

# WKE Factory View 2014

## User manual



Software Version     V1.0

Author                Tongsong CAI

Company              Wayne kerr Electronics

Email                  [caicaiking@gmail.com](mailto:caicaiking@gmail.com)

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## **1. Operating Environment**

The application can run on 32 bit Windows operating system and 64 bit, while Windows XP and Windows7 have been tested. The resolution of screen upon 1024\*768 is recommended to adapted the application.

## 2. Lists of files and installation

### 2.1 Lists of files

Files shown in the figure below cannot be deleted at random, lack of anyone for these files may cause the application' failure or the lack of function.



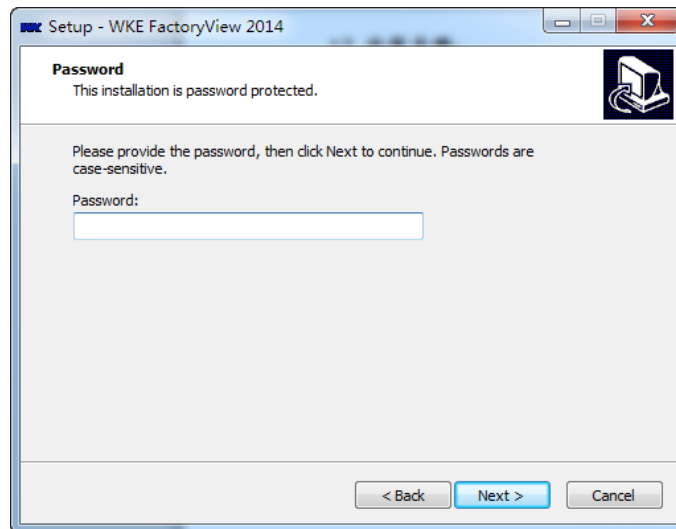
### 2.2 Installation

2.2.1 Double click WKE FactoryView2014 Setup.exe to start the installation.

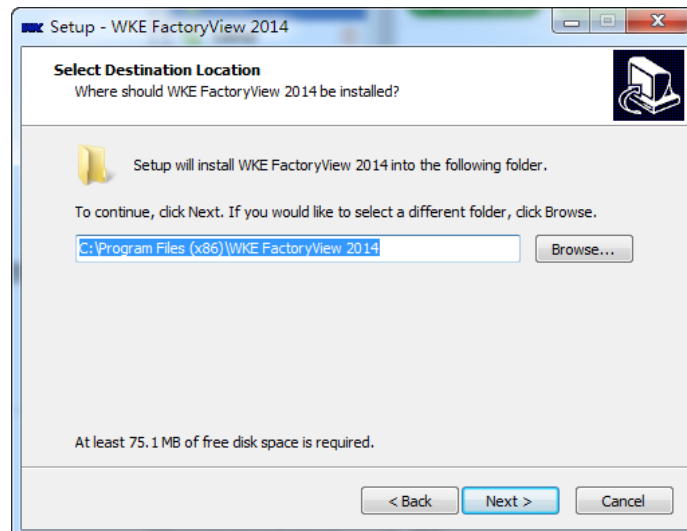
2.2.2 Initial interface as shown in the figure below.



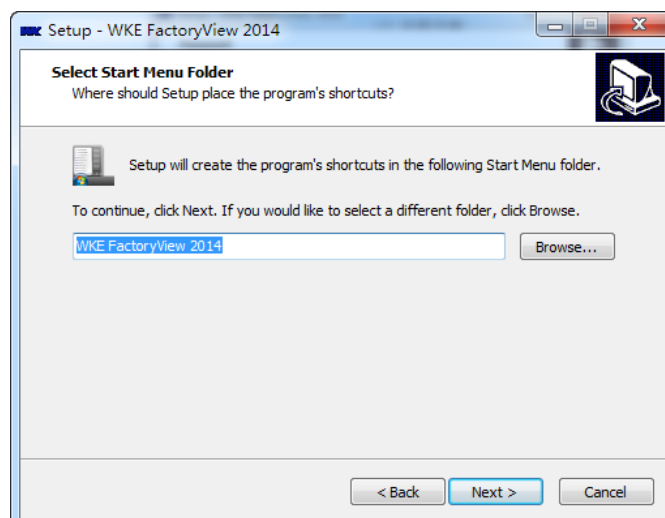
2.2.3 Enter the passwords and click Next .



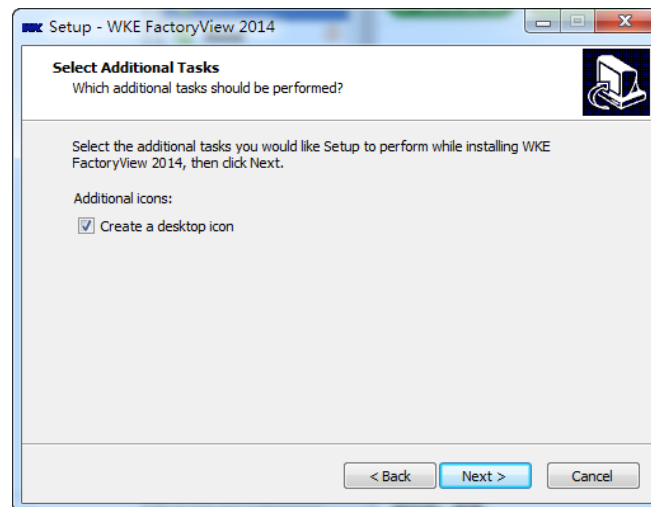
2.2.4 Choose a directory for installation and click Next.



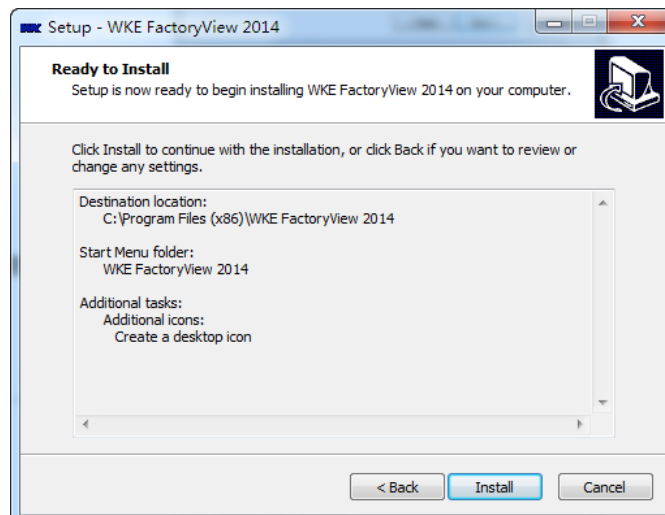
2.2.5 Click Browse to select a folder to place the shortcut of application or just click next if you choose the default.



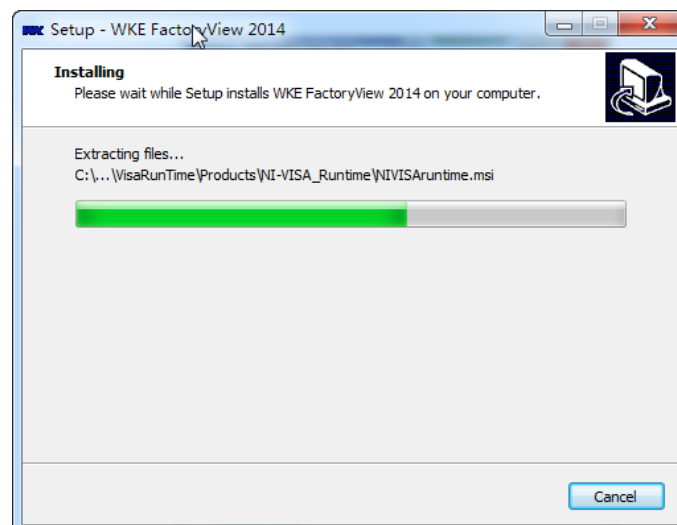
2.2.6 Check the box if you would to create a desktop icon or click Next directly.



2.2.7 Details of installation will be shown as in figure below, and click Next.



2.2.8 Installation will be complete when the progress bar is complete.



2.2.9 There are two options as shown in figure below.

1) Launch Install visa driver

If this is the first time installation for the application, check the option please, the application will start in failure otherwise.

2) Launch WKE Factory View 2014

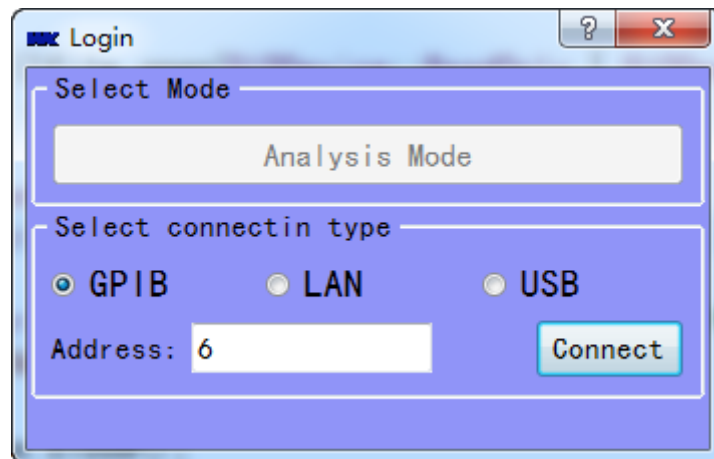
Check this option to start the application.

Click the Finish at last.



Please restart the computer if the connection is USB.

### 3. Log In for Application



#### 3.1 Mode option

Analyze mode is the only option. And click the connect button before select the test mode.

#### 3.2 Connection

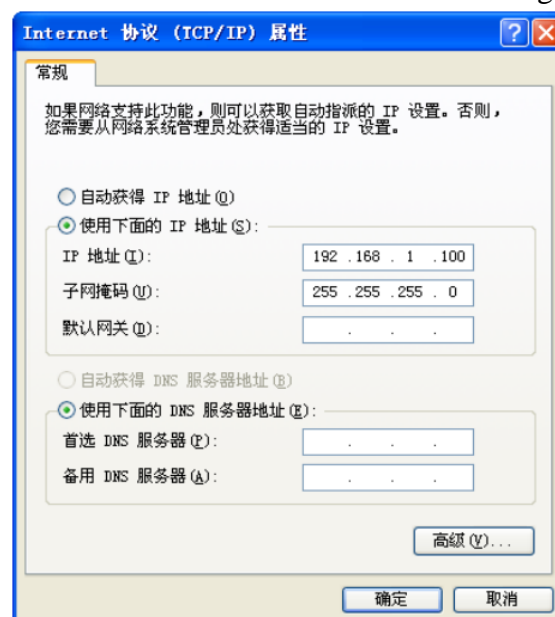
There are three options: GPIB, LAN, USB.

##### 3.2.1 LAN

Connect the PC and WK instruments via a network cable.

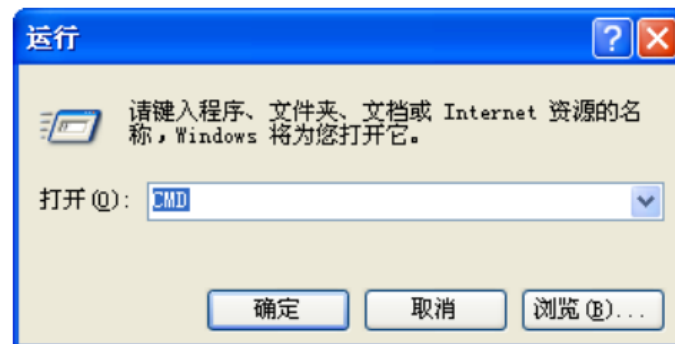
Set IP address by the steps below.

- 1) Refer the related user manual to set the IP address of instruments.
- 2) Set the IP address for PC: network neighborhood → 查看网络连接 → 本地连接。双击 Internet 协议 (TCP/IP)。Set the IP address as shown in figure below.





3) And check the connection between PC and instruments by ping order of windows as shown in figure below.



4) Connection will work if the figure is presented as shown below.

```
C:\Users\Administrator>ping 192.168.1.199

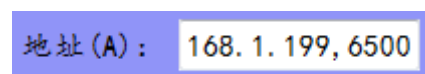
正在 Ping 192.168.1.199 具有 32 字节的数据:
来自 192.168.1.199 的回复: 字节=32 时间=1ms TTL=128
来自 192.168.1.199 的回复: 字节=32 时间=1ms TTL=128
来自 192.168.1.199 的回复: 字节=32 时间=1ms TTL=128
来自 192.168.1.199 的回复: 字节=32 时间=1ms TTL=128

192.168.1.199 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
    往返行程的估计时间<以毫秒为单位>:
        最短 = 1ms, 最长 = 1ms, 平均 = 1ms
```

5) If the instrument belongs to WK4300 series, set IP address as shown below.



6) If the instrument belongs to WK6500 series, set IP address as shown below.



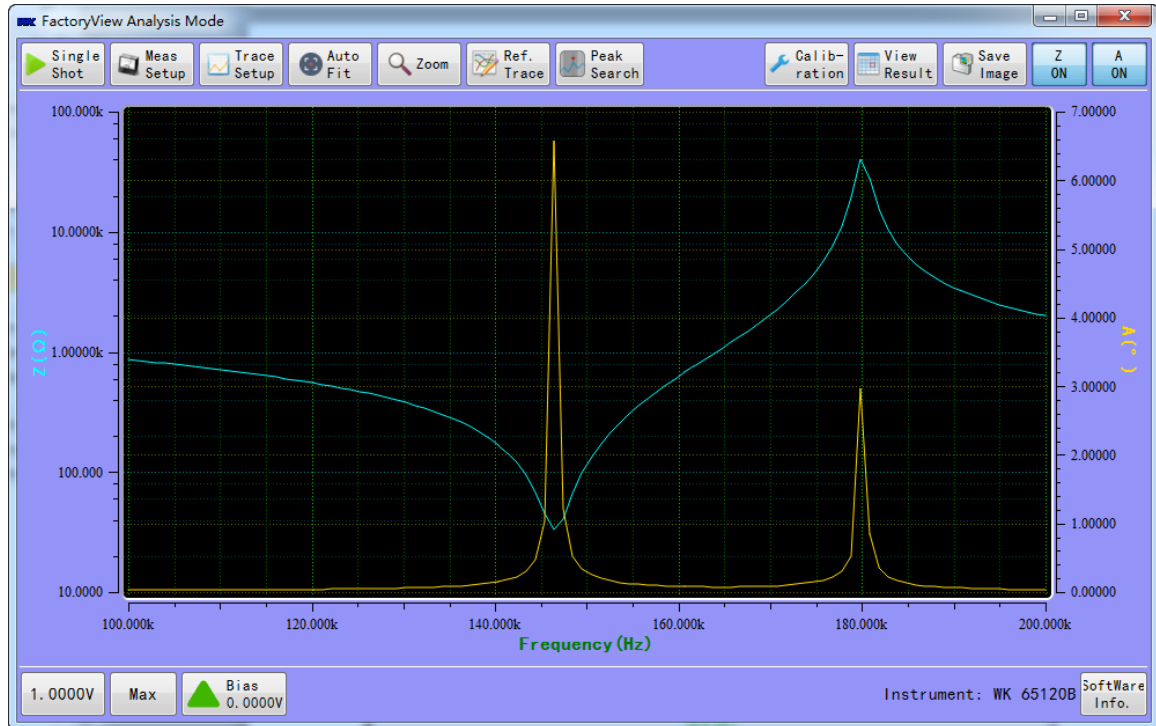
### 3.2.2 GPIB

Address in address bar should keep pace with that of instrument.

### 3.2.3 USB

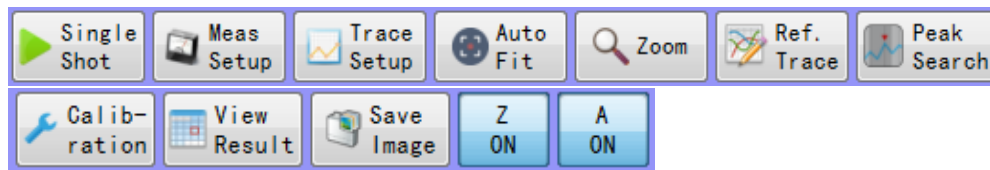
Connect the PC and instruments via a data wire.

## 4. Main Interface

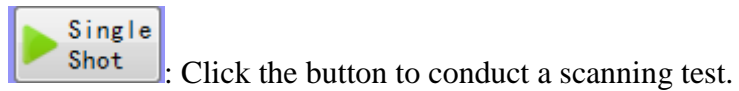


(Screen shot for analyze mode, while the sample is piezoelectric ceramic piece)

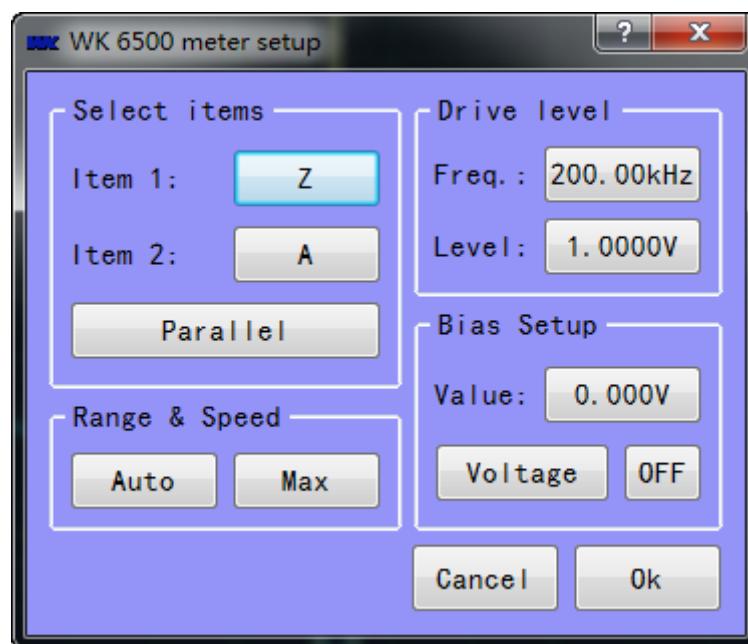
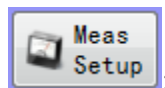
## 5. Tools Bar



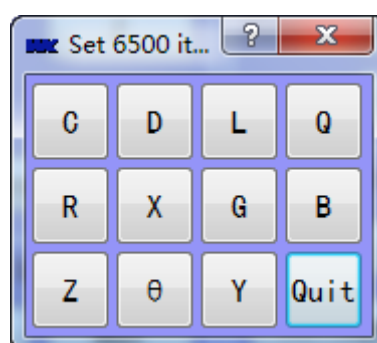
### 5.1 Trigger button



### 5.2 Setting test parameter

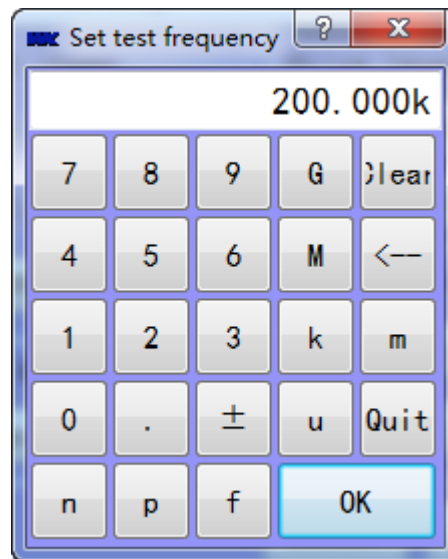


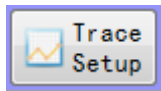
Interface below will be presented after the Term1 or Term2 is clicked. Select the parameter need to be tested.



Click the freq to enter the values as shown in figure below. Settings of drive level

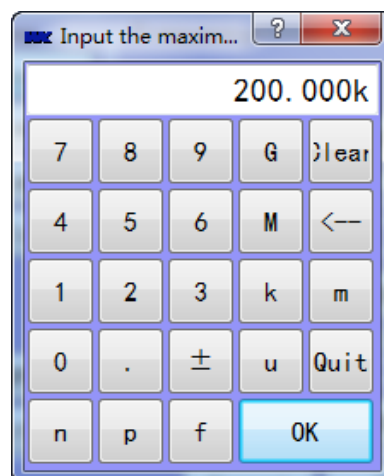
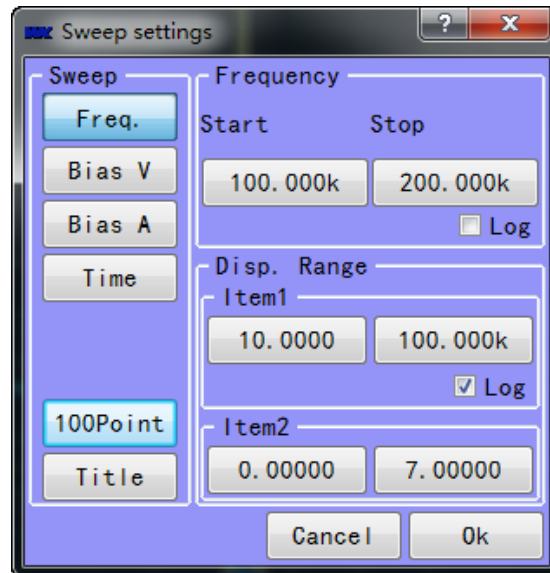
and DC bias are the same with freq.





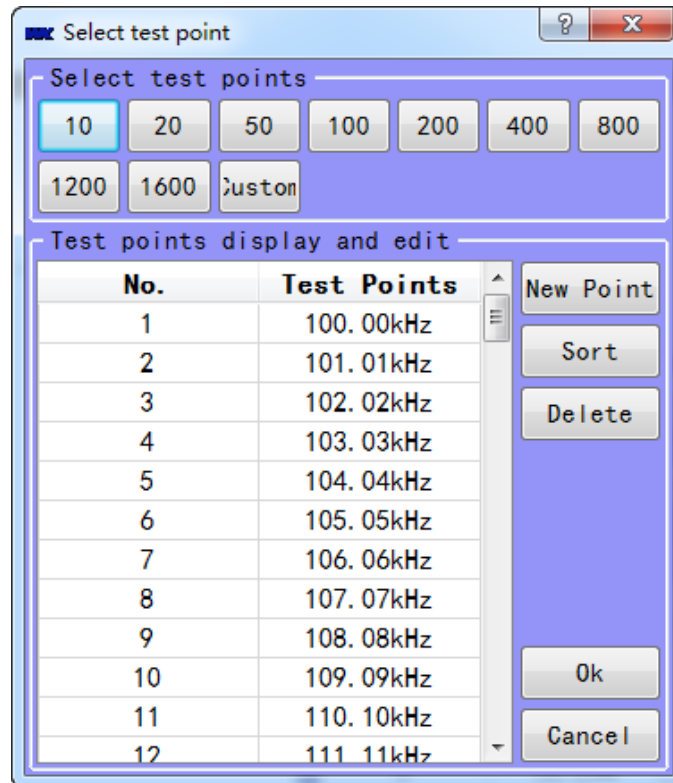
: setting of scanning

Click the button to set the range of frequency and DC bias, scanning time, scanning points, titles of tests and display range of terms. All of these operations are shown in figure below.



100Point

:Setting scanning points is presented as in figure below.



User-defined : allowing users to define the quantity of scanning points.

Addition: allowing users to add the special points into scanning range

Sorting: allowing users to sort the points from small to large

Delete: allowing users to delete the points

Note: please click the button of scanning points before scanning to insure range of scanning accords with settings.

### 5.3 Setting of display



: Click this button to allow the test curve to fit the screen. Test curve not fitting the screen is shown in figure 5-3-1, while test curve fitting the screen is shown in figure 5-3-2.

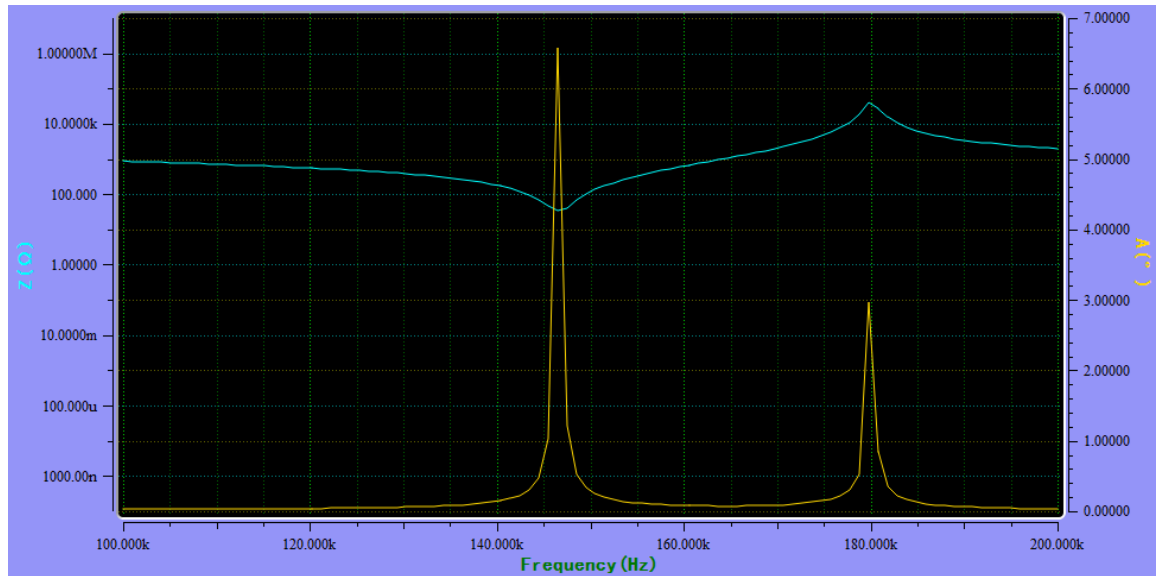


figure 5-3-1

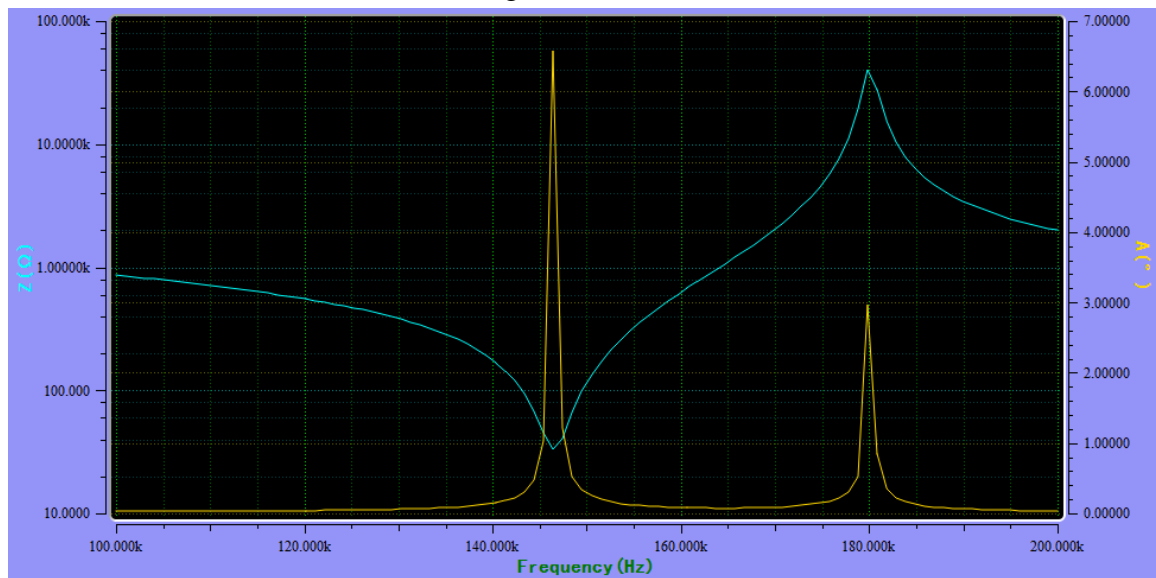
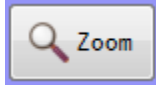
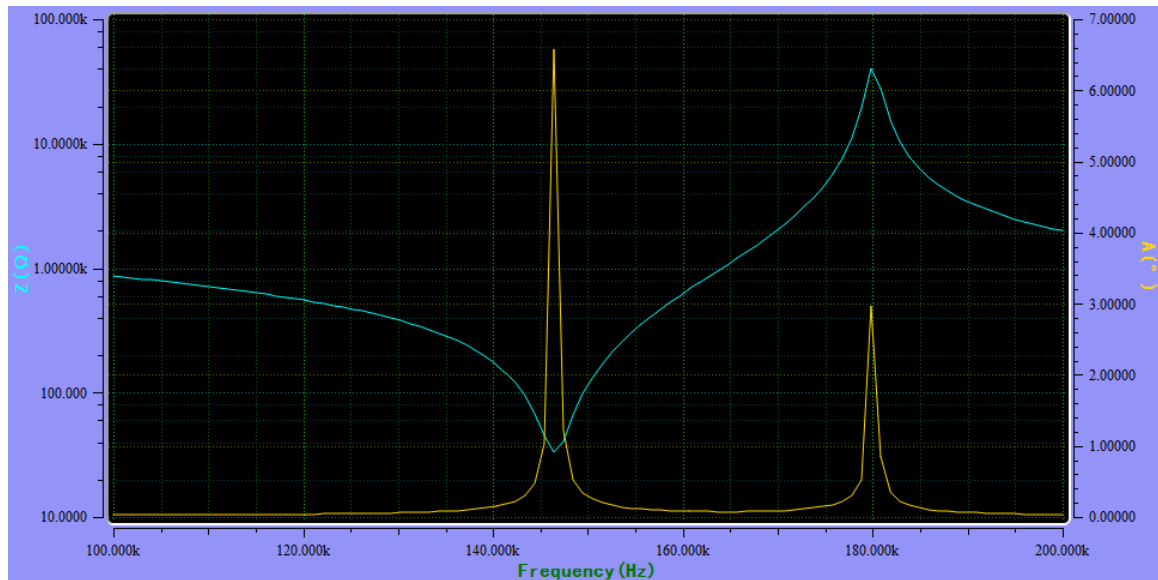


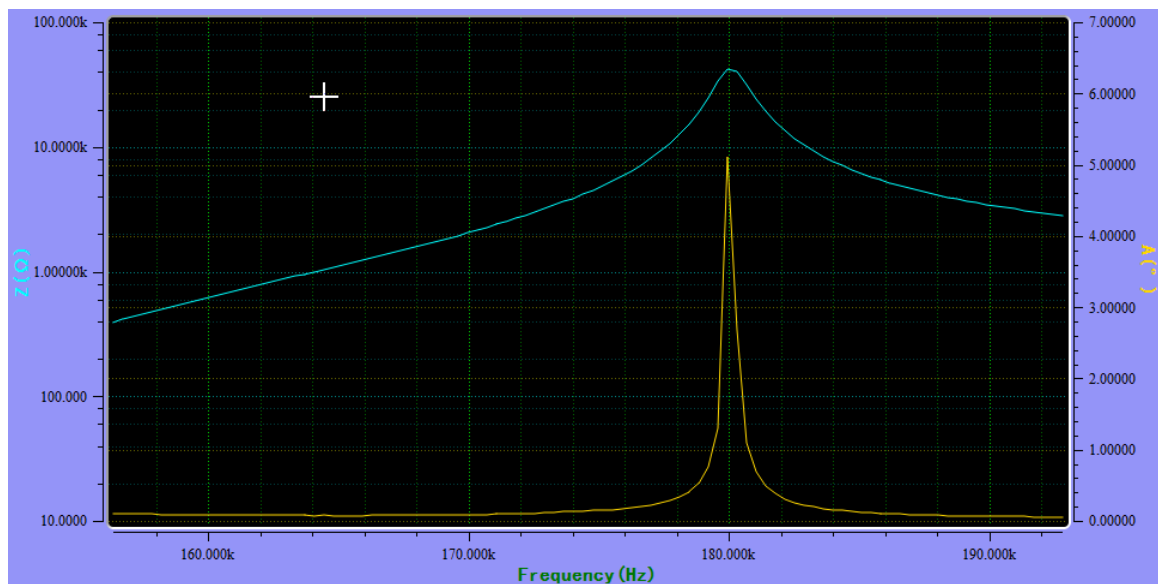
Figure 5-3-2



: Click this button to define the range where scanning need to be conducted in detail. Application will conduct scanning in area defined automatically  
Primary test curve is shown in figure 5-3-3, while the test curve enlarged is shown in figure 5-3-4.

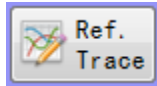


5-3-3

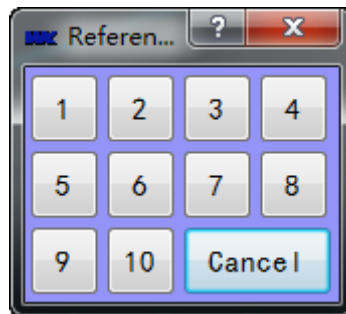


5-3-4

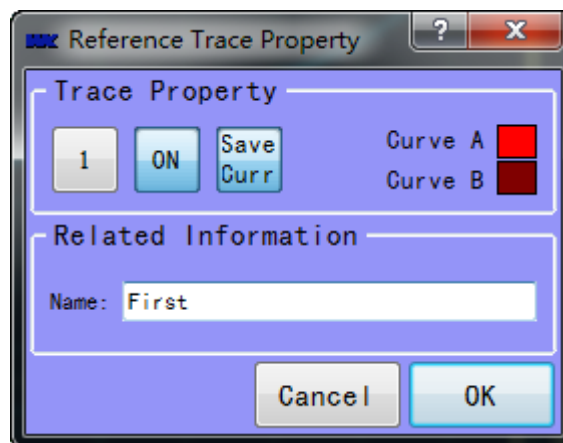




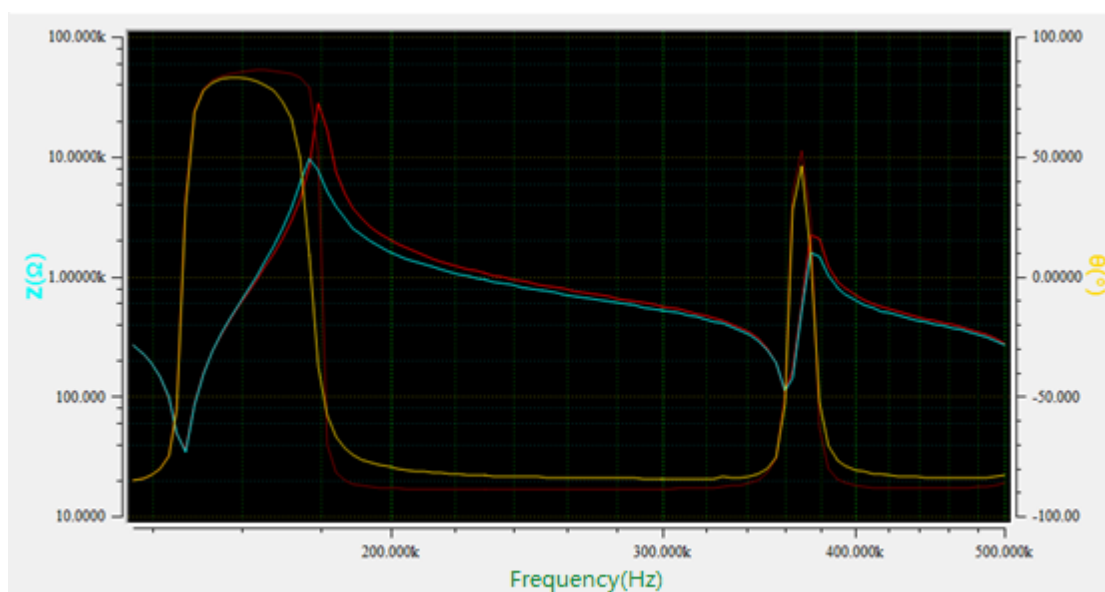
: Click this button to compare test curves and interface will be presented as below. In this interface, users can mark current curve with a number.

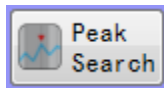


Interface will be presented as below after operations above. Insure the ON/OFF button remains ON. Select the color of curve and enter the title of it. Click OK to finish it.



Click the trigger button conduct comparison test. If the ON/OFF button remains OFF, curves saved cannot be shown in screen. Comparison is shown in figure below.

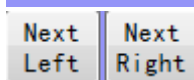
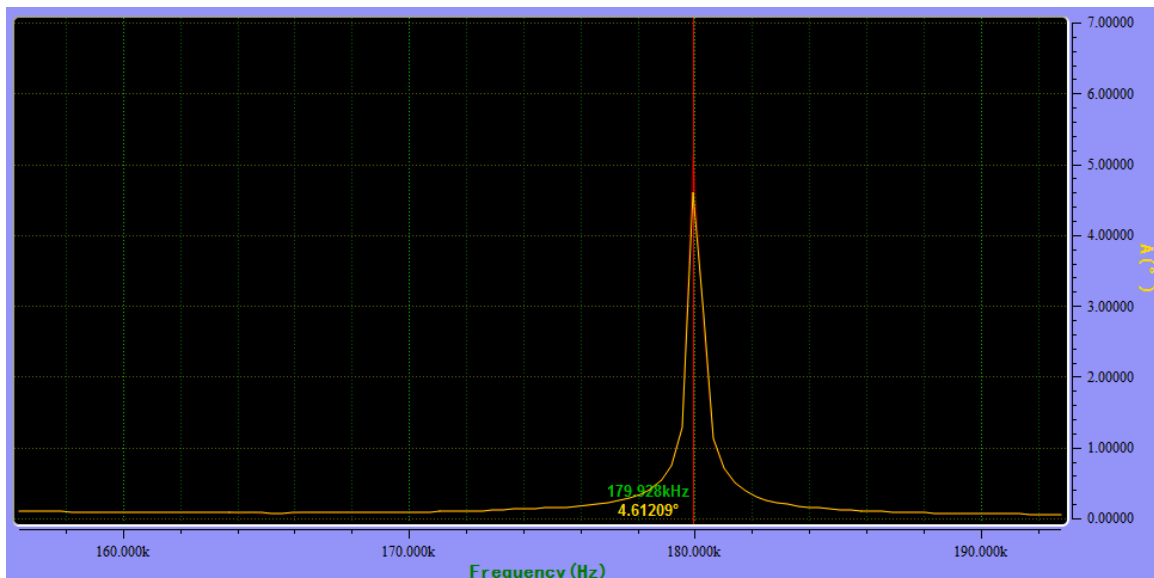
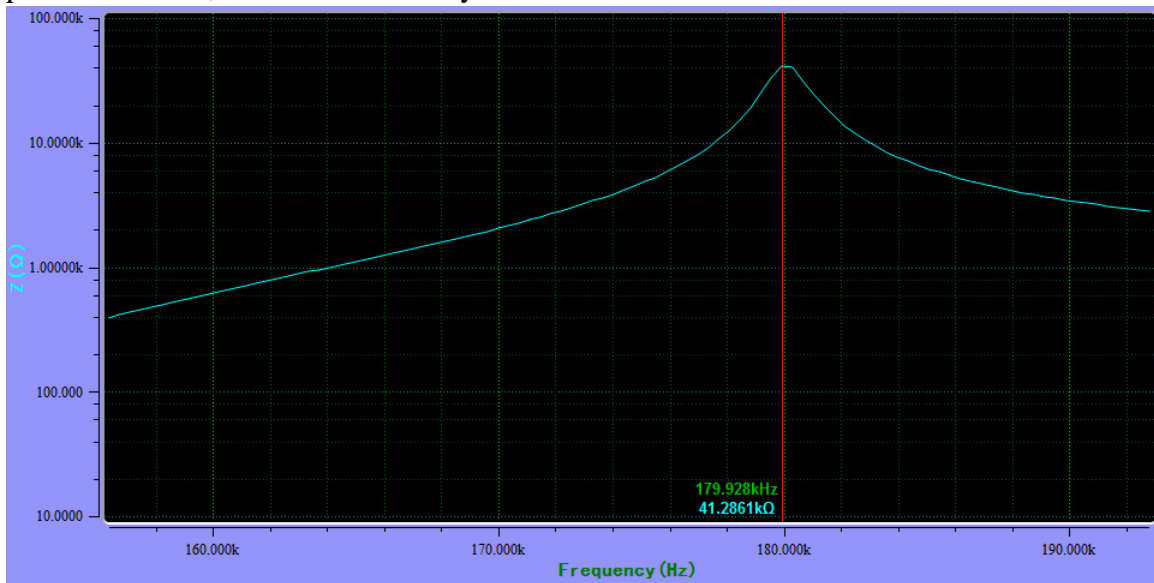




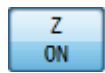
The Peak Search facility may be used to identify peaks, or dips in a measurement trace. Selecting the Peak Search command button will produce a new set of command buttons at the top of the display.



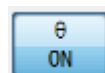
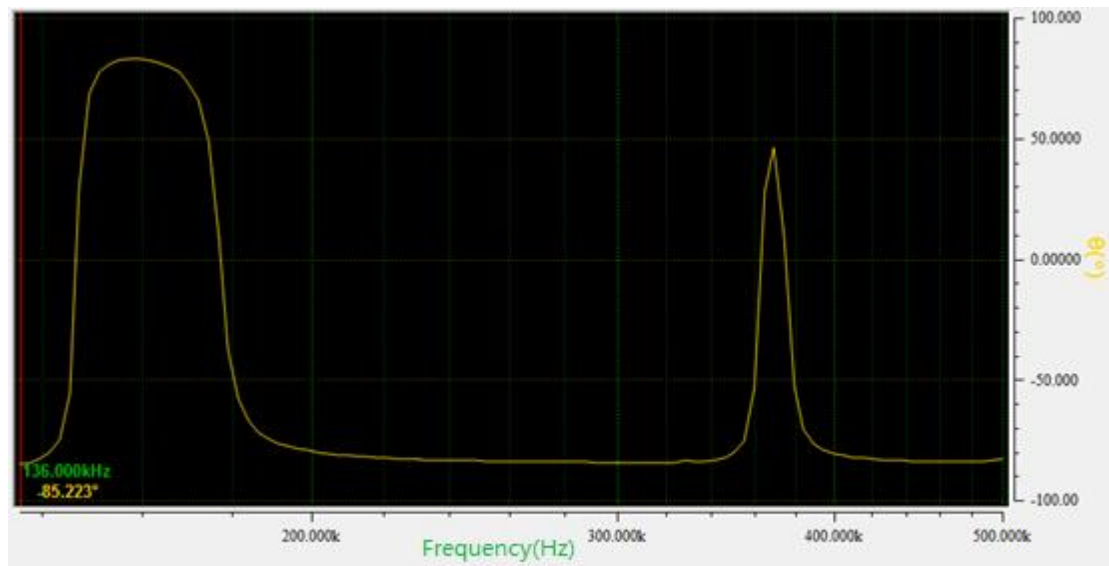
: Finds the maximum or minimum value on the active trace. In figures below, peaks are found, which is marked by cursors.



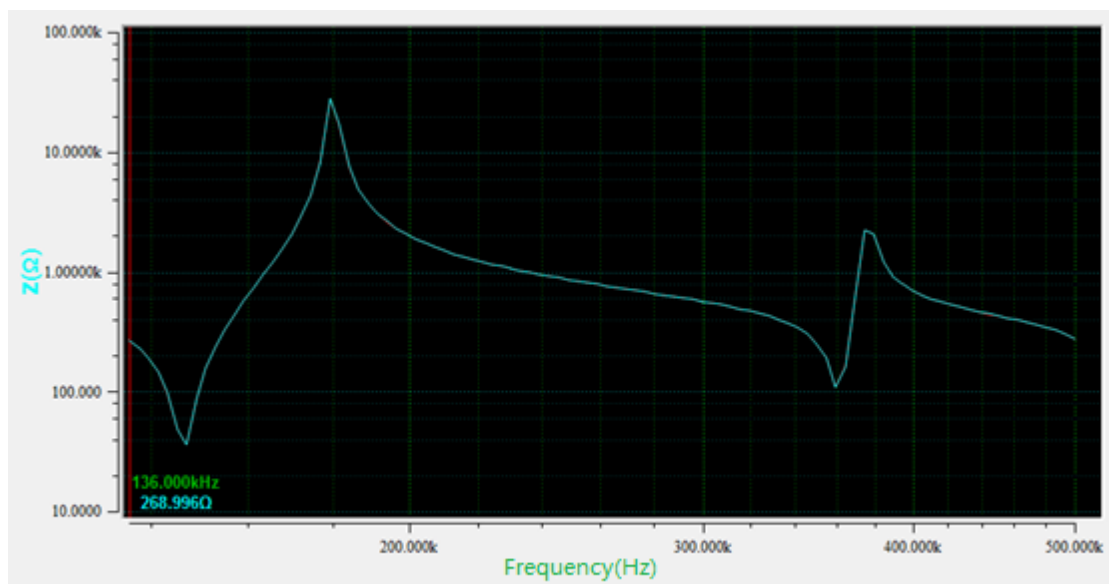
: Each time, Next Left finds the next peak to the left of the marker's current position, and Next Right finds the next peak to the right of the marker's current position.



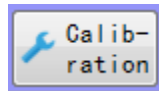
: Click this button to switch on/off test curves of term1, e.g., curve of Z is closed in figure below.



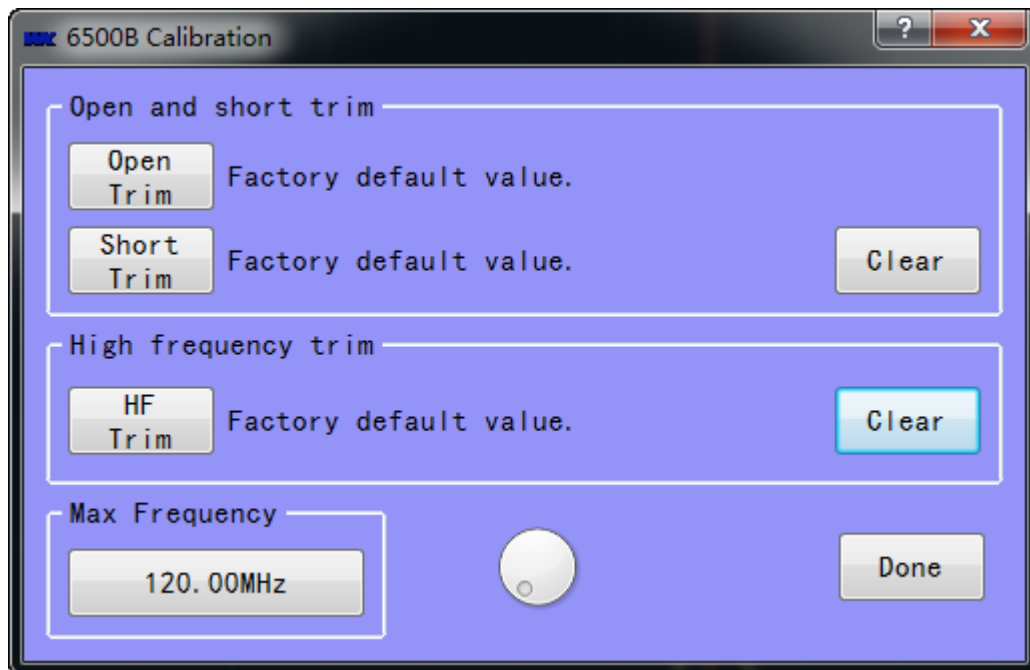
: Click this button to switch on/off test curves for term1, e.g., curve for  $\theta$  is closed in figure below.



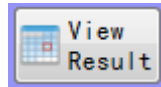
## 5.4 Calibration



: Interface as below will be presented, including open calibrate, short calibrate and High-frequency calibrate.



## 5.5 Data view and storage



: click this button to browse the test data as below. Users can click Save to save the data and click number of group to change curves.

Frequency (Hz)	Impedance ( $\Omega$ )	Phase Angle ( $^{\circ}$ )
156.368k	392.432	105.000m
156.736k	412.749	101.885m
157.104k	433.615	98.9626m
157.473k	455.157	96.4673m
157.841k	477.341	93.9642m
158.209k	500.161	91.8349m
158.577k	523.634	89.8182m
158.945k	547.997	87.9665m
159.313k	573.125	86.3248m
159.681k	599.046	84.8076m
160.049k	625.856	83.5222m
160.418k	653.606	82.1309m
160.786k	682.340	81.0371m
161.154k	712.132	80.0644m
161.522k	742.984	79.1732m
161.890k	775.003	78.2801m
162.258k	808.325	77.5378m
162.626k	842.998	76.8881m
162.994k	879.017	76.4429m

Application allow users to save data of several terms for a scanning test as below.

Select save parameters

☐ R   ☐ X   ☐ C   ☐ D  
☐ L   ☐ Q   ☐ B   ☐ G  
☐ Y

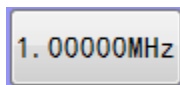
Ok

## 5.6 Storage of graph

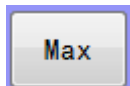


: Save the test curves, while default format is png.

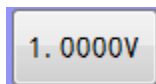
## 5.7 Shortcut Button



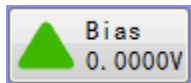
: Click this button to set the frequency of test.



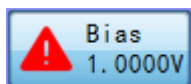
: Click this button to select the speed of test.



: Click this button to set the drive level of test.



: This module displays the status of DC Bias. It's OFF when the color is green.



: CAUTION! This module displays the status of DC Bias. It's ON when the color is red. Please turn off the DC Bias when test is completed.

## **6. Help and Support**

**【WKE Factory View 2014】**

Author: Obama

Email: [caicaiking@gmail.com](mailto:caicaiking@gmail.com)

At last, thanks for your choice of this software program, and we will appreciate your feedback and proposes.