

# Optical Fiber Tester

USER'S MANUAL

## Warning

When using this instrument, please do not look directly at the optical interface or the end of the optical fiber with your eyes avoid eye damage! Except for 1625nm/1650nm, all the others are non-on-line test wavelength. it will cause damage to the internal devices of the instrument if it is used forcibly! Any change or modification not explicitly permitted in this manual will deprive you of the right to operate the equipment. To reduce the risk of fire or electric shock, do not expose the equipment to thunderstorm or humid environment. In order to prevent electric shock, do not open the shell, it must be repaired by the qualified personnel designated by the manufacturer.

## Attention

**Battery:** The battery in the machine is a special 1lithium-ion polymer battery. The charging voltage is 5v,and the charging temperature ranges from 0°C~50°C. when the ambient temperature is too high the charging will automatically terminate, the instrument battery should be charged every one month to avoid battery failure due to self-discharge after long time storage. The temperature range of the battery during long-term storage is -20c~45°C.

Please use the special AC adapter attached to this instrument and use the external power supply strictly according to the specifications, otherwise the equipment may be damaged.

**Fiber End Face Cleaning:** Before testing. clean the end face of the tested optical fiber joint with alcohol-cotton.

**LCD screen:** The display of this series of instruments is 3.5 inch color LCD. In order to maintain good viewing effect, please keep the LCD screen clean and clean. When cleaning, the LCD screen can be cleaned by wiping with soft fabric.

Due to the need of design improvement, the contents are subject to change without notice.

## Brief

### Top view

- 1.OTDR/LS Port
- 2.OPM Port
- 3.VFL Port
- 4.Flashlight

### Left side

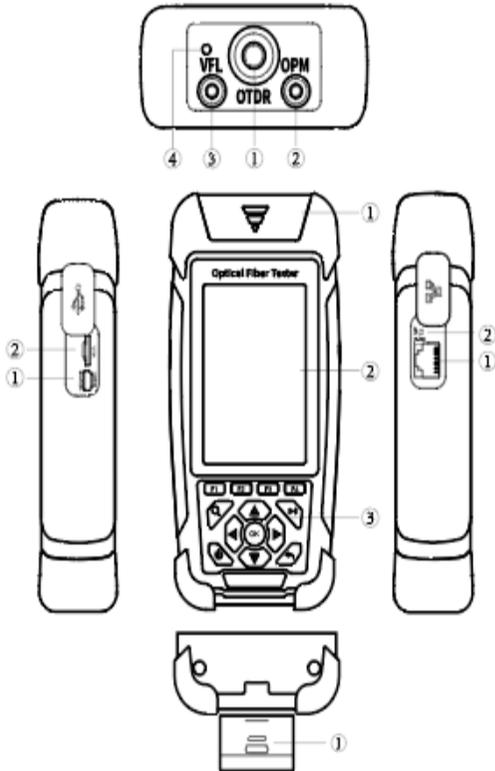
- 1.Micro USB
- 2.TF Card Port

### Right side

- 1.RJ45 Interface
- 2.Reset button

### Bottom view

- 1.RJ45 tester

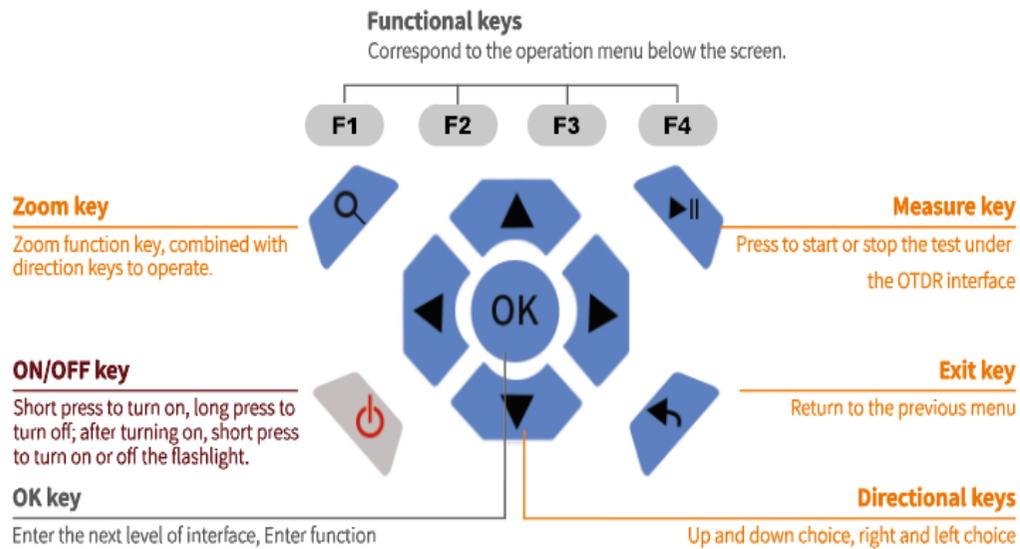


### Main view

- 1.Dust Cover
- 2.3.5 inch Color LCD

### 3.Function Keys

## Functional Keys

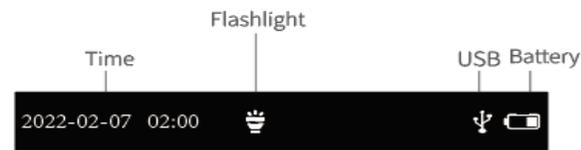


## Main Interface

Turn on and enter the main menu.

There are eight functional

Select the module by pressing the corresponding functional interface.



### OTDR

F1: Enter the parameter

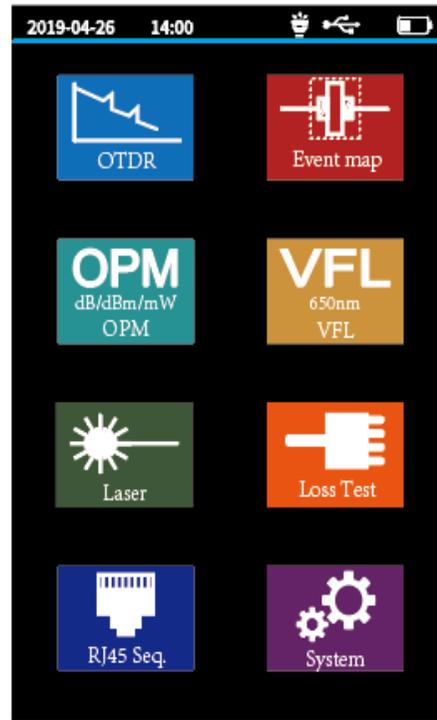
F2: Switching A/B

F3: Enter the save

F4: File or Folder

**Attention**

**This function pls don't**



modules.

direction keys, and then press the "OK" key to enter the

Link Information

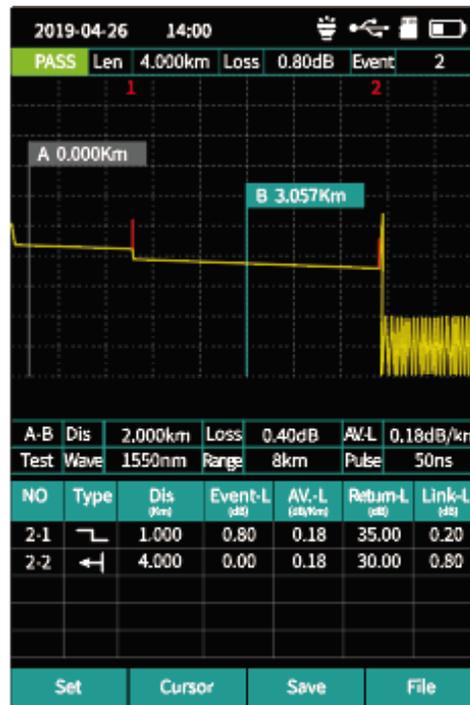
Waveform

A/B cursor

A/B Information

Test Conditions

Event List



setting interface

cursor

interface

operation

**make live fiber testing.**



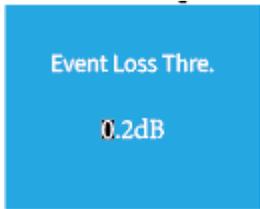
## OTDR setting Interface

OTDR setting interface

Enter the parameter setting positioning cursor, up and

▲▼: Choosing settings items.

Press OK button to confirm or



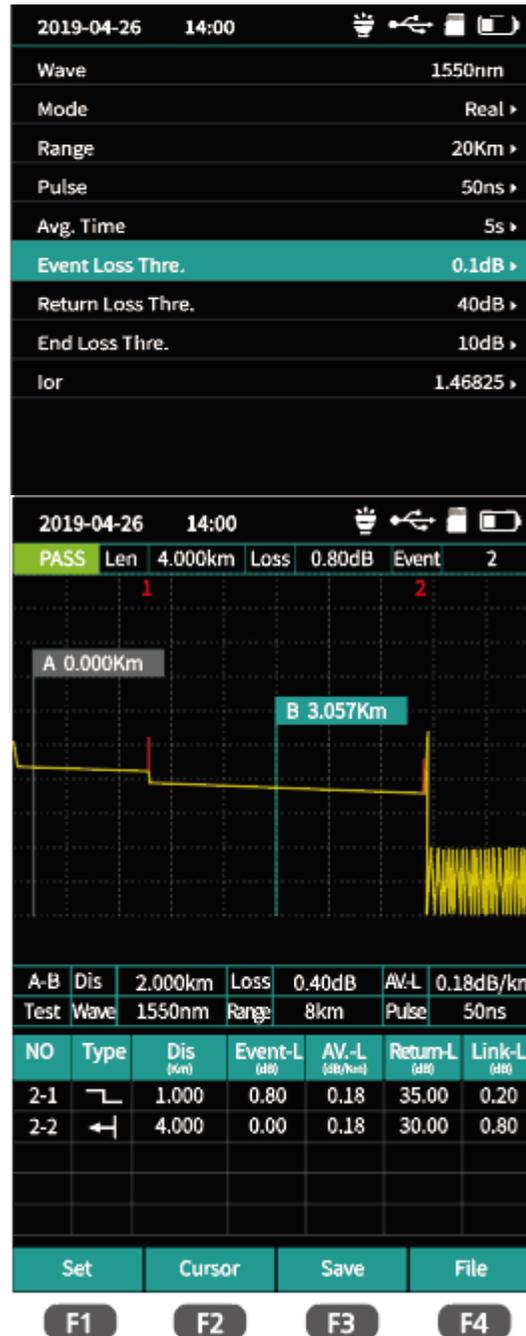
F1:Test F2:OK F3:Recovery

### Test Results

Link quality and information can

Link information includes length,

Detailed event information can



interface. Multi-digit settings, through the left and right key down selection.

edit corresponding measurement parameters.

F4:Cancel

be viewed from the top after the test is completed,

total loss and number of events.

be viewed from the event list.

There are Four types of events:

Reflective event



Non-reflective event



Fiber splitter



Fiber end



### OTDR-Zoom mode

Press  to enter zoom



mode

X-axis direction zoom  in

X-axis direction zoom out

Y-axis direction zoom in

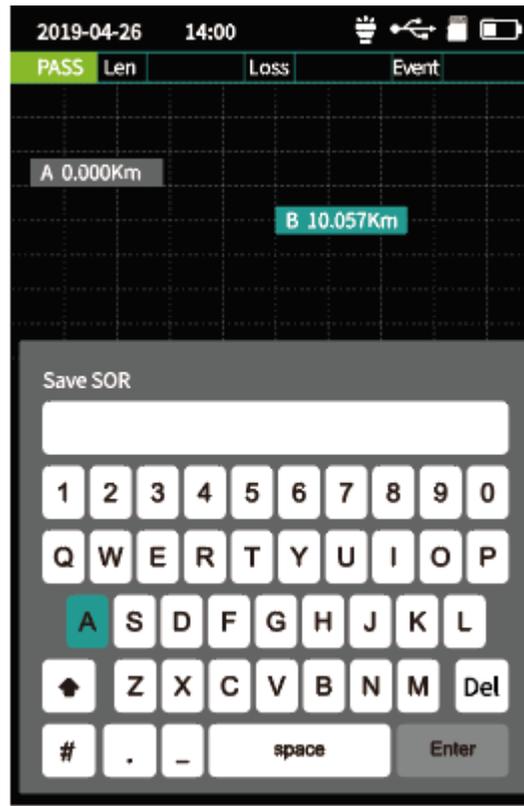
Y-axis direction zoom out

 Press to exit zoom mode

## OTDR-File Save

OTDR-File Save

Press “F3” (Save) key to save name of the file, and press Enter on in“system Settings”, it will be operation.



file after test complete, pop up the keyboard, enter the to save the file.If the automatic save (otdr) function is turned saved automatically after the test complete without manual

Auto-save function

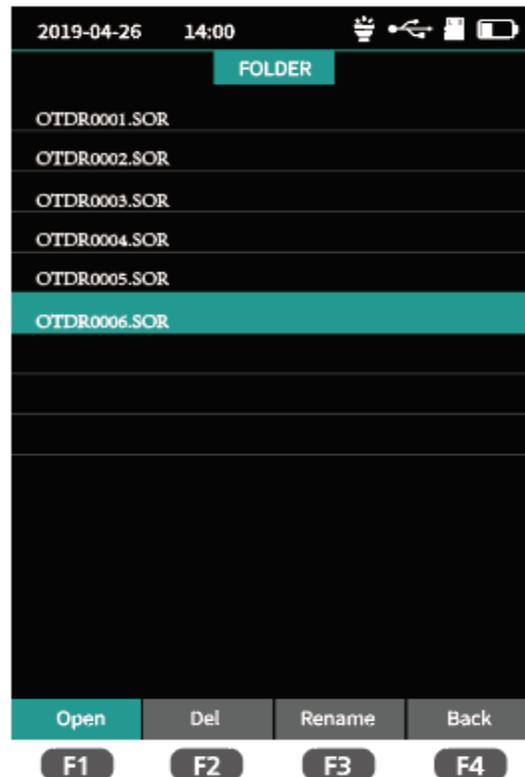
Enter the system settings, open the auto-saving function, the instrument will automatically save the test files after the average or auto-test.

### OTDR-File Operation

OTDR-File Operation

Press “F4”to enter the file list.

Press the“OK” key to open a



folder or File

F1:Open file

F2:Delete file

F3:Rename file

F4;Return to main menu

### iLOM(Event Map)

The function can be tested of the link,the type of event point graphical form. The result is clear

automatically by one key, and the information of the length and the position of break point can be displayed in a and easy to understand.

events.

link, after the guiding fiber is added to the front

fusion point

the inconsistency of

sections of fiber Connector, square flange, SC, LC etc



Left/Right key:Switching The starting point of the



Drop event, representing



Rising event, caused by



refractive index of two



Optical fiber macro bending



Optical fiber splitter



End of link

### OPM

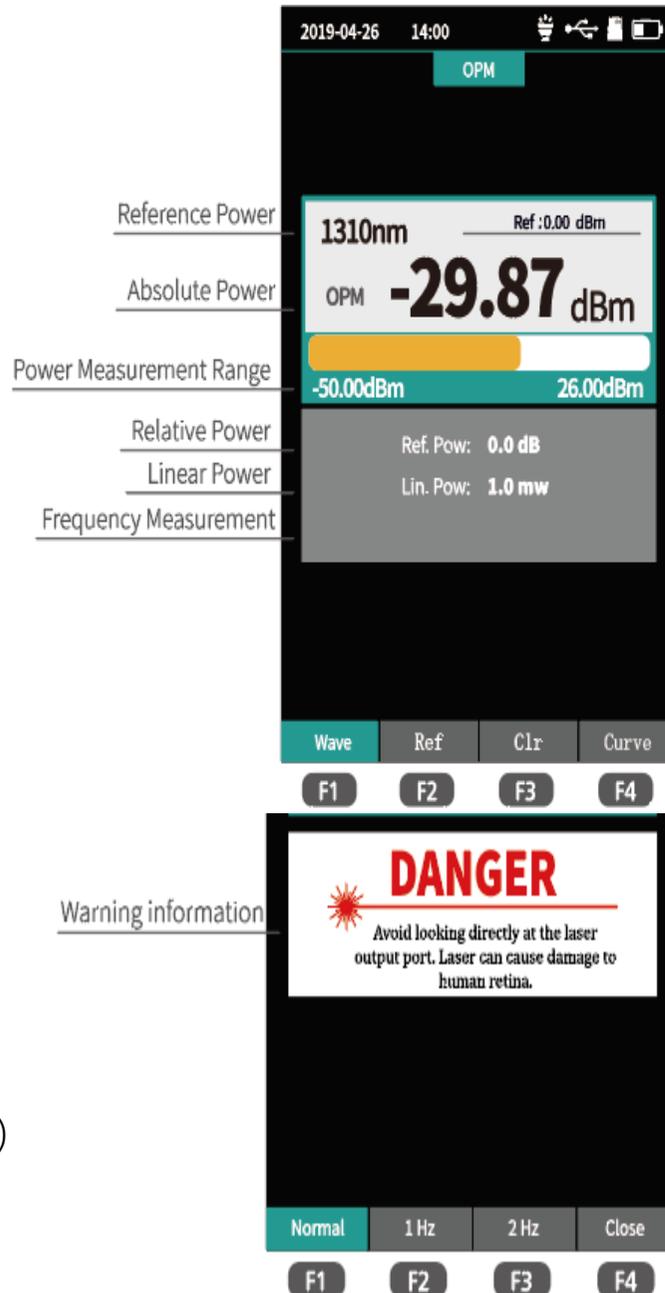
This function is used to test the power of optical signal and insertion loss of various devices and frequency of

test the power of optical signal and insertion loss of various optoelectronic components. It can identify and measure the 270/330/1k/2kHz frequency optical signal.

F1: Switching

F2: Setting Reference

F4: Enter the



wavelength

Power F3:Zero Reference Power

Calibration Mode

Absolute power,relative

$$P_{Abs.} = 10 \lg P_{Lin} / 1 \text{mw}$$

$$P_{Rel.} = P_{Abs.} - P_{Ref.}$$

power and linear power are converted as follows:

### VFL

Visible red light (650 nm)

is injected into the optical fiber, and the position of the

optical fiber fault point can be judged conveniently and accurately by observing the leakage position on the measured fiber. It is suitable for the detection of bare optical fibers, jumpers and other high loss sections caused by near-end faults and micro-bending of optical fibers and cables which can leak red light.

Avoid looking directly at the laser output port.

Laser can cause damage to human retina.

F1: Open VFL

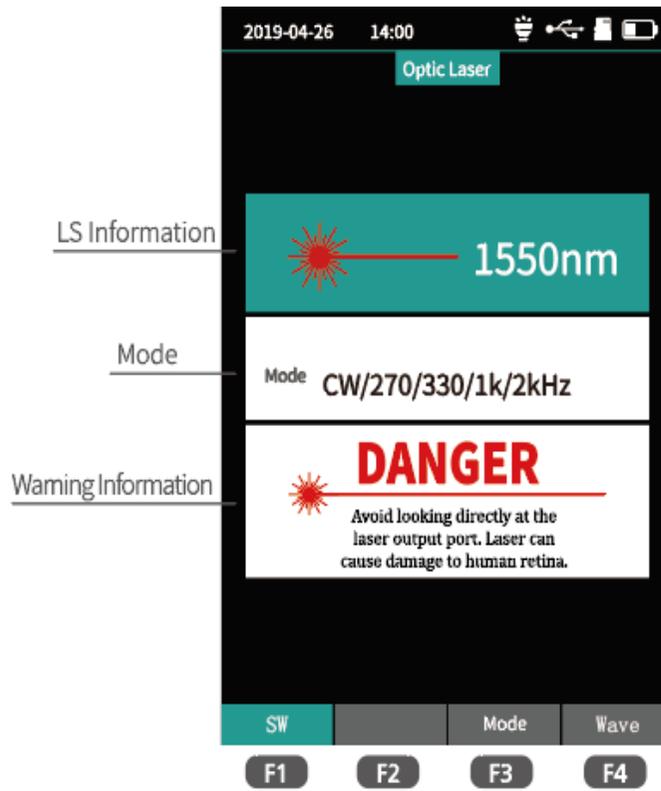
F2: VFL flash at 1 Hz

F3: VFL flash at 2 Hz

F4: Turn off VFL

### LS-Laser Source

The wavelength of used to measure the insertion loss, isolation wavelength



stabilized laser source is the same as OTDR wavelength. It is parameters of telecommunication, CATV, LAN cable, loss and echo loss of optical passive devices, and responsiveness of detectors. There are five modes of light

source: CW,270 Hz,330 Hz, 1kHz and 2kHz.

F1: Open/Close LS

F3: Switch LS Mode

F4: Switch LS Wavelength

### RJ45 Sequence

RJ45 line sequence

F1: Start Test

F3: Switch Line Sequence

F4: Return to the main

The screenshot displays the 'RJ45 Sequence' test interface. At the top, it shows the date '2019-04-26' and time '14:00'. The title 'RJ45 Sequence' is highlighted in a teal bar. Below the title, the 'Test Standard' is set to 'Sequence Test:TIA-568B'. A diagram of an RJ45 connector is shown with 8 ports, each with a colored line representing a wire. The test results for each port are as follows:

Port	Color	Result
Port:1	White	Pass
Port:2	Orange	Pass
Port:3	Green	Pass
Port:4	Blue	Pass
Port:5	White	Fail (marked with an 'x')
Port:6	Green	Pass
Port:7	Red	Pass
Port:8	Pink	Pass

Below the diagram, a 'Tips' section reads: 'Please connect the remote device. Click F1 for cable sequence test.' At the bottom of the screen, there is a 'Test' button and a navigation bar with 'Standard' and 'Back' buttons. Below the navigation bar, there are three function keys: F1, F3, and F4. The text 'before test' is written in red below the F3 and F4 keys.

measurement.

Test Standard

menu

### Attention

Pls cut off the electricity

before test

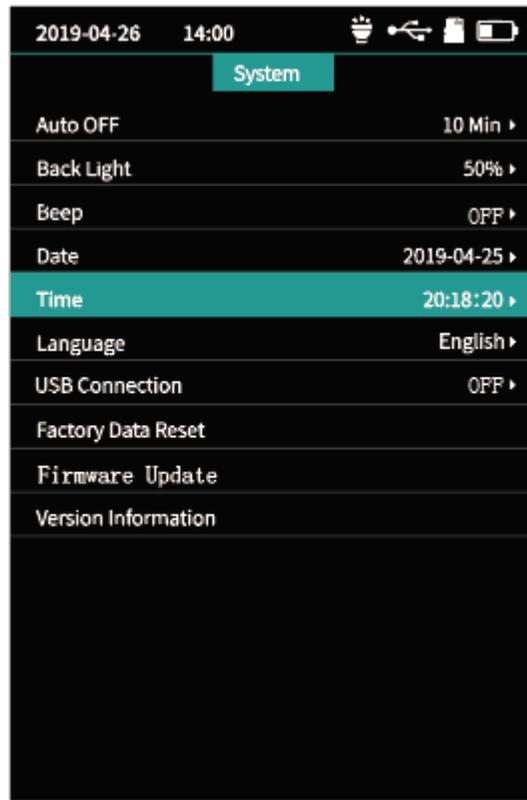
### System settings

Set up automatic shutdown, information.

F1: Optional for switching the

F3: System Software Upgrade

F4: Confirmation settings



backlight brightness,time,language, upgrade and other

current menu

Switch settings entry ▲ ▼

Switch options of current entry ► ◀