
Chapter 2 Operating the EasyScope

This chapter covers the following topics:

- ◆ Graph、Data control operate
- ◆ Device Setting operate
- ◆ Virtual panel operate

2.1 Graph、Data control operate

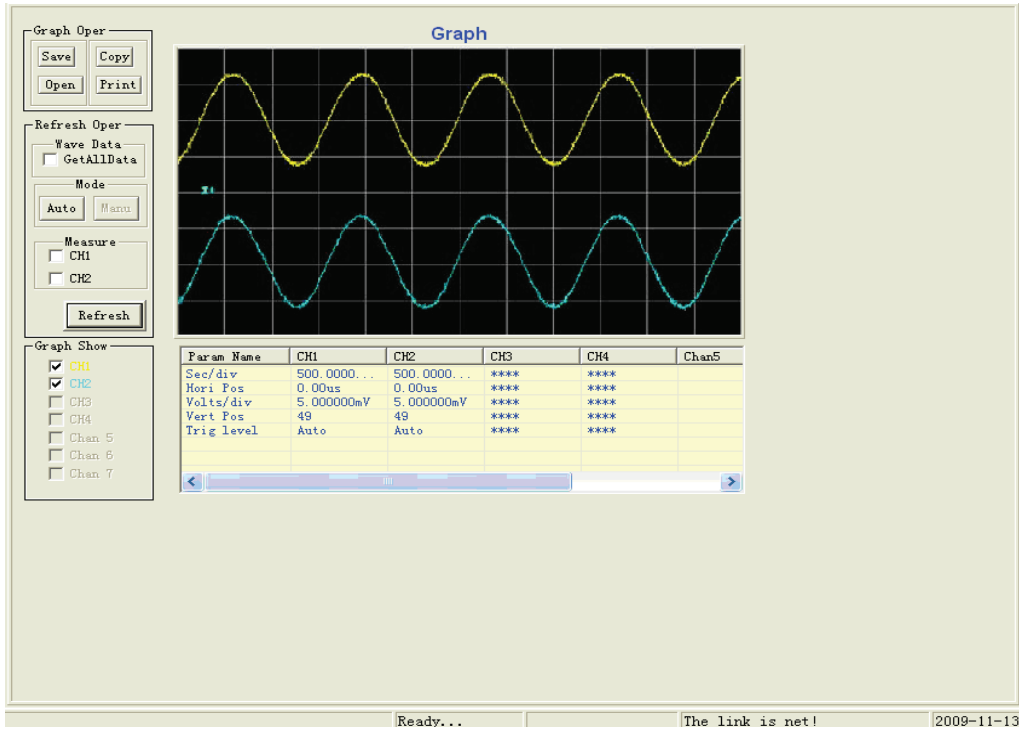
First, Connect the oscilloscope to the computer by interface and open the oscilloscope ,now the left link lamp turns green. EasyScope and the oscilloscope can communicate data after clicking the “connect” button in the Toolbar, now you can click buttons which are in the base control panel and in the corresponding interface in the display area to actualize control operation for graphs and data.

2.1.1 Graph control

一、Wave Graph control

1. Wave Graph

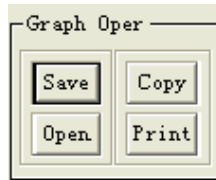
To display “Waveform Graph” interface in the display area, clicks the “Wave Graph” button in “Goto View”. The left of the interface covers three parts: Graph Operate、Refresh Operate、Graph Show; the right of the waveform graph interface is waveform graph display area; Blow the waveform graph display area is parameters display area , which displays waveform correlative parameters: Sec/div、Horizontal position、Volts/div、 Vertical Position、 Trigger level. (See picture 2-1)



Picture 2-1

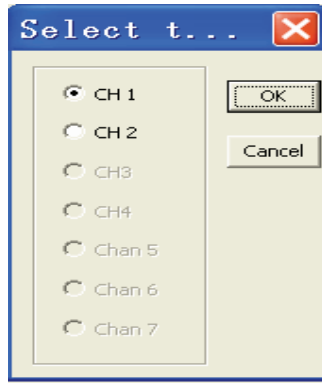
1). Graph Operate

This part has four buttons: save、copy、open and print(See Picture2-2). You can use them to operate waveform corrective parameters.



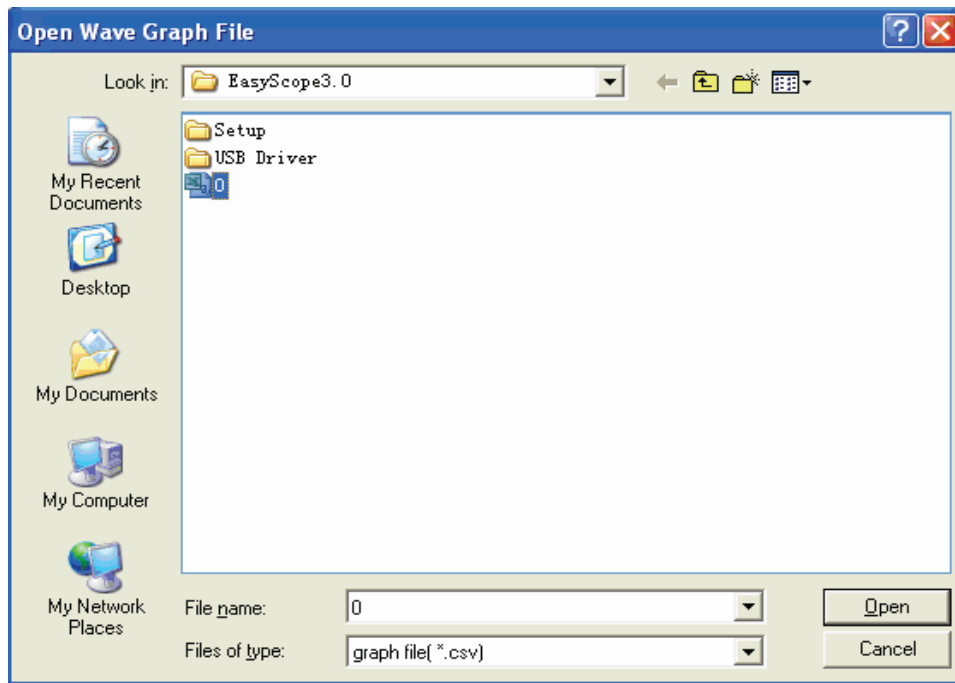
Picture 2-2

Save There will appear a dialogue box after clicking the “save” button, now you can save waveform data according to your need, then click “ok”, the waveform data will be saved to the appointed file(See picture 2-3).



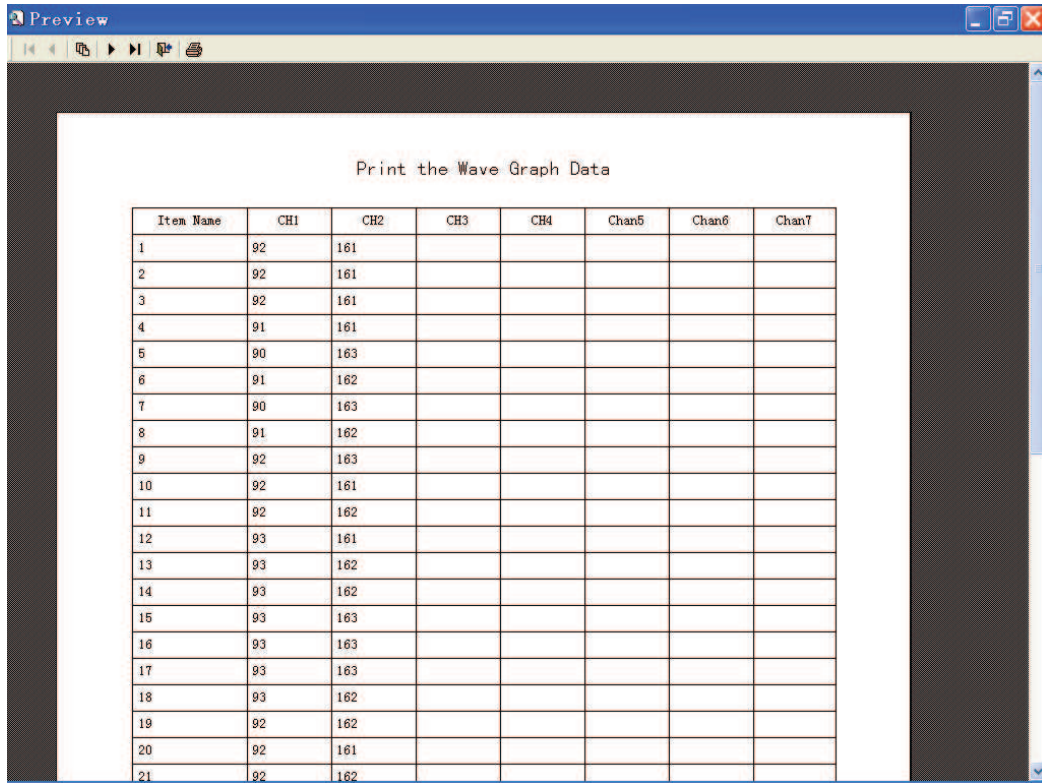
Picture 2-3

Open Click the “open” button (or click the button on the left of “Graph file” in “Open Files”) to open saved graph files (See picture2-4), and the waveform will display on the waveform display area and correlative parameters will display on the parameter display area. Meanwhile, the corresponding button in the “Graph Show” part is in selected state automatically. You also can open “waveform data file” or “waveform measurement value file” by clicking corrective buttons in the “open files” part, now corrective parameters will display on the parameter display area. But if you want to display the corresponding waveform, you must pitch on the corresponding waveform channel in “Graph Show”.



Picture 2-4

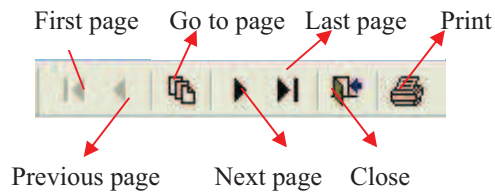
Print Click this button to pop up the print preview interface. See picture 2-5:



Item Name	CH1	CH2	CH3	CH4	Chan5	Chan6	Chan7
1	92	161					
2	92	161					
3	92	161					
4	91	161					
5	90	163					
6	91	162					
7	90	163					
8	91	162					
9	92	163					
10	92	161					
11	92	162					
12	93	161					
13	93	162					
14	93	162					
15	93	163					
16	93	163					
17	93	163					
18	93	162					
19	92	162					
20	92	161					
21	92	162					

Picture 2-5

Toolbar instruction on the preview page:

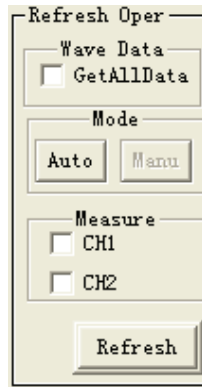


Picture 2-6

2) Refresh operate

EasyScope software has two refresh modes: “Auto” mode and “manu” mode.

See **Picture 2-7**



Picture 2-7

“Auto” mode: Selects the channel what your need in the “Graph Show” part、 Select auto refresh time interval in submenu “Time Setting” of “setting” menu and clicks the “auto” button, the waveform will auto refresh according to time interval setting and waveform sampling data also will refresh automatically at the same time.

“Manual” mode: The “Manu” button is visible in “Auto” mode (Because the default refresh mode is “Manu” when you start up the software).After you click the “manu” button and “refresh” button , the waveform and waveform data will be refreshed once.

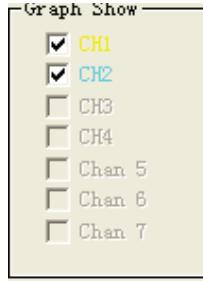
Wave Data: If you select this option, you will get 9K or 12K data of the waveform (you can see them in “Wave Data” interface) when you refresh waveforms in time base scale $2.5\mu\text{s}/\text{div}$ - $50\text{s}/\text{div}$ except in scan mode.

Measure: you can select “CH1” , “CH2”,or select them at the same time, then click the “refresh” button to get waveform measurements. You can see them in the measurement interface.

Note: You need to open the auto measurement function of the oscilloscope and the waveform measurement value can be refreshed when you refresh waveforms.

3) Graph Show

CH1, CH2 buttons correspond to channel 1 and channel 2 of the oscilloscope, and other buttons are used to display saved waveform. See Picture2-8:



Picture 2-8

2. Obtain and display wave Graph

When Communication between the oscilloscope and EasyScope is in normal status(Now two status lamps all display green) and 2 Channels waveform display on the oscilloscope screen at the same time, you want to display them on the waveform graph interface at the same time, please carry out the following steps:

First, select a refresh mode in the waveform graph interface. If you want to select “manu” refresh mode, click the “manu” button.

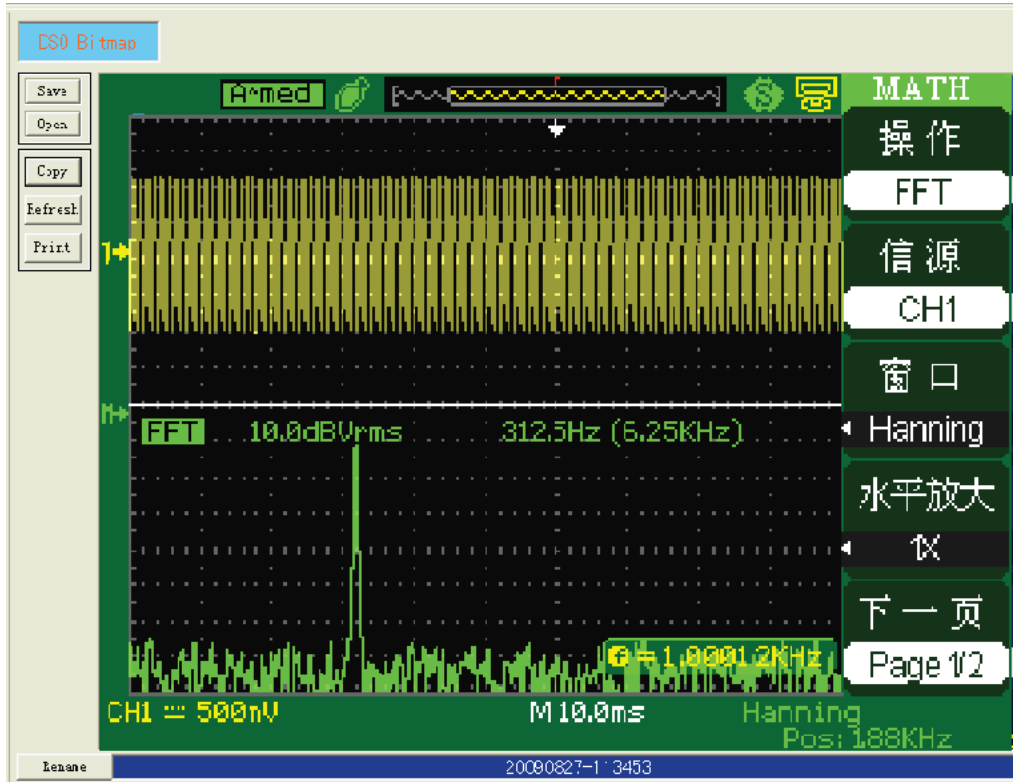
Then clicks the “refresh” button. Now you have got four channels waveform and waveform sampling data (you can see them in the waveform data interface). Parameters in the parameter display area are four channels waveform’ corrective parameters.

Picture 2-1: Selects “manual” refresh mode to get CH1, CH2 waveforms at the same time.

Note: If you only need to display one channel waveform, you can only select CH1 or CH2 in “Graph Show” part.

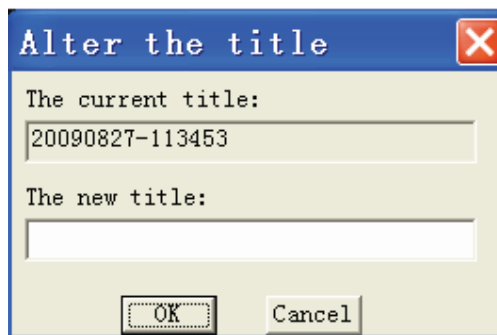
二、DSO Bitmap Control

To display the current LCD waveform bitmap interface on the display area, Clicks “DSO Bitmap” button in “Goto View”. Click the “refresh” button to get current LCD waveform interface bitmap. (See picture 2-9).



Picture 2-9

you can copy、save and print it. You also can click the “open” button in “Graph Operate” (or click the button on the right of the “Bitmap file” button in “open files”) to display saved interface bitmaps. The current bitmap’s title can be changed in “Alter Title” below the display area. (See Picture2-10)



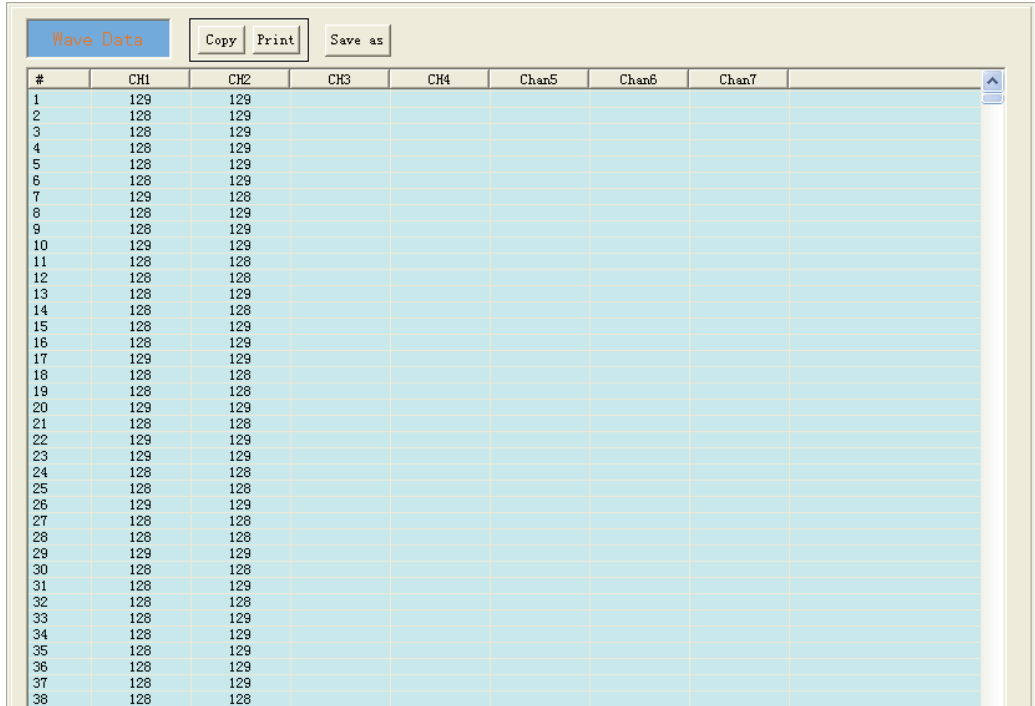
Picture 2-10

2.1.2 Data control

一、Obtain and display waveform data

You have got waveform sampling data when you get the waveform. Clicked the “Wave Data” button in “Goto View”, Display area will display the waveform data interface. Seven waveforms’ data can be displayed on the waveform data interface at the same time, and you can copy、 print and save them.

Picture 2-11: CH1, CH2 waveforms’ data display on the wave data interface



The screenshot shows a software interface titled "Wave Data". At the top, there are three buttons: "Copy", "Print", and "Save as". Below these buttons is a table with the following structure:

#	CH1	CH2	CH3	CH4	Chan5	Chan6	Chan7
1	129	129					
2	128	129					
3	128	129					
4	128	129					
5	128	129					
6	128	129					
7	129	128					
8	128	129					
9	128	129					
10	129	129					
11	128	128					
12	128	128					
13	128	129					
14	128	128					
15	128	129					
16	128	129					
17	129	129					
18	128	128					
19	128	128					
20	129	129					
21	128	128					
22	129	129					
23	129	129					
24	128	128					
25	128	128					
26	129	129					
27	128	128					
28	128	128					
29	129	129					
30	128	128					
31	128	129					
32	128	128					
33	128	129					
34	128	129					
35	128	129					
36	128	129					
37	128	129					
38	128	128					

Picture 2-11

Note: you can recall saved waveform data by clicking the button on the right of the “Data file” button in “Open Files” and observe them in the waveform data interface.

二、 Obtain and display waveform measurements

This digital storage oscilloscopes can automatically measure thirty two parameters, so the software also can obtain these thirty two parameters value.

If you want to get 2 channels waveforms’ measurement value, please follow next steps:

1. Selects “CH1”, “CH2”,at the same time in “Graph Show” item of the “Wave

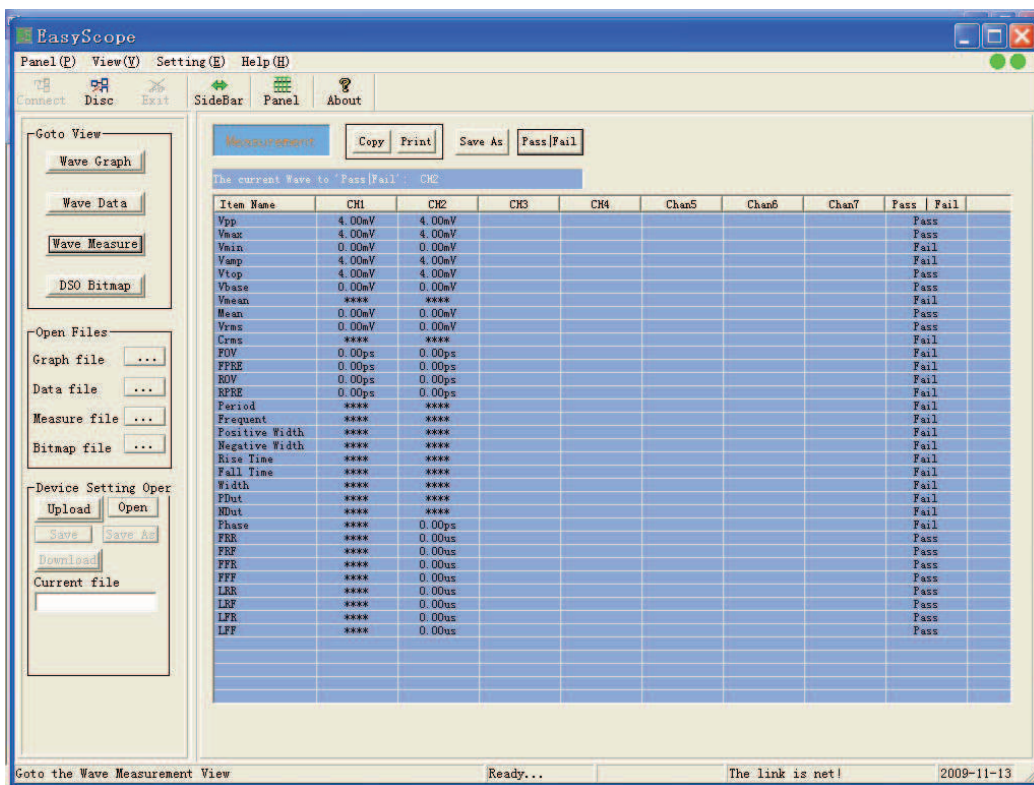
Graph interface” .

2. If you select “manu” refresh mode, click the “refresh” button, now you have get measurement what you need.

2. Display waveform measurements

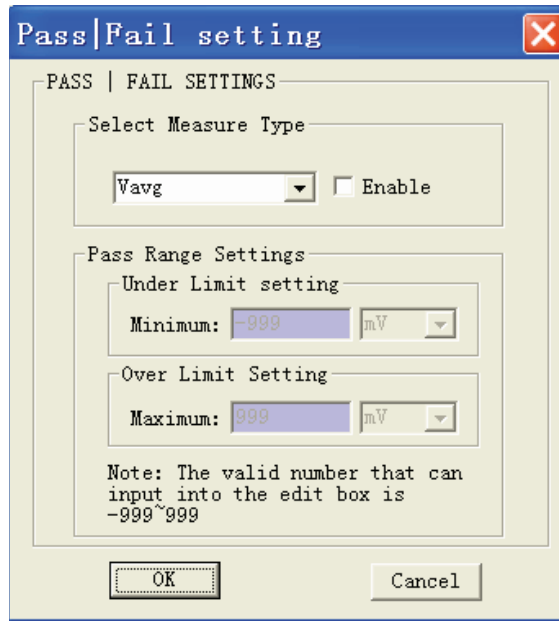
Display area will display corresponding measurements when you click the “wave Measure” button in “Goto View” part.

Picture 2-12: 2 channels waveforms’ measurements display on the “Waveform Measurement Interface” at the same time.



Picture 2-12

You can copy, print and save them. This interface has a “Pass/Fail” button, clicks this button to pop up the Pass/Fail setting dialogue box, You can set pass/fail factors range in this dialogue box. (See Picture 2-13)



Picture 2-13

Note: you can input valid number is: -999~999 in max and min editor box . If the measurement value is in this range, it will show “pass” on the Pass/Fail list in the measurement panel; If the measurement value is not in this range, the measurement panel will display test result as “Fail”.

To set the range of these pass/fail factors according to the following steps:

1. Select parameters for pass/fail factors from the list, and pitch up “Enable” option.
2. Input number and select unit for this parameter to set pass/fail range.

Note: you can recall saved waveform measurements by clicking the corresponding button on the right of the “Measure file” in the “Open Files” part and you can see them in the waveform measurements interface.

Open the saved “waveform measurements file”, not only measurements can be displayed on the waveform measurements interface , waveform data can be displayed on the waveform data interface but also waveform graph can be displayed on the waveform graph interface after pitching on the corresponding channel in “Graph Show”. This owing to before obtaining waveform measurements we must obtain the waveform, and the waveform is composed of sample data.

2.2 Device Setting operate

Upload

You can click the “upload” button to transfer the oscilloscope setup data to your computer, then you can click the “save” button or “save as” button to save them to the appointed file.

◇ Clicks the “save” button: Save the oscilloscope setup data to the default configure file.

◇ Clicks the “save as” button: Save the oscilloscope setup data to the appointed configure file.

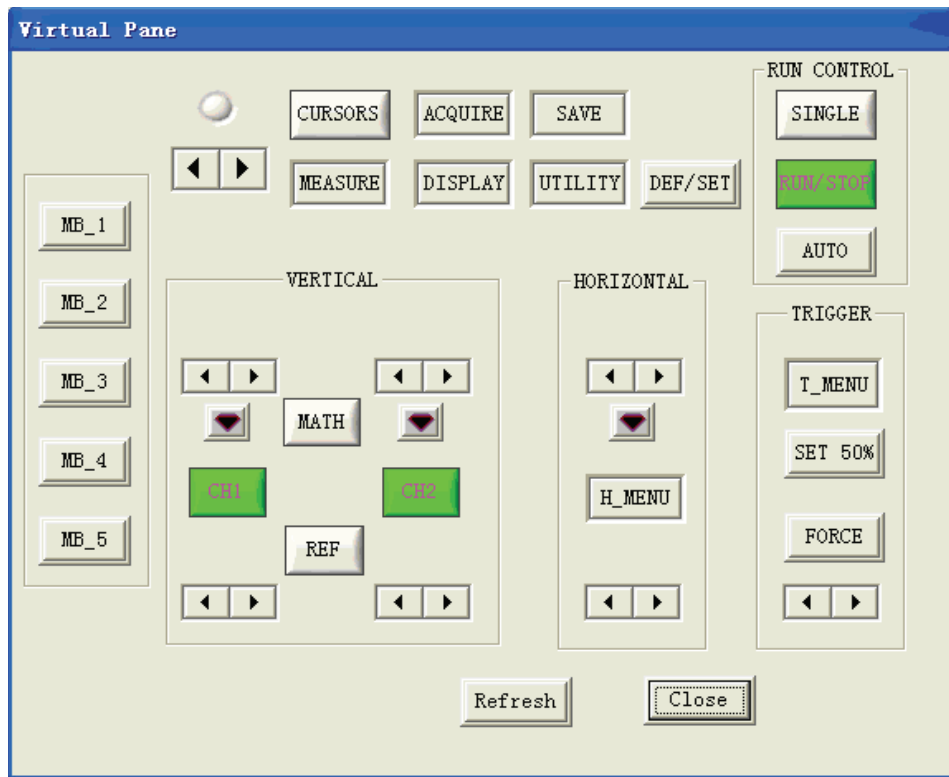
Download

You can download the setup data from saved configure file to the oscilloscope by clicking the “Download” button, and the oscilloscope will actualize the corresponding setup. Please follow nest steps:

1. Click the “open” button
2. Select saved Device configure file and clicks the “open” button
3. Click the “Download” button and the oscilloscope will execute the corresponding setup operation.

2.3 Virtual panel operation

Click the “connect” button in Toolbar. If you use “manual” refresh mode, there will pop up the virtual panel as picture 2-14 when you click the “panel” button in Toolbar. If you use “auto” refresh mode, there is no “Refresh” button on the virtual panel. The arrangement of the software key on the virtual panel is the same as those buttons and knobs on the front panel of the oscilloscope basically. You can click these software key to control the oscilloscope by PC.



Picture 2-14


Button


Click buttons on the virtual panel, which can actualize the same function as press the corresponding button on the front panel of the oscilloscope. “MB_N (N=1,2,...5)” buttons respectively correspond to five option buttons on the left of the front panel of the oscilloscope.


Note: If the display waveform on the oscilloscope screen is in trigger status when you click the “SINGLE” button on the virtual panel, the “RUN/STOP” button on the

virtual panel should turn red and the “SINGLE” button should turn green. But now the “RUN/STOP” button and the “SINGLE” button may all turn green owing to period of time communication delay between the oscilloscope and PC, now you need to click the “manual” button for several times and the “RUN/STOP” button on the virtual panel can turn red accord with the oscilloscope.

Knob

◇ Click once  button on the virtual panel and “Knob Scale” will subtract 1, which be equal to anticlockwise turn the corresponding button a scale.

◇ Click once  button on the virtual panel and “Knob Scale” will add 1, which be equal to clockwise turn the corresponding button a scale.

◇ “s/div” knob and “volts/div” knob of the oscilloscope can be pressed, you can double-click  button and click the “Knob Done” button to actualize the corresponding function.

Chapter 3 Troubleshooting

Note:

1. You'd better set the screen resolution rate to "1024×768" and set font to "small font" when you use this software, which can reach the best vision interface effect.

Set the System, follow next steps:

Click the blank area of the desktop using the right key of mouse → "property" → "Setting" → set the screen resolution rate to "1024×768" → click the "advanced" option button → set the font to small font → click "OK".

2. In the course of using the software, if you use "Auto" refresh mode, you'd better not set the waveform status to stop when you use virtual panel. Because when waveforms of the oscilloscope stop, the software will get data fail.

3. In the course of using the software, if you use "Auto" refresh mode, please disconnect "Auto" refresh first when you need to reinstall refresh time interval and select "Auto" refresh mode after setting the new refresh time interval, or else, the new setup will be ignored.

4. You need to open the auto measure function of the oscilloscope when you measure waveform parameter values using the software, or else waveform measure value will not be refreshed when you refresh the waveform; If you select "manual" refresh mode, you need to click the "Refresh" button several times when you click "Refresh" button in the "Wave Graph" interface but you can't get measurement value in the "Wave measure" interface.

5. In the course of using the software, sometimes the top right sign not display on the software interface, now please move or drag the main frame of the software interface.

6. In the course of using the software, if you are not connect or disconnect it in normal, you can turn on/off the oscilloscope over again and connect or disconnect the software again.