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

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

# (3) Network test (Ethernet bandwidth test)

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 complete ate. Click the icon to open the Network Tester app.



other tester sends packet test. The two testers must be in the same network segment.

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



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

응 NET TO	DL PRO				1	0 😃 🗴	7:	19 PM 🔀
	Service IP:	192.168.0.192	Stop	Stop	192 .	168 .	0	. 192
Setting Tool	Server listening TCP window siz [ 5] local 192.16 connected with [ 5] 0.0- 1.0 sec sec	on TCP port 5001 e: 1.00 MByte (defau 	t) 7405 Gbits/	Client port 5( TCP w [ 4] loo conneo [ 4] 0. sec	connecting 001 indow size cal 192.16 cted with 1 0- 1.0 sec	g to 192.1 1.00 MB 8.0.192 pc 92.168.0. 237 MB	68.0.192 yte (defa ort 4740 192 port ytes 1.9	- 2, TCP - - 5 5001 9 Gbits/
Link Tool								

Network bandwidth testing can also be tested with a computer using compatible network bandwidth testing software. Install network bandwidth testing software on a computer, as a test Client or Server, to do the mutual testing with the tester. If use computer as the server, the computer IP address is :192.168.0.39

🔯 Networ	rk Tester	X
〇中文	• English	
	( (Server)	
	C (Client)	
	Start Test	

Tester as Client, tester's IP address is:192.168.0.238. The Server and the Client are at the same network segment, but with different IP address. Input Server's IP address 192.168.0.39 in the tester and click "Start" to test network bandwidth.

Or use tester as a Server, co	nputer as test Client	(select Client, in	put tester's IP address to
-------------------------------	-----------------------	--------------------	----------------------------

toot	1
iesi	i,

Network	rk Tester			25
○ 中文	• English			
	C (Server)			
	( (Client)	Server IP	192 . 168 . 0	. 238
		Start Test		

When use tester as Server, shows results:

🖧 NET TO	OL PRO					6		×	Ċ 7	19	PM 🔀
	Service IP:	192.168.0.192	Stop	Start	192		168		0		192
		nangan kana sebuah kana se									
	Server listening	on TCP port 5001									
	TCP window size	ze: 1.00 MByte (default)									
Setting											
S)											
5											
÷ .											
1001											
I to be Tread											
LINK TOOI											
<b>1</b> .											

# (4) Port Flashing

Connect a network cable to the meter's "LAN" port, click the ic

to open the Port

Flashing app. Click "Start". The IP tester sends a unique signal to make the connected LAN port of the switch flash.

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



#### Application:

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

# (5) DHCP server

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



# (6) Trace route

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

Note: Trace route testing results only for reference, for accurate test route tracking, Please 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

유 NET TOO	DL PRO		e	i 💷 🕺 📋 7:21 PM 🔀
	Local IP:	192.168.0.192	Remote host:	www.google.com
Setting	Hop TTL(ms) A	Address: 30	top	
N	traceroute to 69	.171.242.11 (69.171.242.	11), 30 hops max, 60 l	byte packets
~	1 ***			
Tool	3 * * *			
	4 ***			
~~	5 * * *			
Link Tool				
10				
কি				
Cable test				

Page.66.

# (7) Link monitor

Click the control 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

RET TOC	IL PRO			👸 🛄 🕺 🗍	7:20 PM 🔀
	Number		IP address		status
Setting			192.168.0.1		
	2		192.168.0.18		
Ľ	3		192.168.0.19		
Tool					
<					
Link Tool					
(f)					
		Stop	Add	Delete	
Cable test					

#### 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.

# 3.3.21 PoE power / DC12V 3A and DC 5V 2A USB power output

When the tester is turned on, the DC 12V and DC 5V power output functions are automatically turned on. If the IP tester is turned off, the DC 5V USB can still be used to power an external



USB device.

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

The IP camera needs to be connected to the LAN port before you turn PoE Power on. If the IP camera

Supports PoE, the PoE power is delivered via pins 1, 2, 3, and 6 on the LAN port. The IP tester will

display "48V ON" at the top of the screen when the POE power is still on.



# 

1. Don't input power into the "DC12/3A OUTPUT" port.

2. Don't output this DC12V/3A power to the DC12V/IN port of the IP camera tester to avoid destroy

- 3. The IPC tester power output is close to 3A, if the IP camera's power is over 3A, the tester will auto enter protection mode. Disconnect all the connections of the tester and then connect the tester with power adaptor to resume the tester.
- Before turning on the PoE power output, please make sure the IP camera supports PoE power. Otherwise it may damage the IP camera.
- 5. Make sure you plug in your IP camera to the LAN port prior to turning on PoE power
- 6. Make sure the tester is full charged or more than 80% charged, otherwise the tester will shows "low power", "not able to supply power".

#### 3.3.22 DC 24V 2A power output

The top and the bottom of the "DC24V ON/0W "is power output interface



Application:

Power output function is mainly used in the camera field demonstration and testing, meanwhile, for some camera installation sites, if there is no power outlet, the tester can offer temporary power for the camera.

Notice:

- a. Don't input any power into the "DC24V/2A OUTPUT"port of the tester to avoid destroy.
   Man-made damage is not within our company's warranty
- b. Don't output this DC24V/2A power to DC12V/ IN port to avoid destroy. otherwise the tester will damage, and man-made damage is not within our company's warranty.
- c. The IPC tester power output is close to 2A, if the IP camera's power is over 2A, 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 is full charged or more than 80% charged, otherwise the tester will shows "low power", "not able to supply power"

# 3.3.23 Cable Test

Test LAN cable or telephone cable.



Connect LAN cable or telephone cable with the CCTV tester and cable tester. And then the connecting status, cable type and the sequence of wires as well as the serial number of the cable tester kit will be displayed. The number of the cable tester is 255.

If need several different number other types cable testers, should pay the additional cost.

#### Cable test

Tap "cable test sketch map", pop up Straight-through cable and crossover cable sketch, It is for line sequence reference, when the crystal on the first pressure in the twisted-pair.



Connect cable to tester's LAN port, click ico

" to enter RJ45 cable TDR test app.

🚟 RJ45 cable TD	R test			🎬 🕺 🕺 📄 2:05 PM 🔀
	Port 1 line pair	status	length(m)	attenuation (dB/100m)
Link 1	F 12	open	179.5	-4.9
	Cont 6	open	177.1	-4.8
Link 2	Tre \$	open	174.7	-5.2
Test once	8	open	178.7	-4.9
	Port 2 line pair	status	length(m)	attenuation (dB/100m)
Repeat test		open	0.0	
Advanced Test	Cont 6	open	0.0	
	The s	open	0.0	
Create Report	7 8	open	0.0	
Diagram of the cable sequence	Good quality	cable	Poor quality cable	Wet cable

Single test: Test cable status, length and attenuation.

Repeat test: Continue to test cable status, length and attenuation.

Status: After link up, screen display "online", if not link up or open circuit, screen display "open circuit", if cable pair is short circuit, screen display "short circuit".

Length: The max test length is 180 meters, when cable is open circuit or short circuit, can test the cable length, if screen display "online", the testing result would be not accurate.

Cable quality test: Green is good quality cable, Yellow is Poor quality cable, Red is water

poured cable, the attenuation value will be displayed when cable over 10 meters.

	Port 1 line pair	status	length(m)	attenuation (dB/100m)	reflectivity (%)	impedance(0)	skew(ns)
Link 1		on line			0.0	100	
		on line			0.0	100	
Link 2	a Tre i	on line			0.0	100	
Test once	°⊂ 7 8	on line			0.0	100	
	Part 2 line pair	status	length(m)	attenuation (dB/100m)	reflectivity (%)	impedance(0)	skew(ns)
Repeat test		open	0.0				invalidatio

Advanced Test: Test cable pair status, length, attenuation, reflectivity, impedance, skew and other parameters.

Attenuation reflectivity: After link up, if reflectivity value is 0, it is the best quality

communication

**Impedance:** After link up, if the impedance value is  $100\Omega$ , it is the best quality communication, the range is generally in 85-135 $\Omega$ .

**Skew:** After 1000M link up, when skew value is 0ns, it is the best quality communication, if over 50ns, will cause a Bit Error Rate in the transmission.

#### Cable sequence diagram:

A straight- through and cross-over cable diagram, the cable sequence display for reference.







# 3.3.25 Cable Tracer

Connect tested cable or BNC cable to the UTP port or the CABLE SCAN (VIDEO OUT) port on

the bottom. Click 🗾 to enter, click the Number on the screen to adjust audio type.



UTP mode is used for searching the normal network cable or other cables. STP mode is used for searching the shielded network cable.

Rotating the switch of cable tracer to turn on. Clockwise rotation increases sensitivity,

anticlockwise rotation reduce sensitivity.

Cable tracer and Cable tester can be tested at the same time. It is better to judge whether the

search network cable is accurate. Connect the other end of the tested network cable to the "UTP" port of cable tracer, the cable sequence, continuity, test box number and network cable type will be displayed on the right side of the meter interface. The "G" indicates the continuity of the shielded network cable.

The 1-8 indicators of cable tracer will flash according to the cable sequence. The DIRECT / CROSS / OTHER three indicator lights display the type of network cable directly. Press the "MUTE" button of cable tracer for 2 seconds. After the "Di" sound, the silent mode is

turned on. In the silent mode, can judge cable type according to the indicator light. Press the "MUTE" button again to exit the silent mode.

#### Application

It's convenient for people to find out the other end of the cable from the messy cables in security maintenance and network engineering.

While searching BNC cable, connect one port of the alligator clips to the copper core or copper net of the BNC cable, the other one to connect the earth wire (barred windows).

Note: The battery of the cable tracer must according to corresponding positive pole + and negative pole -, otherwise will damage the tester.

Note: While the cable tracer tester is receiving the audio signal from the tester, it may be influenced by other signals and make some noise.

# 3.3.26 TDR cable test (\*Optional)

# Note: The testing cable can't be connected to any equipment, otherwise it will damage the tester.

Connect Alligator clip cable to the TDR port, and the cable must connect well before testing, otherwise it will influence the accuracy. Built-in BNC cable, network cable, RVV control cable, Telephone line and TVVB cable etc can test. 11 groups user-defined cable can be set.



#### (1) Curved trajectory

#### 1) Curve result analysis

Inflection point: The position of break point or short-circuit of the cable, is where curve suddenly rises or falls after the smooth curve.

Short circuit: The curve shows an upward trend after the inflection point

Open (break point): The curve shows a downward trend after the inflection point

#### 2) Curve operation

Zoom: Zoom the curve. Click icon "zoom", tap the curves by two fingers or use virtual keyboard (tap the icon of the screen left edge, to call virtual keyboard)

Move: Move curve, click icon "move", and drag the curve to move.



Distance bar: Display the current length, and use the virtual keyboard to move distance bar.

Curve thumbnail: Double-click the thumbnail, to restore the scaled curve

#### (2) Calibration

Due to differences in production processes and materials, the cable impedance of different manufacturers may be different, which will lead to large deviations in the test results. The Calibration function can be used at this time.

Click "Cable" "Type" to select cable and start testing. One tap on "Start", do one testing. If select built in cable type for testing, click "+" and "-" to adjust cable's wave speed.

TDR_V2.0	Cable			🚪 🐖 😰 12:07 🔀
	Gable .			
	Number	Туре	Wave velocity	
		SYV 75-5(RG59)	198	
	2	SYV 75-3	207	
Ethernet	3	SYV 75-2-1	200	
	4	SYV 75-2-2	187	
Wave velocity	5	RVV(2*1.0)	169	
	6	AVVR(4*0.2)	170	
	7	UTP CAT 5E (1Pair)	199	
	8	UTP CAT 5E (4Pair)	199	
	9	UTP CAT 6E (1Pair)	199	
	10	UTP CAT 6E (4Pair)	199	
	11	Telephone cable(4*1*0.5)	186	
	12	TVVB-3 elevator video line	187	
	13	User- defined0	200	m Move

User-defined calibration: Choose the cable 100 meters to 200 meters (more than 50 meters),

click "Cable", "Type" to select user-defined 1 for calibration, 11 groups user-defined can be set.



1. Select user-defined and click "Calibration" to enter test, click "user-defined 1" can define cable name, such as: AiPu BNC-5

2. Click "Cable", "Type" to select cable, and corresponding type, for example, if testing BNC cable, select "BNC", if testing communication cable 75-2, select SYV 75-2.

3. Click "+" or "-" to adjust wave speed, while display length is the same with the actual Length, click "Save" to save calibration data. It can be used for the same cable testing next time.



Application: TDR test is the use of pulse reflection method, to transmit pulse signal for tested cable, when cable is open circuit or short-circuit, reflected pulse is generated, the tester receives and deals with the reflected wave, measurement results displayed on the screen. TDR can test cable open circuit and short circuit, help engineer quickly find the cable's problem location. It is more convenient and efficient to repair the faulty cable.

ANote: The TDR reflect signal could be affected by the cable quality cable's not well connected etc to cause the different TDR measurement. The TDR measurement is for reference only.

#### 3.3.27 BNC attenuation test

Introduction: Through hardware high-speed sampling and processing technology, the coaxial cable transmission attenuation value can be tested in real time, which can be used to detect the attenuation of the coaxial cable through long-distance transmission and the attenuation

value of different cables but at the same distance, and can detect the quality of coaxial cable.

#### Test Methods:

1.Connect the two alligator clip cables to the CVBS IN port and CVBS OUT port separately. Two crocodile clips red to red and black to black clip together, then click "calibration" to calibrate it.



2.After calibration, the red clip clips the copper core of the BNC cable, and the black clip clips the outer envelope of the BNC cable. attenuation value will be displayed after connection, as below:



3.Click "Reset", the application will restore factory defaults.

# 3.3.28 PoE Voltage test



Connect a network cable from a PoE switch to the IP tester's PSE IN port. Connect an IP camera or other PoE using node to IP tester's LAN port, the PoE voltage and the cable's pin connection status show on the screen.



Note: This test if for measuring the voltage being drawn by the PoE node and the IP

tester must be between the PoE switch and the PoE node for this test to work.

Note: The PoE switch must be connected to the PSE IN port. The powered device such as IP camera or other PoE node must be connected to the LAN port.

Note: Do not connect PoE power supply equipment (such as a PoE switch) to the tester's UTP/SCAN port, otherwise it will damage the tester.

#### PSE transmission

When PoE / PSE voltage testing, PoE/PSE conntect to the tester's PSE "IN" port, the camera connect to tester's LAN port, tester not only can transmit voltage to supply power for camera, but also transmit data at the same time. as well as the computer connect to the PoE/PSE, it can log in connected tester's PoE camera.

# 3.3.29 12V power input test

Connect 12V power adaptor to tester's charging port, then click icon "PoE" to enter voltage measurement app, screen show the current adaptor input voltage and power. Note: the current 12V input measured power is the battery charging power and the device working power, the measured power will change depending on the different of battery power and backlight brightness.



Warning: Not allow connect device with input power over 17V to tester "12V IN" port,

otherwise it will damage the machine.



# 3.3.30 Digital Multi-meter (\*Optional)

# 1) SYMBOLS:

U: DC Voltage Measuring	A: DC Current Measuring
Ω: Resistance Measuring	$\bigstar$ : Diode Testing
~ U: AC Voltage Measuring	$\widetilde{A}$ : AC Current Measuring
»): Continuity Testing	┿: Capacitance Measuring

AC/DC	Voltage and current measurement state display				
Auto roman	The Multimeter auto adjust the range by input signal or tested				
Auto- range	components				
Data hold	Hold data				
Relative	Display the relative measurement value				
measurement	Press the key to change display state				
10A socket	In 10A current measurement state ,indicate use 10A socket				

Over	range

The current measurement value over the range, if in the Auto range state, to switch Auto.

#### 2) OPERATING INSTRUCTION

A. DC Voltage Measuring

#### WARNING!

You can't input the voltage which more than 660V DC, it's possible to show higher voltage,

but it's may destroy the inner circuit.

Pay attention not to get an electric shock when measuring high voltage.

a. Connect the black test lead to the "COM " jack and the red test lead to the "V/0" iack

b. Select U, enter the DC voltage measurement.

c. the tester default Auto range status , by click "DC auto range" ,  $\ \ \mbox{pres}$ 

key can select manual range and restore auto range .

Manual range: 0.000V → 6.600V range

00.00V → 66.00V range

000.0V → 660.0V range

000.0mV → 660.0mV rang

#### B. AC Voltage Measuring

#### WARNING!

You can't input the voltage which more than 660V AC, it's possible to show higher voltage,

but it's may destroy the inner circuit.

Pay attention not to get an electric shock when measuring high voltage.

a. Connect the black test lead to the "COM" jack and the red test lead to the "V/ $\Omega$ " jack.

b. select U ~ , enter the AC voltage measurement.



- C. The tester default Auto range status, by click "AC auto range"
- d. Manual range can be select, press the key "NEAR" to restore Auto range
- e. Manual range: 0.000V → 6.600V range
  - $00.00V \rightarrow 66.00V$  range  $000.0V \rightarrow 660.0V$  range  $000.0mV \rightarrow 660.0mV$  range
- C. DC Current Measuring (only manual range)

#### WARNING!

Shut down the power of the tested circuit, and then connect the meter with the circuit for measurement.

a. Connect the black test lead to the "COM " jack and the red test lead to the "mA" jack for a maximum of 660mA current. For a maximum of 10A, move the red lead to the 10A jack.
b. Select A, enter the DC current measurement, the screen display"DC current ", can select manual range.

c. Manual range: 0.000mA  $\rightarrow$  6.6mA range 00.00mA  $\rightarrow$  66.00mA range 000.0mA  $\rightarrow$  660.0mA range 00.00A  $\rightarrow$  10.00A range (use 10A sock



d. Select the range to enter current measurement

# 

- When only the figure "OL" is displayed, it indicates over range situation and the higher range has to be selected.
- When the value scale to be measured is unknown beforehand, set the range selector at the highest position.

- The maximum current of mA socket is 660mA, over-current will destroy the fuse, and will damage the meter.
- The maximum current of 10A socket is 10A, over-current will destroy the meter, and will damage the operator.

#### D. AC Current Measuring (Only Manual range)

#### WARNING!

Shut down the power of the tested circuit, and then connect the meter with the circuit for measurement.

a. Connect the black test lead to the "COM" jack and the red test lead to the "mA" jack for a maximum of 660mA current. For a maximum of 10A, move the red lead to the 10A jack.



b. Select  $\widetilde{\mathsf{A}}$  , enter the AC current measurement, manually select the range.

c. Manual range: 0.000mA  $\rightarrow$  6.600mA range 00.00mA  $\rightarrow$  66.00mA range 000.0mA  $\rightarrow$  660.0mA range 00.00A  $\rightarrow$  10.00A range (use 10A socket)



- When only the figure "OL" is displayed, it indicates over range situation and the higher range has to be selected.
- When the value scale to be measured is unknown beforehand, set the range selector at the highest position.

- The maximum current of mA socket is 660mA; over-current will destroy the fuse, and will damage the meter.
- The maximum current of 10A socket is 10A, over-current will destroy the meter, and will damage the operator.
- ◆ In" AC " mode, only can input "AC ", if not, will damage the meter.
- E. Resistance Measuring

#### WARNING!

When measuring in-circuit resistance, be sure the circuit under test has all power

removed and that all capacitors have discharged fully.

a. Connect the black test lead to the "COM " jack and the red test lead to the "V/ $\Omega$ " jack.

Black lead

Red lead

b. Select  $\Omega$ , enter the  $\Omega$  measurement

the tester default Auto range status, Press the key manually

select range, press "NEAR" to restore "Auto range"

Manual range: (Connect the red lead to black leads, will

display the measure range)

000.00	→	$660\Omega$ range
0.000 ΚΩ	→	6.600KΩ range
00.00 ΚΩ	→	66.00KΩ range
000.0 ΚΩ	→	660.0KΩ range
0.000 MΩ	→	$6.600M\Omega$ range
00.00 MΩ	→	66.00MΩ range

#### F. Continuity Testing

#### WARNING!

When testing the circuit continuity, be sure that the power of the circuit has been shut down and all capacitors have been discharged fully.

a. Connect the black test lead to the "COM" jack and the red test lead to the "V/ $\Omega$ " jack.

b. Select  $\,\,$  ) , enter the continuity test, Connect test leads across two point of the circuit under testing.

- c. If continuity exists (i.e., resistance less than about 50 $\Omega$ ), built-in buzzer will sound.
- G. Diode Testing

#### WARNING!

The capacitance of a capacitor should be tested separately, should not test in the installation of circuit.

a. Connect the black test lead to the "COM" jack and the red test

lead to the "V/ $\Omega$ " jack. (the red lead anode "+" )

- b. Select  $\blacklozenge$ , enter the diode testing.
- c. Connect test red lead across to the anode, the black lead to the cathode of the diode under testing.
- d. Connect test red lead across to the cathode, the black lead to the anode of the diode under testing.

e. Tested diode, forward voltage low 30m, there is sound indication, then can finish the testing quickly without view the screen.

H. Capacitance Measuring

#### WARNING!

To avoid electric shock, be sure the capacitors have been discharged fully before measuring the capacitance of a capacitor.

a. Connect the black test lead to the "COM " jack and the red test lead to the "V/ $\Omega$  " jack.

b. Select "+", enter the capacitance measurement.

c. The tester default auto range status, and manual range by press upward and downward key, Auto rang by press the key "NEAR"







Manual range: 0.000nF	→	6.600nF range
00.00nF	→	66.00nF range
000.0nF	→	660.0nF range
0.000uF	→	6.600µF range
00.00uF	→	66.00µF range
000.0uF	→	660.0µF range
0.000mF	→	6.600mF range
00.00mF	→	66.00mF range

d. Before connect test leads across two sides of the capacitor under measurement, be sure that the capacitor has been discharged fully.



- The capacitance of a capacitor should be tested separately, should not test in the installation of circuit.
- To avoid electric shock, be sure the capacitors have been discharged fully before measur ing the capacitance of a capacitor.
- C. While testing the capacitance of a capacitor to 660uF, the Max time will be 6.6 seconds, i f the capacitor is leaked or damaged, the data can't be read.

The tester will be normal after disconnecting the capacitor.

#### Manual range and Auto range

When testing, click "Range select" to change the value, click "Auto range" to enter Auto measurement.



#### Data hold

Click "Hold data" to enter, the data be hold, the value is green. Press it again to quit.

#### Relative value measurement

Click "Relative "to enter, the tester Auto-save the data, the displayed new measurement and relative value is red color. Press it again to quit.

The hold function and the relative value be combined use, the display value is yellow

#### The meter protection

#### Voltage protection

You can't input the voltage which more than 660V AC, it's possible to show higher voltage, but it's may destroy the inner circuit.

#### > Resistance, Continuity, Diode, PTC component Protection

Wrong input voltage, will Auto enter protection state , It only suitable for short and limit time work. If input voltage over 600V, will damage the meter.

#### MA current fuse range: 250V 1A

if the current over the rated range ,fuse will melt to protect the meter .PIs use the same model when change the fuse, PIs opens the battery cover to change.

Note: 10A socket without fuse protection, if over the current range Wrong using the 10A socket to measure the voltage, will damage the meter.

# 3.3.31 Optical power meter (\*Optional)

Click icon to enter ,with five wavelength 1625nm,1550nm, 1490nm, 1310nm,1300nm, 850nm, linear or nonlinear optical power display, both for optical power testing and Fiber link loss relative measurement. It is necessary tool for installation and maintenance optical fiber communication, cable television and CCTV security system.



Note: Please keep the fiber connector and the dust cap be clean, and clean the detector with the special alcohol.

#### Data hold

While testing, click "Hold" to data hold, the data will not change. It's convenient to read. Press again to quit.



#### Relative power value (optical link loss) measurement

While testing, set the wavelength for measurement. Click "relative" (difference) to test, the tester Auto save current fiber power value as the base reference value. Input another optical fiber to be measured, the displayed new measurement and relative value is red color. Press it again to quit.





Data hold and Relative measuring use together, the data is yellow while the function is effect.

# 3.3.32 Yinal Fault Locator (\*Optional)

Click icon to enter

- VFL			💷 😡 📋 10:48 AM 🔀
WAR	NING		
Visible laser damage to the eyes, t	ight source, o avoid eye contact.		
入:65	50nm		
			*
			null
Steady mode	Evasive 1Hz	Evasive 2Hz	Time off

Page.90.

VFL four status can select——"Steady mode", "Evasive 1Hz","Evasive 2Hz"and "Time off". Click button "Steady mode" to enter steady status, click button "Evasive 1Hz" and "Evasive 2Hz", to enter pulse mode, click button "Time off ", VFL is turned off. Timed turn off can select (5 mins, 10 mins, 30 mins, 60 mins and 120 mins).



- VFL		0	💷 😡 📋 10:49 AM 🔀
WARNIN	IG		
Visible laser light s damage to the eyes, to avo	source, id eye contact.		
入:650nm	n j		
			*
			null
Steady mode	Evasive 1Hz	Evasive 2Hz	Time off

Click icons "Evasive 1Hz"or "Evasive 2Hz" to enter pulse mode, the red laser source is emitted by a certain frequency, press it again to quit

# 3.3.33 Audio Record

Connect an audio device to the IP tester's audio input port. Clic

icon to enter the

00

Audio Recorder app. Click the red button to stop, and the unit will prompt you to save the

recording.



### 3.3.34 Data monitor



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:---

While the tester receives the code, press the RETURN key to empty.

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

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

# 3.3.35 Audio player

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



Click the icon

# 3.3.36 Media Player



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

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.



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#### 3.3.37 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.

😸 RtspPlayer				<u>8</u> -	9:09:18 🔀
Local IP :					
IPC User Name:		adm	nin		
	😸 Plaese	enter IP :			
IPC Password :	192.168.0.19d				
	ОК	Scan IP	Cancel		
RTSP Add:					
Enter					

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.

	192			
IPC User Name:	Please select st	ream :		
Mair	n stream(1920x1080 .	JPEG)	۲	
IPC Password :	ondary stream1(704x-	480 H264)	C	

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

# 3.3.38 Hik test tool

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

inactivated hikvision camera, also can display image from the Hikvision camera.

Tap icon HIK to enter

1.Activation: Select left [online detection] to display the "inactivated" camera and click activate.

HIK H	IK					🗟 🚅 📋 02:59 🔀
Onli	ne Detection:		Ref	fresh	Detail :	
No.	Type DS-2DC2402IW-D3/	IP address	mode Activated	DHCP	IP address :	192.168.1.65
.,	W N.200133254	192 168 1 64	Inactived	DEE	Subnet Mask :	255.255.255.0
	D3-20033234	192.100.1.04	mactived		Gateway :	192.168.1.1
					S/N :	DS-2DC2402IW-D3/
					User name :	admin
					Password :	•••••• show
					Enable	Play
					Modify Channe	Modify network
					Modify user	Factory Reset