

# EN310

## 4" Touch Screen Test Monitor

*User's Manual*



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This User's Manual can also be downloaded from EverFocus' Website (<http://www.everfocus.com.tw>). Please go to the EN310 product page and then click the Download tab to download the User's Manual.

# Safety Warnings

- The device 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 device 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 device, lest damaging components and causing failure.
- Don't leave the device alone while charging and recharging. If the battery is found severely hot, the device should be powered off from the electric source at once. It's recommended to charge the battery within 8 hours. Do not charge the battery over 12 hours.
- Don't use the device where the humidity is high. Once the device is damp, power off immediately and move away other connected cables.
- The device 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 the technical support team [ts@everfocus.com.tw](mailto:ts@everfocus.com.tw)
- The instrument should not be used under the environment with strong electromagnetic interference.
- Don't touch the device 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.

## WEEE



Your EverFocus product is designed and manufactured with high quality materials and components which can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste. Please, dispose of this equipment at your local community waste collection/recycling centre. In the European Union there are separate collection systems for used electrical and electronic product. Please, help us to conserve the environment we live in!

Ihr EverFocus Produkt wurde entwickelt und hergestellt mit qualitativ hochwertigen Materialien und Komponenten, die recycelt und wieder verwendet werden können. Dieses Symbol bedeutet, dass elektrische und elektronische Geräte am Ende ihrer Nutzungsdauer vom Hausmüll getrennt entsorgt werden sollen. Bitte entsorgen Sie dieses Gerät bei Ihrer örtlichen kommunalen Sammelstelle oder im Recycling Centre. Helfen Sie uns bitte, die Umwelt zu erhalten, in der wir leben!

## FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generation, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



**ATTENTION!** This is a class A product which may cause radio interference in a domestic environment; in this case, the user may be urged to take adequate measures.

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## 1. Introduction

EverFocus' EN310 4-inch test monitor comes with a touch panel and is designed for maintenance and installation of IP cameras, analog cameras, TVI, CVI AHD cameras, as well as testing 4K H.264 / 4K H.265 camera with mainstream. The 800 x 480 screen resolution enables it to display network HD cameras and analog cameras in high resolution. The device supports various ONVIF PTZ and analog PTZ control. The combination of touch screen and key buttons make the device extremely user- friendly.

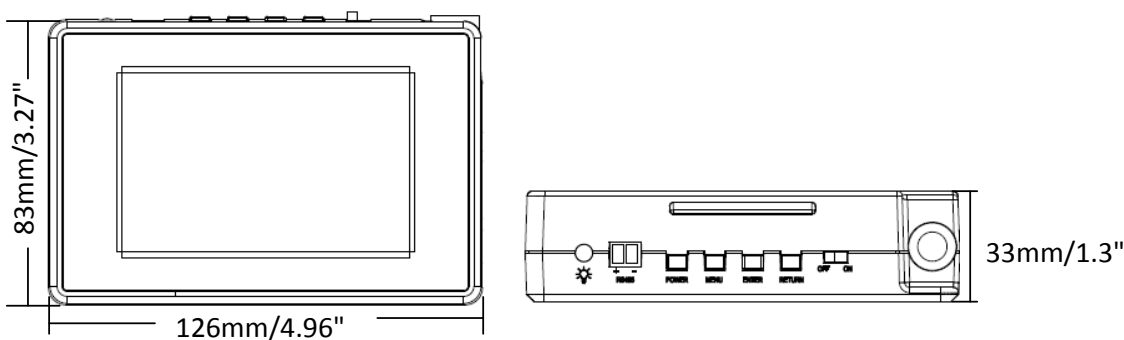
Except for the test function, the device can be used as a tool for Ethernet network testing. Other functions like providing 24W PoE power to your camera, PING and IP address searching, LED flashlight, 12VDC 3A power output are also supported.

### 1.1 Package Contents

- 4-inch test monitor x 1
- 12VDC 1A power adapter x 1
- BNC cable x 1
- RS-485 cable x 1
- Power output cable x 1
- Audio cable x 1
- Wristband x 1
- Screen protector x 1
- Tool bag x 1

**Note:** Please unpack the monitor with care, and verify that all parts listed above are included. If any parts are missing, please contact your local distributor. Please save the packing box for possible future return for service.

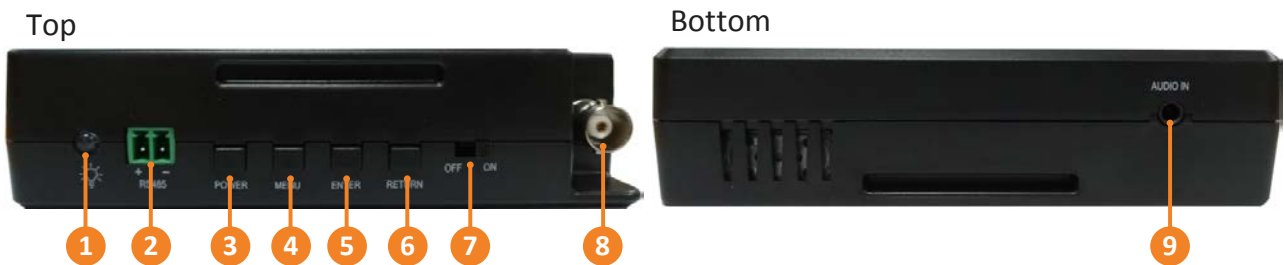
### 1.2 Dimensions



## 2. Physical Description



No.	Name	Description
1	<b>Charger LED</b>	When the device battery is being charged, the LED notification light will stay red. When the battery is fully charged, the light will be off automatically. Please refer to <i>3.1 Battery Charging</i> .
2	<b>RS-485 LED</b>	When RS-485 data is being transmitted, the LED notification light will light in red.



No.	Name	Description
1	<b>LED Flashlight</b>	To turn on / off the LED flashlight, go to <b>Tools &gt; Flashlight</b> . Please refer to <i>4.3.3 Flashlight</i> for more details.
2	<b>RS-485</b>	Use the supplied RS-485 cable to connect to a PTZ camera, DVR or a Control Keyboard.
3	<b>Power</b>	Press the Power key for 2 seconds to turn on or off the device. Quick press the Power key once can turn on or off the sleep mode. Long press the Power key can Power off or Reboot the device.
4	<b>Menu</b>	Function switching key. Tap to select between icons or functions, and then press the <b>Enter</b> key to enter.
5	<b>Enter</b>	Confirm key. You can also use this key to capture screenshot by long press on it (please refer to <i>3.4.3 Screen Capture</i> ).
6	<b>Return</b>	Press the key to return to the previous page. You can also press the key to close or decrease the aperture.
7	<b>Power Switch</b>	Switch the device power on or off.
8	<b>Video Input</b>	BNC video input for Analog / AHD / CVI / TVI cameras.
9	<b>Audio Input</b>	Use the supplied audio cable to connect to an audio input device to record audio for testing. Please refer to <i>4.5.1 Audio Recorder</i> .



No.	Name	Description
1	SD Card Slot	Insert an external micro SD card. The external micro SD card can be used to backup files from the internal SD card. Up to 32GB micro SD card is supported.
2	Power Input	Use the supplied 12VDC 1A power adapter to power on (charge) the device.
3	PoE / LAN	PoE power supply output or LAN test port. Use it to test PoE or non-PoE IP camera. The PoE supports 48V, 24W.
4	Power Output	12VDC 3A power output to power up the connected camera. Note that if the camera's input power is over 3A, the tester will automatically enter the protection mode. Please disconnect all the connections to the tester, connect the tester with power adaptor to resume the tester. Ensure the tester's power is sufficient, otherwise, the tester will not be able to supply power.

### 3. General Operation

#### 3.1 Battery Charging

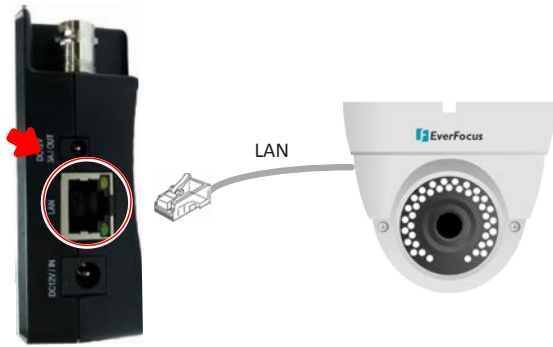
The device is built-in with a rechargeable polymer lithium-ion battery (7.4VDC 2400mAh). You can refer to the **Battery Icon** on the top-right corner of the screen to see the power capacity.

You can use the supplied 12VDC 1A power adapter to power on (charge) the device. When the battery is being charged, the **Charger LED** notification light will stay red and the Battery Icon will display with charging status . When the battery is fully charged, the Charger LED will be off automatically.

**Note:** Do not leave the device alone while charging and recharging. If the battery is found severely hot, the device should be powered off from the electric source at once. It's recommended to charge the battery within 8 hours. Do not charge the battery over 12 hours.

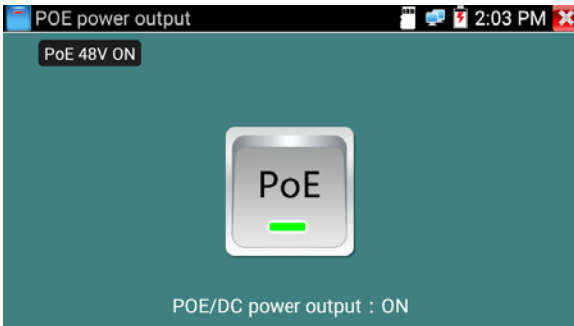


### 3.2 IP Camera Directly Connection



If your IP camera requires an independent power supply, connect the LAN cable of the IP camera to the **LAN** port of the device and then power up the IP camera with your power supply. Check whether the LED indicators of the LAN port are on:


- When the green LED is on, there is 10/100/100Mbps traffic
- When the orange LED is blinking, data is being transferred



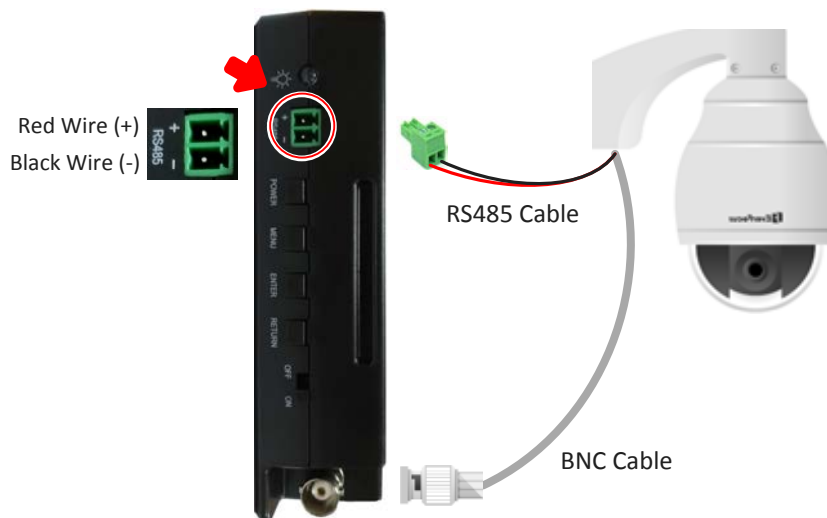
If your IP camera requires PoE power, connect the PoE cable to the LAN port of the device and then turn on the PoE power output function (**IP Camera Test > POE power output**). Please refer to *4.1.1 PoE Power Output*.

### 3.3 Analog / CVI / TVI / AHD Camera Connection

The way to connect the Analog / CVI / TVI / AHD cameras are the same, here we use the CVI camera as an example.

Connect the camera's video output to the **Video Input** of the device using the supplied BNC cable. Tap the **CVI** icon  (see **Note below**) and then you can see the camera streams.

You can also use the supplied RS-485 cable to connect the camera to the RS-485 port of the device to control the camera.





**Note:** After connecting the camera to the **Video Input** port of the device, you will have to tap the following icon to get the camera streams. On the Main page, tap **CVBS & HD Camera** to enter this page.



For CVI cameras: tap the CVI icon.  
 For TVI cameras: tap the TVI icon.  
 For AHD cameras: tap the AHD icon.  
 For Analog cameras: tap the HD CVBS icon.

### 3.4 General Screen Operation

After switching the **Power Switch** on and then press the **Power** key for 2 seconds, the Main Page appears. You can operate the general functions described as below.

#### 3.4.1 Arranging Sub-menu Icons

In the sub-menu, you can arrange the icon order or move the icons to other Main Page folders.

To arrange icon order:

1. On the Main Page, tap on an icon to enter a sub-menu. Here we tap on **IP Camera Test** for example.



2. Tap and hold a sub-menu icon (long press), the icon will change to a "Selected Status". Drag and drop the icon to a new location. As you move in an icon, other icons move out of the way.



To move icons to other Main Page folders:

1. On the Main Page, tap on an icon to enter a sub-menu. Tap the finger icon in the lower-right corner, the icon color will change from white to orange.



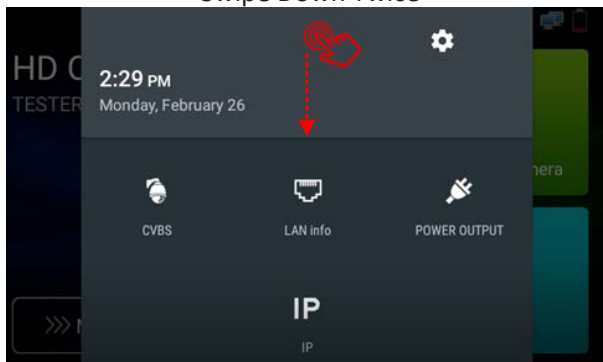
2. Tap and hold a sub-menu icon (long press), the icon will be moved to the Main Page. Drop the icon in any folder on the Main Page.



**3.4.2 Dropdown Menu**


Swipe down from top of the screen twice can bring up the Dropdown Menu. The dropdown menu can be regarded as a shortcut to access 5 function pages: **Settings**, **CVBS**, **LAN Info**, **Power Output** and **IP**.

Swipe Down Twice




**Settings:** Tap the **Settings** icon  to enter the **Settings** page. To close the page, tap the  icon.



**CVBS:** Tap to enter the **HD CVBS** page. To close the page, tap the  icon.




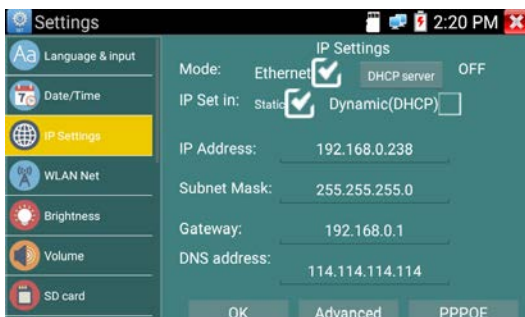
**LAN Info:** Tap to display the network info window. To close the window, tap the  icon.



**Power Output:** Tap to turn on the PoE power output, a “PoE 48V ON” info will be displayed on the top-left of the screen. Tap again to turn off the PoE power. This function can be used to power up PoE IP devices.



**IP:** Tap to enter the **IP Settings** page. To close the page, tap the  icon.



### 3.4.3 Screen Capture

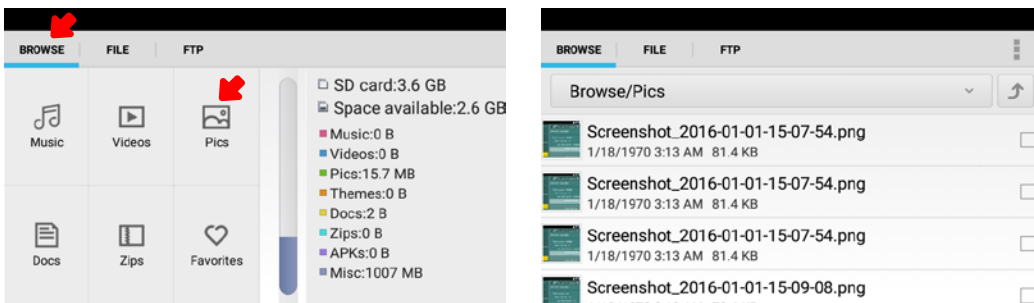
You can capture screen and save it to the internal SD card using the **Enter** key.

To capture screen image:

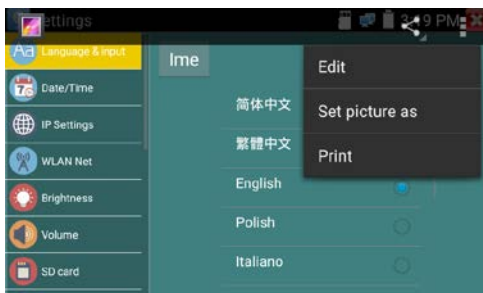
1. Press and hold the **Enter** key on the top of the device, the screen image will be captured. By default, the captured screen images will be saved in the internal SD card (/sdcard/screenshots).



2. To view the captured images, go to **My APPS > File Explorer** . Tap the **Browse** tab and then tap **Pics**, the images will be displayed.



3. Tap on the image to display it. You can also tap  and use the **Edit**, **Set picture as** and **Print** functions.



4. You can optionally export captured screen images to PC. Please refer to *3.4.4 Exporting Files to PC*.

### 3.4.4 Exporting Files to PC

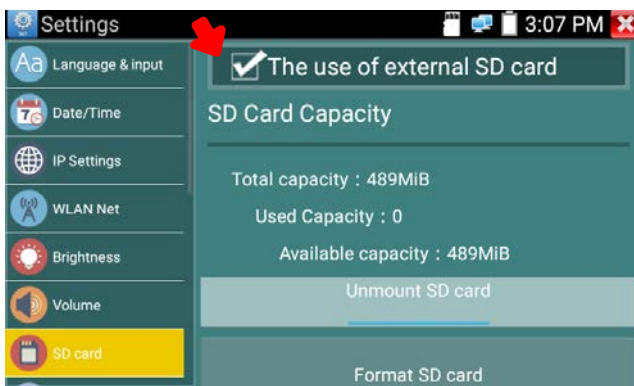
The files stored in the SD card, such as snapshot images, recordings, test reports and etc., can be exported to your PC. There are two ways to export files to PC: 1) Use external SD card 2) Use FTP server. Please follow the instructions below:


#### A. Use external SD card:

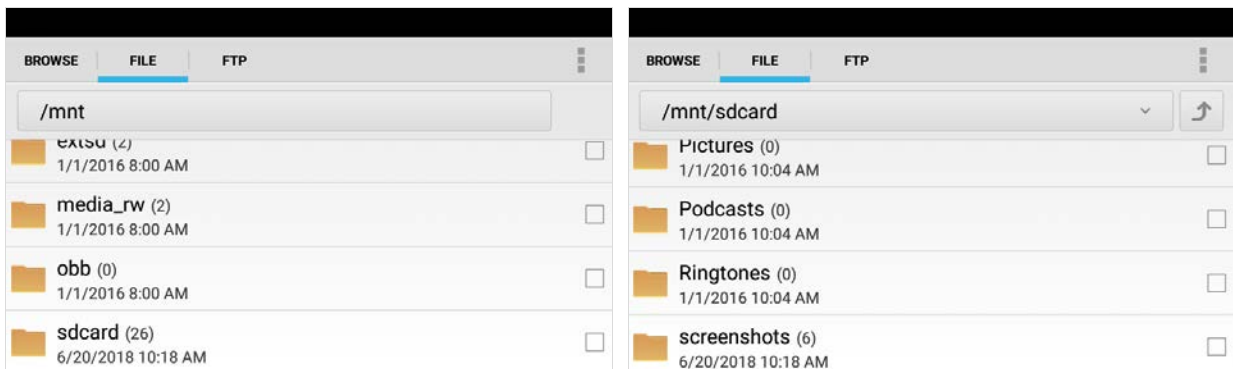
1. Ensure the external SD card has been inserted to the SD card slot of the tester.
2. Copy and paste the files from the internal SD card to the external SD card.

(Note: By default, all the files like recordings or images are stored in the internal SD card. To backup files to the external SD card, copy and paste the files from internal SD card to external SD card.)

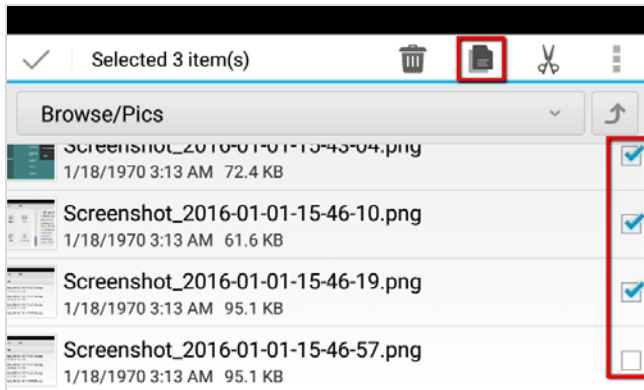
- a. Go to SD card setting page (**Tools > Settings > SD Card**). Enable the **“The use of external SD card”**. This will create an **“extsd”** folder in the SD card for exporting purpose.



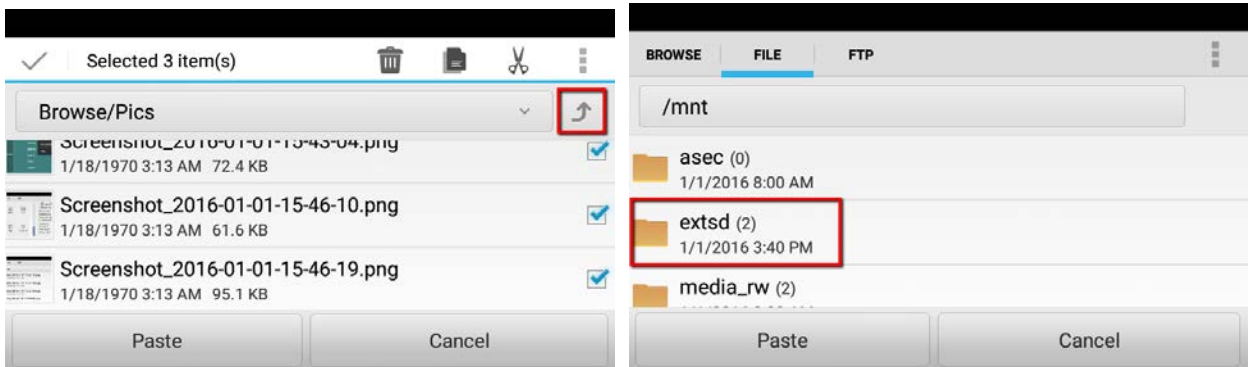
- b. Find the files in the internal SD card. Go to **My APPS > File Explorer** . In the **File** tab, tap **sdcard** to enter the internal SD card folder and then find the file(s) you required.



- c. Copy the files to the **extsd** folder. Here we take screenshot images for example:
  - i) Select the images and then tap the **Copy** button.



ii) Tap the **Return** button twice to find the **extsd** folder.

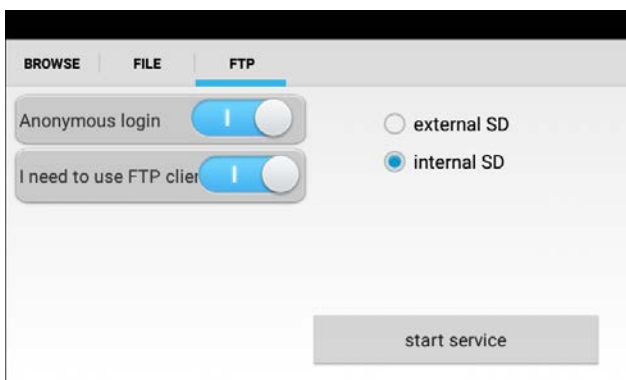


iii) Tap **extsd** to enter the **extsd** folder and then tap the **Paste** button. The images will be pasted to the extsd folder.

3. Remove the SD card from the tester and insert the SD card to your PC. And then you can see the images in the SD card.

**B. Use FTP Server:**

1. Enable the FTP Server function of the tester.
  - a. Go to **My APPS > File Explorer** and then tap the **FTP** tab.



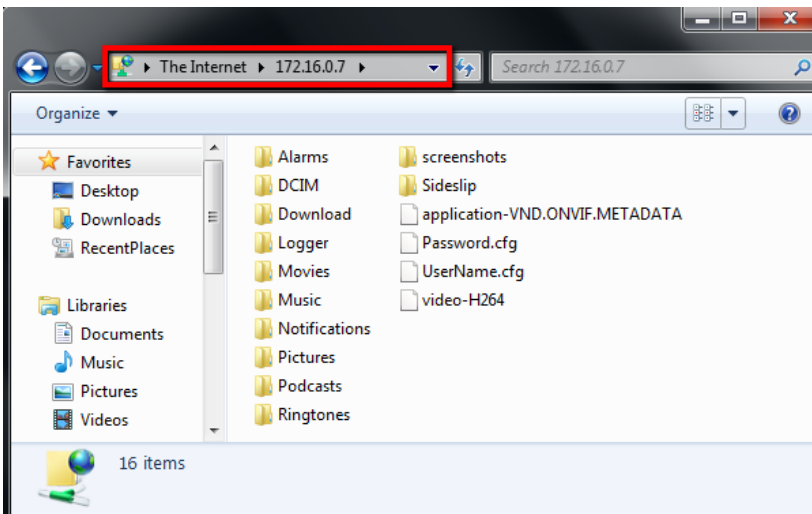
b. Enable **Anonymous login** and **I need to use FTP client** functions. Select **Internal SD** or **external SD** and then tap the **Start Service** button. The FTP server address of the tester will be displayed. For more details on this page, please refer to 4.4.3.3 FTP.

**Note:** Select **Internal SD** will allow users to access only the internal SD card; select **external SD** will allow users to access only the external SD card.





2. On your PC, open a folder and then type in the FTP server address (ftp://xxx.xxx.xxx.xxx:xxxx). Press the **Enter** key and then you should now access the internal/external SD card of the tester.



3. Now you can copy the files from the internal/external SD card to your PC. You can also create folder in the SD card or edit folder or file names in the SD card.

## 4. Main Page

After switching the **Power Switch** on and then press the **Power** key for 2 seconds, the Main Page appears. There are 5 folder icons on the Main Page, including **IP Camera Test**, **CVBS & HD Camera**, **Tools**, **My APPS** and **More**. You can tap on each folder to enter its sub-menu.



### 4.1 IP Camera Test

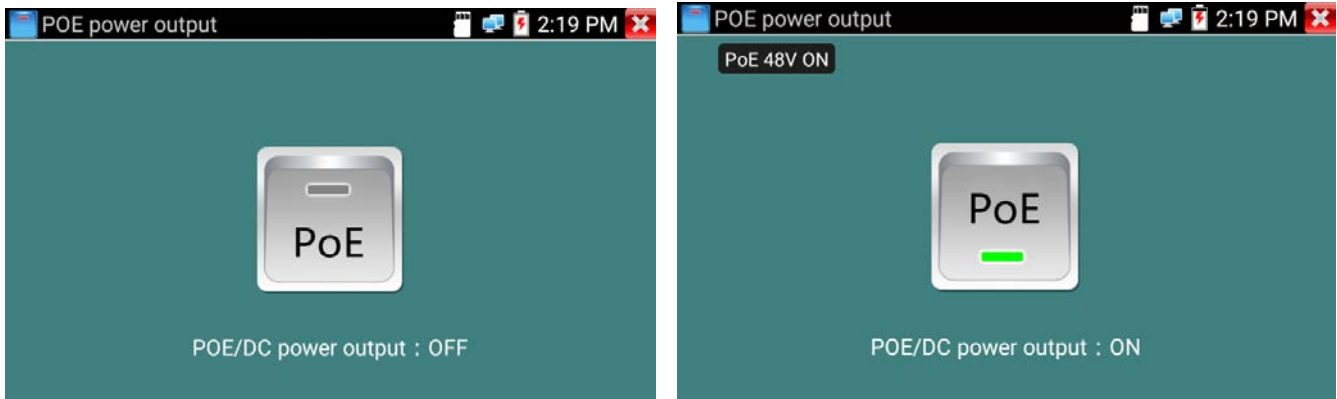
Please note that since users can move the function icons from folders to folders, therefore, the functions described in the chapter are based on the default icon arrangement .




#### 4.1.1 PoE Power Output

If you want to power on the connected IP camera through PoE, you have to turn on the PoE power output function.




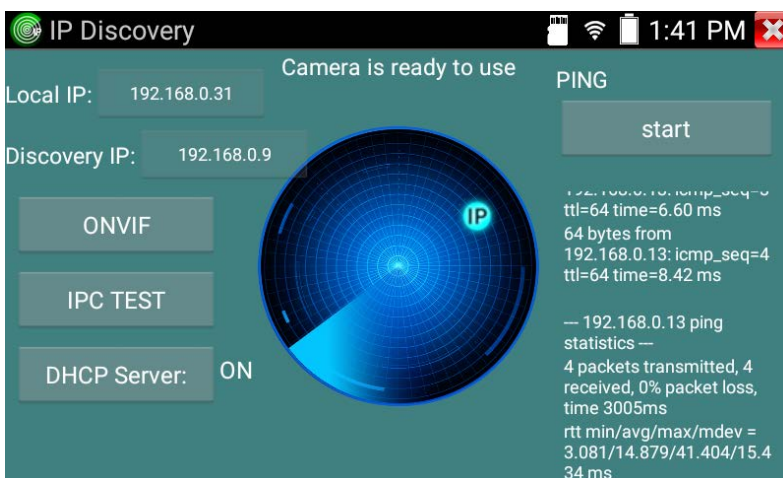


To enable the PoE power output function:

1. Ensure the power of the tester is full or more than 80% charged, otherwise, the tester will show “low power” and “not able to supply power”.
2. Ensure the IP camera is PoE supported and has been connected to the LAN port on the tester (refer to *3.2 IP Camera Directly Connection*).
3. Go to **IP Camera Test > PoE power output**  to enter the PoE power output page. Tap the **PoE** icon to turn on the PoE power output function. A PoE 48V ON info will be displayed on the top-left corner. The tester’s PoE maximum power output is 24W.
4. To turn off the PoE power output function, tap the PoE icon again.

#### 4.1.2 IP Discovery

Tap **IP Camera Test > IP Discovery**  to enter the IP Discovery app. You can use this app to automatically search for the IP cameras. With the IP Discovery app, you don’t need to know the first two digits of camera’s IP address. The tester can auto-scan the whole network segment IP, and auto-modify tester’s IP address.



**Local IP:** Displays the tester’s IP address. The tester can automatically modify its IP address to the same network segment of the searched IP cameras.

**Discovery IP:** Displays the searched IP cameras’ IP address.

**PING Start:** Tap to ping the searched IP cameras' IP address.

**ONVIF:** Tap to enter the Rapid ONVIF Test page. Please refer to 4.1.3 ONVIF.

**IPC Test:** Tap to enter the IP camera test page. Please refer to 4.1.4 IP Camera Test.

**DHCP Server:** Tap to enter the DHCP server setup page. Please refer to 4.1.5.5 DHCP.

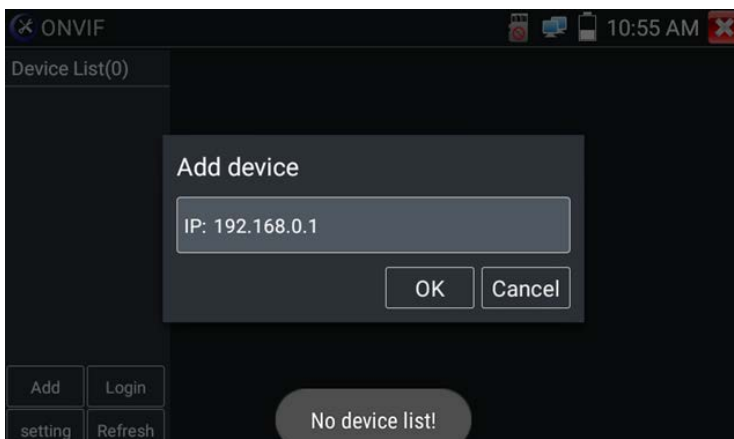
### 4.1.3 ONVIF



Tap **IP Camera Test > ONVIF** to enter the ONVIF app. The ONVIF app can automatically search for the ONVIF conformant IP cameras with different network segments. The ONVIF app will then automatically login IP cameras and display IP camera streams if the user name and password of the IP cameras are both **admin**. If the login user name and password have been changed, the ONVIF app will use the modified user name and password to automatically login the searched ONVIF conformant IP cameras.

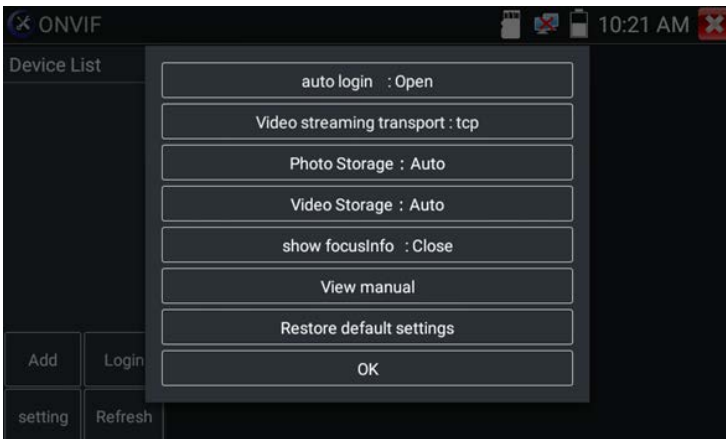


➤ **Add:** To manually add ONVIF conformant IP cameras, tap the **Add** button to enter the IP address.



➤ **Login:** Tap to change the user name and password for auto login function.

➤ **Setting:** Tap to configure the following settings.



**Auto Login:** Tap to enable (Open) or disable (Close) the auto login function. By default, the ONVIF app will automatically login IP cameras with user name/password setup with admin/admin. If the login user name and password have been changed, the ONVIF app will use the modified user name and password to automatically login IP cameras.

**Video Streaming Transport:** Tap to select UTP or TCP protocol.

**Photo Storage:** Tap to automatically (Auto) or Manually (Manual) store the snapshot images to the internal SD card in png format. If Auto is selected, the snapshot images will be automatically stored to the internal SD card with a given file name. If Manual is selected, the snapshot images will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters).

**Video Storage:** Tap to automatically (Auto) or Manually (Manual) store the video recordings to the internal SD card in mp4 format. If Auto is selected, the recording file will be automatically stored to the internal SD card with a given file name. If Manual is selected, the recording file will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters) before start using the function.

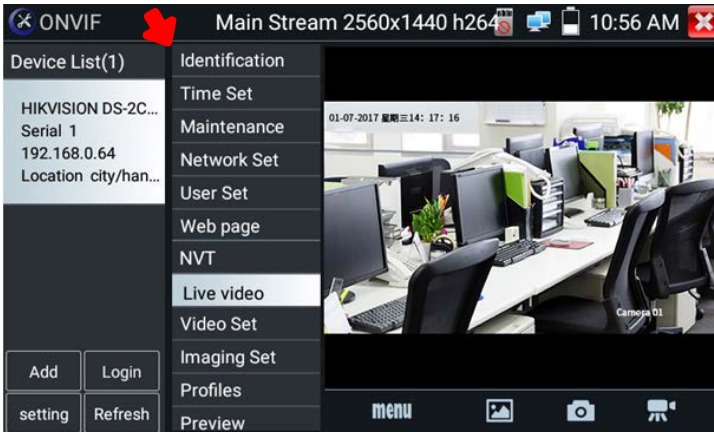
**Show Focus Info:** Tap to enable (Open) or disable (Close) the show focus info function on the screen.

**View Manual:** Tap to open manual.

**Restore Default Settings:** Tap to restore the ONVIF app to default settings.

**OK:** Tap to save the modified parameters.

- **Refresh:** Tap to refresh the device list.
- **Device List:** Tap any device on the left-side Device List, the IP camera's streams, resolution, photo and focus information will be displayed.
- **Menu:** Tap to open camera setting menu. The Setting menu will display on the left-side of the stream.



**Live Video:** Tap to display live video streams.

- You can also use the Live Toolbar on the lower side to operate multiple functions, including Photo, Snapshot, Manual Record, Audio, Video Player, PTZ and etc.. Please refer to Live Toolbar below for more details.
- Double-click on the video stream can display it in full screen. Double-click again to exit full screen.
- If the current camera is a PTZ camera, you can swipe on the video stream to move the direction to the top, down, left and right; or gesture on the stream to zoom in or out.

**Identification:** Tap to view the information of the current camera.

**Time Set:** Tap to change camera time. Tap **Time Set** and select **Set Manually** to set up camera time.

**Maintenance:** Tap to enter the maintenance setup page to Reboot or Load Factory Default of the current camera.

**Network Set:** Tap to enter the network setup page of the current camera. Tap **OK** to save changes.

**User Set:** Tap to change user name and password of the current camera.

**Web Page:** Tap to enter the Web interface of the current camera.

**Video Set:** Tap to enter the encoder and resolution setup page of the current camera. The settings can only be applied to main stream. Tap **OK** to save changes.


**Imaging Set:** Tap to enter the image setup page of the current camera. The settings can only be applied to main stream. Tap **OK** to save changes.


**Profiles:** Tap to enter the main stream and sub stream switching setup page for the current camera. Tap **OK** to save changes.

**Preview:** Tap to enter this page to enable/disable the Auto Refresh and Zoom function.


- **Live Toolbar:** When you enter the Live Video mode, the Live Toolbar will be displayed on the lower side. You can swipe the toolbar to the left or right to select among functions including Photo, Snapshot, Manual Record, Audio, Video Player, PTZ, RTSP, Doc and Tool functions.




**Photo:** Tap  to display the snapshot images. You can long tap on the image to delete or rename the image.


**Snapshot:** Tap  to take a snapshot of the current camera stream. The snapshot images will be automatically stored in the internal SD card (`/sdcard/ONVIFToolPhoto/Photo`) in png format. To export the file to your PC, please refer to 3.4.4 *Exporting Files to PC*.


Note that if you have select Manual in the **Setting > Photo Storage** (refer to Photo Storage above), when tapping the **Snapshot** icon, a pop-up window will display, input a file name (alphanumeric or numeric characters) and then tap **Sure**, the snapshot will be stored in the internal SD card with the self-defined file name. If you want to rename images, find the image in the **Photo** album and long tap on the image to rename.

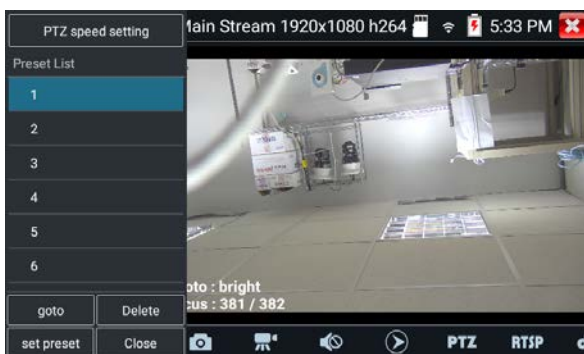
**Manual Record:** Tap  to start the manual record function and tap again to stop. The live recording will be stored in the internal SD card (`/sdcard/ONVIFToolVideotape`) in mp4 format. To export the files to your PC, please refer to 3.4.4 *Exporting Files to PC*.

Note that if you have select Manual in the **Setting > Video Storage** (refer to Video Storage above), when tapping the **Manual Record** icon, a pop-up window will display, input a file name (alphanumeric or numeric characters) and then tap **Sure**, the manual record function will start. Tap again to stop the manual record function. The manual recording will be stored in the internal SD card with the self-defined file name. If you want to rename recording files, find the recording in the **Video Player** (refer to Video Player below) and long tap on the recording file to rename.

**Audio:** Tap  to turn on or turn off the audio function.

**Video Player:** Tap  to display the Manual Record list. Tap on a recording to start playback. You can also long tap on a recording file to delete or rename the file.

**PTZ:** Tap  to display the PTZ panel for setting up preset positions and adjusting operation speed.



**PTZ Speed Setting:** Tap to adjust each operation speed.


**Set Preset:** Move to a desired location by tapping on the stream. Tap the Set Preset button and input a preset name for this preset position.


**Goto:** After setting up preset positions, tap a preset from the Preset List and then tap the **Goto** button, the camera will move to the position.


**Delete:** Tap a preset from the Preset List and then tap the Delete button to delete the preset position.

**Close:** Tap to close the PTZ panel.


**RTSP:** Tap  to get the RTSP URL of the current camera.

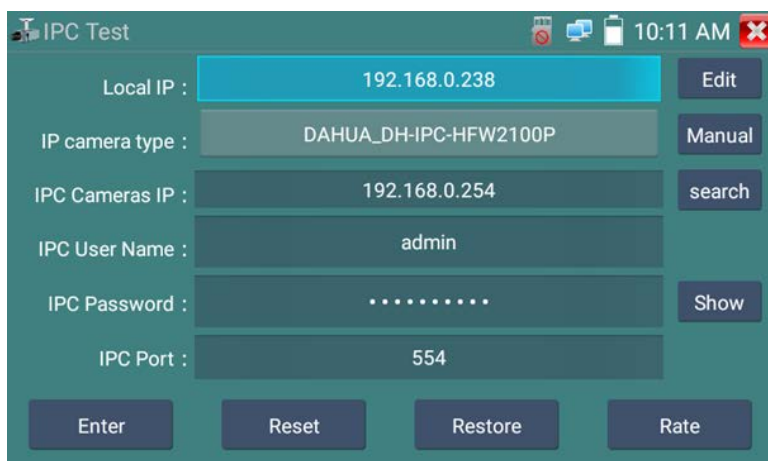
Doc: Tap  to generate the test reports (PDF) of the current camera. Tap **Create documents** and input some tester information. Optionally add snapshot images and then tap **Create documents** again, the PDF document will be saved to the internal SD card **/sdcard/ONVIFToolDoc**. To export the document to your own PC, please refer to *3.4.4 Exporting Files to PC*.

Tool: Tap  to display the Tool window. You can select Lens size and CCD chip size for the current camera.

Tool Icon Description: Tap  to display the Tool Icon Description list. You can refer to the list for icon functions on the Live Toolbar.

#### 4.1.4 IP Camera Test

Tap **IP Camera Test** > **IPC Test**  to enter the IPC Test app. The tester can display 4K H.265 in main streams. Note that if the brand of your IP camera can not be searched by the tester (unsupported), please use ONVIF or RTSP app for IP camera testing.



**Local IP:** Displays the tester’s IP address. You can tap **Edit** to enter the IP Settings page to change the tester’s IP address.

**IP Camera Type:** If **Manual** is selected, you can tap **IP Camera Type** to manually select the camera brand and model. If **Auto** is selected, the tester will automatically detect the camera brand and model if the camera is supported by the tester.



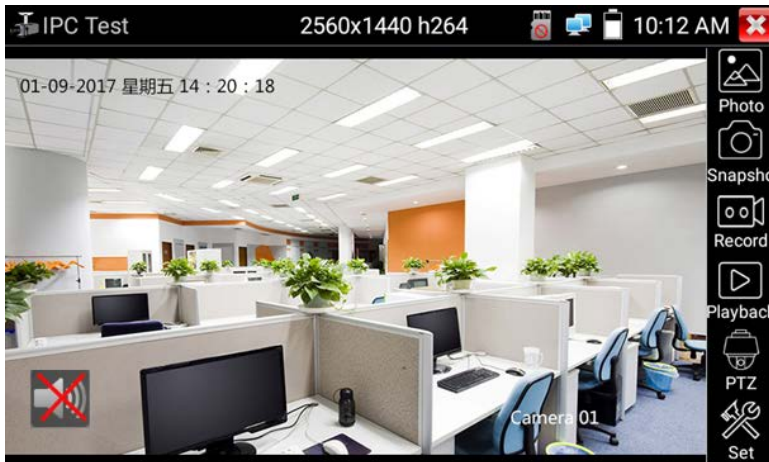
**IPC Camera IP:** Enter the IP address of the IP camera manually. You can also tap **Search** to automatically search for the IP address. Note that it's better to connect the IP camera to the tester directly so the search result will only display the camera's IP address. If the tester is connected to 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 password.

**IPC Port:** The IP camera will be given an IP port by default and doesn't need to be changed.

**Enter:** After configuring all settings, tap **Enter** to view the live video. A prompt window will display, select a stream and tap **OK**, then you should see the camera streams.



You can use the Toolbar on the right side of the screen:

**Photo:** Tap to display the snapshot images. You can long tap on the image to delete or rename the image.

**Snapshot:** Tap **Snapshot** to take a snapshot of the current camera stream. The snapshot images will be automatically stored in the internal SD card (**/sdcard/privatephoto**) in png format. To export the files to your PC, please refer to *3.4.4 Exporting Files to PC*.

Note that if you have select **Manual** in the Photo Storage field on the **Set** page (refer to Set below), when tapping the **Snapshot** icon, a pop-up window will display, input a file name (alphanumeric characters) and then tap **Sure**, the snapshot will be stored in the internal SD card with the self-defined file name. If you want to rename images, find the image in the **Photo** album and long tap on the image to rename.

**Record:** Tap **Record** to start the manual record function and tap again to stop. The live recording will be stored in the internal SD card (**/sdcard/privatevideo**) in h.264 format. To export the files to your PC, please refer to *3.4.4 Exporting Files to PC*.

Note that if you have select **Manual** in the Video Storage field on the **Set** page (refer to Set below), when tapping the **Record** icon, a pop-up window will display, input a file name (alphanumeric characters) and then tap **Sure**, the manual record function will start. Tap again to stop the manual record function. The manual recording will be stored in the internal SD card with the self-defined file name. If you want to rename recording files, find the recording on the **Playback** page (refer to Playback below) and long tap on the recording file to rename.

**Playback:** Tap to display the Manual Record list. Tap on a recording to start playback. You can also long tap on a recording file to delete or rename the file.

**PTZ:** If the camera is a PTZ camera, tap to adjust each operation speed.

Set: Tap to display the Photo and Video Storage window.

- Photo Storage: Tap to automatically (Auto) or Manually (Manual) store the snapshot images to the internal SD card in png format. If Auto is selected, the snapshot images will be automatically stored to the internal SD card with a given file name. If Manual is selected, the snapshot images will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters).
- Video Storage: Tap to automatically (Auto) or Manually (Manual) store the video recordings to the internal SD card in mp4 format. If Auto is selected, the recording file will be automatically stored to the internal SD card with a given file name. If Manual is selected, the recording file will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters) before start using the function.

Audio Icon: Tap to turn on or turn off the audio function.

#### 4.1.5 Network Tool



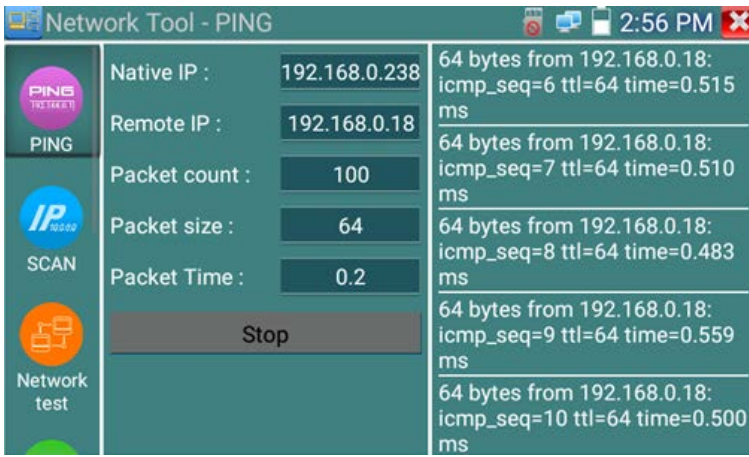
Tap **IP Camera Test** > **Network Tool** to enter the Network Tool page. You can tap on the left-side menu icons to enter each page.

##### 4.1.5.1 PING IP

PING testing is the most conventional network debugging tool. It is used for testing whether the connected IP camera or other network devices' Ethernet port is working normally and the IP address is correct.

Connect a network cable to the LAN port on the tester and then tap the **PING** icon to enter the PING page. You can tap on **Native IP** to set up local (native) IP address, or tap **Remote IP** to set up a remote IP (e.g. IP camera). You can also set up the Packet Count, Packet Size and Packet Time. After setting up the parameters, tap **Start** to ping.



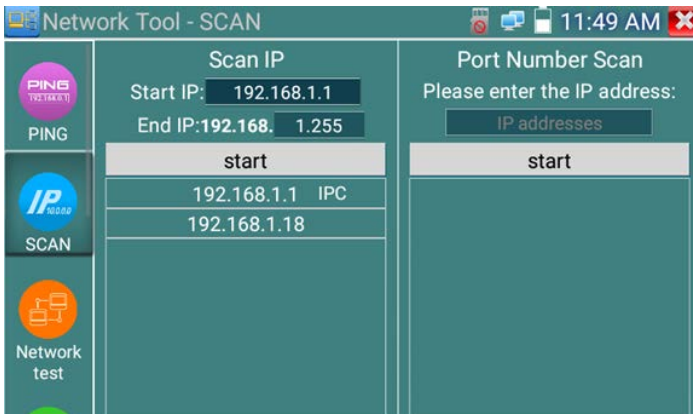


Note that if the IP cameras or network devices are not configured properly or not plugged in, the PING info will display “Destination Host Unreachable” or have 100% packet loss. On the contrary, if the IP cameras or network devices are connected properly, the sending and receiving packets will have 0% packet loss.



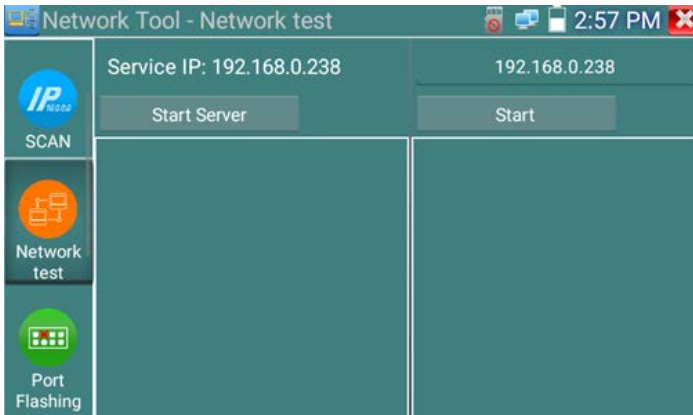
#### 4.1.5.2 Scan

Connect a network cable to the LAN port on the tester and then tap the **SCAN** icon to enter the Scan page. Set up the IP range and then tap **Start** to scan the IP address within the range. You can also input an IP address in the **Port Number Scan** field to scan for open ports.



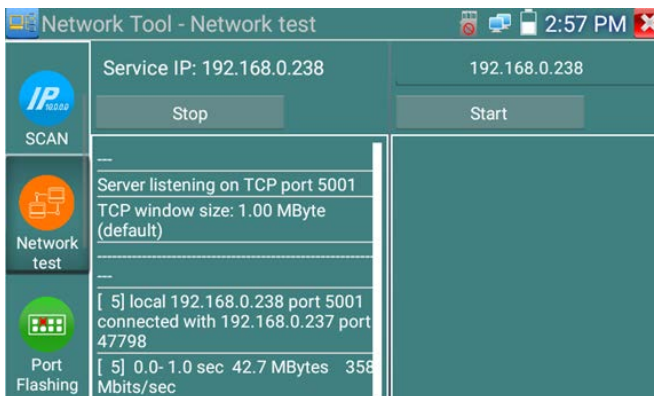
4.1.5.3 Network Test

Tap the **Network Test** icon to enter the page to test network bandwidth. There are two ways to test the network bandwidth: 1) using two testers or 2) using one tester and a computer.

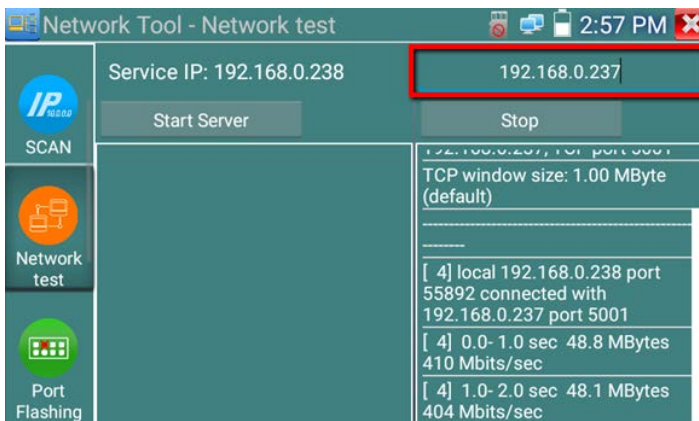


To start testing the network bandwidth using two testers:

1. Prepare two testers. One is used as a **Server** and the other as a **Client**. Both testers must be connected to the same network segment.
2. To start the Server, tap the **Start Server** button, the IP address of this server tester will be displayed.

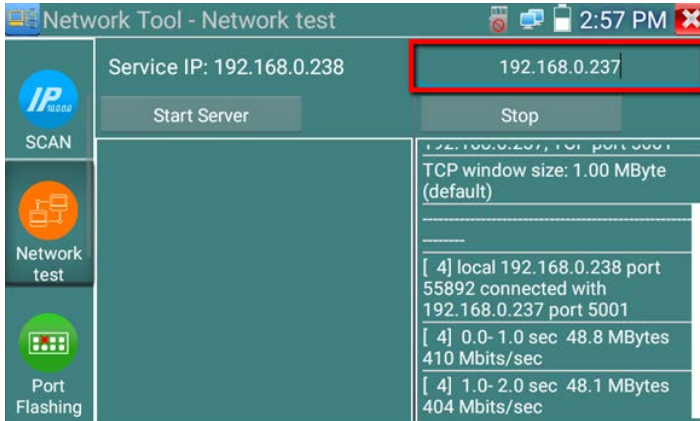


3. To send packet test, use the client tester, enter the server tester's IP address in the upper-right IP address field. The client tester is used to send packets for network speed testing. Tap the **Start** button to send the packets for testing.

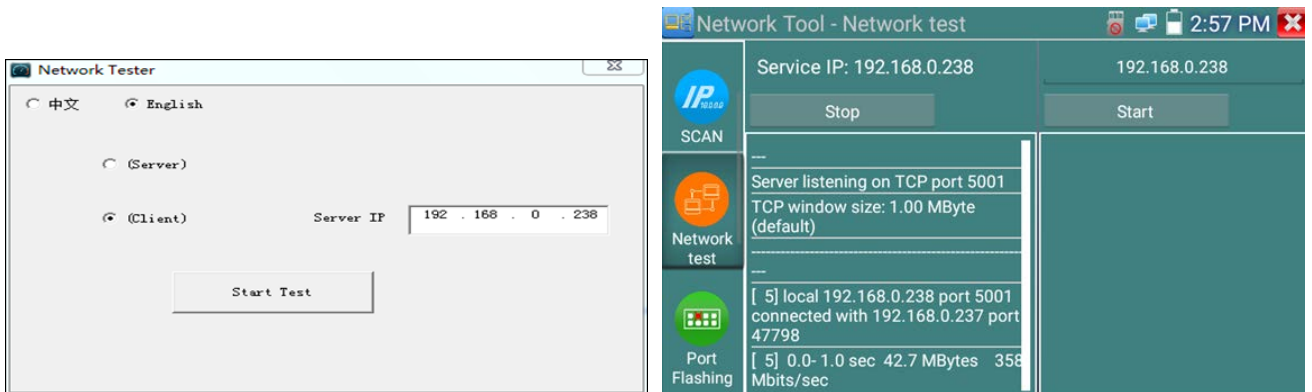


To start testing the network bandwidth using one tester and a computer:

1. Prepare one tester and a computer. Connect the tester and computer on the same network with the same network segment.
2. Install a network bandwidth testing software in the computer, as a test Client or Server, to do the mutual testing with the tester.
3. If you use computer as a Server, on the tester, input the computer's IP address in the top-right IP address field and then tap **Start** to test network bandwidth.

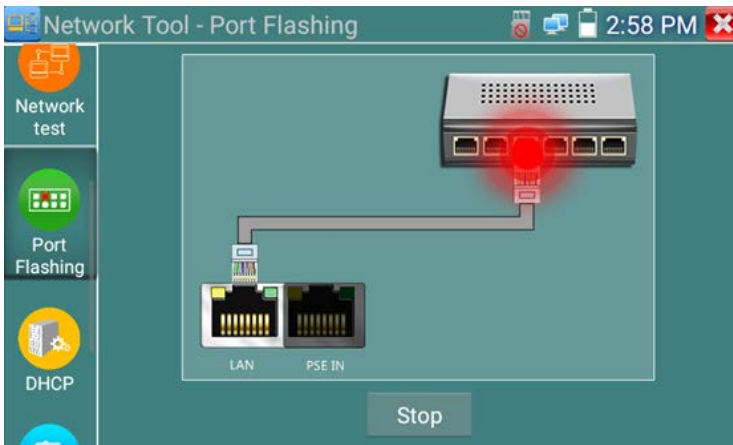


4. If you use the tester as a Server, on your computer, input the tester's IP address and start testing. The result will be shown on the tester.



#### 4.1.5.4 Port Flashing

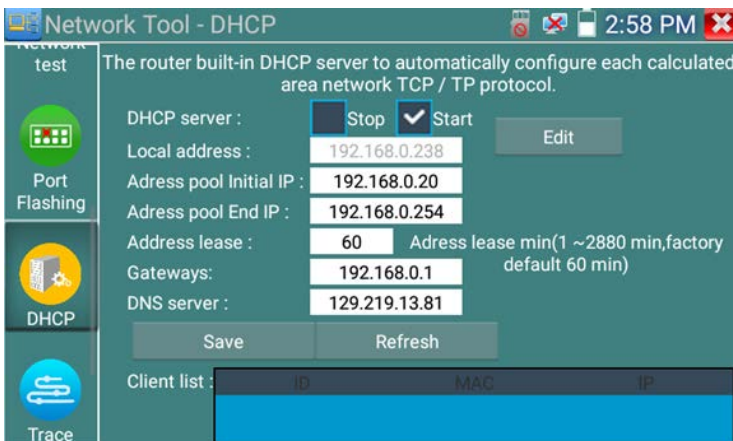
Port Flashing is a useful tool for installer to easily and quickly find the right LAN port connected to the tester. For example, if you connect the tester to a LAN port of a switch, when tapping the **Start** button, the tester will send a signal to the switch to make the LAN port flicker at a special frequency. Installer can easily tell the difference among the flicker signal. This function can be used to prevent from artificial interruption of network connection such as mistakenly insertion, or to disconnect the non-corresponding cables.



Use a network cable to connect between the tester and a network device (such as a switch). Tap the **Port Flashing** icon to enter the Port Flashing page. Tap the **Start** button, the tester will send a signal to the network device to make the LAN port flicker at a special frequency. And then you can find the corresponding LAN port on the network device connected to the tester.

#### 4.1.5.5 DHCP

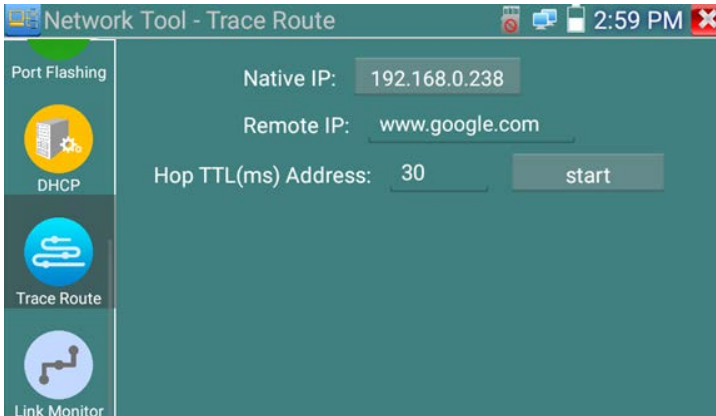
The **DHCP** server can be used to assign a dynamic IP address to IP cameras and other network devices. Connect a network cable to the LAN port on the tester and then tap the **DHCP** icon to enter the DHCP page. Select **Start** and configure the following network settings. Tap the **Save** button to start assigning dynamic IP address. Tap the **Refresh** button to check your client list.



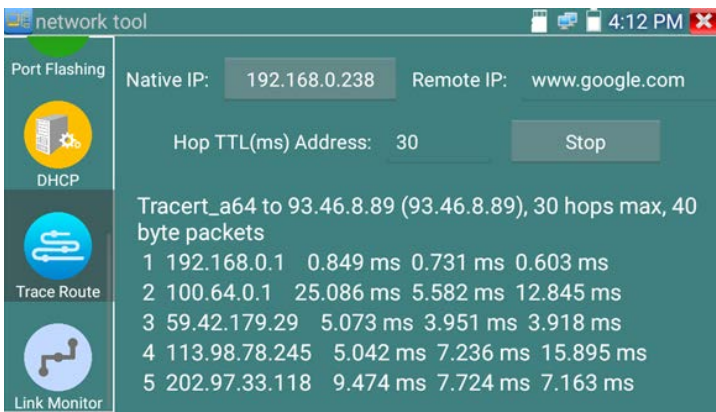
#### 4.1.5.6 Trace Route

You can use the Trace Route function to determine the path of the IP packet access target. Please note that the testing result is only for reference. For accurate route tracking results, please use a professional Ethernet tester.

Tap the **Trace Route** icon to enter the Trace Route page. Input an IP address or a domain name in the **Remote IP** field. Set up a maximum hop count in the **Hop TTL(ms) Address** field (normally 30) and then tap the **Start** button.



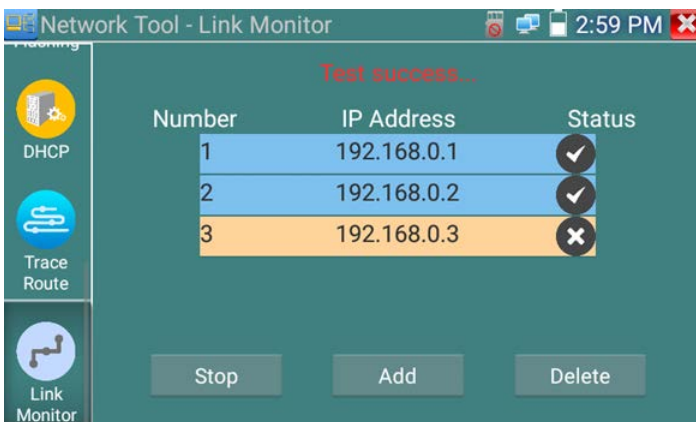
After tapping the **Start** button, the results will be displayed.



#### 4.1.5.7 Link Monitor

The Link Monitor function can be used to see if an IP address is occupied by other network device, and ultimately avoid network conflicts when adding IP devices.

Tap the **Link Monitor** icon to enter the Link Monitor page. Tap the **Add** button to input an IP address and then tap the **Start** button.



- Check mark  means the IP address is occupied.
- Cross mark  means the IP address is available.
- Click **Stop** to stop testing.
- If you want to test different network segments, go to **Settings > IP Settings** to change the IP settings.

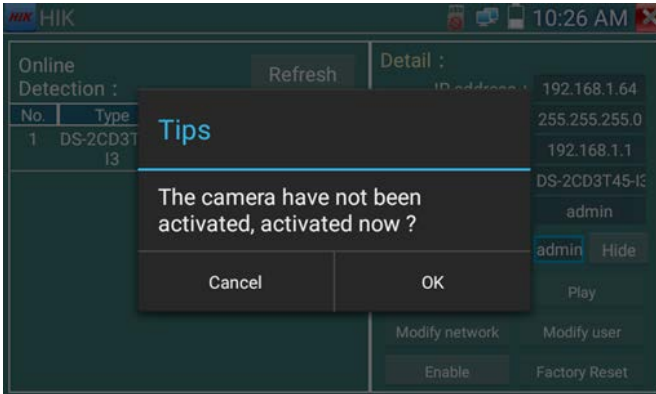


4.1.6 HIK

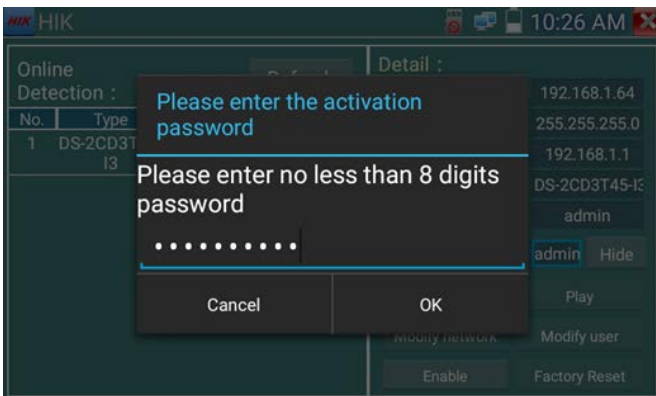


Tap **IP Camera Test** > **HIK** to enter the HIK test tool page. The HIK test tool page is designed for activating and debugging Hikvision IP camera.

1. If the connected IP camera is an unactivated Hikvision IP camera, the tester will automatically identify and display “Unactivate” in safety mode. Select the IP cameras required to be activated and then tap the **Enable** button. A pop-up window displays. Tap **OK** to activate the IP camera.



2. Input the password and tap **OK** to activate.



3. After activating the IP camera, the tester will modify the camera IP.



**Play:** Tap to enter the IP Camera Test page to display IP camera streams. For more details on IP Camera Test page, please refer to *4.1.4 IP Camera Test*.

**Modify Network:** Tap to change IP camera IP address, subnet mask or gateway.

**Modify User:** Tap to modify the user name and password of the IP camera.

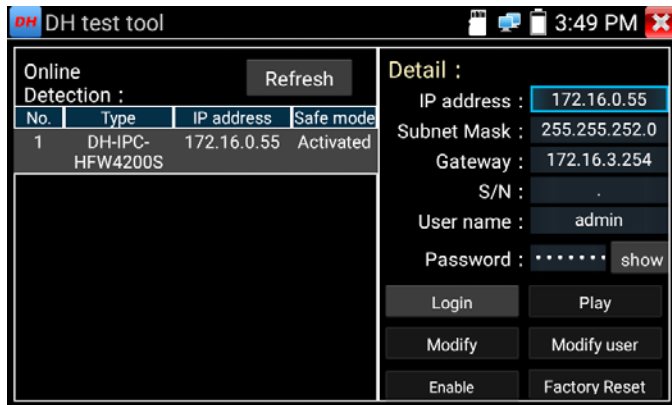
**Factory Reset:** Tap to restore the IP camera to the factory default.

### 4.1.7 DH Test Tool



Tap **IP Camera Test > DH Test Tool** to enter the DH Test Tool page. You can use this page to install and debug the Dahua IP cameras. With this tool, you can display video streams, modify IP, user name and password, and etc..

Select a desired IP camera and then tap the **Login** button to login.



**Play:** Tap to enter the IP Camera Test page to display IP camera streams. A prompt window will display for you to select between main stream or sub stream. For more details on IP Camera Test page, please refer to *4.1.4 IP Camera Test*.

**Modify:** Tap to change IP camera IP address, subnet mask, gateway or password.

**Modify User:** Tap to modify the user name and password of the IP camera.

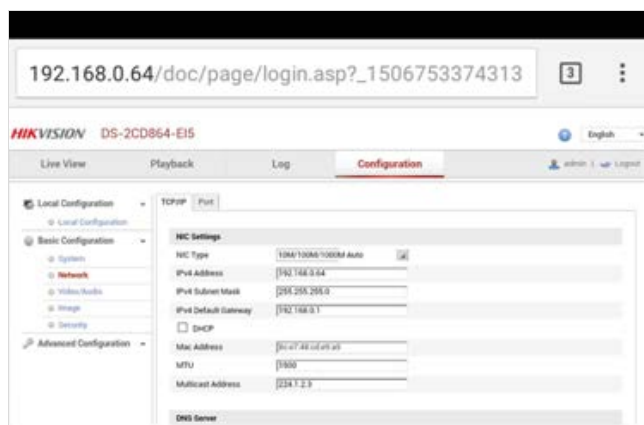
**Factory Reset:** Tap to restore the IP camera to the factory default.

### 4.1.8 Chrome



Tap **IP Camera Test > Chrome** to enter the Chrome browser. Type in the IP camera’s IP address and then tap enter to access the IP camera’s Web interface. Please ensure the tester and the IP cameras are on the same network segment. If not, go to **Tools > Settings > IP Settings** to configure the network settings.

Note that through this Chrome browser, you will not be able to view live video streams. To view video streams, please use IP camera test function.



## 4.2 CVBS & HD Camera

Please note that since users can move the function icons from folders to folders, therefore, the functions described in the chapter are based on the default icon arrangement .



### 4.2.1 Analog / CVI / TVI / AHD Camera Test

The way to test Analog , CVI, TVI and AHD cameras is the same. Please follow the steps below:

1. Ensure the camera has been connected to the tester. Please refer to *3.3 Analog / CVI / TVI / AHD Camera Connection*.
2. On the Main page, tap **CVBS & HD Camera** to enter the page as below. Find the type of your camera and then tap on it. For example, if the connected camera is an Analog camera, tap **HD CVBS**.



3. After tapping the camera icon, the following live page appears.





4. You can use the Toolbar on the right side of the screen.

**Playback:** Tap to play back the snapshot images or the manual recordings. You can long tap on a file to rename or delete it.

**Snapshot:** Tap **Snapshot** to take a snapshot of the current camera stream. The snapshot images will be automatically stored in the internal SD card (**/sdcard/photo**) in png format. To export the files to your PC, please refer to *3.4.4 Exporting Files to PC*.

Note that if you have select **Manual** in the Photo Storage field on the **Set** page (refer to Set below), when tapping the **Snapshot** icon, a pop-up window will display, input a file name(alphabetic or numeric characters) and then tap **Sure**, the snapshot will be stored in the internal SD card with the self-defined file name. If you want to rename images, find the image in the **Photo** album and long tap on the image to rename.

**Record:** Tap **Record** to start the manual record function and tap again to stop. The live recording will be stored in the internal SD card (**/sdcard/video**) in mp4 format. To export the files to your PC, please refer to *3.4.4 Exporting Files to PC*.

Note that if you have select Manual in the Video Storage field on the **Set** page (refer to Set below), when tapping the **Record** icon, a pop-up window will display, input a file name(alphabetic or numeric characters) and then tap **Sure**, the manual record function will start. Tap again to stop the manual record function. The manual recording will be stored in the internal SD card with the self-defined file name. If you want to rename recording files, find the recording on the **Playback** page (refer to Playback below)and long tap on the recording file to rename.

**PTZ:** If the camera is a PTZ camera, tap to enter the PTZ setup page. You can also swipe on the video stream to move the direction to the top, down, left and right; or gesture on the stream to zoom in or out.



**Port:** Tap the left and right arrow buttons to select between **UTC** and **RS-485/RS-232**.

- If **RS-485/RS-232** is selected, configure the below settings:

**Protocols:** Tap the left and right arrow buttons to select a protocol.

**Address:** Tap the left and right arrow buttons to select the address (0~254). The Address must be consistent with the address set up on the camera.

**Baud Rate:** Tap the left and right arrow buttons to select to select the baud rate.

**Horizontal Speed:** Tap the left and right arrow buttons to select a speed (0~63).

**Vertical Speed:** Tap the left and right arrow buttons to select a speed (0~63).

**Set Position:** Move the camera to a position, tap the left and right arrow buttons to select a preset number (1~128) and then tap **Set Position** to set up the preset position.

Call Position: Tap the left and right arrow buttons to select a preset number (1~128) and then tap **Call Position** to go to the preset position.

- If **UTC** is selected, configure the below settings:

Coaxitron: Tap the left and right arrow buttons to select between **PTZ** and **Menu**. If Menu is selected, you can enter the camera OSD menu by using the direction and enter icons. Note that for AHD cameras, if PTZ is not working, select PTZ-2 as AHD camera has two kinds of order.

Address: Tap the left and right arrow buttons to select the address (0~254). The Address must be consistent with the address set up on the camera.

Horizontal Speed: Tap the left and right arrow buttons to select a speed (0~63).

Vertical Speed: Tap the left and right arrow buttons to select a speed (0~63).

Set Position: Move the camera to a position, tap the left and right arrow buttons to select a preset number (1~128) and then tap **Set Position** to set up the preset position.

Call Position: Tap the left and right arrow buttons to select a preset number (1~128) and then tap **Call Position** to go to the preset position.

Set: Tap to display the setup window.

- Focus Info: This function is only available for TVI/CVI/AHD cameras. Tap to enable (Open) or disable (Off) the show focus info function on the screen.
- Lens Simulation: This function is only available for TVI/CVI/AHD cameras. You can select Lens size and CCD chip size for the current camera.
- Photo Storage: Tap to automatically (Auto) or Manually (Manual) store the snapshot images to the internal SD card in png format. If Auto is selected, the snapshot images will be automatically stored to the internal SD card with a given file name. If Manual is selected, the snapshot images will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters).
- Video Storage: Tap to automatically (Auto) or Manually (Manual) store the video recordings to the internal SD card in mp4 format. If Auto is selected, the recording file will be automatically stored to the internal SD card with a given file name. If Manual is selected, the recording file will be automatically stored to the internal SD card, however, users will have to manually input a file name (alphabetic or numeric characters) before start using the function.

### 4.3 Tools

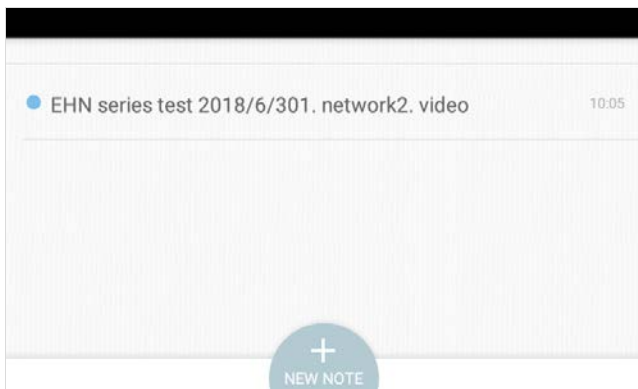
Please note that since users can move the function icons from folders to folders, therefore, the functions described in the chapter are based on the default icon arrangement .



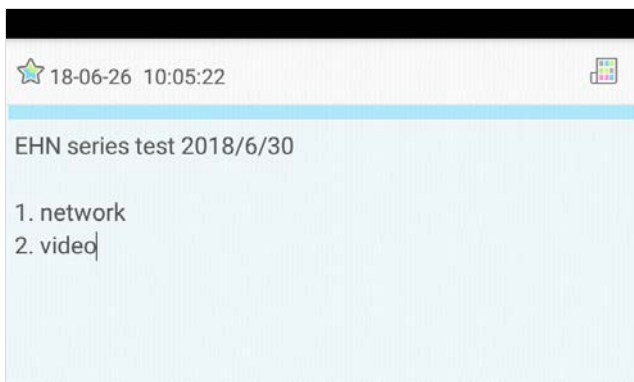
#### 4.3.1 Droinotes

You can use the Droinotes to take a note. Tap the **Droinotes** icon  to enter the Droinotes page.

To take a note, tap the **NEW NOTE** button to input the note info.

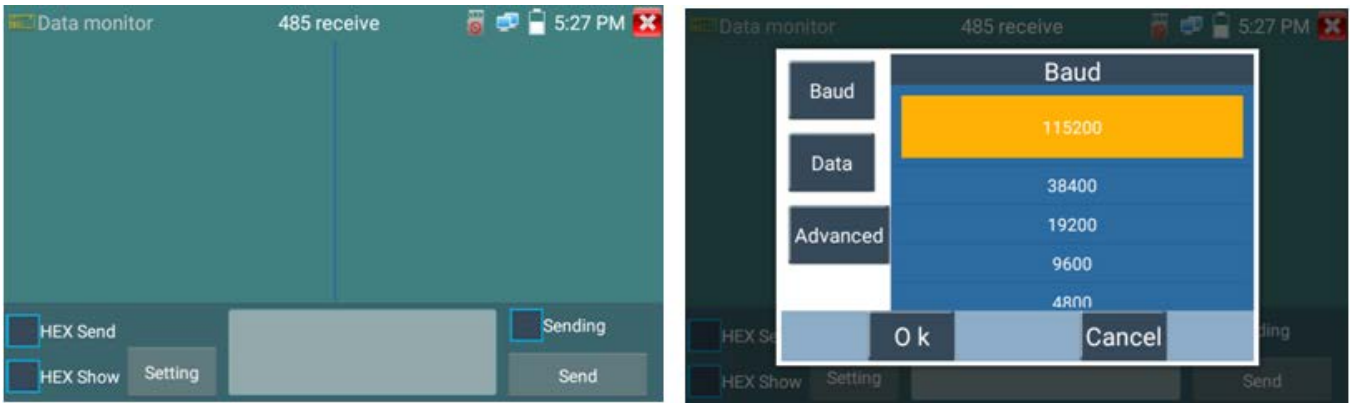



After inputting the note info, tap the **Done** button to save.



### 4.3.2 Data Monitor


The Data Monitor function can be used to check whether the RS-485 communication states of the video optical transmitter is normal. Engineers can then analyze the protocol and check the data through the code displayed on the screen.

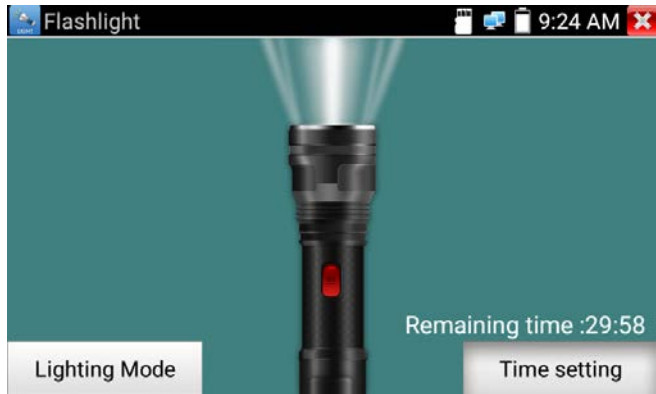


1. Use the supplied RS-485 cable to connect a DVR or a Control Keyboard to the RS-485 port on the tester.
2. Tap the **Data Monitor** icon  to enter the Data Monitor page.
3. Tap the **Setting** button to bring up the setup page. Tap **OK** after configuring the parameters.
  - a. Tap **Data** to select between RS-485 or RS-232.
  - b. Tap **Baud** to select a baud rate. Please note that the RS-485/RS-232 communication baud rate set up on the tester must be the same with the DVR or the Control Keyboard
  - c. Tap **Advanced** to enable the Parity bit, Data bits and Stop bit.
4. Tap the **Send** button, the DVR or Control Keyboard will send the PTZ control code to the tester, if the code is readable, the protocol will be shown on the upper-right corner of the screen, such as Pelco D; if the code is unreadable, the protocol will be shown as P:---.
5. To clear the received code, tap the **Return** key on the tester.

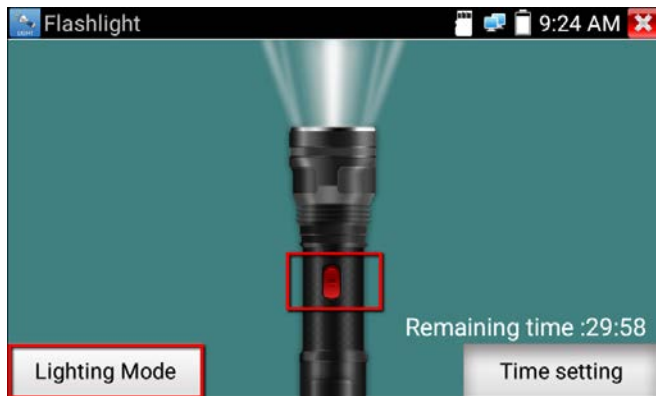
### 4.3.3 Flashlight

You can use this page to turn on or turn off the flashlight. You can also set up a timer for the flashlight.

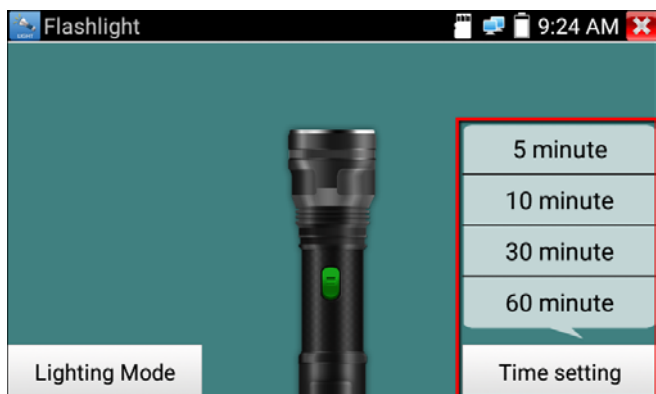
Tap the **Flashlight** icon  to enter the Flashlight page. The flashlight will turn on.




Tap the **Lighting Mode** button or the **Red** button on the flashlight can turn off the flashlight.



If you want to set up a timer for the flashlight, tap the Time setting button and select a time. The flashlight will automatically turn off the light when the time's up.

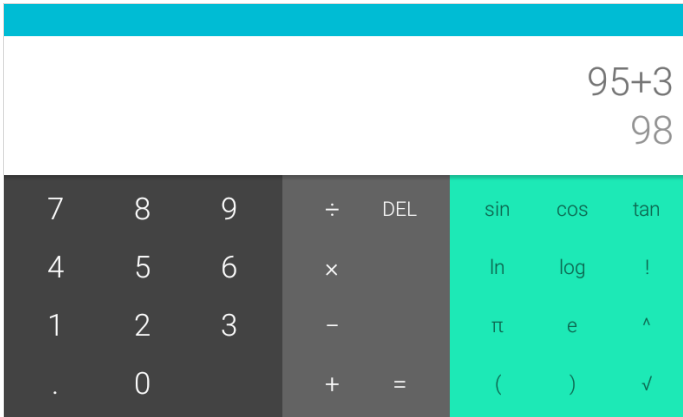


Note that if you tap the  button to exit without turning off the flashlight, the flashlight will stay on.

### 4.3.4 Calculator



Tap the **Calculator** icon to enter the **Calculator** page.



### 4.3.5 Settings



Tap the **Settings** icon to enter the tester's setting page.

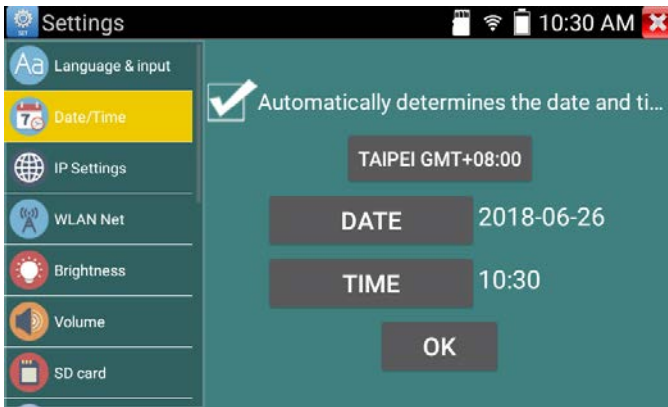
#### 4.3.5.1 Language & Input

Tap **Language & Input** to enter the Language & Input page. Tap on a language, the tester will automatically change the system language directly. If you want to change the input method, tap the **Ime** button on the top.



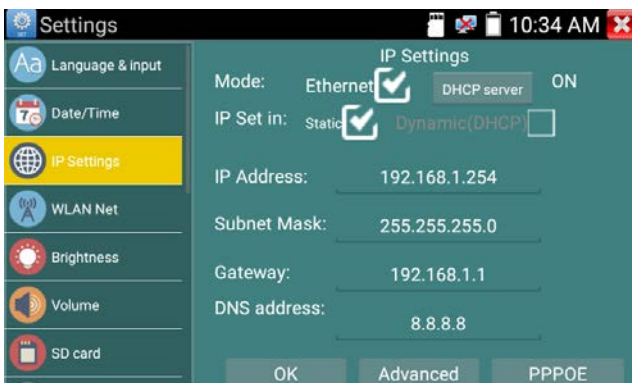
### 4.3.5.2 Date/Time

Tap **Date/Time** to enter the Date/Time page to set up the date/time of the tester.



### 4.3.5.3 IP Settings

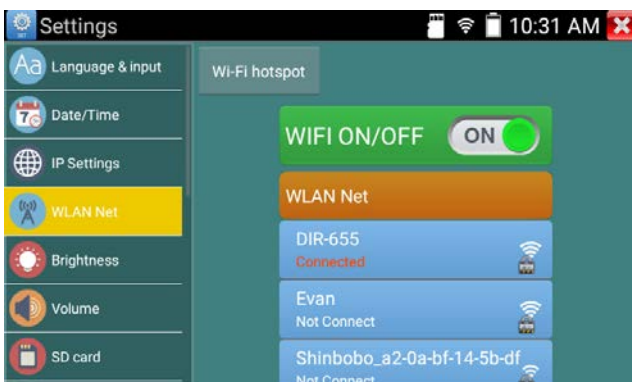
Tap **IP Settings** to enter the IP Settings page. You can set up a static IP, DHCP or PPPoE for the tester.



### 4.3.5.4 WLAN Net

Please note that WIFI function and LAN network cannot be used simultaneously. If you want to use the WIFI function, please remove the network cable from the tester in advance.

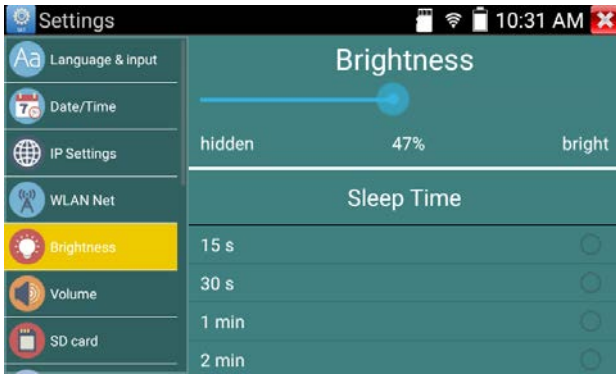
Tap **WLAN Net** to enter the WIFI setup page. Tap the **WIFI ON/OFF** button to turn on the WIFI function. The tester will automatically search for the WiFi spots, tap to select a WiFi spot and input the password.





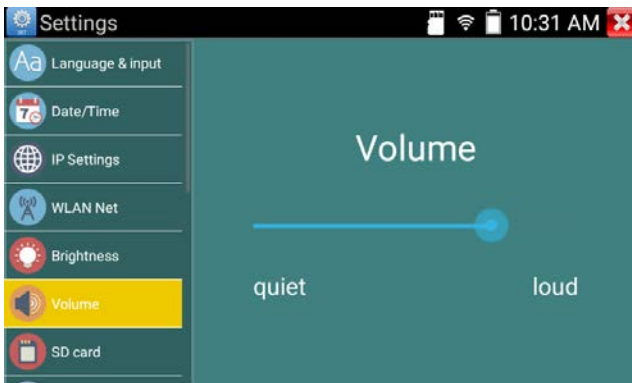
### 4.3.5.5 Brightness

Tap **Brightness** to enter the Brightness page. You can adjust the screen brightness and set up a sleep mode timer.



### 4.3.5.6 Volume

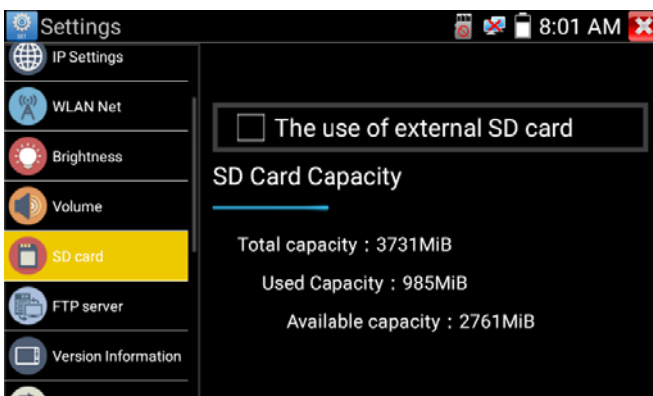
Tap **Volume** to enter the Volume page to adjust the volume for the tester.



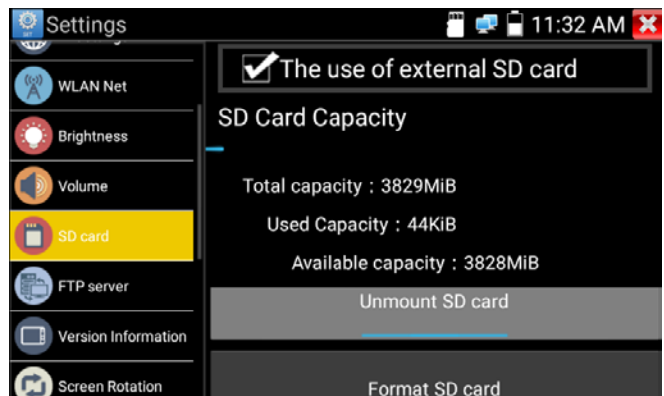
### 4.3.5.7 SD Card

The internal SD Card can be used to record video streams, video snapshots, audio, screen image capture and etc.. the external SD card can be used to backup files from the internal SD card. You can view the internal or external SD card information on this page. On the left side menu, tap **SD Card** to enter the SD Card setting page.

**Internal SD Card**



**External SD Card**



**Internal SD Card:** You can view the internal SD card information on this page (uncheck “The use of external SD card” ). By default, all the record video streams, video snapshots, audio, screen image



capture and etc. will be recorded to the internal SD card. If you want to backup the recordings, images or other files to the external SD card, you will have to copy and paste the files from the internal SD card to the external SD card. Please refer to **Step 2** in *3.4.4 Exporting Files to PC*.

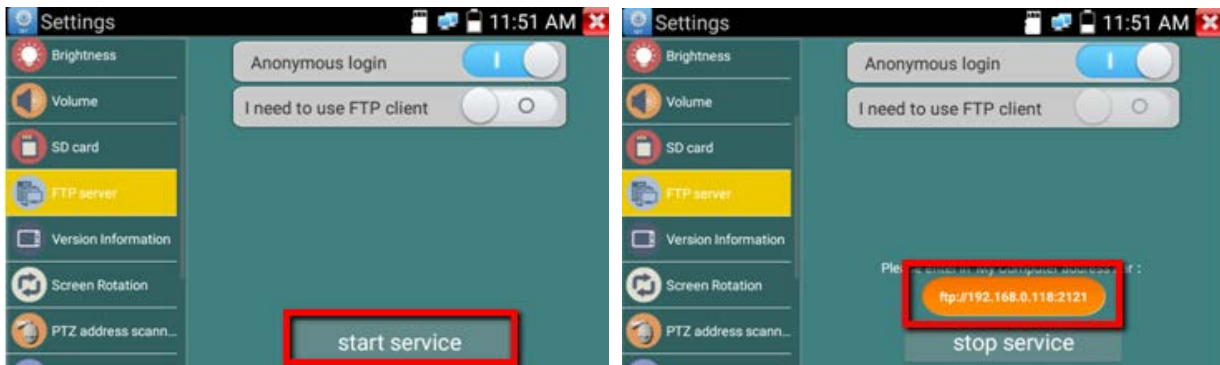
**External SD Card:** The external SD card can be used to backup files from the internal SD card. Check “The use of external SD card” , you can see the external SD card information on this page. You can tap **Unmount SD card, Mount SD card** or **Format SD card** to activate the function. If you want to backup any files to the external SD card, the “The use of external SD card” option must be checked. After checking the “The use of external SD card” , a “extsd” folder will be created in the SD card folder, you can then copy the files from the internal SD card to the “extsd” folder. Please refer to **Step 2** in *3.4.4 Exporting Files to PC*.

**4.3.5.8 FTP Server**

Connect the tester to a network, start the FTP server of the tester, and then you can use a computer to access the internal/external SD card of the tester.

To start the FTP server of the tester:

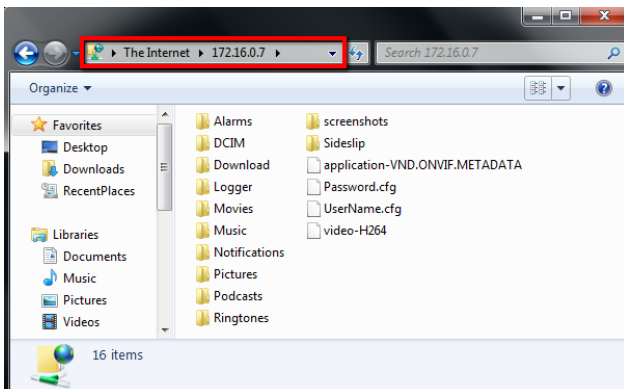
1. Tap the **Start Service** button to start the FTP server. The FTP server’s address will be displayed.



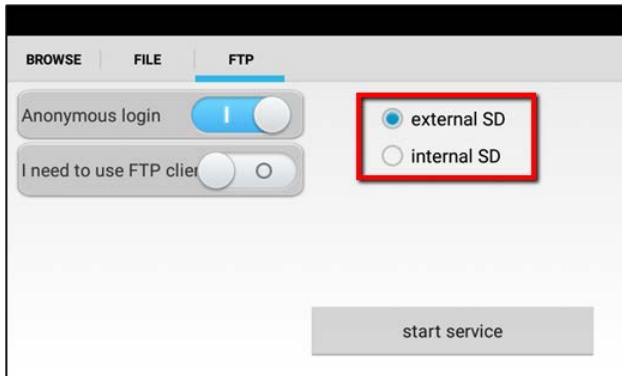
**Anonymous Login:** Turn on to enable Anonymous login. This will allow anonymous users to login the FTP server without entering user name and password. Turn off to disable Anonymous login for all users to access the FTP server with the user name and password.

**I need to use FTP client:** Turn on to enable the read and write permission for the FTP server. Turn off to enable read only permission for the FTP server.

2. On your PC, open a folder and then type in the FTP server address. Press the **Enter** key and then you should now access the SD card of the tester.



Note that you can choose either to view the external or internal SD card folders. Please refer to 4.4.3.3 *FTP* for more details.



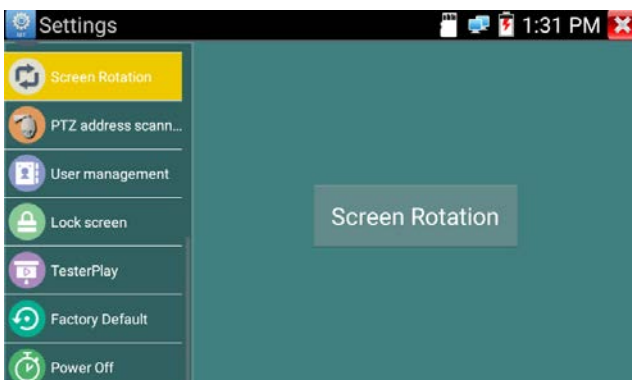
### 4.3.5.9 Version Information

Tap **Version Information** to enter the Version Information page. You can view all the apps' version information. To uninstall the apps, long tap on the app on the list and then you can uninstall the app. Note that if you want to restore the uninstalled apps back, you will have to load the tester to factory default.



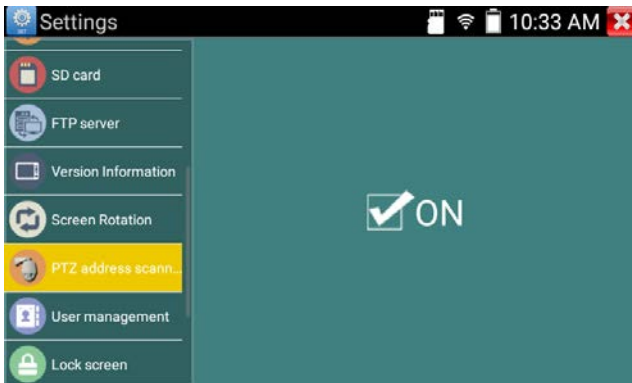
### 4.3.5.10 Screen Rotation

Tap **Screen Rotation** to enter the Screen Rotation page. You can tap the Screen Rotation button to flip the tester's screen by 180 degrees. This function allows users to connect the network cable on the tester without having to turn the tester direction.



**4.3.5.11 PTZ Address Scan**

Tap **PTZ Address Scan** to enter the PTZ Address Scan page. You can toggle the PTZ Address Scan on before entering the PTZ Controller to automatically scan the PTZ address. Please refer to *3.3 Analog / CVI / TVI / AHD Camera Test*.



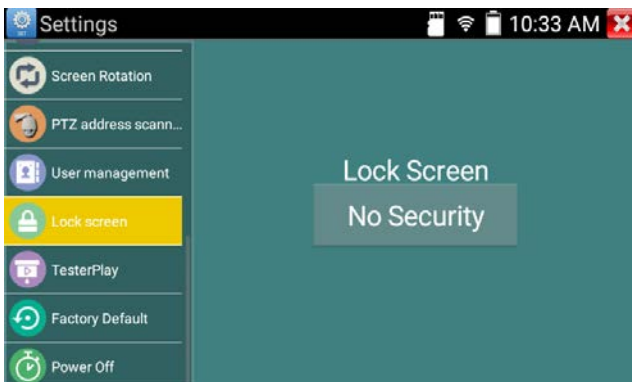
**4.3.5.12 Contact**

Tap **Contact** to enter the Contact page. You can find the contact information of EverFocus Technical Support team.

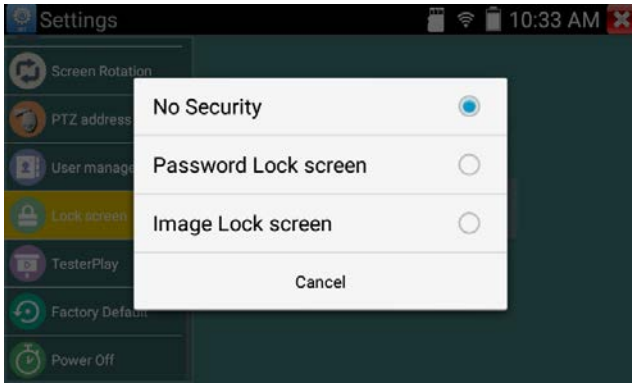


**4.3.5.13 Lock Screen**

Tap **Lock Screen** to enter the Lock Screen page. By default, the tester's screen is unlock. You can select to lock the screen by password or pattern lock.



Tap the **No Security** button to bring up the below page:



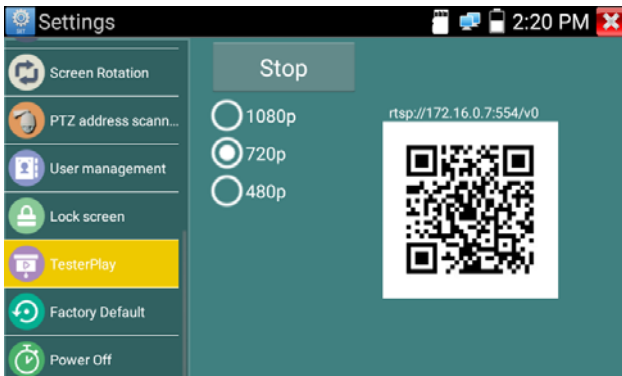
**No Security:** Select to unlock screen all the time.

**Password Lock Screen:** Select to set up a password to unlock the screen. You can set up numeric, alphabetic, or special characters. Input the password again to confirm.

**Image Lock Screen:** Select to set up a patter to unlock the screen. Draw a pattern.

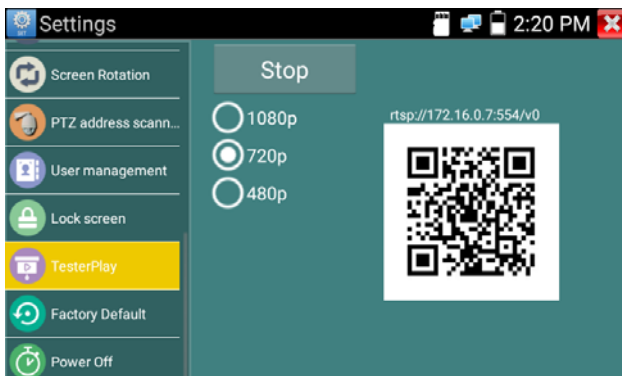
#### 4.3.5.14 TesterPlay

Tap **Tester Play** to enter the Tester Play page. You can use this function to mirror the tester’s screen on your mobile device. Please note that this function can only be activated when all your devices, such as the tester and the mobile device, are under the same network.




Here we use iPad for example:

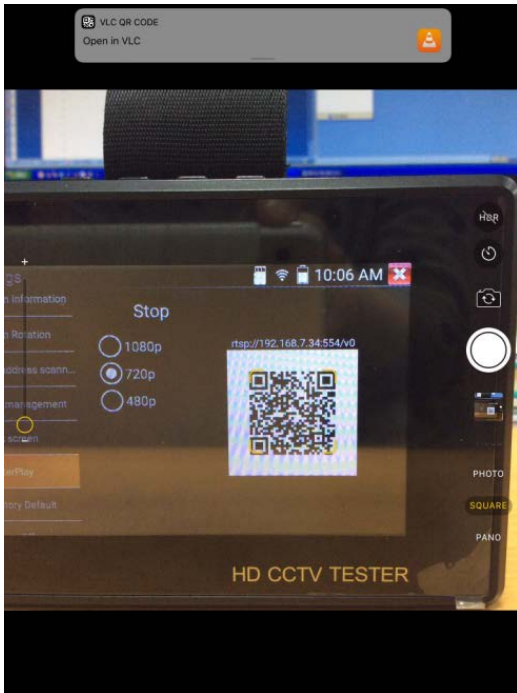
1. Ensure the tester and your iPad are on the same network. For example, connect both devices to the same WiFi network.
2. On the tester, select a resolution and then tap the **Start** button, you will get a QR code, which is an RTSP URL.



- On the iPad, ensure to install an RTSP-supported App, such as VLC, in order to open the RTSP URL of the tester.



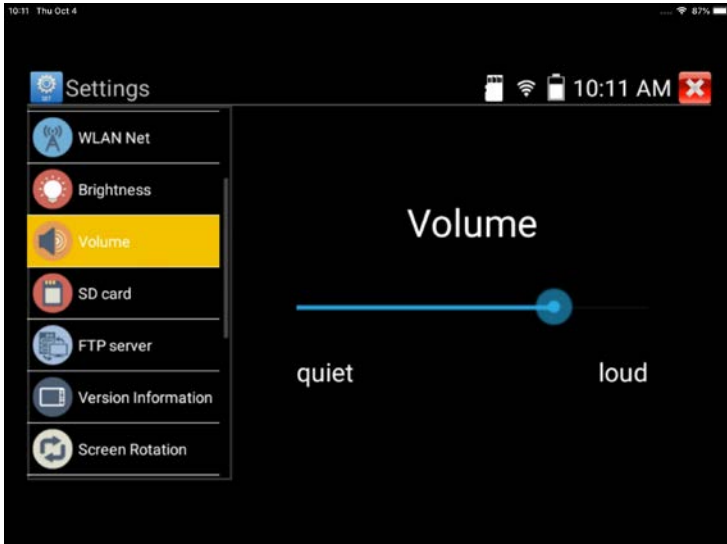
- Tap the **Camera App**  to scan the QR code. When the QR code has been scanned, the iPad will pop-up a notification on the top window. If you want to open the RTSP with VLC, tap on the window.



- The iPad will open the RTSP with VLC. Wait a few seconds for VLC to establish the connection with the tester.

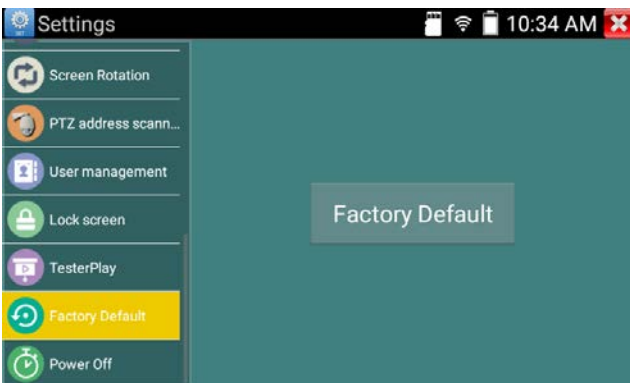


6. You should now see the mirroring screen on your iPad.



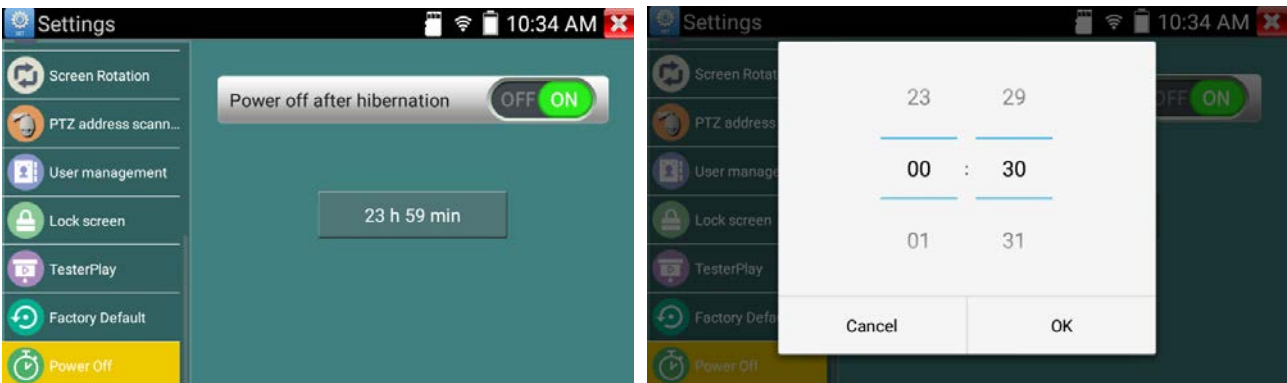
**4.3.5.15 Factory Default**

Tap **Factory Default** to enter the Factory Default page. Tap the Factory Default button to restore the tester to the factory default settings. All the personal files and apps will be removed.



**4.3.5.16 Power Off**

Tap **Power Off** to enter the Power Off page. You can set up a time for the tester to turn off power automatically.



Switch the **Power off after hibernation** on and then tap the time button to set up a timer (hh:mm). The tester wil automatically turn off power when the time's up. auto power turn off time.

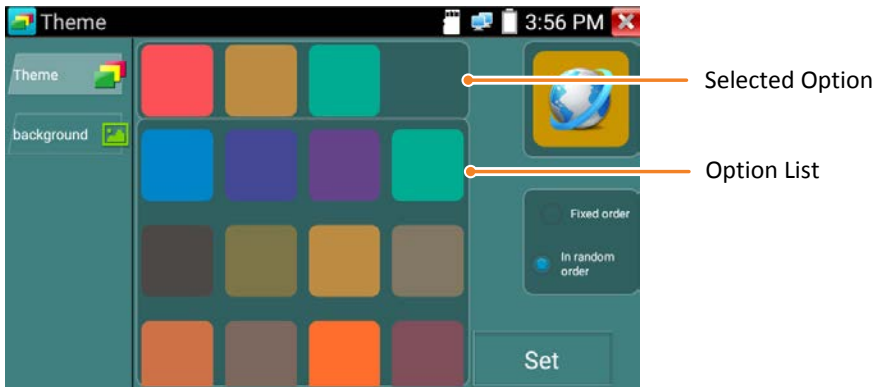
### 4.3.6 Theme



Tap the **Theme** icon to enter the Theme page.

#### 4.3.6.1 Theme

Tap the Theme tab on the left-side menu to enter the Theme page. You can change the app icon background on this page.



1. Long tap an option on the **Option List**, the option will be added to the **Selected Option** list.
2. If you want to remove the option from the **Selected Option** list, long tap an option on the **Selected Option** list.
3. You can add up to four options into the **Selected Option** list.
4. If multiple options are selected, you can select **Fixed order** or **In random order** to apply the option color to the app icons. If only one option is selected, all app icons will be apply with the option color.
5. Tap the **Set** button to save the setting. The app icons will change the background color.

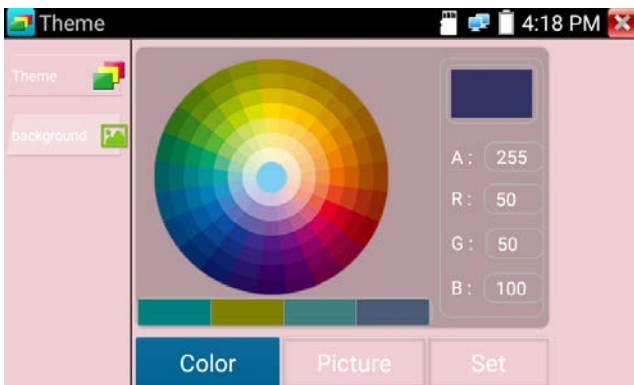
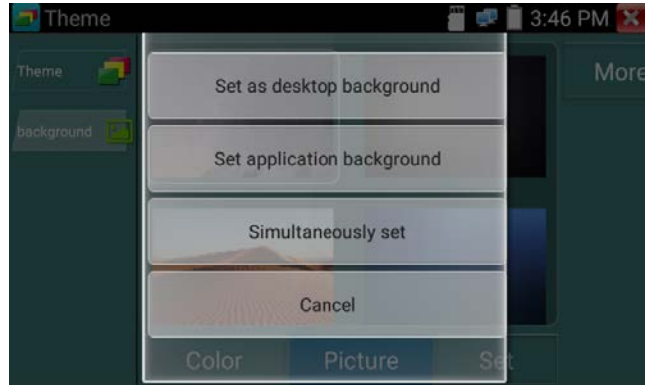




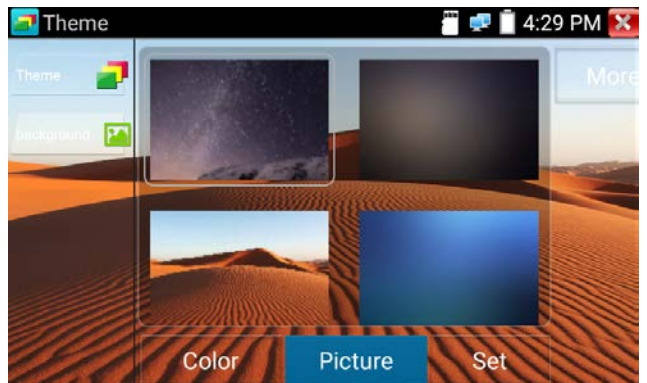
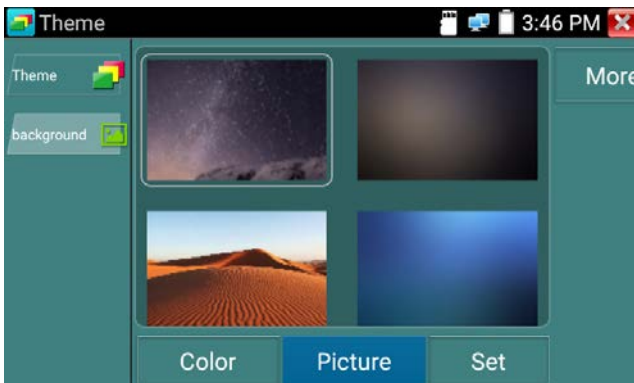
### 4.3.6.2 Background

Tap the Background tab on the left-side menu to enter the Background page. You can choose whether to apply a **Color** or a **Picture** to the desktop/application.

Tap the **Color** button and select a color, tap the **Set** button and select whether to apply the background to the desktop, application or both. The background color will be applied to the desktop/application.



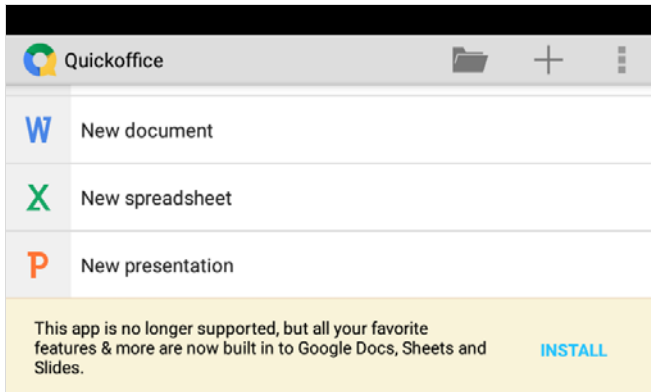
Tap the **Picture** button and select a picture. You can also tap **More** to select a picture from the internal SD card. Tap the **Set** button to save the settings.



### 4.3.7 Quick Office



Tap the **Quick Office** icon to enter the Quick Office page. The Quick Office supports excel, word and powerpoint file formats.



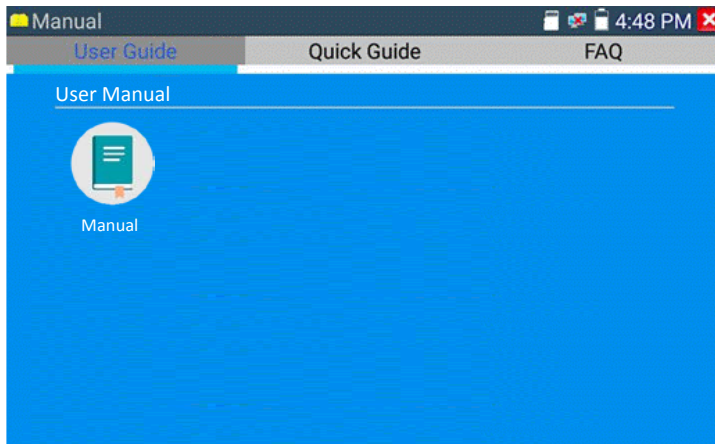
## 4.4 My APPS

Please note that since users can move the function icons from folders to folders, therefore, the functions described in the chapter are based on the default icon arrangement .

### 4.4.1 Manual



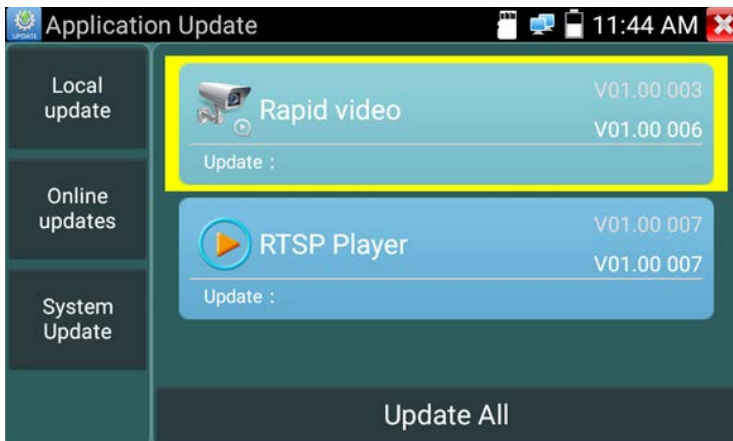
Tap **My APPS > Manual** to enter the manual page. You can use this page to view manual content.



### 4.4.2 Application Update



Tap **My APPS > Application Update** to enter the Application Update page. You can use this page to update the tester or update the application (apps) of the tester.



There are two ways to update the applications (apps), **Local Update** or **Online Update**.

**Local Update:** Update the apps through internal SD card. Download the update files and save it to the “update” directory of the internal SD card. If there is no update directory, please create one (please refer to 4.4.2.1 *Creating a Directory in SD Card* fore more details). To save the update app files to the “update” folder, please refer to 4.4.2.2 *Importing Files to the SD Card*.


**Online Updates:** Connect the tester to the internet to update the apps. Tap **Online Updates** to check the updates on the internet. If there are applications required to be updated, the applications will be listed on the page. Tap on the related applications to start updating.

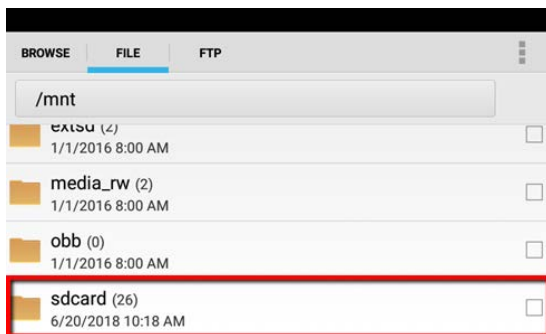
**System Update:** Connect the tester to the internet to update the tester.

#### 4.4.2.1 Creating a Directory in SD Card

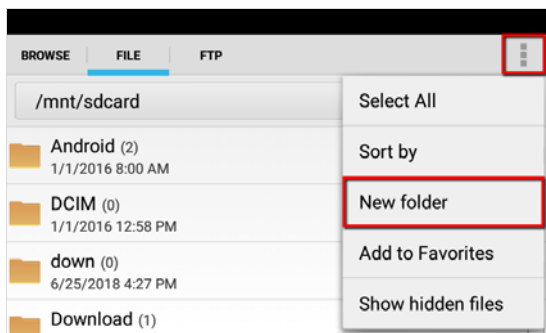
To create a folder in the internal SD card, there are 2 ways:

##### A. Using the tester:

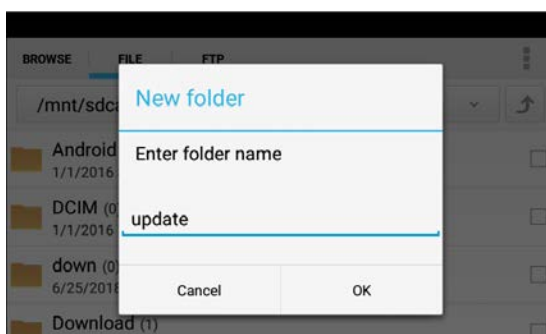
1. Go to **My APPS > File Explorer** . In the **File** tab, tap **sdcard** to enter the SD card.



2. Tap the upper-right button and tap **New Folder**.



3. Input the folder name and then tap **OK**. The folder is now created in the internal SD card.



**B. Using a PC through FTP Server:**

Turn on the FTP Server and then use your PC to access the internal SD card of the tester. Create a folder in the internal SD card. Note that to have the write permission, you have to enable the **I need to use FTP client** function for the FTP server. Please refer to 4.4.3.3 FTP.

**4.4.2.2 Importing Files to the SD Card**

Here we use importing a downloaded app file to the “update” directory of the internal SD card for example: Turn on the FTP Server and then use your PC to access the internal SD card of the tester. Find the “update” folder in the internal SD card, copy and paste the app file to the “update” folder. Note that to have the write permission, you have to enable the **I need to use FTP client** function for the FTP server. Please refer to 4.4.3.3 FTP.

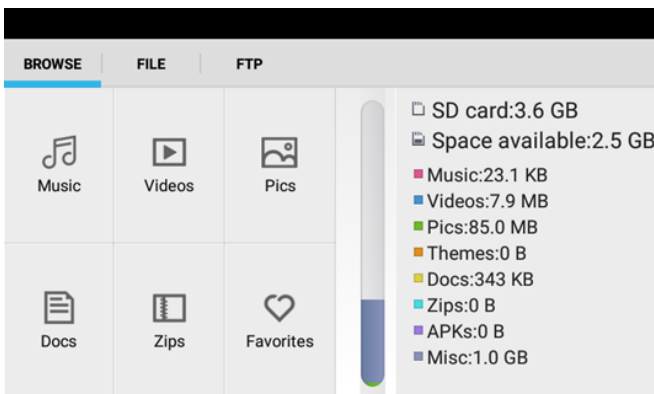
**4.4.3 File Explorer**



Tap **My APPS > File Explorer** to enter the File Explorer page. You can view the files stored in the internal SD card or set up the FTP server on this page.

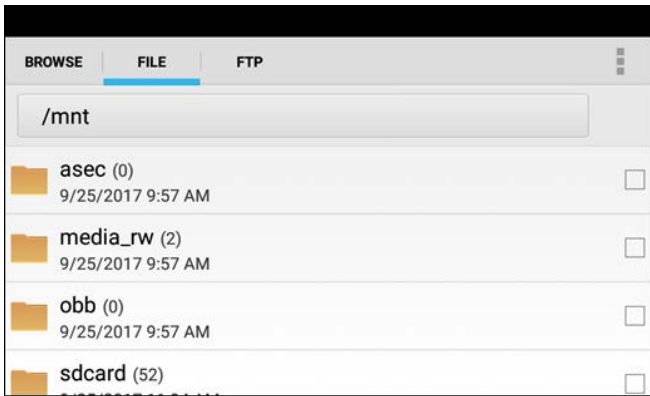
**4.4.3.1 Browse**

Tap the Browse tab to enter the Browse page. You can view the internal SD card storage information on the right side. Tap the category icons on the left side can enter each category in the internal SD card. You can play back recordings, view images or files stored in the internal SD card using this page.



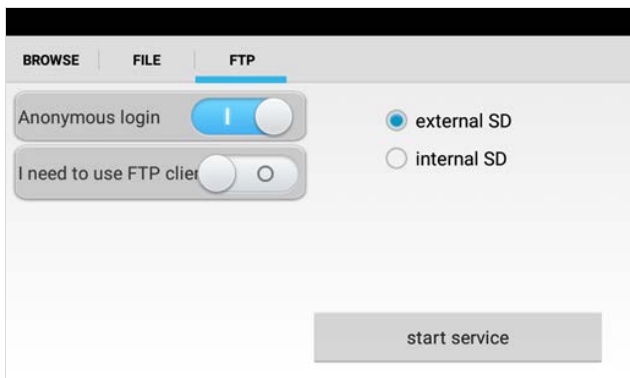
### 4.4.3.2 File

Tap the **File** tab to enter the File page. You can enter each folder to play back recordings, view images and files or play audio files.



### 4.4.3.3 FTP

Tap the **FTP** tab to enter the FTP page. The FTP function allows users to use a computer to access the internal/external SD card of the tester.



**Anonymous Login:** Turn on to enable Anonymous login. This will allow anonymous users to login the FTP server without entering user name and password. Turn off to disable Anonymous login for all users to access the FTP server with the user name and password.



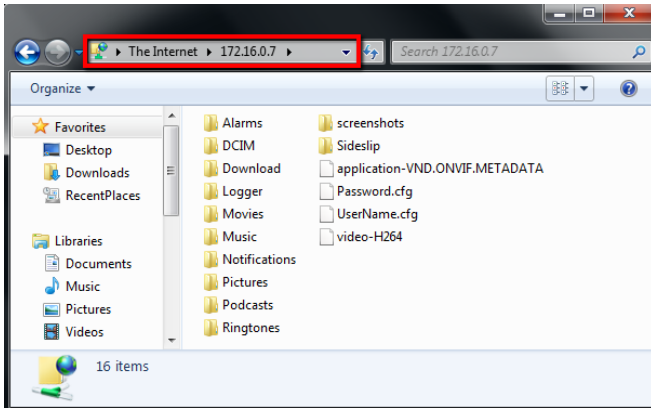
**I need to use FTP client:** Turn on to enable the read and write permission for the FTP server. Turn off to enable read only permission for the FTP server.

**External SD:** Select for users to access only the external SD card (extsd folder).

**Internal SD:** Select for users to access only the internal SD card.


**Start Service:** Tap the button and the FTP server address will display. On your PC, open a folder and then type in the FTP server address. Press the **Enter** key and then you should now access the internal/external SD card of the tester.

Please note that for the FTP function to work, do not leave the FTP page until you want to stop the FTP function.



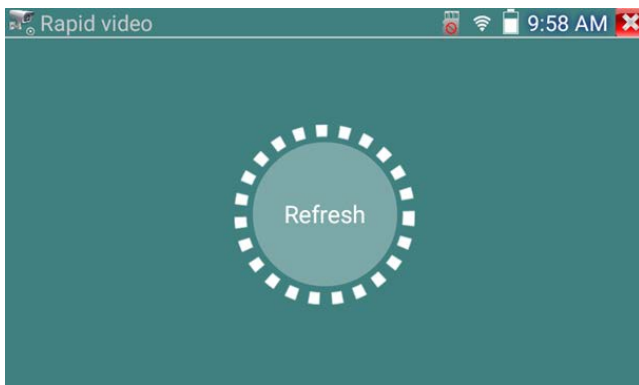
#### 4.4.4 Rapid Video



Tap **My APPS > Rapid Video** to automatically search for the ONVIF conformant IP cameras connected on the same LAN. Tap **Login** to input the user name and password, the live streams will be displayed. After exiting the ONVIF app by tapping the  icon, you can tap **Refresh** on the Rapid Video app to search IP cameras again. For detailed operations, please refer to 4.1.3 ONVIF.



You can also tap **IP Camera Test > ONVIF** to enter the ONVIF app.





### 4.4.5 Rapid IP Discovery



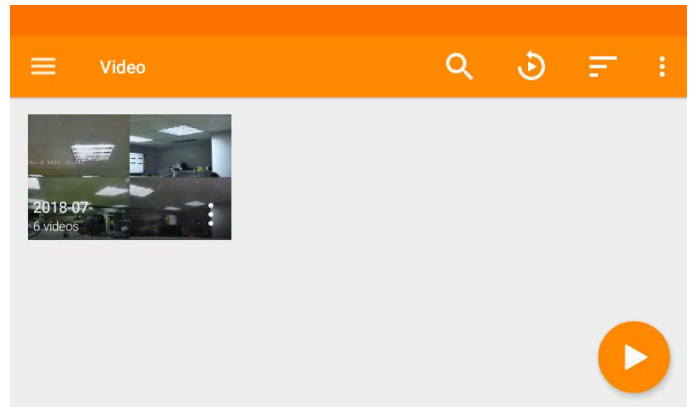
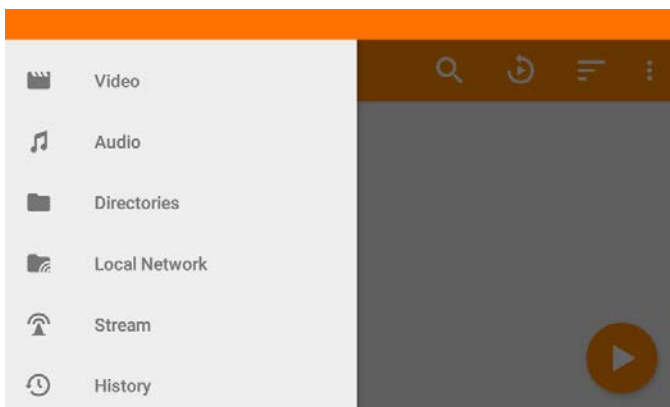
Connect a network cable to the LAN port on the tester and then tap **My APPS > Rapid IP Discovery** to enter the Rapid IP Discovery page. Tap the **Start** button to search for all IP devices in the whole network segments. Tap the **Stop** button to stop searching.



### 4.4.6 VLC



Tap the VLC app to start the VLC app. You can use the VLC app to display camera streams.

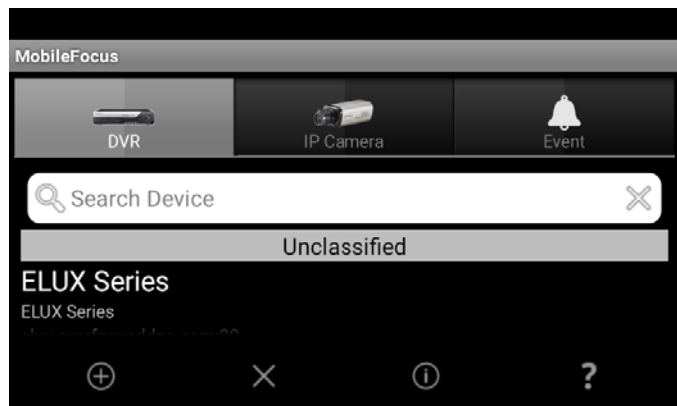


### 4.4.7 MobileFocus



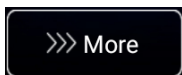
Tap the MobileFocus app to start the EverFocus MobileFocus app. You can use MobileFocus app to access EverFocus' DVRs, NVRs and IP Cameras. For more details about MobileFocus, please refer to the User's Manual of MobileFocus. You can download the MobileFocus manual from EverFocus' Website (Enter the Download page and download the MobileFocus\_Android\_UM.

<http://www.everfocus.com.tw/product/mobilefocus/>

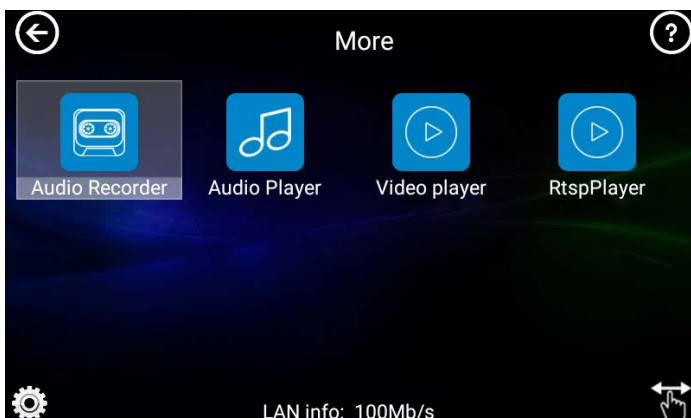


### 4.5 More

Please note that since users can move the function icons from folders to folders, therefore, the functions described in the chapter are based on the default icon arrangement .




On the Main Page, tap the **More** icon to enter the More functions menu.

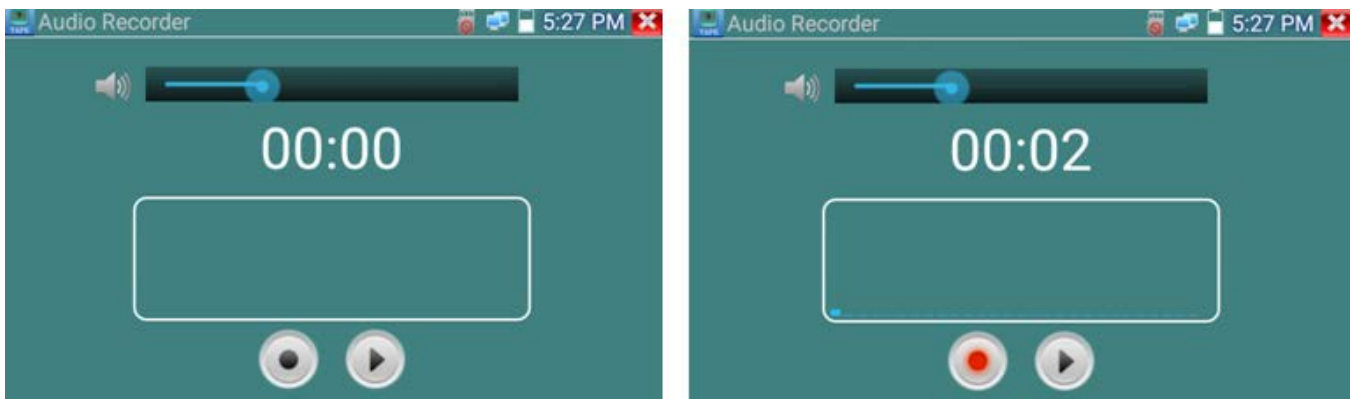


**4.5.1 Audio Recorder**


Use the supplied Audio Cable to connect an audio input device to the Audio Input port on the tester.

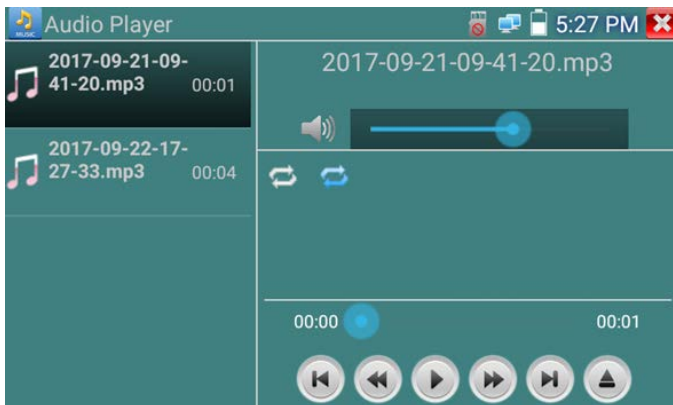


Go to **More > Audio Recorder**  to enter the Audio Recorder page. Tap the **Record** button to start audio recording in mp3 format. Tap the button again to stop. The audio recording will be saved to the internal SD card (**/sdcard/tape**). To export the file to your PC, please refer to *3.4.4 Exporting Files to PC*. You can tap the **Play** button to enter the Audio Player page to play back the audio recording.




**4.5.2 Audio Player**

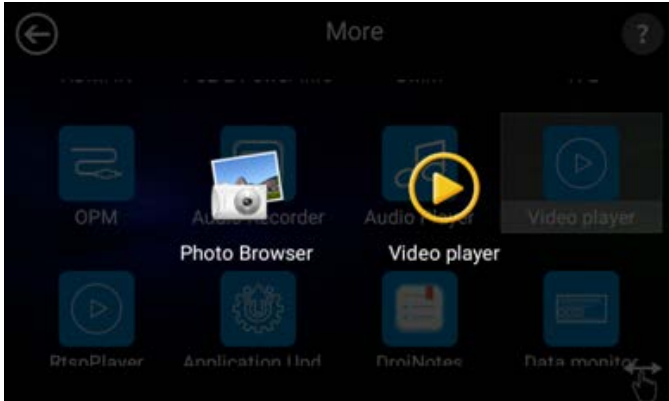
Go to **More > Audio Player**  to enter the Audio Player page. The Audio Player only supports mp3 format.



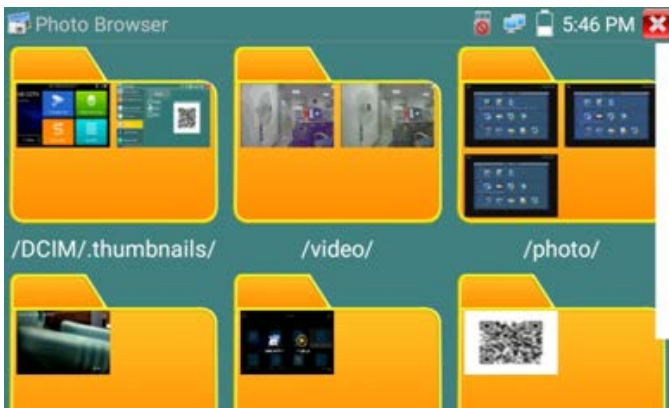
### 4.5.3 Video Player

You can use this page to play back photos and video files.

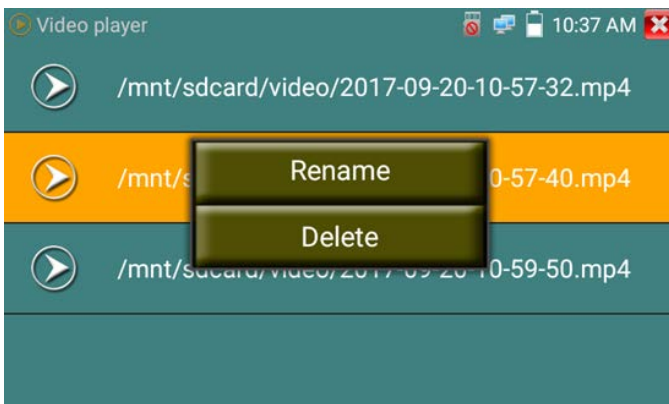
Go to **More > Video Player**  to enter the Video Player page. Tap **Photo Browser** to view photos or tap **Video Player** to play back video files stored in the internal SD card.



Tap **Photo Browser**, and then tap the desired folder to view photos. You can also long press on the image to rename or delete the file.



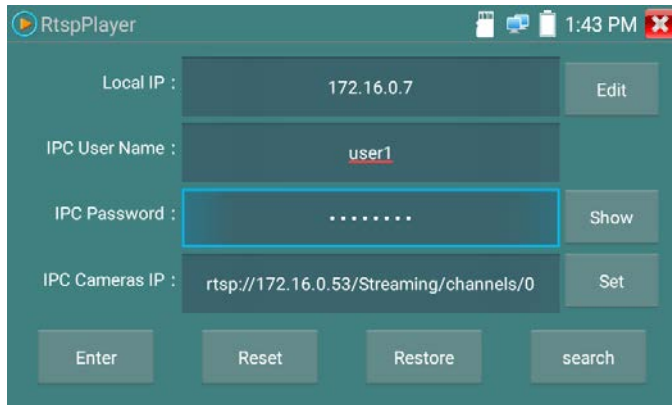
Tap **Video Player**, and then tap the desired video file to play back. The Video Player supports various video formats, including mp4, h.264, mpeg4 and mkv. You can also long press on the file to rename or delete the file.



### 4.5.4 RTSP Player

The RTSP Player can be used to view the RTSP video streams from IP cameras. If you are unable to view the IP camera via ONVIF or IP Camera Test function, you can try RTSP Player to view IP Camera through RTSP for IP camera testing.

Go to **More > RTSP Player**  to enter the RTSP Player page.



**Local IP:** The IP address of the tester.

**IPC User Name:** Input the user name of the IP camera.

**IPC Password:** Input the password of the IP camera. You can tap the **Show** button to display the password.

**IPC Camera IP:** Input the RTSP URL of the IP camera. For example: `rtsp://172.16.0.39/Streaming/channels/0`. You can also tap the **Set** button, input the IP address of the IP camera to search for the RTSP URL of the IP camera supported by the tester. Please note that you can search for the RTSP URL of your IP camera from the website of the purchasing manufacturer.

**Enter:** Tap the button to enter the IP camera test page. For more details on the IP camera test page, please refer to *4.1.4 IP Camera Test*.

**Reset:** Tap to clear the info on this page.

**Restore:** Tap to restore to the last input info on this page.

**Search:** Tap to display the input history of the RTSP URL.

## 5. Specifications

Model	EN310
<b>Display</b>	4" touch screen camera tester with 800x480 resolution
<b>Network Port</b>	10/100/1000M auto adjust, RJ45
<b>H.265 Main Stream Test</b>	4K H.265/H.264 camera image display with mainstream
<b>IP Discovery</b>	Auto-scan the cameras' IP under the same network segment
<b>Rapid ONVIF</b>	Search camera quickly, auto log in and display image from the camera
<b>Hik Test Tool</b>	Activate Hikvision camera, display image from the camera, modify IP, user name, password, parameters and etc.
<b>DH Test Tool</b>	Dahua camera test, modify IP, user name, password, parameters and etc.
<b>IP Camera Type</b>	ONVIF, Dahua IPC-HFW2100P, Hikvision DS-2CD864-E13, Samsung SNZ-5200, Tiandy TD-NC9200S2, Kodak IPC120L, Honeywell HICC-2300T, RTSP Viewer
<b>Lens Simulation</b>	Can simulate 2.8/3.6/4/6/8/12/16/25mm lenses display area
<b>Focus Information Test</b>	Camera focus info, signal quality test, image quality test
<b>CVI Video Signal Test</b>	1 CVI input (BNC interface), supports resolution: 720p 25/30/50/60fps; 1080p 25/30fps; 2560x1440 25fps/30fps
<b>TVI Video Signal Test</b>	1 TVI input (BNC interface), supports resolution: 720p 25/30/50/60fps; 1080p 25/30fps; 2048x1536 18/25/30fps; 2560x1440 15/25/30fps; 2688x1520 15fps; 2592x1944 12.5/20fps; 3840x2160 15 fps
<b>AHD Video Signal Test</b>	1 AHD input (BNC interface), supports resolution: 720p 25/30fps; 1080p 25/30fps; 2048x1536 18/25/30fps; 2560x1440 15/25/30fps; 2592x1944 12.5/20fps; UTC control and call OSD menu
<b>Analog Video Test</b>	1 BNC input, NTSC/PAL (auto adapt)
<b>Snapshot/Record/Playback</b>	Capture camera images, record video and playback recordings and photos
<b>DC Power Output</b>	12VDC/3A power output to camera
<b>PoE Power Output</b>	48V PoE power output, max power 24W
<b>Screen Management</b>	Change icons sequence and self-define the number of icons on each page
<b>Theme</b>	Self-define background for icons, desktop and application interface
<b>Drop-down Menu</b>	PoE power switch, IP setting, CVBS, LAN info and Settings
<b>Audio Test</b>	1 audio input
<b>PTZ Control</b>	Supports RS-485 control, baud rate 600-115200bps, compatible with more than 30 protocols such as PELCO-D/P, Samsung, Panasonic, Lilin and Yaan
<b>UTP Cable Tester</b>	Test UTP cable connection status and display info on the screen
<b>Data Monitor</b>	Captures and analyzes the command data from controlling device, also can send hexadecimal
<b>Network Test</b>	IP address scan, link scan, and Ping test
<b>External Power Supply</b>	12VDC, 1A
<b>Rechargeable Battery</b>	Built-in 7.4V Lithium polymer battery, 2400mAh After charging 4~5 hours, normal working time 7 hours
<b>Language</b>	Simplified Chinese, Traditional Chinese, English, Polish, Italian, Korean, Russian, Spanish, Japanese, French
<b>Auto Off (Sleep Mode)</b>	15 (sec.) ~30 (min.)
<b>Working Temperature</b>	-10°C ~ 50°C / 14°F ~ 122°F
<b>Working Humidity</b>	30% ~ 90%
<b>Dimensions</b>	126mm x 83mm x 33mm / 4.96" x 3.27" x 1.3"
<b>Weight</b>	0.32kg / 0.71lb

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