

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 lithium-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 -20°C~45°C.

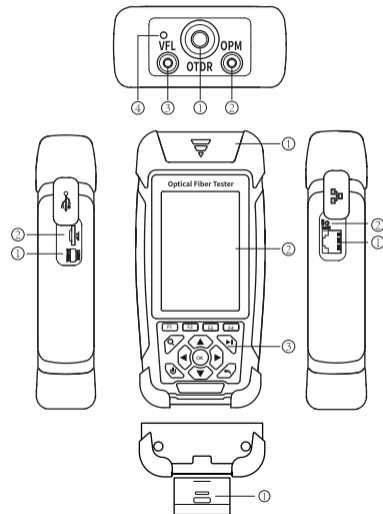
Please use the special AC adapter attached to this instrument and use the external power supply strictly according to the specifications, otherwise the equipment may be damaged.

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

Correspond to the operation menu below the screen.



Zoom key

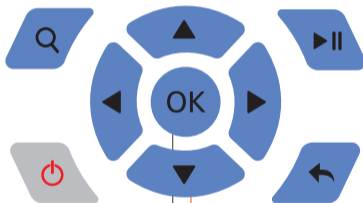
Zoom function key, combined with direction keys to operate.

ON/OFF key

Short press to turn on, long press to turn off; after turning on, short press to turn on or off the flashlight.

OK key

Enter the next level of interface, Enter function



Measure key

Press to start or stop the test under the OTDR interface

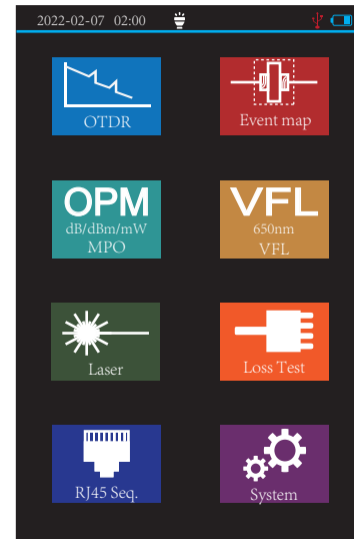
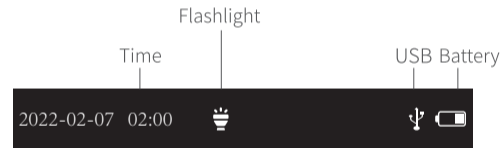
Exit key

Return to the previous menu

Directional keys

Up and down choice, right and left choice

Turn on and enter the main menu. There are eight functional modules. Select the module by pressing the direction keys, and then press the "OK" key to enter the corresponding functional interface.



OTDR

4.

F1: Enter the parameter setting interface

F2: Switching A/B cursor

F3: Enter the save interface

F4: File or Folder operation

Link Information

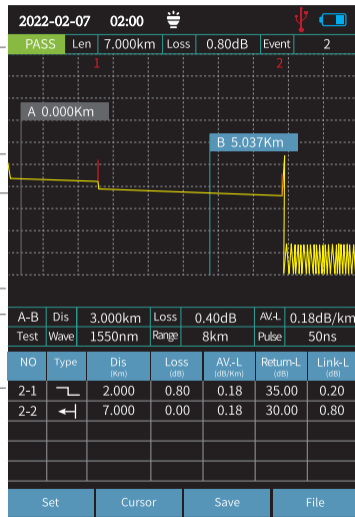
Waveform

A/B cursor

A/B Information

Test Conditions

Event List



F1

F2

F3

F4

Attention

This function pls don't make live fiber testing

OTDR Setting Interface

5.

OTDR setting interface

Enter the parameter setting interface. Multi-digit settings, through the left and right key positioning cursor, up and down selection.

▲▼: Choosing settings items.

Press OK button to confirm or edit corresponding measurement parameters.

Event Loss Thre.

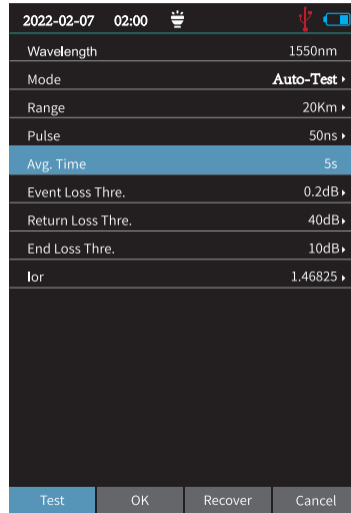
0.22dB

F1: Test

F2: OK

F3: Recovery

F4: Cancel



F1

F2

F3

F4


Test Results

6.

Link quality and information can be viewed from the top after the test is completed, Link information includes length, total loss and number of events.

Detailed event information can be viewed from the event list.

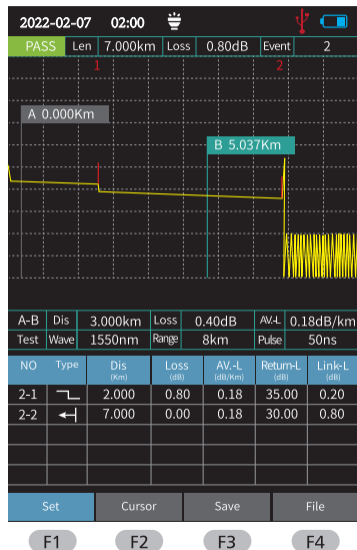
There are Four types of events:

Reflective event 

Non-reflective event 


Fiber splitter 






Fiber end 




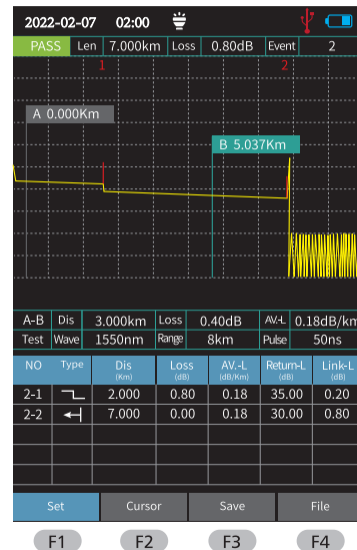
OTDR-Zoom mode

7.

Press  to enter zoom mode

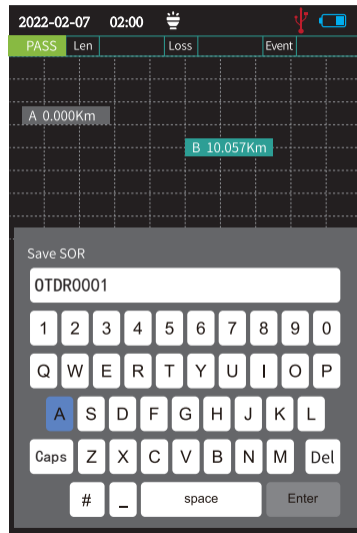

 X-axis direction zoom in 
 X-axis direction zoom out 
 Y-axis direction zoom in 
 Y-axis direction zoom out 

Press  to exit zoom mode



OTDR-File Save

Press **F3** (Save) key to save file after test complete, pop up the keyboard, enter the name of the file, and press Enter to save the file.



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: Previous page

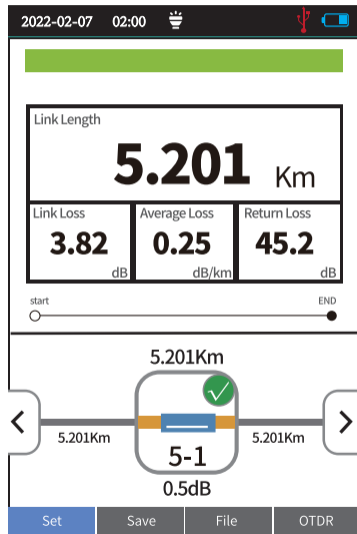
F4: Next page



The function can be tested automatically by one key, and the information of the length of the link, the type of event point and the position of breakpoint can be displayed in a graphical form. The result is clear and easy to understand.

Left/Right key: Switching events.

-  — The starting point of the link, after the guiding fiber is added to the front
-  — Drop event, representing fusion point
-  — Rising event, caused by the inconsistency of refractive index of two sections of fiber
-  — Connector, square flange, SC, LC etc
-  — Optical fiber macro bending
-  — Optical fiber splitter
-  — End of link



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

F1: Switching wavelength

F2: Setting Reference Power

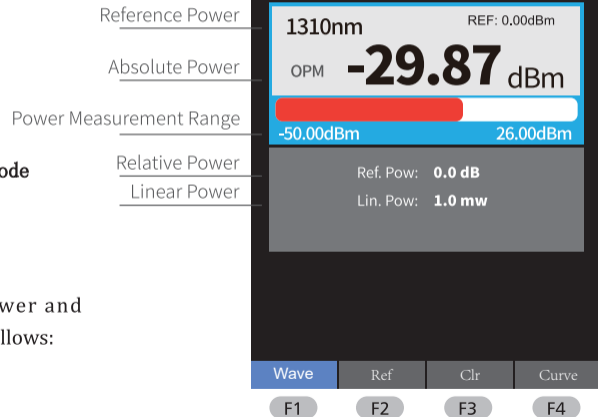
F3: Zero Reference Power

F4: **Enter the Oscilloscope Mode**

Absolute power, relative power and linear power are converted as follows:

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

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



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.

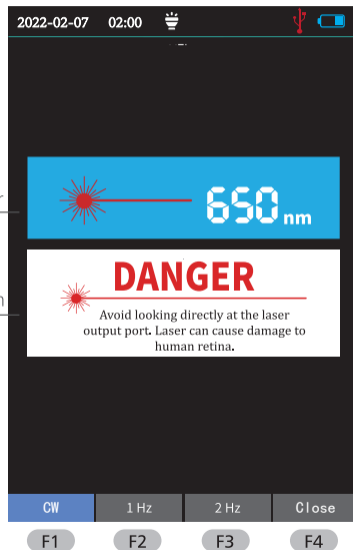
- F1: Open VFL
- F2: VFL flash at 1 Hz
- F3: VFL flash at 2 Hz
- F4: Turn off VFL

Warning

Avoid looking directly at the laser output port. Laser can cause damage to human retina.

Status Indicator

Warning information



The wavelength of stabilized laser source is the same as OTDR wavelength. It is used to measure the parameters of telecommunication, CATV, LAN cable, insertion loss, isolation loss and echo loss of optical passive devices, and wavelength responsiveness of detectors.

There are five modes of light source: CW, 270 Hz, 1 kHz and 2 kHz.

- F1: Open / Turn off LS
- F3: Switch LS Mode
- F4: Switch LS Wavelength

Warning

Avoid looking directly at the laser output port. Laser can cause damage to human retina.

LS Information

Mode

Warning Information



Loss Test

14.

1310nm/1550nm light source and power meter display at the same time, convenient measurement.

LS Information

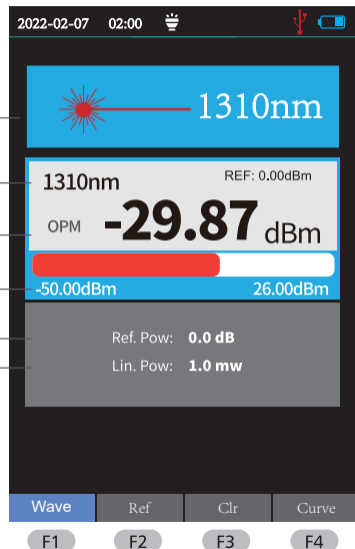
Reference Power

Absolute Power

Power Measurement Range

Relative Power

Linear Power



F1: Switch LS Wavelength

F2: Setting Reference Power

F3: Zero Reference Power

F4: Enter the Oscilloscope Mode

Warning

Avoid looking directly at the laser output port.
Laser can cause damage to human retina.

RJ45 Sequence

15.

RJ45 line sequence measurement.

F1: Start Test

F3: Switch Line Sequence Test Standard

F4: Return to the main menu

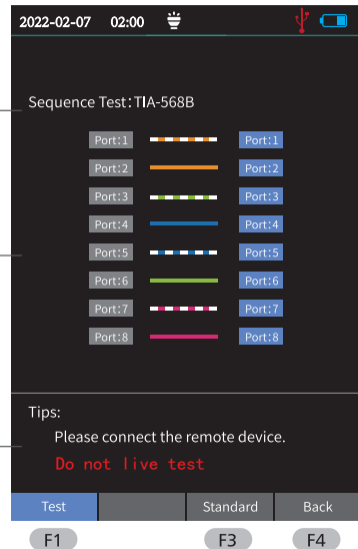
Attention

Pls cut off the electricity before test!

Test Standard

Test Results

Tips



Set up automatic shutdown, backlight brightness, time, language, upgrade and other information.



Switch settings entry ▲▼

Switch options of current entry ▶◀

