

IP camera tester

User Manual

(IPC1.03)



■ 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 10 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

IP camera tester is designed for maintenance and installation of IP cameras and analog cameras as well as other security equipment. The 3.5 inch touch screen enables it to display network HD cameras and analog cameras image, 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.

Built in PING, and IP address searching etc network functions, and with DC 12V power output etc functions, Its portability, user-friendly design and many other functions make the IP tester an essential tool for all installers or technicians.

2.2 Features

- ✧ 3.5inch 320×240 touch screen, easy to operate.
- ✧ ONVIF IP camera video testing.
- ✧ Compatible with H.264/MPEG4/MJPEG IP cameras, such as Dahua, HIKVISION, and ACTI. Customized service is available.
- ✧ Built in Wi-Fi: receives video from wireless cameras or ONVIF cameras connected to the network.
- ✧ Analog camera video display. Auto adapts and displays the video in NTSC/PAL formats
- ✧ Support more than 30 protocols, such as PELCO-P, PELCO-D,SAMSUNG etc
- ✧ Snapshot function allows you to save the current image as a JPG file in the SD card.
- ✧ Video recording and playback.
- ✧ LCD screen brightness/contrast/color Saturation adjustable
- ✧ Ping test: PING is the most conventional network debugging tool; 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.
- ✧ In digital IP surveillance applications, if the IP camera's IP address is not known; the device cannot be used. An IP address scan can quickly search for the connected IP camera or other

network device's IP address

- ◇ Support RS485, Rate 150 ~ 115200bps adjustable
- ◇ PTZ protocol analysis, control protocol command displays to check RS485 transmission whether is normal, easy to find the fault device
- ◇ PTZ control. Pan/tilts the P/T unit, zooms in/out the lens, adjusts the focus, aperture and sets and the preset position
- ◇ DC12V 1A output power for cameras
- ◇ Audio input t test.
- ◇ 3.7V 3000mAh, Lithium Ion Polymer Battery can last 10 hours for normal use after charging for 4-5 hours. Remaining battery charge indicator

“*”Sign means the function Optional

2.3 Function

2.3.1 Touch screen and OSD menu

The IP camera tester combines touch screen control and physical buttons. This combination makes the tester very user friendly. The test meter allows you to move the function icons from the tester's main menu to the APPS tool folder or move them back to customize the main menu

2.3.2 WIFI

With built in WIFI, you can view the video from a wireless camera (ONVIF or customized camera) or connect to a Wireless network.

2.3.3 IP camera test

The device is designed for ONVIF IP camera testing. It can display the image from an IP camera and change the IP address. The 3.5 inch 320x240 screen display allows the user to view the image with a sufficient screen size.

With the ONVIF tool, you can display the image from an IP camera and use the PTZ functions.

Currently the IP camera tester supports more than 80 brands' IP cameras, such as most, ACTi, Dahua,

Hikvision, Samsung, Honeywell and many more.

OEM service is available. Users can send us the ip camera [mobile apps](#) for our engineers try to add the protocol to the tester.

2.3.4 Analog camera test

Displays an analog camera image on the [3.5 inch 320*240](#) resolution LCD screen. Supports PAL & NTSC formats. The LCD screen's back light brightness, video image brightness, contrast and color saturation are all adjustable.

2.3.5 PTZ controller

Display the input video images. Pan/tilt the P/T unit and zoom in/ out the image. Setup the controlling parameters like protocol, communication port, baud rate, PTZ ID, pan/tilt speed; set and call preset position.

2.3.6 12 DC12V 1A power output

Power the camera with DC12V (1A) power output from the tester. It is helpful for demo and testing when the power supply is not available

2.3.7 Audio testing

Test the audio from mic level input devices. Connect the tester and mic level device with the audio cable. Supports record and save the audio.

2.3.8 PTZ data analysis

Search the Control protocol code from Multifunction keyboard or DVR by RS485 interface, test the PTZ control command data whether received anomaly and RS485 data transmission.

Screen displays 16 hexadecimal codes such as

PELCO-P:A0 00 (Add) xx xxxxxx AF xx

PELCO-D:FF 01 (Add) xx xxxxxxxx

2.3.9 Digital Image zoom on the monitor

Set image zoom up to 4X to get a closer look at all the image detail. Supports analog and many IP cameras

2.3.10 Video screenshot

Capture the video image, and save it as JPEG file in the SD card.

2.3.11 Record

Capture the video frames as JPEG file

2.3.12 Playback

The recorded files can play directly via Media player or under the function of “Playback”.

2.3.13 DHCP dynamic address assignment

Built in DHCP server: Dynamically assign IP address for the IP camera or network device.

2.3.14 Access the dynamic IP address

The IP tester can directly access a dynamic IP address assigned from its DHCP server and use it as the tester's IP address. No need to set a IP address manually.

2.3.15 Multiple network IP Cameras Test

Supports Multi- segmented Static IP address setting which can simultaneously test different segments of IP network cameras.

2.3.16 Network bandwidth testing

The network bandwidth test needs two IP testers to test bandwidth: one as a transmitter, the other as a receiver.

2.3.17 IP address scan

The IP address scan can quickly search for connected IP cameras or another network device IP address.

2.3.18 PING Test

PING is the most conventional network debugging tool; it is used for testing if the connected IP camera or other network equipment is working normally and the IP address is correct

2.3.19 Port Finder

The tester will send signals to make the connected PoE port flicker at a set frequency. This will enable

the installer to easily and quickly find the connected port for an Ethernet cable.

2.3.20 Screen image rotates 180 degrees

You can manually rotate the display 180 degrees using the settings.

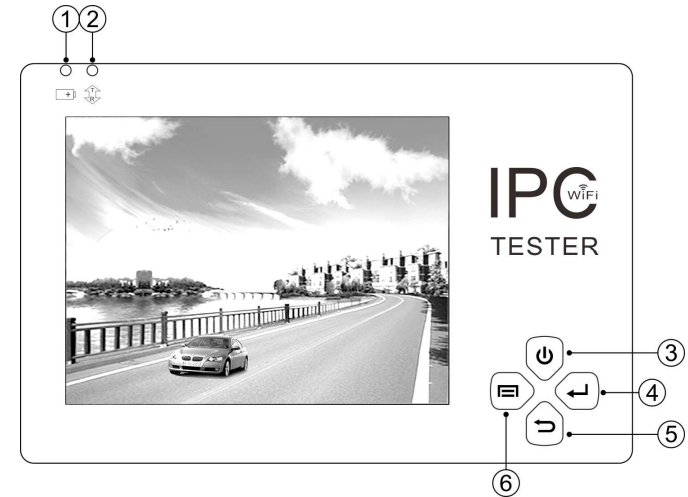
2.3.21 FTP Server







Start the tester's Wi-Fi or connect the tester's LAN port to the network. Once the tester is online, start its FTP Server and directly access files from the tester's SD card. This also allows for the user to upgrade the tester firmware

2.4 Packing list

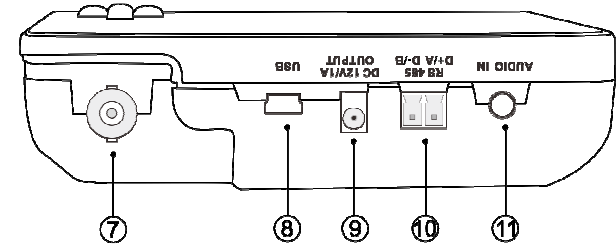
- 1). Tester
- 2). Adaptor DC5V 1.5A
- 3) Polymer lithium ion battery (3.7V DC 3000mAh)
- 5). BNC cable
- 6). RS485 cable
- 7). **Output Power cable**
- 8). Audio cable
- 9) Safety cord
- 10). Tool bag
- 11). User's Manual

2.5 Function interface

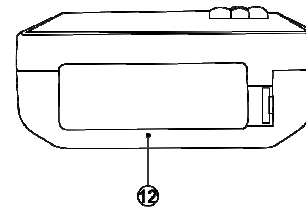


1		The charge indicator: it lights red while the battery is being charged. As the charging is complete, the indicator turns off automatically
2		The RS485 data transmission indicator: it lights red while the data is being transmitted
3		Press more than 2 seconds, turn on or off the device ,short press to turn on or off the menu display
4		Confirm key /zoom key
5		Return/Close : Return or cancel while setting parameters of the menu, close or decrease the aperture
6		Function switching key

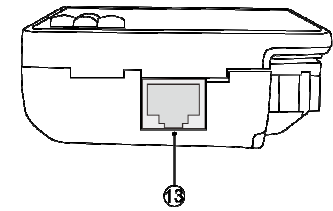
Top interface



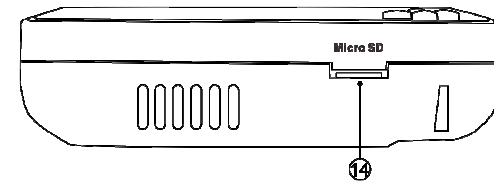
Left interface



Right interface



Bottom interface



7 Video signal input (BNC interface)


8	DC5V1.5A USB charging interface
9	DC12V1A power output , for provisional DC power supply
10	RS485 Interface: RS485communication for the PTZ
11	Audio input
12	Battery slot
13	Lan port
14	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!

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



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

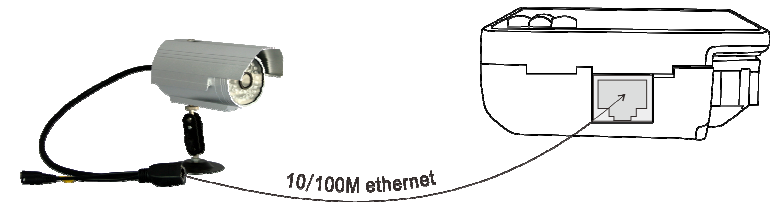
charged. The charging time can be extended for about 1 hour and the charging time within 12 hours will not damage the battery.



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

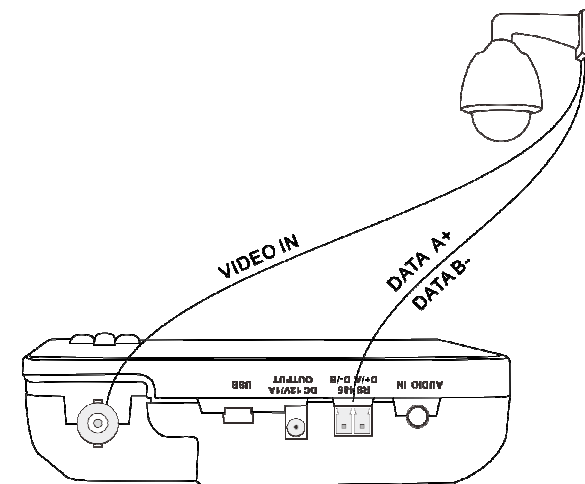
3.2 Instrument connection

3.2.1 IP camera connection







Power an IP camera with an independent power supply, then connect the IP camera to the IP 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 IP 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.

3.2.2 Analog camera connection




- (1) The camera or dome video output is connected to CCTV IP Tester VIDEO IN,the image display on the tester .
- (2) 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).

3.3 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



Select Icons to enter, if quit, Please click 




Click SD card, install or remove SD card



Press function Icons seconds, tip: whether move this icon to APPS file, if some function not be often used, can move these function icons to APPS.

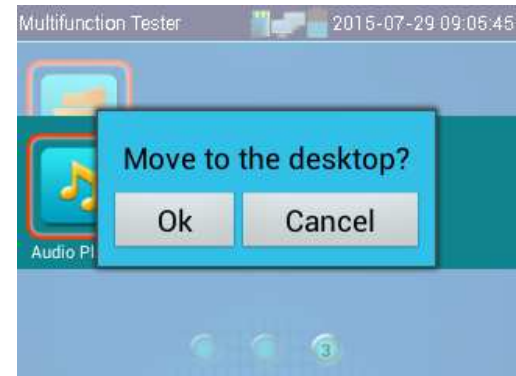
To move an app icon to the "APPS" folder, press and hold until the "move to apps directory" appears on the screen then press OK to move it or Cancel



- Click icon “APPS” tool, to show all collected function icons, Click , back to the tester’s main menu

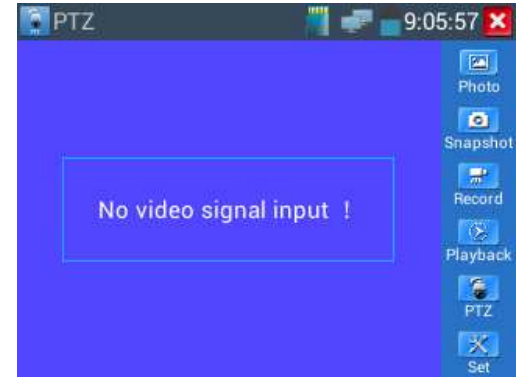


In APPS file, Select icon and press it for seconds, tip: whether move the file to the desktop?





3.3.1 Video monitor test (PTZ control)

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  to quit, or press  back to menu.

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

3.3.1.1 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)

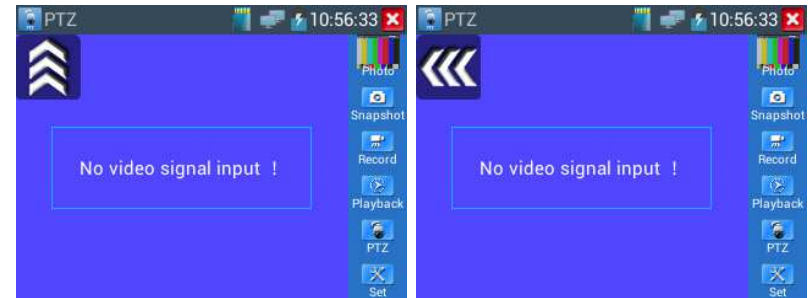
Click and select “Set PS”, set and save preset position number (1~128), click “sure” to save, Call some special preset number,can call the dome camera menu




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



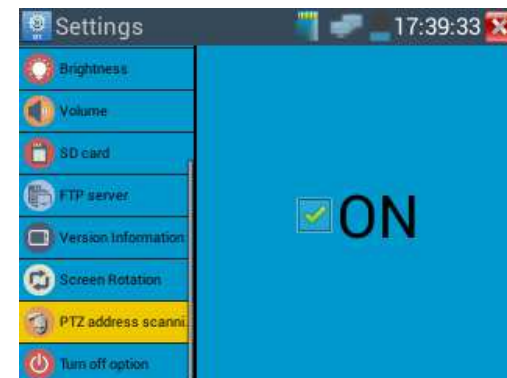
3.3.1.2 PTZ address search

 **Note:** Please isolate the PTZ camera with other PTZ cameras before searching up.

Otherwise all

the PTZ cameras in the same system will pan at the same time.

Click "system setting" to enter and select "PTZ controller", then manually turn on it



After "PTZ control "turn on" , Click icon "PTZ" to enter and select "Address scan"



Pls click “address scan “to set protocol, communication port, communication rate, make them the same as PTZ camera.

Press “Auto scan” (add), add: 1 the tester will search up the ID quickly and continuously. When the ID is searched, the PTZ camera will pan right. At this time, please press Auto scan” (add) to stop searching up.

Press “Auto scan” (minus), when searched address and stop pan right , the display address code is dome camera address code .

Press “Auto scan” (minus), address :1 The tester will search up the ID quickly and continuously. When the ID is searched, the PTZ camera will pan left. At this time, please press “Auto scan” (minus)” to stop searching up.

Press “Auto scan” (add), when searched address and stop pan left, the display address code is dome camera address code.




(Note: if exit "PTZ","System setting-PTZ address scan default be "off" .if use it next time ,Pls turn on it again)

3.3.1.3 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.



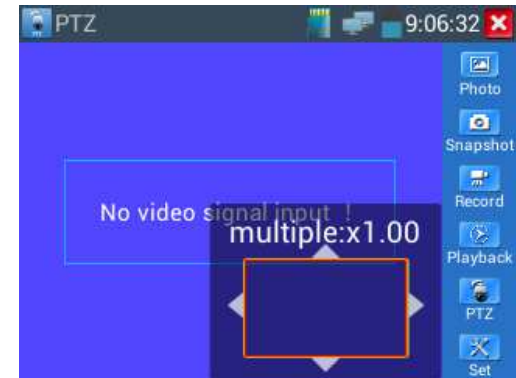
3.3.1.4 4 x zoom image display


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.

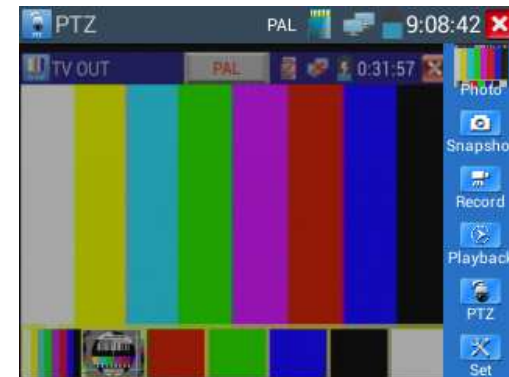


 For analog video input, as the resolution is 720*480, it is normal that the zoom in image is not clear. But for network digital video input, as it supports resolution up to 1280*960, the zoom in image is still very clear. This is very helpful for IP camera installation.

3.3.1.5 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.

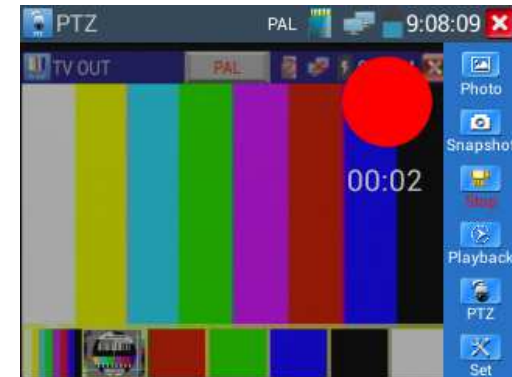
If the unit is set to the manual mode an "Input Name" pop up box will appear and you can enter a title for the snapshot. If the unit is set up to automatically set file names, this box will not pop up.



3.3.1.6 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 .




3.3.1.7 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.



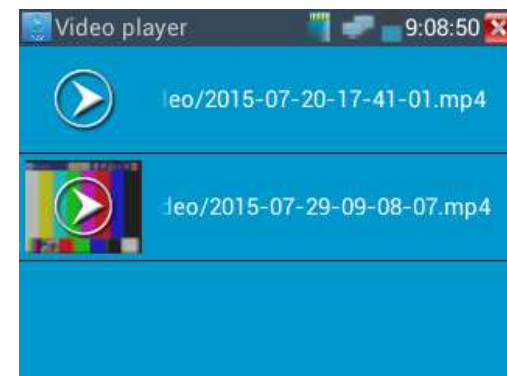
To rename or delete an image, click and hold on the file until this screen below appears



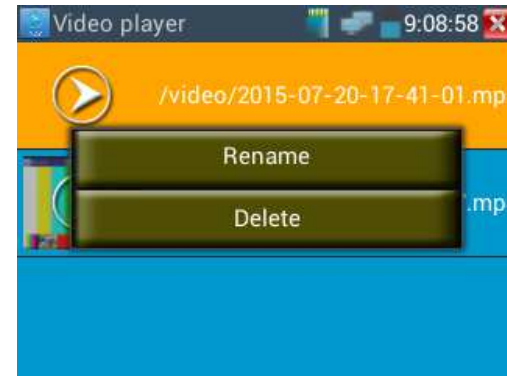
Click  to close and return to PTZ controller.

3.3.1.8 Record 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".

3.3.2 ONVIF

The Open Network Video Interface Forum (ONVIF) app is used to connect to ONVIF compliant IP cameras only. If the IP camera's video stream is MPEG4, use the ONVIF (SD) mode. If your IP camera's video stream is H.264, use ONVIF HD (High Definition), HD mode cannot support MPEG4. While in SD mode, if the network camera resolution is 720P or higher 720P, the image display may be delayed. While in HD mode, if the network camera stream is H.264, the tester can fluently display the image up to 1080P.

Click icon  to enter Then tap either the "ONVIF" icon is for SD mode (MPEG4) and the "ONVIF HD" icon is for HD mode (H.264).



Click icon  to enter, the tester Auto-Scan different network segments ONVIF cameras, and list the camera name and address on the screen left. Some cameras not need user name and password to login, Please select “Non- verification” to login the camera.

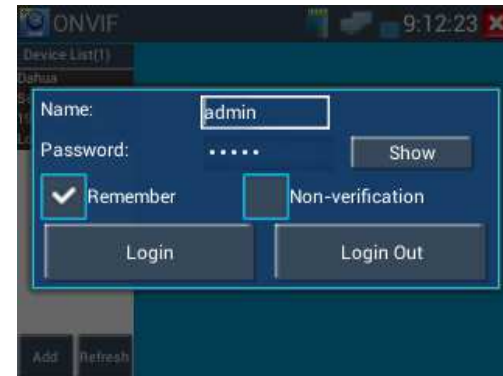


If you select ONVIF SD or HD mode, the meter automatically scans different network segments for ONVIF cameras. It lists the camera name and IP address on the Device List. If no cameras appear under the device list, try clicking on the Refresh button



Click “refresh”, the IPC tester scanned ONVIF network camera on the internet.

Click the camera in the list of devices, camera login window pops up. Input the camera’s username and pass word. Some network cameras, does not require a user name and password authentication, check "non-verification" and then login the camera.



Click “device list” of the tester’s screen left, will shows the camera information and setting. Such as “Device information”, “Time setting”, “Maintenance” “Network setting”, “User management”, “Live video”, “Image setting”etc. Some functions must camera's setting open to operate.

Live Video: Click "Live Video" to view the live video feed from the IP camera. To make the image full screen, double tap on the video. Stretch two fingers outward or inward on the touch screen to zoom the image in or out. If you want to zoom in or out ,pls press the key tele and wide



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.



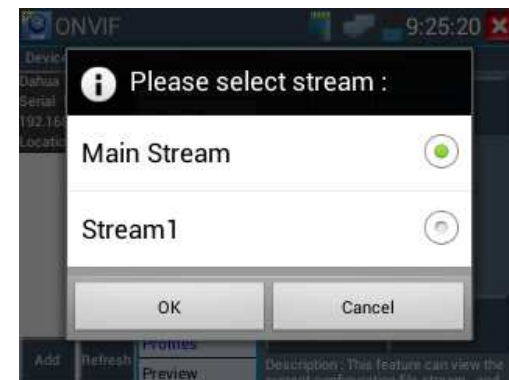
Video Streaming: Click "Video Set" to enter, set the IP camera decoding resolution, click "OK" to save.



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



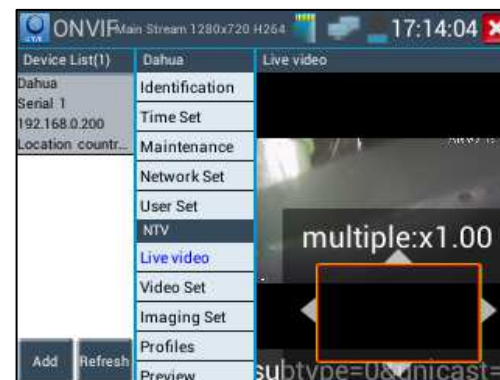
Network setting: Click “Network Set” to change the IP address settings.

Note: Some cameras are not fully ONVIF compliant and cannot support changing their 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



! 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 to help 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.)

On the interface of "Live Video", click "  ", appears toolbar: Snapshot, Record, Photo, Playback, PTZ, Set, etc.

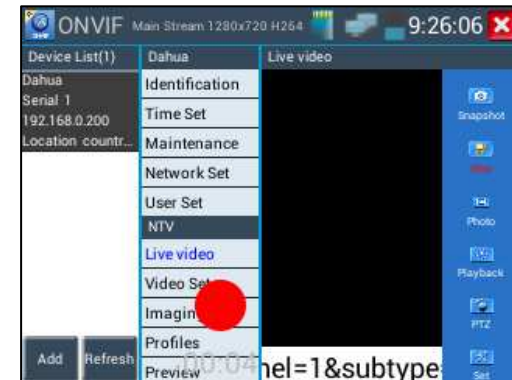


Snapshot: Click "snapshot" to screen shots and storage

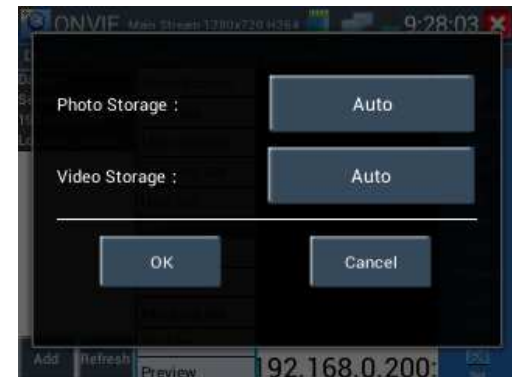
if select manual recording ,appears dialog box "Please input the files name" , user-defined the files name(by Chinese character, English ,or digit) to save in SD card, if select "Auto-recording", the tester


auto-recording the files after screenshots .

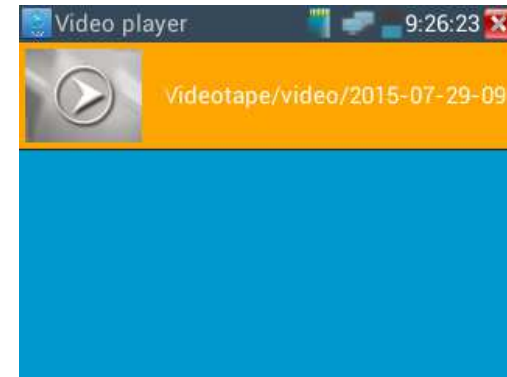
Record: When you click the "Record" icon, video starts recording. A red recording icon appears on the screen and begins to flash and a timer appears indicating the time elapsed for the video. Click on the "Stop" icon to stop recording and save the video file to the SD card.



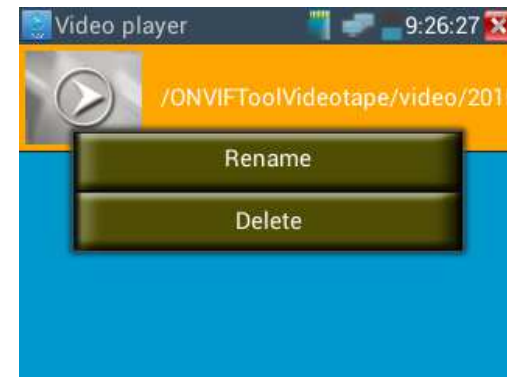
Set: Click icon "Set", Photo and record function can select, if Auto-name, Photos and recording files Auto-storage, if manual, user define files name.



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 of the main menu

3.3.3 IP camera test

Click icons  to enter IP camera test

Display high-definition images, support snapshot, video record and playback. Currently, the IPC tester only support some brands' specified IP cameras, the brands include Dahua , Hikvision, Kodak , Samsung, etc. OEM service is available.

 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.

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

1.Under "Manual"mode, please select the camera type by manual

Click IP camera type, list Honeywell , Honeywell , Kodak,Tiandy, Aipu-waton,VVS, 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)



Local IP :	192.168.0.238	Edit
IP camera type :	HIKVISION_DS-2CD864-E13	Manual
IPC Camera IP :	192.168.0.64	Search
IPC User Name :	admin	
IPC Password :	*****	Show
IPC Port :	5198	
Enter		Reset
Restore		Rate

2.Under “Auto”mode, The tester will automatically match the type of camera.



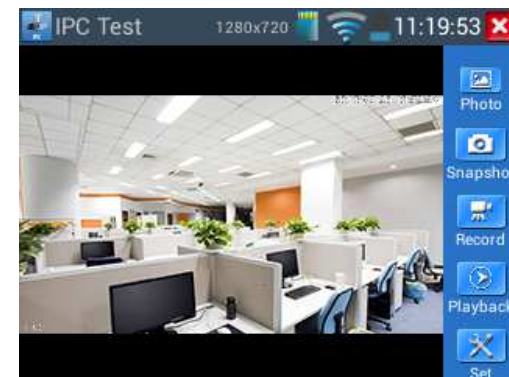
IP Camera's address: Enter IP camera's IP address , click “deploy” add IP address of the Different network segments, support multi- network segments' IP camera test .

Click “Search” to auto-scan the IP camera's IP address and display. It is better to directly connect IP camera to the tester so that the tester will search out only one IP address. If the tester is connected to PoE switch, it will search out several IP address.


IPC User Name: Enter IP camera's user name

IPC Password: Enter IP camera's login password, if default enter password, not show relevant letters, click “display” to show the password

IPC Port No.:Select IP camera type, it default relative camera port number, and not need change. After setting, click “Enter” to enter image interface.




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.



Under the IPC Test , on the IP camera image display, there is “Video Menu” icon, click “Video Menu”, appears toolbar: Snapshot, Record, Photo, Playback, PTZ, Set, etc. Please refer to ONVIF to use these functions

3.3.4 IP address scan


Connect the cable to the LAN port, click icon  to enter, set initial IP and destination IP address,the tester’s IP address network segment can be the same or different to the scanned network device’s network segment, then click the key “Start” to scan, quickly to search the IP address, also can input the IP address in the Port Number Scan to scan to port number ,check the tested device’s supporting port number and how many ports can support the device’s network communication..



3.3.5 PING Test

PING is the most conventional network debugging tool; 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.

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 ping. 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.

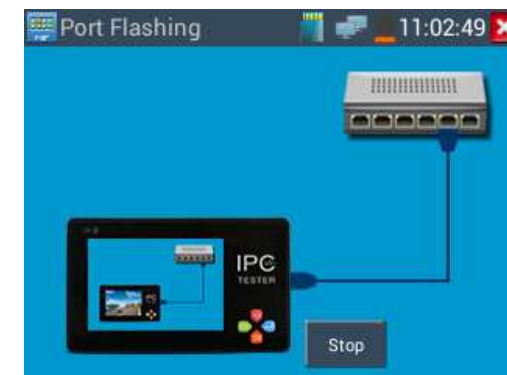


Application: PING testing is the most conventional network debugging tools. It is used for testing if the connected IP camera or other network equipment’s Ethernet port is working normally and the IP address is correct.

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

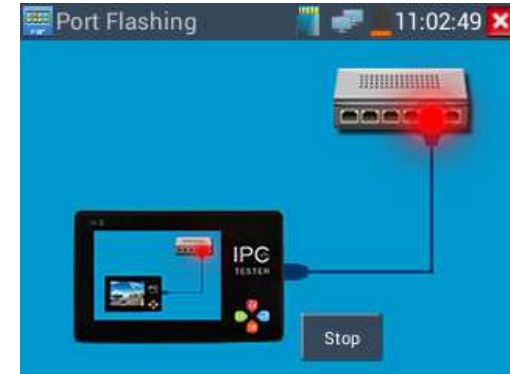
3.3.6 Port finder

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

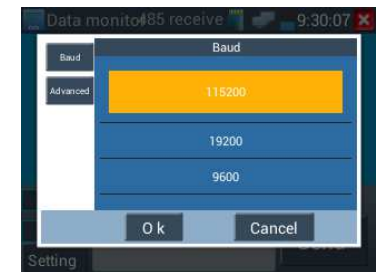
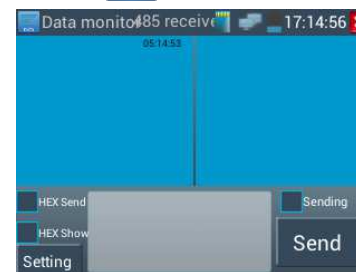


Application:

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.

3.3.7 Data monitor

Please click icon  to enter



Click "Setting" to choose the baud rate of RS485; 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:---

When the tester receives the code, Press the key to clear screen.

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 analyze the protocol and check the data through the displayed code.

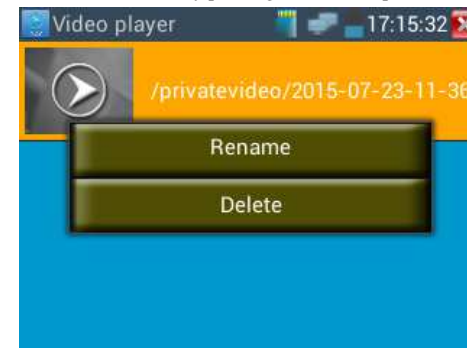
3.3.8 Media Player

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's 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. 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.



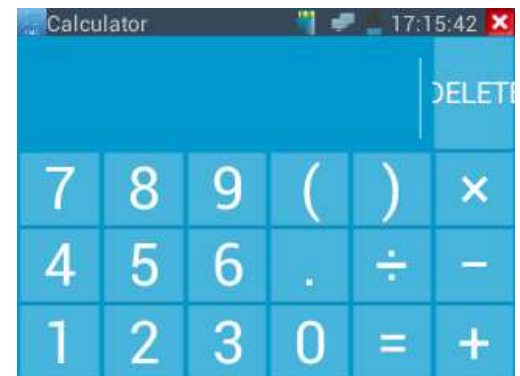
3.3.9 Audio player

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



3.3.10 Calculator


Click icon  to enter

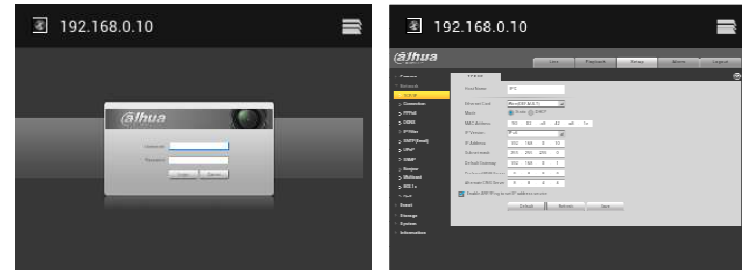



3.3.11 Browser

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 live camera view apps.



The IP camera and IP tester must be on the same network segment for the browser to interface with the camera. If they are not in the same segment, click the button  or 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.

3.3.12 IP Camera viewer

In addition to the ONVIF app or the IPC Test app, you can use one of the mobile apps in the IPC Viewer folder to view IP camera video. If you cannot find your desired mobile apps, you can send us the mobile apps (Android version. APK files) for our engineers to install in the tester, if successfully installed, the tester will allow you to see the IP camera image by IP camera viewer.

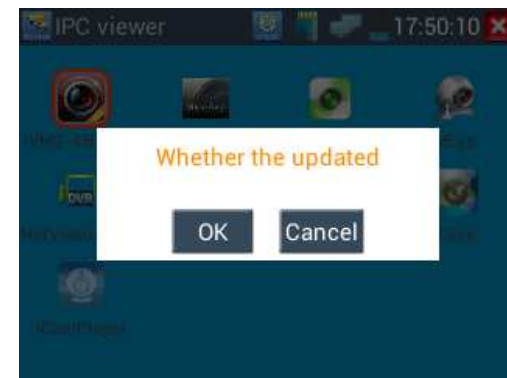
Click icon “IP camera viewer” to enter, and set the mobile apps parameter to see the corresponding IP camera’s image.

Mobile apps displays IP camera’s image by software decompression, hereby the image may be not clear or fluent.

Note:The mobile apps are third party applications. Our company does not support these apps nor make any usage claims. We do not assume any legal liability



Click desktop icon several seconds, to uninstall this application




Click icon "update" in the IPC viewer interface, to update mobile apps



3.3.13 DC12Vpower output

Click icon  to enter DC 12V power output interface.



If to click  without prior to change the switch “ON” to “OFF”, the 12VDC power output will till stay on, and the icon “12V ON” appear on the top bar. Change the switch “ON” to “OFF” to shut off the 12VDC power output.




1. Don't input any power into the "DC12/1A OUTPUT" port of the IP camera tester to avoid destroy.

2. Don't output this DC12V/1A power to the DC12V/IN port of the IP camera tester to avoid destroy


3. The IPC tester power output is close to 1A, if the IP camera's power is over 2V, 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. Make sure the tester is full charged or more than 80%, otherwise the tester will shows "low power", "not able to supply power"

3.3.14 Application tools


Click the icon  to open the Application Tools folder. This folder contains useful apps such as Audio Recording, DHCP Server, Network test, Notepad, Link monitor and RTSP Player.



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.



Network test (Ethernet bandwidth test)

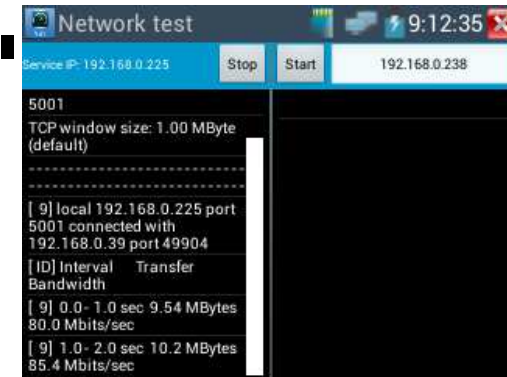
To use the Network tester, you will need two IP testers. One is used as a Server and the other as a Client. Both devices must be on the same network segment in order to communicate. Click the icon  to open the Network Tester app.

Note: Network test results only used as a reference, For more accurate test, please use a professional Ethernet tester.

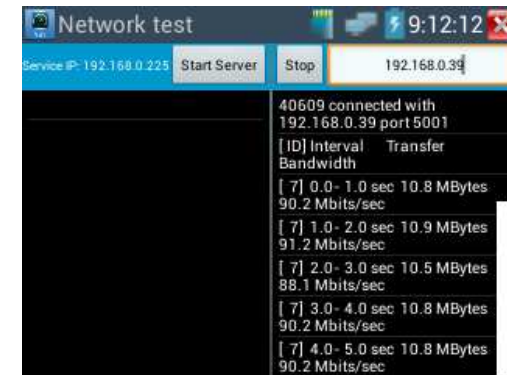


When test, need a a tester or a computer installed Network Test Software as the Server, the other tester sends packet test. The two testers must be in the same network segment.

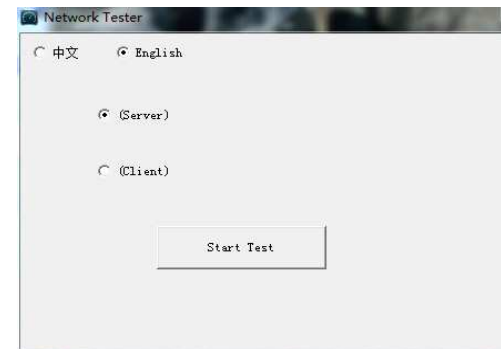
1. **Start the server:** Click "Start Server" button to use the tester as a Server. It will display its IP address at the top of the screen.



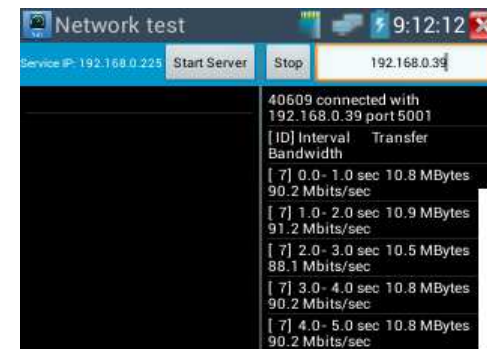
2 . **Start send packet test**::Using the other IP tester and type in the Server's IP address at the top right corner of the screen. This app is used to send packets for network speed testing. Click the “Start” button to send the packets and start testing.



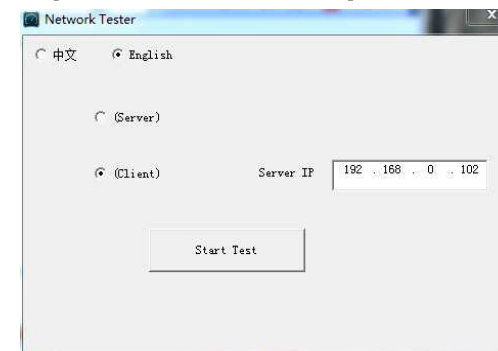
Network bandwidth testing can also be tested with a computer using compatible network bandwidth testing software. Install network bandwidth testing software on a computer, as a test Client or Server, with tester mutual –testing. If computer as the server, the computer IP address is :192.168.0.89



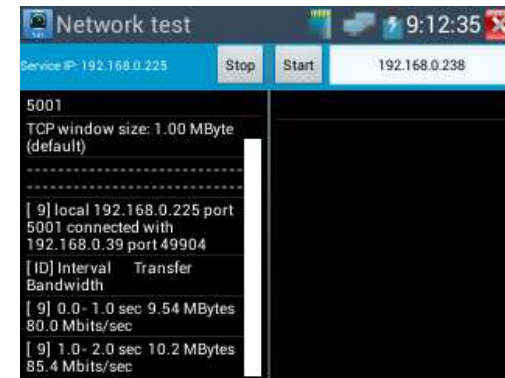
Tester as Client, tester's IP address is:192.168.0.230. The Server and the Client are at the same network segment, but with different IP address. Input Server's IP address 192.168.0.89 in the tester and click "Start" to test network bandwidth.



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



When tester as Server, shows results:



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.

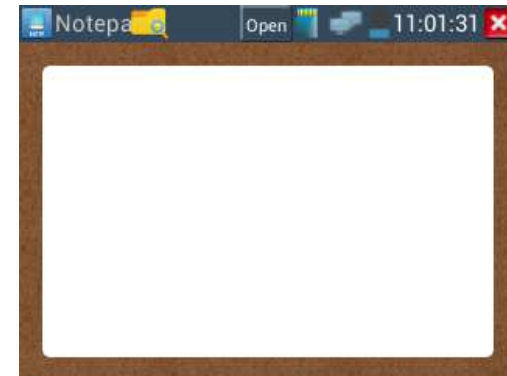
Click the “Refresh” button to check your Client list.


“Refresh” to check received IP address.



Notepad:


Click on the Notepad icon to open the Notepad app. Click the “Save” key to save the contents



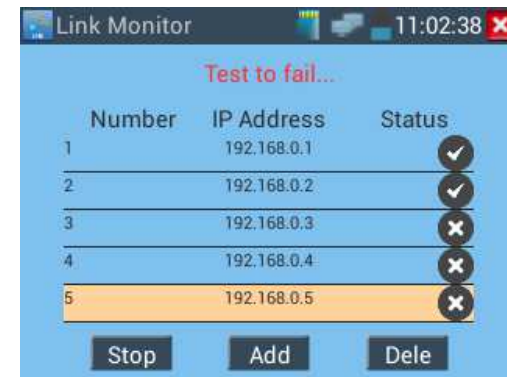
pls click  to view the notepad , all saving contents display. Click each record bar to show the details. Press the record bar for several seconds, prompt whether delete it



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.



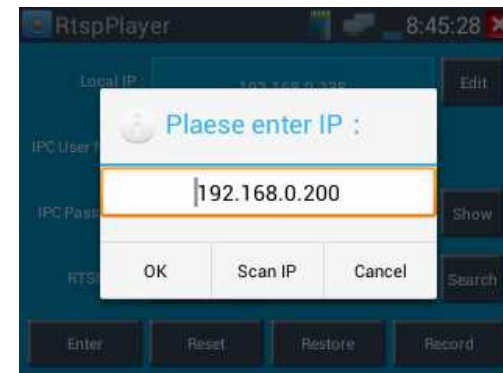
Application:

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

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.



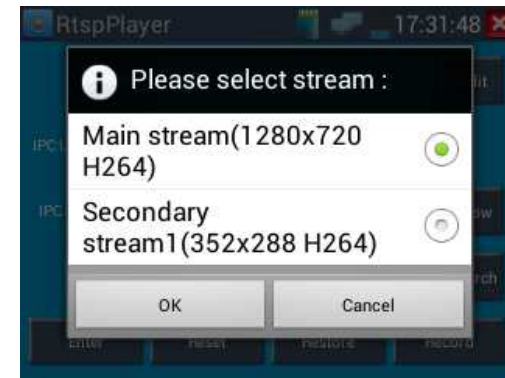
Local IP: This is the IP testers IP address.

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.

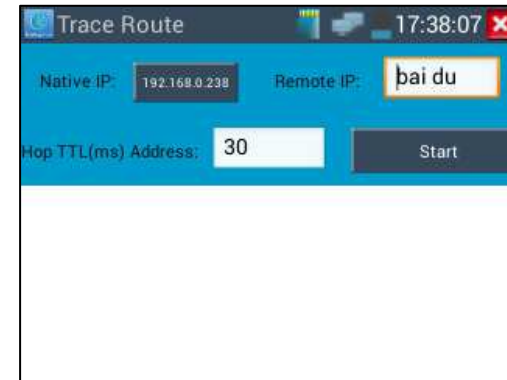
Trace route:

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

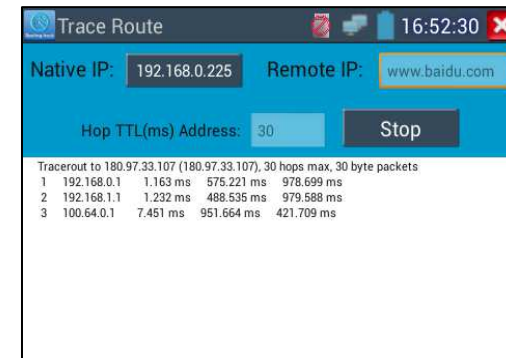
Note:Trace route testing results only for reference, for accurate test route tracking,Pls use professional Ethernet tester.

Click  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

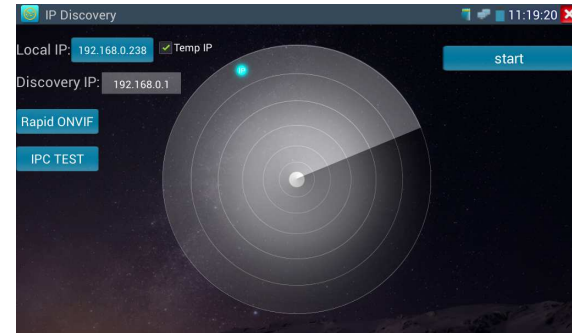


IP discovery

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 .

Step 1: Connect IP camera to tester's LAN port, if connected well, the green indicator on and yellow indicator flashes.

Step 2: Press IP discovery  , tester auto-scan the whole network segment IP, as well as auto-modify the tester's IP and the scanned camera's IP at the same network segment. No need to modify the tester's IP manually.



If select "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.

Click "Start", can PING camera's IP, check the network connectivity.

Step 3: Click "Rapid ONVIF", tester will auto- log in and display image from the camera, then click "IPC TEST", select the camera type, and start to test.


Note: 1) IP discovery app, when testing, it is mainly for connecting camera and tester by cable directly.

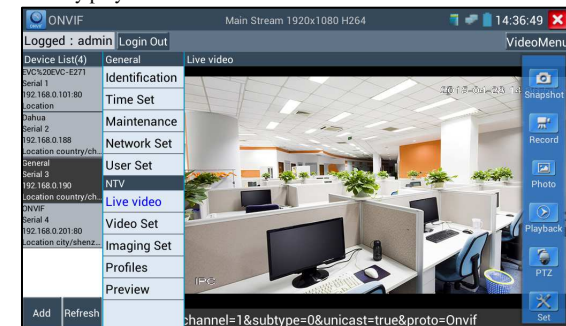
2) If connect Local area network, IP display app can work.

3) IP discovery app cannot work if connect wifi

Rapid ONVIF


Rapid ONVIF search camera quickly, auto log in and display image from the camera

Click Rapid onvif  , tester can quickly search ONVIF camera, auto- log in and display the image from camera .If tester search multiple cameras, tester default auto play the first camera in the searched list, but need manually play and view the rest cameras .



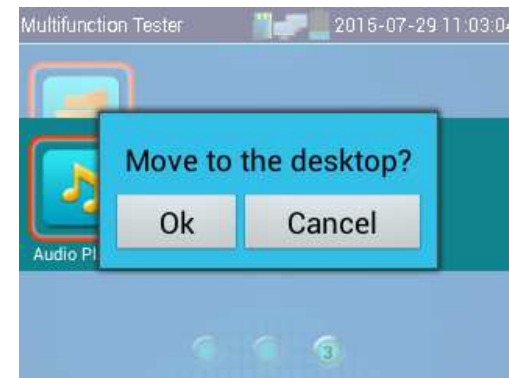
Rapid ONVIF operation instructions, Pls refer to above ONVIF features in the manual

3.3.15 APPS Tools

Click the icon  to open the Tool Folder. You can move desktop icons into the Tools Folder by pressing on the icon for a few seconds until the screen below appears



You can also move an icon back to the desktop by pressing on the icon for a few seconds until it asks you if you want to move the icon back to the Desktop.



3.3.16 System Set

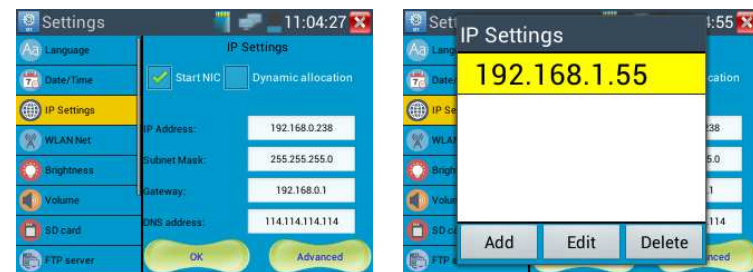
Click icon  to enter



Language: Select your desired language: English, Chinese, Korean, Russian, Italian or Polish, etc.

Date/Time: Set the Date/time

IP setting: Manually set the IP address, Subnet Mask, Default Gateway, 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.



After setting an advanced IP address (refer to above photos), the tester can test two network segments (192.168.0.0) and (192.168.1.0).

WLAN: Turn WiFi off or on by pressing the “Open the wifi” button. Once WiFi is turned on, it will scan for wireless networks in your area. Select the desired wireless network SSID and enter your password to connect networks in your area.

Version information: This displays the version information for each application.

Screen 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.

Turn off option: If you select “Fast turn off”, the tester will shut down faster but data will not saved. To avoid unnecessary problems, it is recommended not to use the “Fast turn off” option


3.3.17 Update

Click  to enter



If there are applications for updating, the applications will be displayed on the interface. Click the relevant applications to update to the latest version.

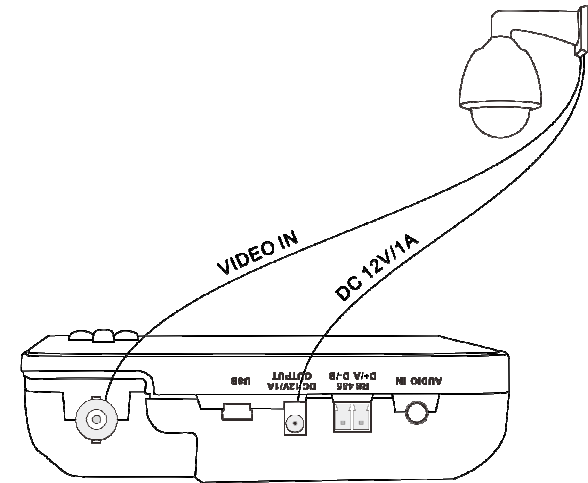
3.4 DC12V 1A power output

Touch  function ,enter power output interface

Click the switch “OFF” to“ON” to turn on DC12V 1A power output function.. The smaller end of the

supplied converter cable connects to the tester's DC12V/1A OUTPUT and the other end connects to the camera's power input.

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. But we do not suggest tester supply power for a long time.

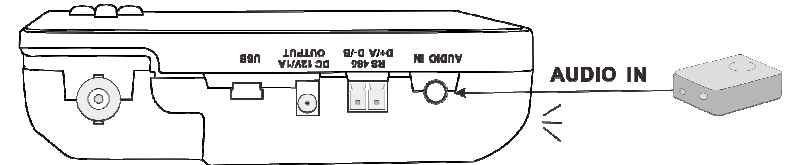


⚠ Notice:

- a. Don't input any power into the "DC12/1A OUTPUT" port of the IP camera tester to avoid destroy. man-made damage is not within the Company's warranty
- b. Don't output this DC12V/1A power to DC12V/ IN port to avoid destroy. otherwise the tester will damage, and man-made damage is not within the Company's warranty.
- c. The IPC tester power output is close to 1A, if the IP camera' s power is over 1A, 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.
- d. Make sure the tester has a sufficient charge otherwise the tester will not able to provide enough output powe

3.5 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. Support audio record and storage



4. Specifications

4.1 General Specifications

Model	IP Camera tester 【*】 models Optional
Display	3.5 inch Capacitive touch screen , resolution 320 (RGB) x 240
Network port	10/100M auto adapt,RJ45
WIFI	Built in WIFI,speeds150M, allows you to connect to a wireless network and view IP camera
IP camera type	ONVIF,ONVIF PTZ, Dahua IPC-HFW2100P, Hikvision DS-2CD864-E13, Samsung SNZ-5200, Tiandy TD-NC9200S2, Kodak IPC120L, Honeywell HICC-2300T, RTSP Viewer. Customized welcome
Video input	BNC input, NTSC/PAL (Auto adapt)
Zoom image	Supports Analog and IP camera image zooming & movement
Snapshot, Video record and playback	Capture still images and record live video. Media player will view photos and playback video
12V/1A power output	Output DC12V/1A power for camera

Audio test	1 channel audio signal input, test whether sound normal, supports record and save audio
PTZ control	Support RS485 control, Baud 600-115200bps, Compatible with more than 30 protocols such as PELCO-D/P, Samsung, Panasonic, Lilin, Yaan, etc
Data monitor	Captures and analyzes the command data from controlling device,also can send hexadecimal
POWER	
External power supply	DC 5V(1.5A)
Battery	Built-in 3.7V Lithium polymer battery ,3000mAh
Rechargeable	After charging4~5 hours, normal working time 10 hours
Parameter	
Operation setting	Capacitive touch screen, OSD menu, select your desired language: English, Chinese, Korean, Russian, Italian or Polish, etc
Auto off	1-30 (mins)
General	
Working Temperature	-10℃---+50℃
Working Humidity	30%-90%
Dimension/Weight	115mm x 75mm x 33mm / 300g

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.