorer

Click “File” on the top bar tool, can select internal or external storage. Click on the upper right corner Icon “...”. will pop-up menu, you can select other operation or exit



Browse

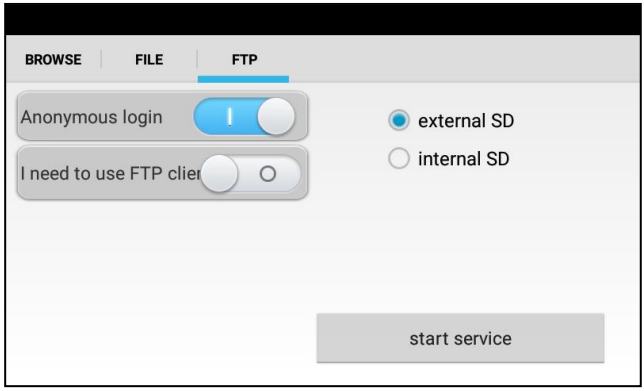
It includes Music, Videos, Pictures, Documents, zip file etc. It is convenient to view and manager



FTP server

You can choose internal or external SD card.

Other operation details, Pls refer to FTP settings



3.3.29 Theme

Click Theme icon to enter themes setting.

Desktop style: you can select Lite mode or normal mode.

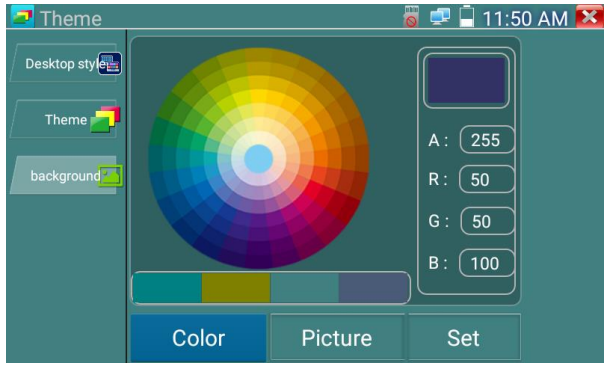
Theme:

Pressing square area's any colour icon several seconds, the selected colour icon will be auto move the rectangle area, if you press selected colour several seconds, and it will be auto deleted

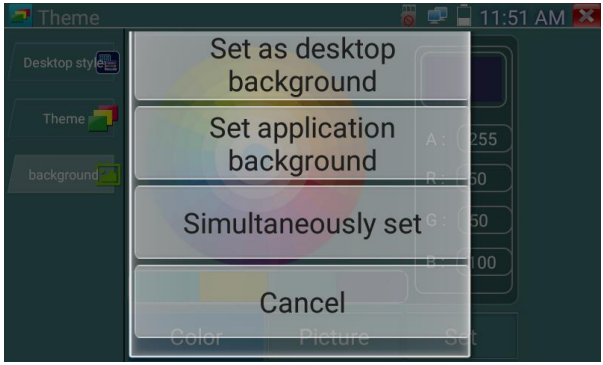
Theme colours include fixed order and random order, and click "set" to save

Colour

When set background colour, you can select colours from Colour Phase, and also can input colour's RGB to set.



After finished colour setting, click "set" to set it as desktop or application background.



Set as desktop background: Setting colour as desktop background

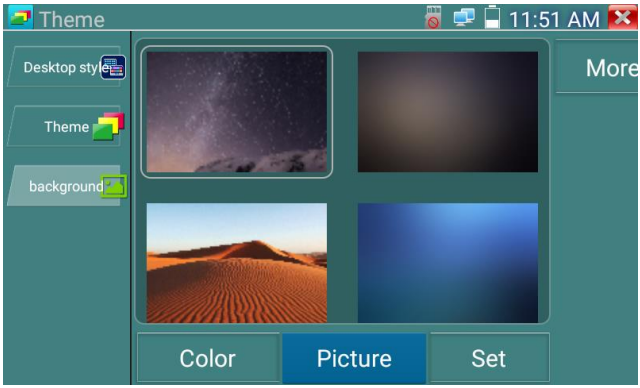
Set as application background: Set colour as application background

Set at the same time: Setting colour as desktop background and application background.

Cancel: Cancel current setting.

Picture:

Click Picture to select one and set as temporarily background to view setting effect. Click “more” to select pictures from local file and click set to set picture as background.



Sliding effect:

Tester's sliding effect includes stereo effect, folding effect, Left and right folding, rotate effect, Ombre effect etc, selecting one of effect to view slide effect in the square area, and click "set" to save

3. 4 Audio test

You can test the audio input from audio pickup devices by connecting the audio pickup device to the IP tester with the supplied audio cable.

3.5 PoE power output

The IP tester supports PoE (Power over Ethernet) output to an IP camera via the LAN port. Data transmission and 48VDC use the network cable's 1, 2, 3, and 6 pins to deliver power. If the IP camera supports PoE, you can directly connect to the camera without the use of an external power supply.

Notice

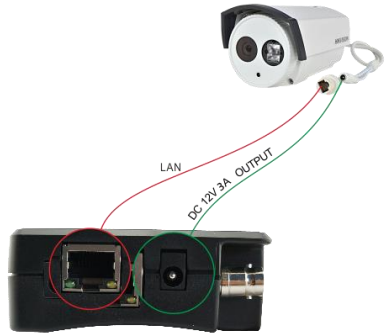
a. Please make sure the cable connected to the tester's Lan port is straight-line cable and has no short circuit, otherwise it will damage the tester.

b. Before using PoE power output, please check the IP camera actually supports POE power. Otherwise it will damage the IP camera.

c. The instrument's PoE maximum power output is 24W. If Ultra- high-power load occurs, the tester will enter protection mode.

3.6 DC12V 3A power output

When the IP tester is turned on, the DC 12V power output ON by default. The smaller end of the supplied converter cable connects to the tester's DC12V/3A OUTPUT and the other end connects to the camera's power input.



Application

Power output function is mainly used in the camera field demonstration and testing, meanwhile, for some camera installation sites, If there is no power outlet for the adapter to power the camera, the tester can offer temporary power for it. We do not suggest to use the tester to supply power for a long time.

Notice:

a. Do not connect any power source in to the “DC12/3A OUTPUT” port of the tester.

b. Man-made damage is not within our company’s warranty

c. The IP tester ’s power output capacity is 3A. If the IP camera uses more than 3A, the tester will automatically enter a protection mode.

d. Disconnect all cables from the tester and reboot it to resume using the tester.

The IPC tester power output is close to 3A, if the IP camera’s power is over 3A, the tester will auto enter protection mode. Disconnect all the connections of the tester and then connect the tester with power adaptor to resume the tester.

e. Make sure the tester has a sufficient charge otherwise the tester will not able to provide enough output power

4. Specifications

4.1 General Specifications

Model	IP Camera Test Monitor IP403
Display	New 4inch IPS touch screen CCTV tester 800 x 480 resolution
Network port	10/100/1000M auto adjust, RJ45
H.265 Main stream test	New hardware decoding, 4K H.265/H.264 camera image display by mainstream testing
IP discovery	Auto-scan the whole network segment camera IP
Rapid ONVIF	Search camera quickly, auto log in and display image from the camera, activate Hikvision camera
Hik test tool	Activate Hikvision camera, display image from the camera, modify IP, user name and password parameters etc
DH test tool	Dahua camera test, modify IP, user name and password parameters etc
IP camera type	ONVIF,ONVIF PTZ, Dahua IPC-HFW2100P, Hikvision DS-2CD864-E13, Samsung SNZ-5200, Tandy TD-NC9200S2, Kodak IPC120L, Honeywell HICC-2300T, RTSP Viewer
Lens Simulation	can simulate “2.8/3.6/4/6/8/12/16/25mm” lenses display area
Focus information test	camera focus info, signal quality test, Image quality test.
CVI video signal test	1 channel CVI input（BNC interface, resolution support 720p 25,30,50,60fps/ 1080p 25,30fps/2560x1440p 25fps,30fps
TVI video signal test	1 channel TVI input（BNC interface), resolution support 720p 25,30,50,60fps/ 1080p 25,30fps /2048x1536p 18,25,30fps , 2560x1440p 15,25,30fps/ 2688x1520p 15fps , 2592x1944p 12.5,20fps/3840 x 2160 15 FPS

AHD video signal test	1 channel AHD input（BNC interface), resolution support 720p 25,30fps / 1080p 25,30fps/2048x1536p 18,25,30fps, 2560x1440p 15,25,30fps/ 2592x1944p 12.5,20fps UTC control and call OSD menu
Analog video test	1 channel BNC Input, NTSC/PAL (Auto adapt)
Snapshot, Video record and playback	Capture current images and record live video as JPG file. Media player will view photos and playback video
12V/3A power output	Output DC12V/3A power to camera
PoE power output	48V PoE power output, Max power 24W
Screen management	Lite mode and normal model avalable Under normal mode, you can change icons sequence and self-define the number of icons in each page
Theme	Self-define icons, desktop and application interface background, modify interface sliding effect
Drop-down menu	Includes PoE power switch, IP setting, CVBS etc.
Audio test	1 channel audio signal input
PTZ control	Support RS485 control, Baud 600-115200bps, Compatible with more than 30 protocols such as PELCO-D/P, Samsung, Panasonic, Lilin, Yaan, etc
UTP Cable tester	Test UTP cable connection status and display on the screen. Read the number on the screen
Data monitor	Captures and analyses the command data from controlling device, also can send hexadecimal
Network test	IP address scan, link scan, and Ping test. Quickly search for the IP camera's IP address on your network
POWER	
External power supply	DC 12V - 1A
Battery	Built-in 7.4V Lithium polymer battery, 2400mAh
Rechargeable	After charging 4~5 hours, normal working time 7 hours

Parameter	
Operation setting	OSD menu, select your desired language: English, Chinese, Japanese Korean, Russian, Italian, French, Polish, Spanish, etc
Auto off	1-30 (mins)
General	
Working Temperature	-10℃ - +50℃
Working Humidity	30% - 90%
Dimension/Weight	126mm x 83mm x 33mm / 0.32kg

The data above is only for reference and any change of them will not be informed in advance. For more detailed technical inquiries, please feel free to call the Technical Department of our company.