

S2103 Series Mini-PRO OTDR User 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

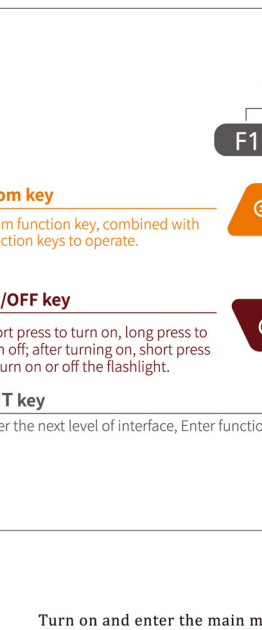
Battery: The battery in the machine is a special lithium-ion polymer battery. The charging voltage is 5V, and the charging temperature ranges from 0°C~50°C. When the ambient temperature is too high, the charging will automatically terminate. The instrument battery should be charged every one month to 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 Charging LED Indicator
- ③ TF Card Port

Right side

- ① RJ45 interface
- ② Reset button

Bottom view

- ① RJ45 Remote tester

Main view

- ① Dust Cover
- ② 3.5 inch Color LCD
- ③ Function Keys

Functional 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.

ENT key

Enter the next level of interface, Enter function

Measure key

Press to start or stop the test under the OTDR interface

Exit key

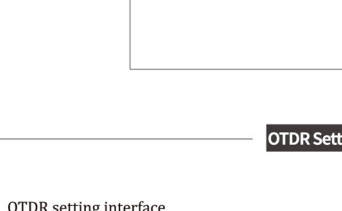
Return to the previous menu

Directional keys

Up and down choice, right and left choice

Main Interface

Turn on F4 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

- F1: Enter the parameter setting interface
- F2: Switching A/B cursor
- F3: Enter the save interface
- F4: File or Folder operation



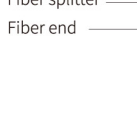
OTDR Setting Interface

OTDR setting interface

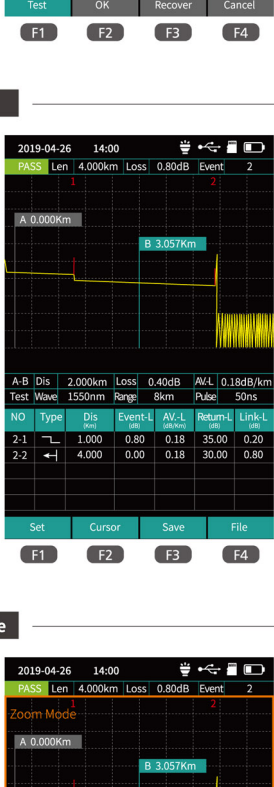
Enter the parameter setting interface. Multi-digit settings, through the left and right key positioning cursor, up and down selection.

▲▼: Choosing settings items.

Press OK button to confirm or edit corresponding measurement parameters.



- F1: Test
- F2: OK
- F3: Recovery
- F4: Cancel



Test Results

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



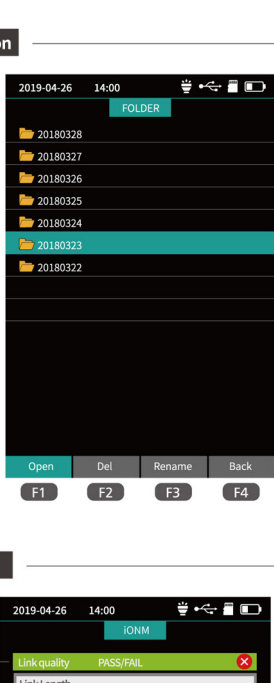
OTDR-File Save

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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. If the automatic save (otdr) function is turned on in "System Settings", it will be saved automatically after the test complete without manual operation.

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.

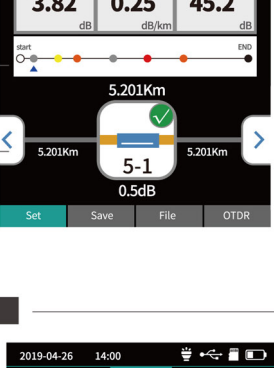


OTDR-File Operation

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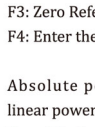
Press F4 to enter the file list. Press the ENT key to open a folder or file.

- F1: Open file
- F2: Delete file
- F3: Rename file
- F4: Return to the main menu

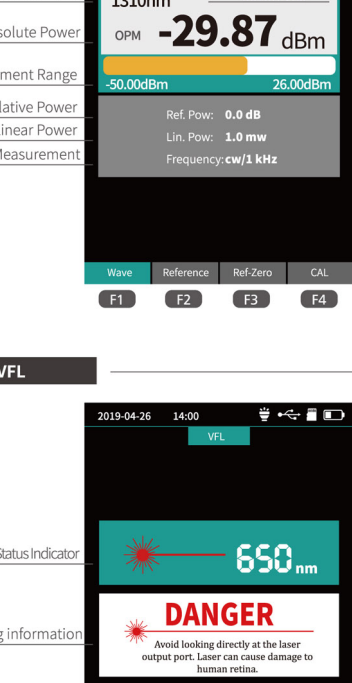


iONM (Event Map)

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.



Press left and right buttons to switch events

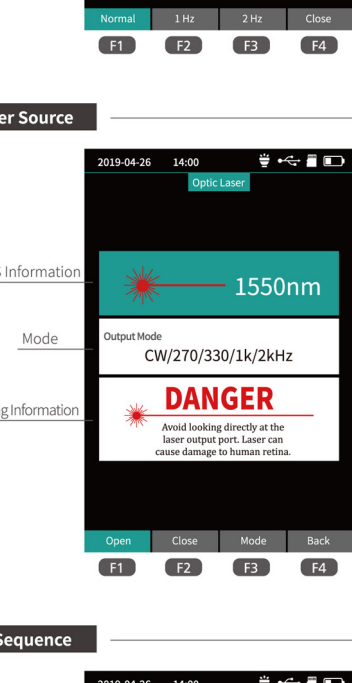


OPM

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

- F1: Switching wavelength
- F2: Setting Reference Power
- F3: Zero Reference Power
- F4: Enter the Calibration Mode

Absolute power, relative power and linear power are converted as follows:
 $P_{Abs} = 10 \lg P_{Lin} / 1mW$
 $P_{Ref} = P_{Abs} - P_{Ref}$

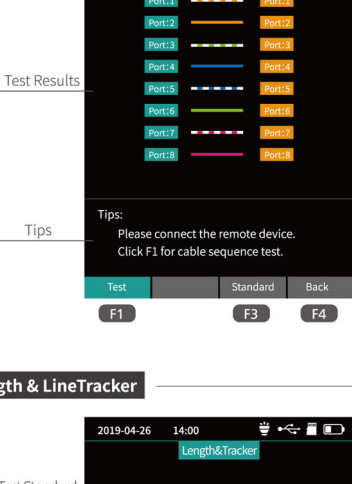


VFL

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

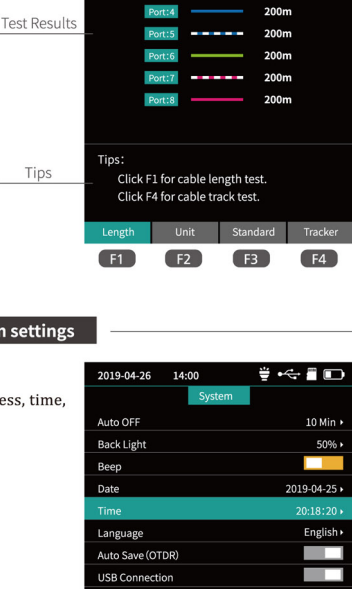


LS-Laser Source

The wavelength of 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, 330 Hz, 1 kHz and 2 kHz.

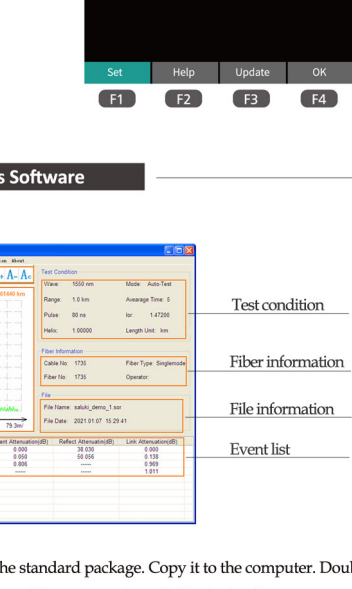
- F1: Open LS
- F2: Turn off LS
- F3: Switch LS Wavelength
- F4: Switch LS Mode



RJ45 Sequence

RJ45 line sequence measurement.

- F1: Start Test
- F3: Switch Line Sequence Test Standard
- F4: Return to the main menu



RJ45 Line Length & LineTracker

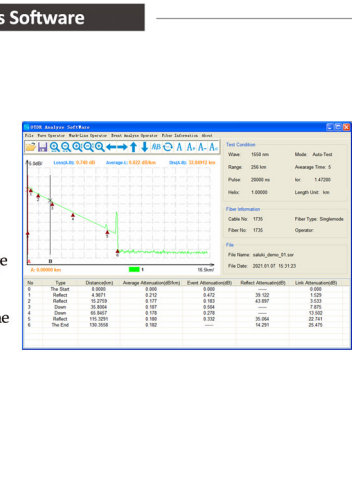
RJ45 Line Tracker

Used for RJ45 cable length testing and wire tracker. After the line-finding function is activated, the cable being searched is touched by the distal end of the line-searching, and the sound of continuous "drops and drops" is heard.

The Line-Tracker test is under way. Please use the remote line-finding module to test and click the return key to exit.

RJ45 Line Length Test

- F1: Start Line Length Test
- F2: Switch Line Length Unit
- F3: Switch Line Sequence Test Standard
- F4: Start Line-tracker Function



System settings

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

- F1: Optional for switching the current menu
- F3: System Software Upgrade
- F4: Confirmation settings

Switch settings entry
 Switch options of current entry

Analysis Software

Trace operate

Test curve

- Test condition
- Fiber information
- File information
- Event list

The analyse_Otdr software is equipped in the standard package. Copy it to the computer. Double click open, click [File]-[Open] and select Trace Storage Directory to view all files in the directory.

Analysis Software

Trace Analysis

Open the selected file, analyze and operate the trace through the trace operation menu, and the event information is displayed in the event list.

Report Print

Click on [File]-[BatPrint] to select the Trace Storage Directory to view all the files in the directory.

Add the printed file to the printing area, determine the type of printing and perform the operation.

Tip: The printer can be printed preview and batch printing.

