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.

Content

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 7 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 1920x1200 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 (7.6V DC 7800mAh)

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	Menu key, press it to call short- menu.
3		4xzoom the image displays.
4	FAR+	Far focus: Focus the image faraway
5	NEAR-	Near focus: Focus the image nearby
6	TELE+	TELE: zoom in the image
7	WIDE-	WIDE: zoom out the image
8	OPEN	Open/set, Confirm the setting of parameters, open or enlarge the aperture
9	CLOSE	Return/Close: Return or cancel while setting parameters of the menu, close or decrease the aperture

10		Upward, set function or add parameter. Tilt the PTZ upward
11		Rightward, select the parameter whose value will be changed. Add the value of the parameter. Pan the PTZ right
12		Downward, set function or reduce the value of the parameter. Tilt the PTZ downward
13		Leftward, select the parameter whose value will be changed
14		Confirm key,(Long press it to capture screen interface)
15		Return/Close : Return or cancel while setting parameters of the menu, close or decrease the aperture
16		Multimeter interface (Optional)
17		The charge indicator: it lights red while the battery is being charged. As the charging is complete, the indicator turns off automatically
18		The RS485 data transmission indicator: it lights red while the data is being transmitted
19		The data received indicator: it lights red while the data is being received
20		The power indicator: it lights green while the tester is powered on by the adapter

Top interface

Bottom interface

21	Visible red laser source emits Interface **(Optional)**
22	DC12V3A power output, for provisional DC power supply
23	HDMI IN (**Optional**)
24	CVBS IN/AHD /TVI/CVI Coaxial interface /（BNC interface）**(**AHD /TVI/CVI **(Optional))**
25	Video signal output（BNC interface）/ cable tracer interface
26	Optical power meter interface **(Optional)**
27	LED lamp
28	RS485 Interface: RS485communication for the PTZ
29	HD-SDI/EX-SDI input (BNC interface) **(Optional)**
30	TDR cable test interface **(Optional)**

31	HDMI output interface
32	Micro SD card moveable,(comes with 8GB, supports up to 32GB)
33	UTP cable port: UTP cable tester port/ Cable tracer port
34	PSE power sourcing equipment. Tests PoE voltage/LAN test port
35	PoE power supply output or LAN test port (Using test PoE or non-PoE IP camera)
36	Microphone
37	USB 5V 2A power output, transmit data
38	DC 12V 2A charging interface.
39	DC 24V 2A output
40	Audio input/Audio output and earphone interface.

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.

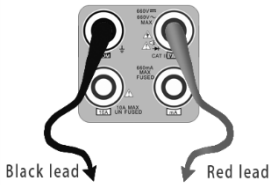
The charging time can be extended for about 1 hour and the charging time within 12 hours will not damage the battery.

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 1080P 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 the key ⏻ 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 press (🔍) 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 go file management to view "file Explorer –sdcard- Pictures—Screenshots".

3.3.4 Link monitor

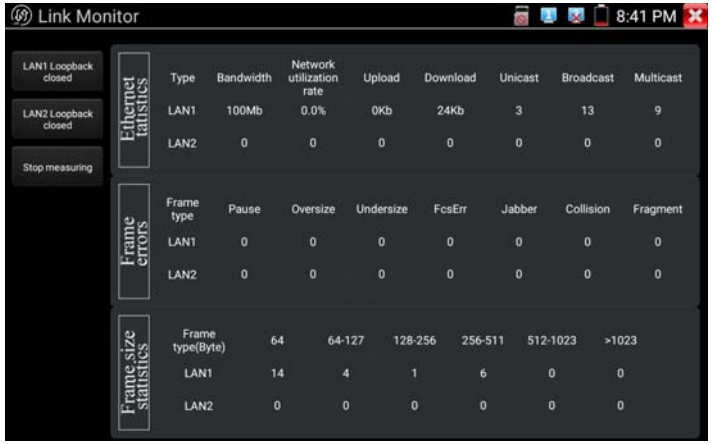
Tap icon "Link Monitoring" at left corner on the screen, to enter.

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



3.3.5 TesterPlay

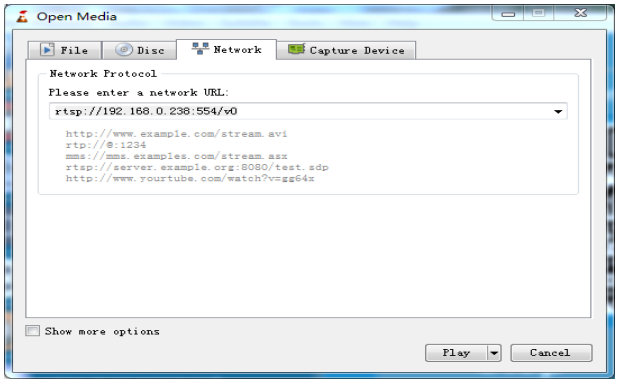
Mobile screen projection (Only for android version)

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 icon "  ", 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.

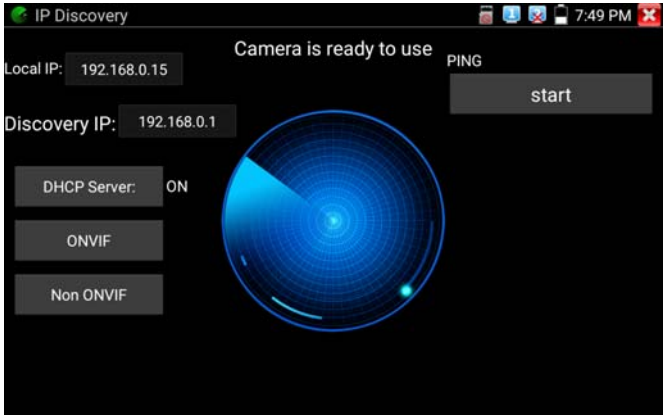
PC screen projection:

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.



3.3.6 IP 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 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

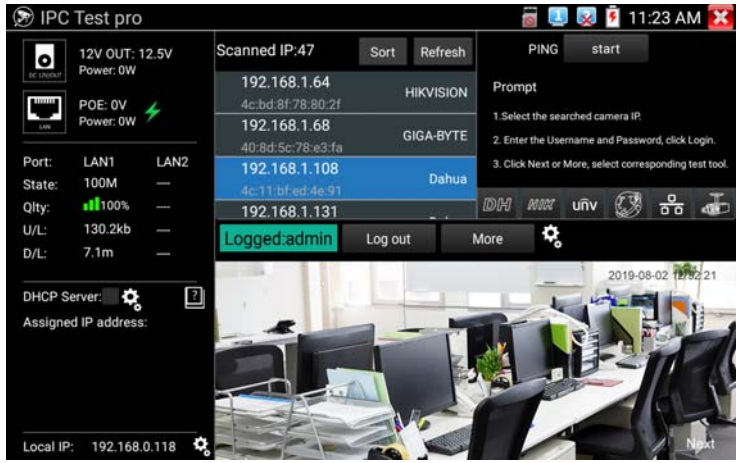
Rapid ONVIF: Rapid ONVIF Quick link

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 .

3.3.7 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.

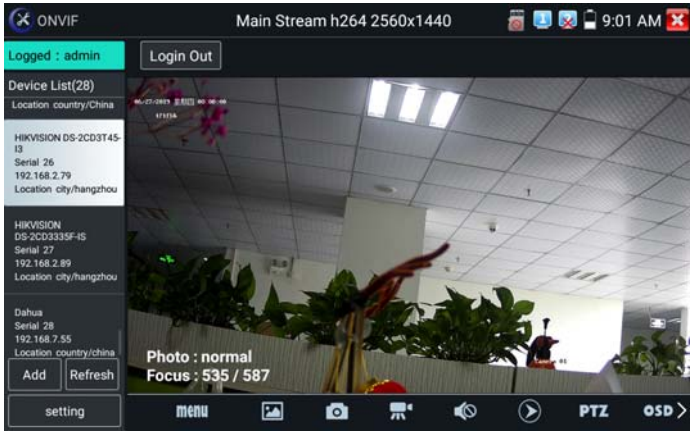
By one key to connect camera test tool, browser can login and configure camera.

Batch activate Hikvision and Dahua cameras.

3.3.8 Rapid ONVIF test

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

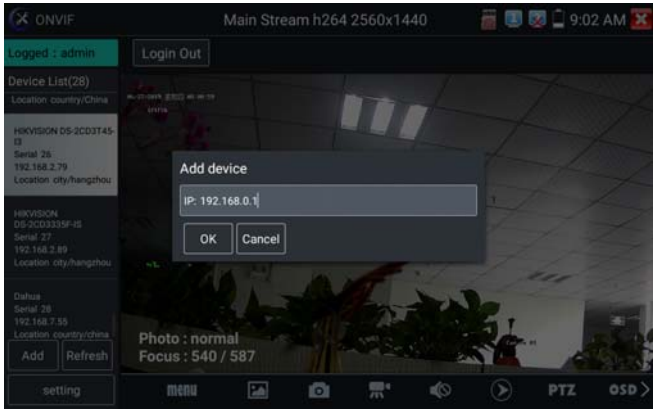
Press  enter Rapid ONVIF function, the meter auto scan all ONVIF cameras in different network



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.

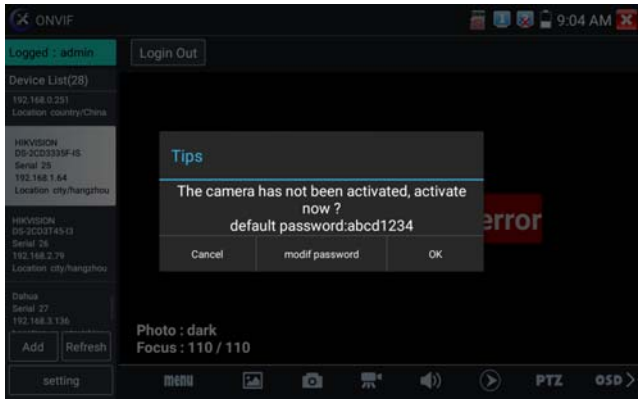
If you select ONVIF Rapid mode, the meter automatically scan different network segments for ONVIF cameras. It lists the camera name and IP address on the Device List. Tester can auto login camera and

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.

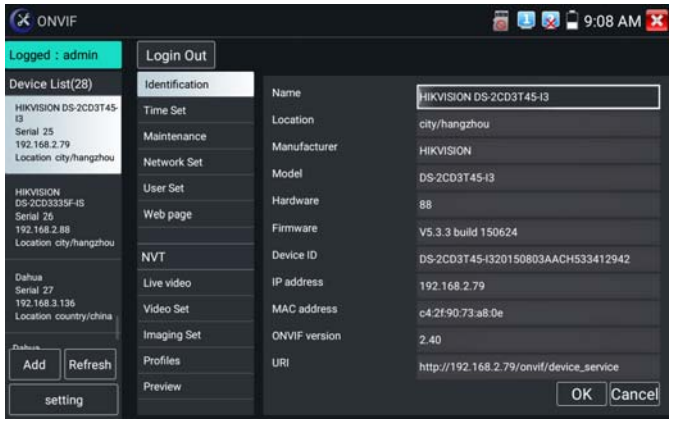
IP camera video settings: Click "Video Set" to enter the IP camera's encoder and resolution settings. Make the desired changes and click "OK" to save.

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

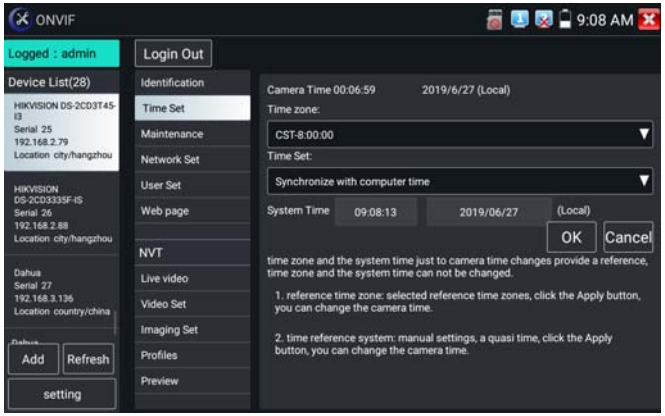
Profiles: Click "profiles", can view video streaming current configuration files, as well as switch between Major stream and minor stream.

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

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



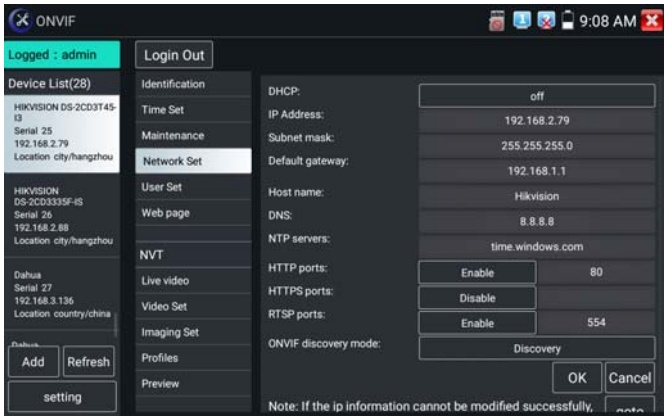
Time set: Click "Time set", Select "Manual set" to set up the time of camera.



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 TELE+ to zoon in, press the key WIDE- 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.

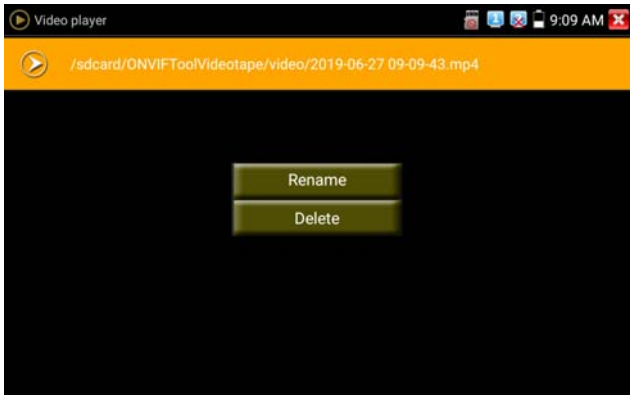
Snapshot: Click bottom "snapshot" to screenshot the image and store it to SD card.

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.

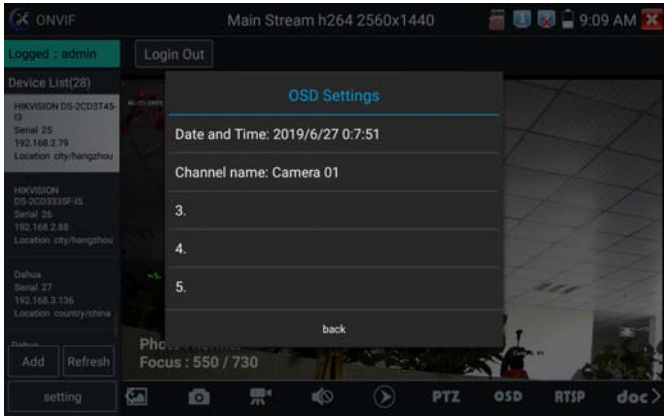
Record: When you click bottom the "Record" icon, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the "Stop" icon to stop recording and save the video file to the SD card.

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

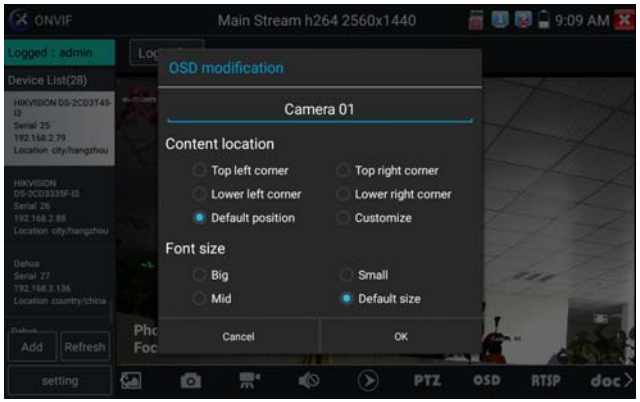
To rename or delete a photo, click and hold on the file until this screen appears:



OSD Menu: Select OSD and popup 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.

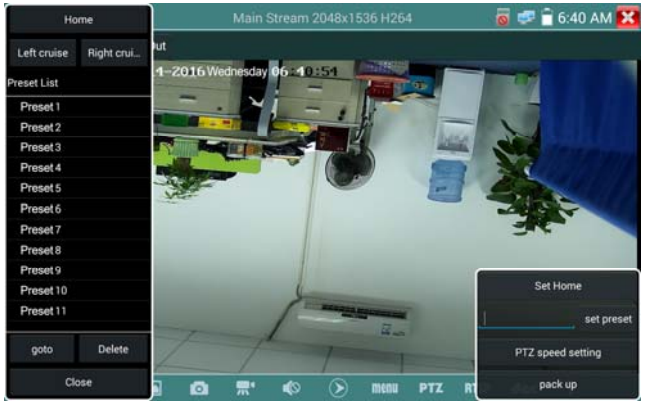


Video files can play in the Video player on the main menu.

PTZ

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

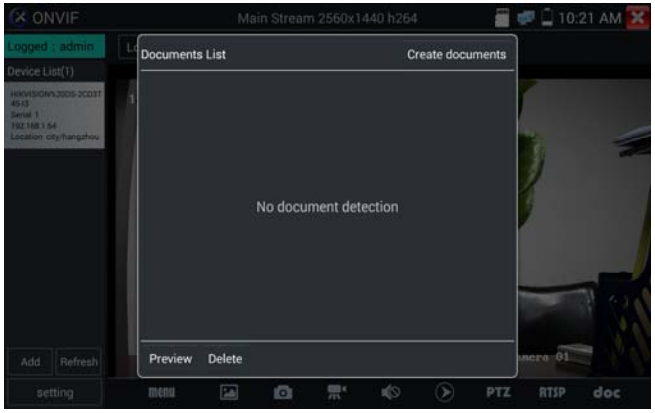
Call the preset position: Select the preset number on the left, click "Call" to call preset.



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 "generate document". Click Preview to view the report document.



Enter the camera test information, click "Generate 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.

3.3.9 NON ONVIF

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.

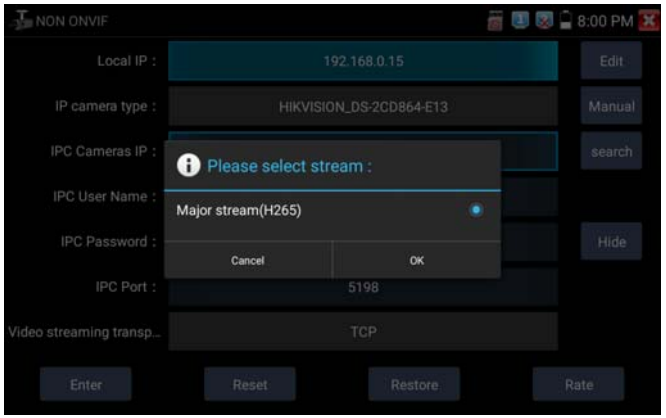
IPC test interface

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 switch to manually selecting".



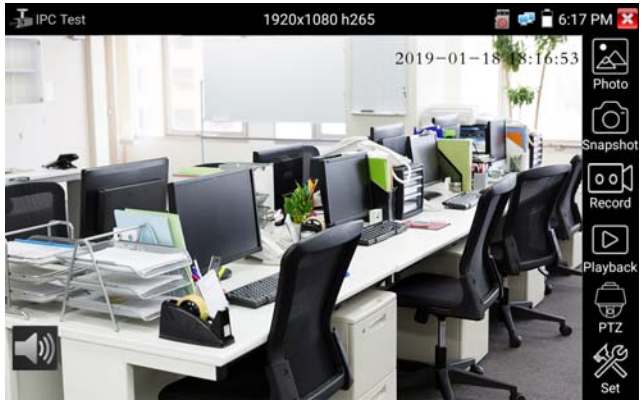
IP Camera's IP: Enter the IP camera's IP address manually or click "Search" to auto-scan for the IP camera's IP address. It is better to directly connect the IP camera to the tester so the search results will only display the camera's IP address. If the tester is connected to a PoE switch, it will find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

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.

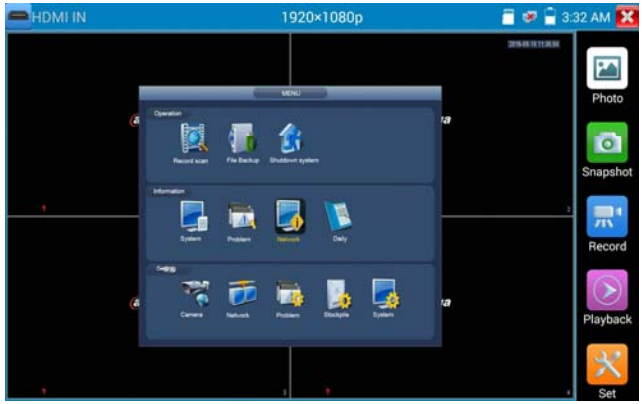
3.3.10 HDMI IN (*Optional)

HDMI in HD signal test, Tap icon "  "to enter

When tester receives HDMI in image, the top tool bar shows the resolution of this image. You can select "resolution" to set resolution in the setting menu. Tap screen by twice, full image display.

Support resolution below

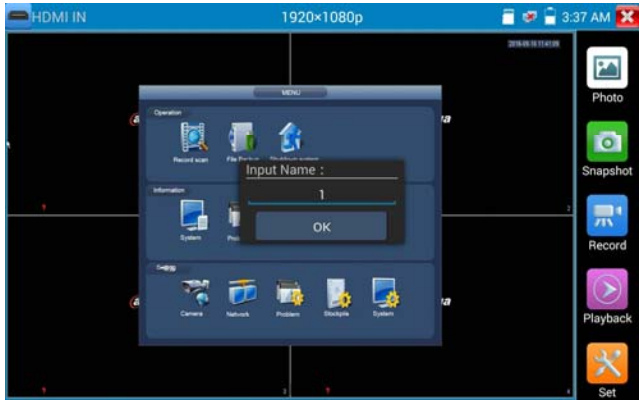
720×480p /720×576p /1280×720p /1920×1080p /1024×768p/1280×1024p /1280×900p /1440×900p



(1) 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.

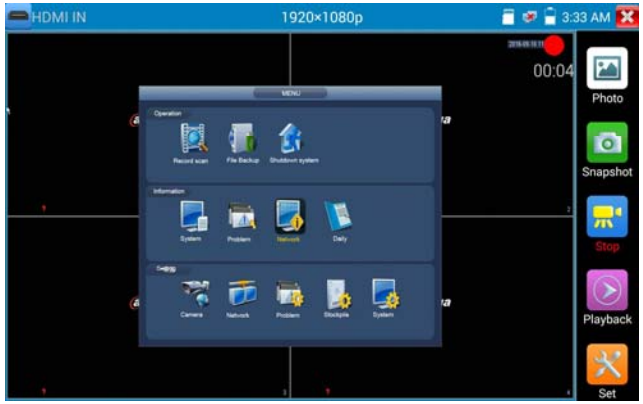


(2) Video record

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.



(3)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.

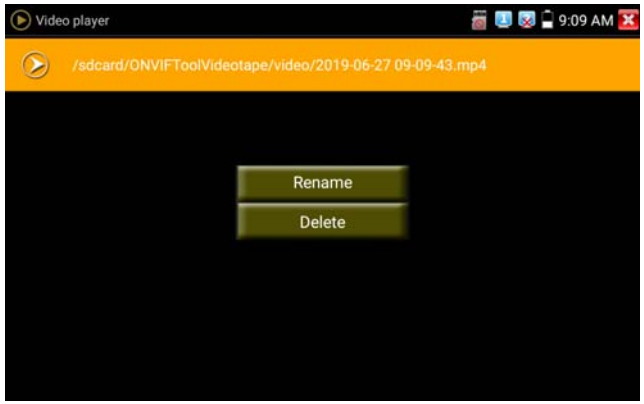
To rename or delete an image, click and hold on the file until this screen below appears

Click  to close and return to PTZ controller.

(4) Recorded video playback

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

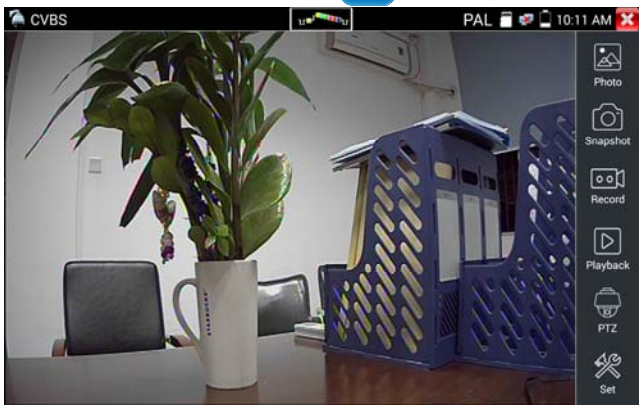
To rename or delete a video, click and hold on the file until this screen appears:



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

3.3.11 Analog camera test

Analog camera test and PTZ control, click icon  to enter



Display the input video image, click the top menu bar icon  to enter video level meter, (PEAK level, SYNC level, COLOR BURST measurement)

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

Click , or press MENU 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 preset position (Set PS)**

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

H. **Call the preset position (Go PS)**

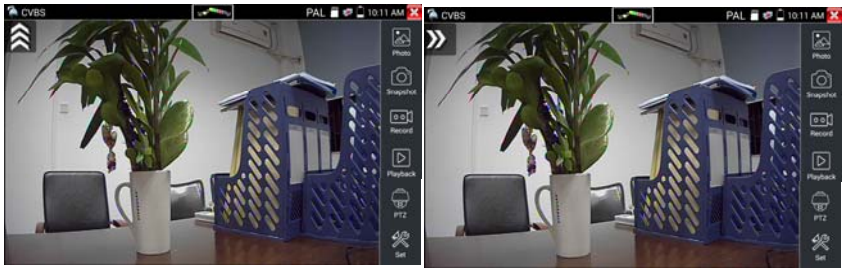
Click and select "Set PS", set and save preset position number (1~128), click "sure" to save,

Call some special preset 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.



PTZ Control:

Press the key  control the PTZ direction of rotation

Press the key  or  , switch on or turn off the aperture.

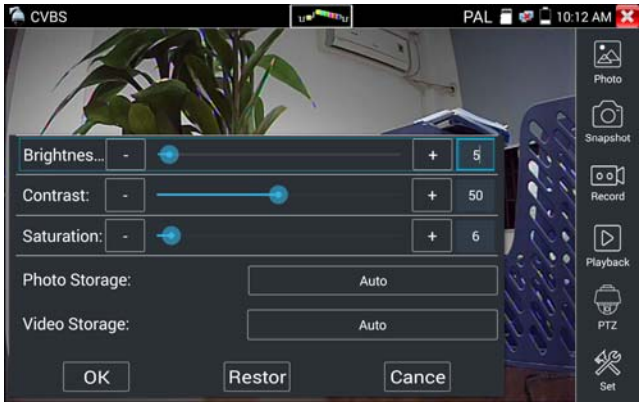
Press the key  or  , adjust the focus manually

Press the key  or  , manually adjust the zoom

2) Video and storage setting

Click icon "set", to enter and set analog video image brightness, contrast, color 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.



3) 4 x zoom image display and Video out

When image input, press to enter "zoom", press it again to quit.

Using the touch screen to control PTZ camera movement:

Tap left, right, upward or downward on the video image to move the PTZ camera in a desired direction.

Stretch two fingers outward or inward on the touch screen to zoom the image in or out.

If not use touch screen to operate, press the key TELE+ to zoom out , press the key WIDE- to zoom in, press upward and downward key to move the image.

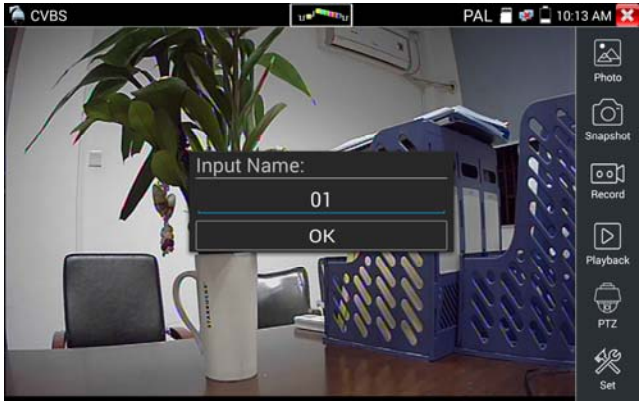
⚠ For analog video input, as the resolution is 720*480, it is normal that the zoom in image is not

clear. But for network digital video input, as it supports resolution up to 1280*960, the zoom in image is still very clear. This is very helpful for IP camera installation.

4) 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.

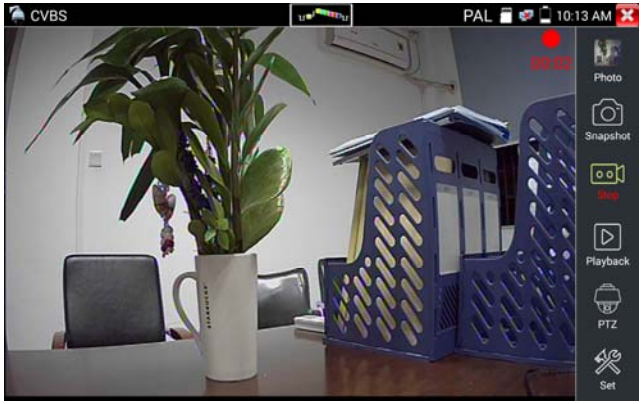
If the unit is set to the manual mode an "Input Name" pop up box will appear and you can enter a title for the snapshot. If the unit is set up to automatically set file names, this box will not pop up.



5) 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.



(6)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.

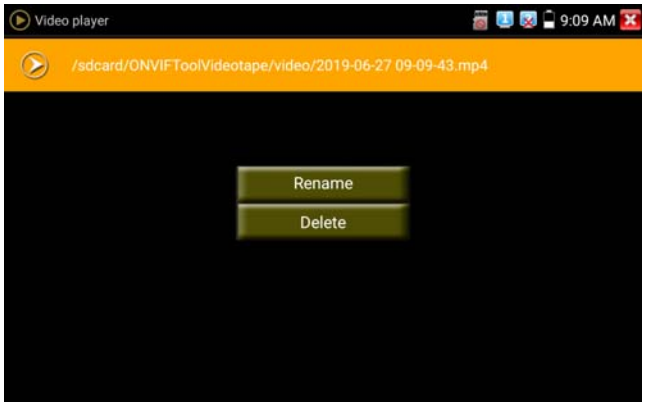
To rename or delete an image, click and hold on the file until this screen below appears.

Click  to close and return to PTZ controller.

(7) Recorded video playback

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

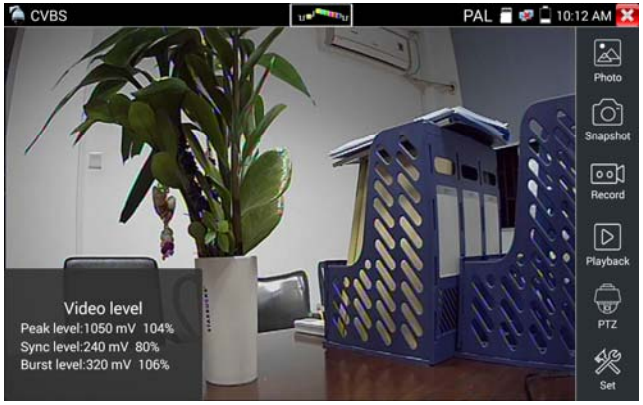
To rename or delete a video, click and hold on the file until this screen appears:



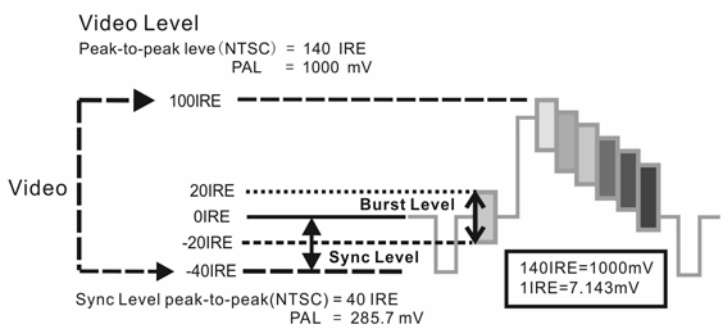
Video files also can play in the main menu "Video Player".

(8) Video level meter

Click the icon  to enter, the IP camera tester has adopted hardware high-speed sampling and processing technology, can perform both NTSC and PAL video amplitude signal measurements for PEAK to PEAK, SYNC levels and COLOR BURST chroma level. When an analog signal is fed into the meter, the tester displays the measurements on the bottom left corner of the screen



While in PAL format, the unit will be mV, While in NTSC format, it will be IRE.



NTSC	Video signal level	140±15IRE
	Chroma level(COLOR BURST)	40±5IRE
	SYNC signal level	40±5IRE
PAL	Video signal level	1000±200mV
	Chroma level(COLOR BURST)	300±35mV
	SYNC signal level	300±35mV

Video signal PEAK to PEAK level:

For NTSC format, the video signal level is 140±15IRE

For PAL format, the video signal level is 1000±200mV

If the level is too low, it will cause the image to lose quality and limit the distance it will travel over cable. If the level is too high, it will distort the image.

SYNC level: Tests the amplitude of the video sync pulse to verify if the video level is correct.

For NTSC format, the SYNC level is 40 ± 5IRE

For PAL format, the SYNC level is 300 ± 35mV

If the level is too low, it will cause the image to not frame out properly. If the level is too high, it will lead to a poor quality image.

COLOR BURST level: Testing the color burst level will determine if the burst signal is sufficient to trigger the displays color producing circuit. Burst will diminish in amplitude over longer cable runs and can get fall below the threshold for the video display to show a color image.

For NTSC format, the Chroma standard level is 40 IRE

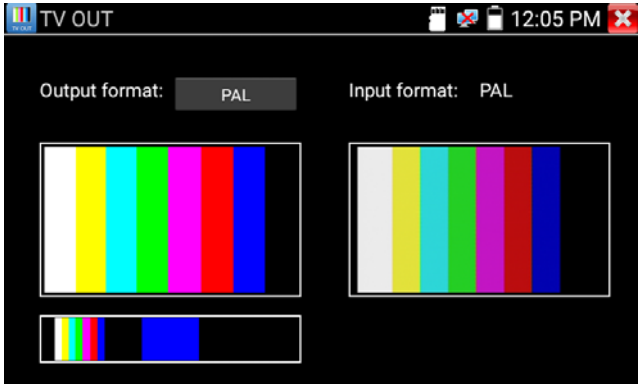
For PAL format, the Chroma standard level is 280mV

If the Chroma level is too low, the color will not be as deep, and some details of the image will become lighter. If the Chroma level is too high, there will be distortions on the image. If the coaxial cable is too long, it will reduce the chroma level.

Image loop test: Test video optical transmitter and receiver and video cable, connect one end to the tester "VIDEO OUT" port, and the other end connected to "VIDEO IN" port, the signal send via "VIDEO OUT" port, and received via "VIDEO IN" port, If the testing is ok, the tester displays several gradually dwindling photos on the desktop.

3.3.12 Color-bar generator (TV OUT)

Click  to enter, the tester sends the color bars from the "Video out" port, Click the icon "PAL", select "PAL/NTSC" output formats.



Click the selected color-bars, testing image or single bar (red, green, blue, white or black). Double click to full display on the screen and output, click  to return main menu.

Application

BNC loop test: Tester can send and receive color bar generator through the tester's "video out and video in" port, it is for testing transmission channels, such as video Optical, video cables etc. The tester "VIDEO OUT" port to connect optical terminal's sending port, and "VIDEO IN" port to optical terminal's connect its receiving port.

A. When maintaining the dome camera, the tester sends out the color bar by its BNC output to the monitor at the monitoring center. If the monitor receive the color bar, it means the video transmit channel works normally. Meanwhile on the basis of the received color bar, the monitoring center can judge if transmission has loss or interference.

B. The tester sends out the pure color bar (such as white and black color), to test the monitor whether has bright or black dots

C. The tester sends out video signal image to test if the image received by the monitor has excursion.

3.3.13 AutoHD (*Optional)

Auto-recognize the resolution and Auto-display the image of the connected camera. Support coaxial PT Z control and call OSD menu, support up to 8MP TVI/CVI/AHD and CVBS cameras.

3.3.14 HD Coaxial & Analog level test (*Optional)

Through hardware high-speed sampling and processing technology, accurately measure video peak level, sync level and burst level. It is used for level measurement of HD coaxial cameras, judge whether the working image of the camera and the image after attenuation by BNC cable transmission are normal, quickly detect and eliminate faults.

Image display: Select the camera type, no need to select the resolution, click the camera icon, can browse the camera image directly.

Level Meter Test: Need to select the camera type and resolution, click "test" to test the level

Color bar generation: Click"CVBS", quickly enter color bar generation app

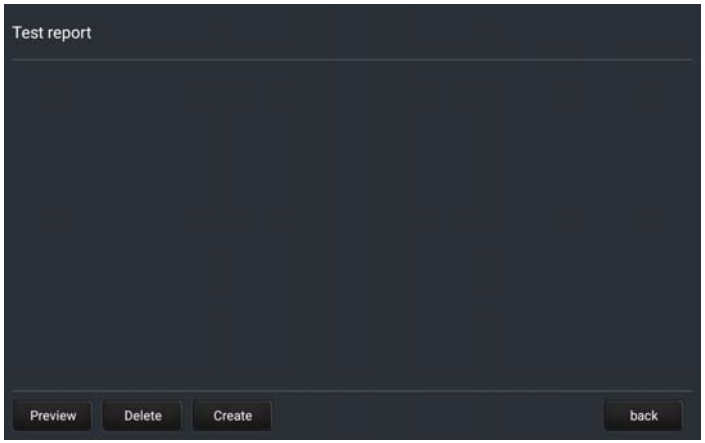
Test Result： The percentage and signal grid of the level value. compared with the reference value. When the value is lower than the threshold, the background color will be grayed and appear the warning icon. Different camera and cable lengths, different level value.

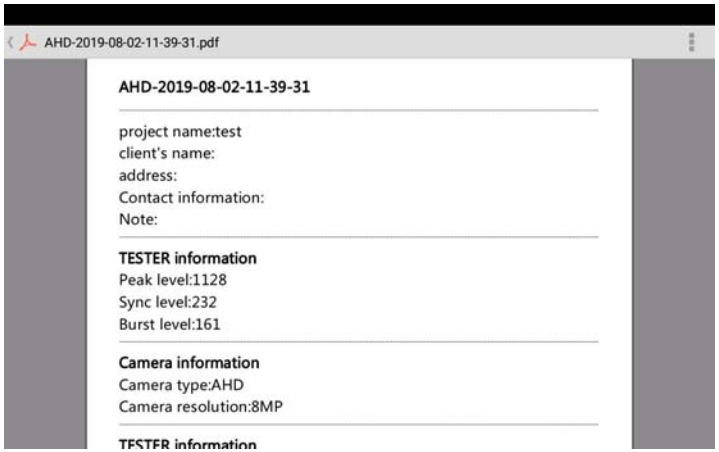
Reference value: The normal value at this resolution, it is used to reference and compare test results, click "value" to modify.

Threshold: Critical value at this resolution. Lower this value, will appear image noise on the screen, click "value" to modify.

Reset: Click "Reset" to reset the reference value and threshold.

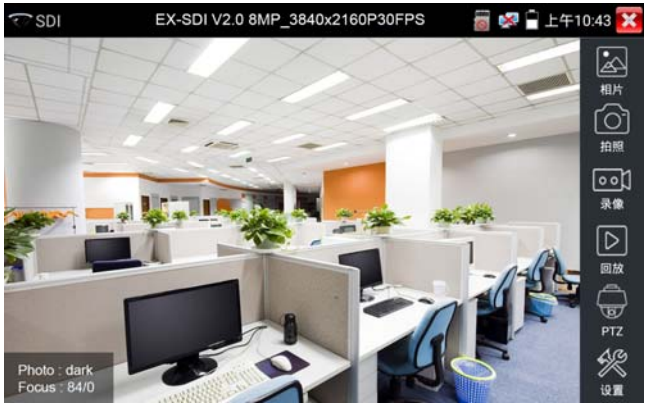
Create documents: The testing report can save customer information, level meter test information, camera information and Instrument information.





3.3.15 SDI Camera Test (*Optional)

SDI camera test, Dome camera test and PTZ control, click icon  to enter.



When tester receives SDI camera image, it will display the image data.

Double-taps on the screen to make the image displayed full screen.

The tester supports resolution as follows:

1280x720P 25Hz, 1280x720P 30Hz, 1280x720P 50Hz, 1280x720P 60Hz, 1920x1080P 25Hz

1920x1080P 30Hz, 1920x1080I 50Hz, 1920x1080I 60Hz, EX-SDI: 2560x1440P /25/30FPS,

3840x2160 20/30FPS.

IPC tester's HDMI output port can be use as SDI to HDMI converter, output HD SDI image to HD TV monitor.

Select relative function on the right side Toolbar to operate, "Snapshot" , "Record", "Photos ", "Video playback", "PTZ control", "Video Brightness and Storage set", the operation is the same to the video monitor function, please refer to the relevant instructions "3.3.1" in the manual.

Click  or press  to quit.

3.3.16 CVI camera test (*Optional)

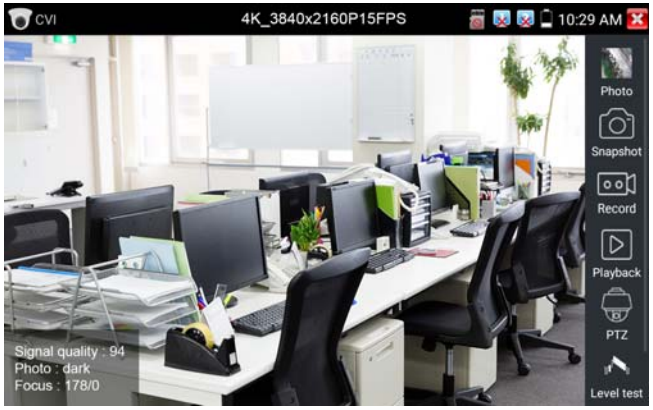
HD CVI camera, CVI dome camera test and PTZ control, click icon  to enter

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/ 2592x1944P 20FPS / 2960x1920P 20FPS / 3840 x 2160P 12.5/15 FPS

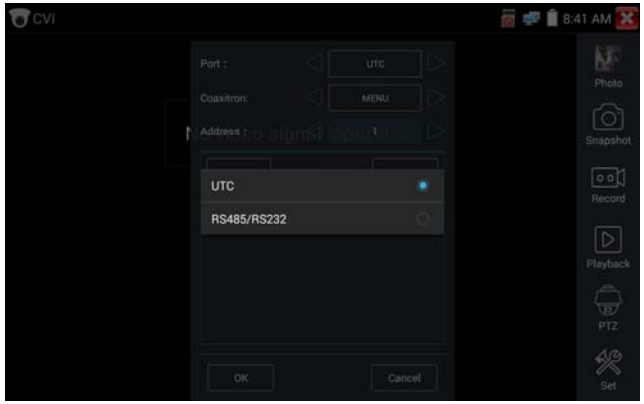


（1）PTZ control

1.1 Coaxial PTZ control

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

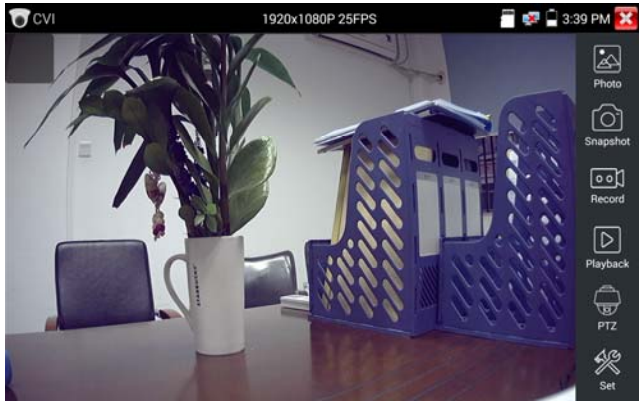
"Port": select coaxial control



Enter PTZ address to perform parameters setting

Operation instructions, please refer to "3.3.1 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.

To control PTZ by key buttons

- Press arrow keys to control  to control the PTZ direction of rotation
  - Press the key  to switch on or turn off the aperture.
  - Press the key  to adjust the focus manually.
  - Press the key  to manually adjust the zoom.

Set preset position

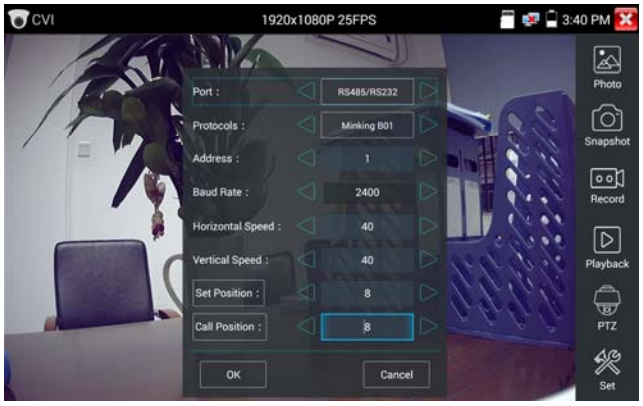
Setup preset position, move the PTZ camera to the preset position, the Tap it and input preset position number. Tap "Set position" to complete set preset position.

Call preset position

Tap the preset position:

Tap the preset position area, input preset position number. Tap "call position" to complete call preset position.

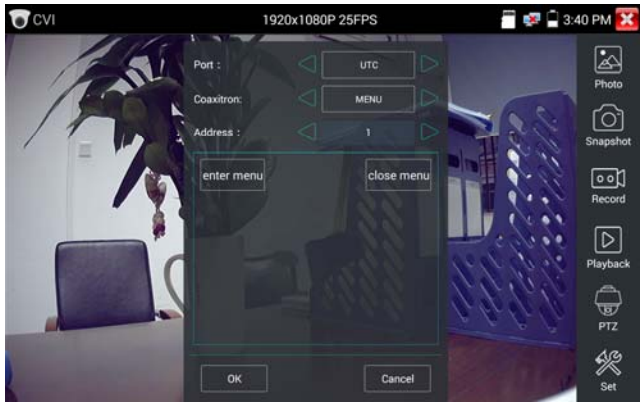
1.2 RS485 control



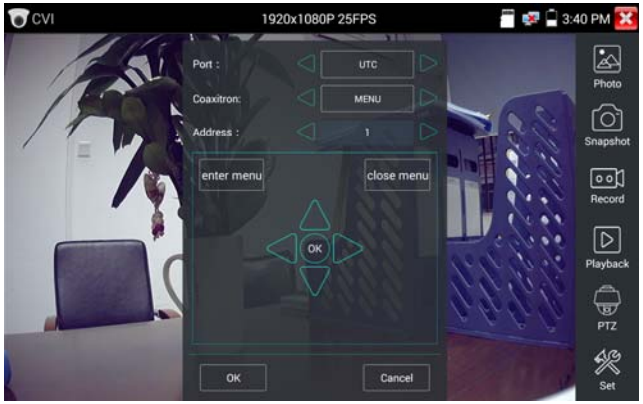
Operation instructions, please refer to "3.3.1 PTZ (1) PTZ control parameters setting".

（2）Coaxial camera menu setting

Tap icon "UTC", select "menu setting" to enter the dome camera menu.



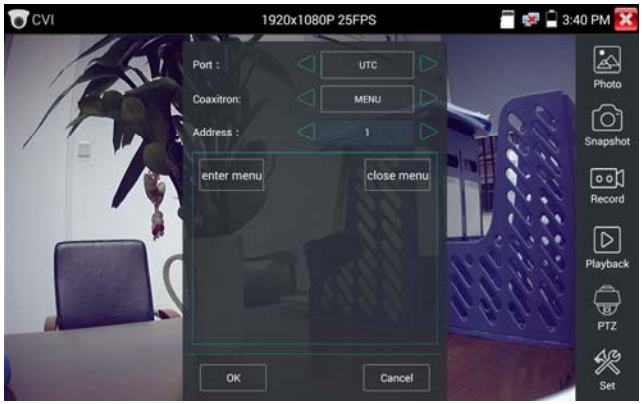
Input calling dome camera menu address code, after finishing the parameter settings, you can press the key ENTER or click the icon  to call the dome camera menu.



Press arrow keys  to set

(3) Snapshot, record, photo viewer and video play back, please refer to "3.3.1 PTZ (1) Video monitor test".

Tap "close menu" or press the key " ENTER " to close camera menu.

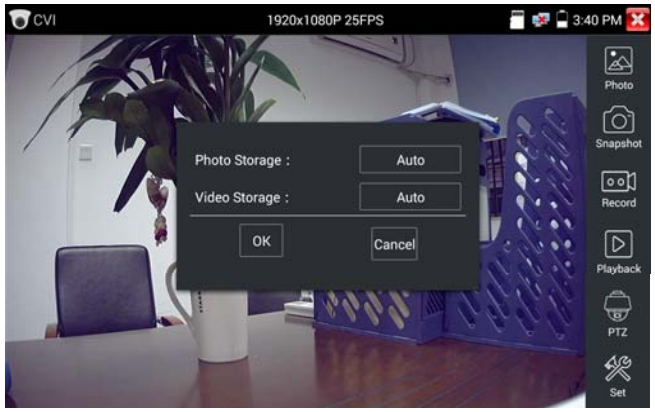


(4) Save setting

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.



3.3.17 TVI camera test (*Optional)

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

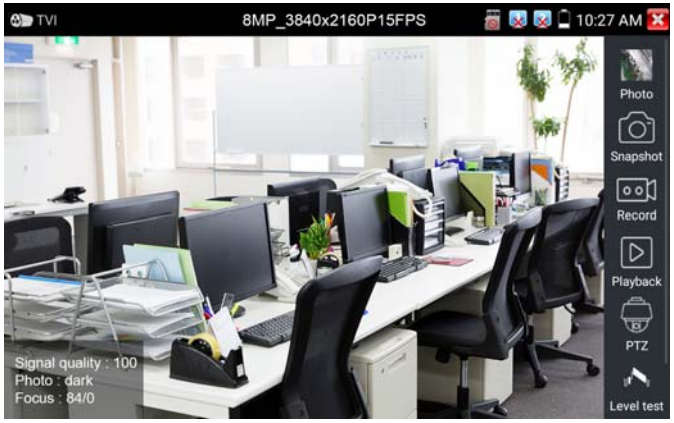
The tester supports resolution as follows:

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

1920x1080P 25FPS / 1920x1080P 30FPS / 1920x1080P 50FPS / 1920x1080P 60FPS //2048x1536P

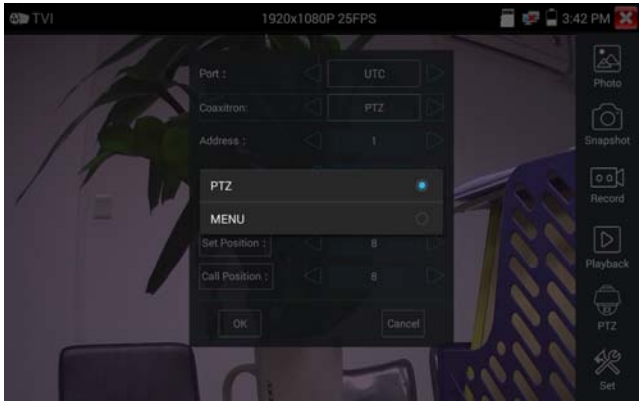
18FPS/2048x1536P 25FPS/2048x1536P 30FPS /2560x1440P 15FPS/2560x1440P 25 FPS/2560x1440P

30FPS/2688x1520P 15FPS/2592x1944P 12.5FPS/2592x1944P 20FPS/3840 x 2160P 12.5/15 FPS

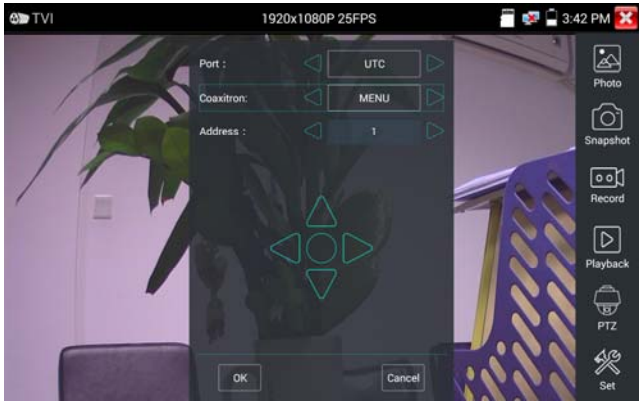


Coaxial camera menu settings

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  or click the icon  to call the dome camera menu.



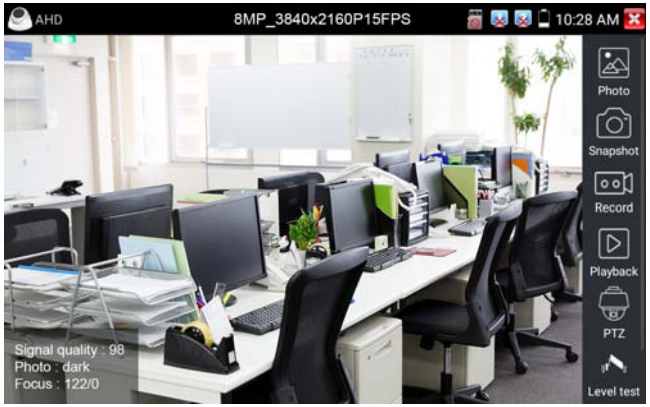
More operation instructions (such as PTZ control, coaxial camera menu setting, snapshot, recording and playback etc), please refer to "3.3.6 CVI camera test".

3.3.18 AHD camera test (*Optional)

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

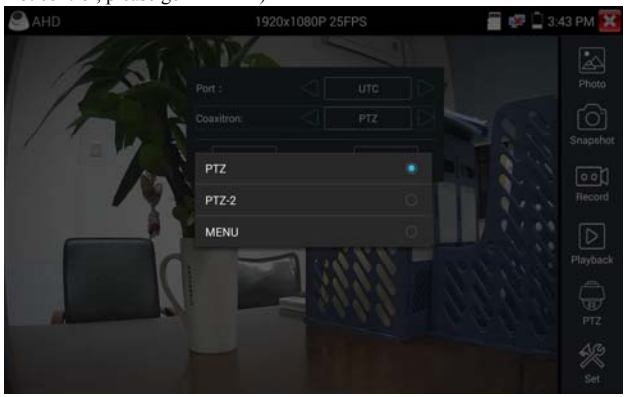
The tester supports resolution as follows:

1280x720P 25,30FPS / 1920x1080P 25FPS / 1920x1080P 30FPS/2048x1536P 18,25FPS/2048x1536P 30FPS /2560x1440P 15 FPS/2560x1440P 25,30 FPS/2592x1944P 12.5,20FPS/3840 x 2160P 15FPS



(1) Coaxial PTZ control

UTC control: select "PTZ control or PTZ control-2"(AHD camera has two different order, if select "PTZ" cannot control, please go "PTZ-2")



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

More operation instructions please refer to "3.3.6 CVI camera test"