

# OTDR OPTICAL TIME DOMAIN REFLECTOMETER



## FEATURES

- Improved waveform in Real-time mode
- Waveform through splitter with a large loss
- High Dynamic range up to 40dB
- Event Dead Zone (0.8 m): Accompanying the rapid proliferation of FTTH is a growing need for detection of reflective events arising from short distance mechanical connections. The short event dead zone enables detection of closely spaced events in cables installed in offices and customer premises
- Quick Startup within 10 Seconds
- Wider Range of Optional Functions
- Stabilized Light Source: This light source option can be used for measuring losses. It can also be used for optical fiber identification, because it is capable of emitting not only continuous wave (CW) light but also a 270-Hz modulated light
- Visible Light Source: This option can be used for identifying the multi-core fiber cable and visually checking for a failure. The adopting connector connection method enables the visible light to reach greater distances with less light leakage
- Built-in Dummy Fiber: You can use the dummy fiber to effectively detect abnormal near-end connection loss
- Optical Power Monitor: This is useful for simply checking optical power when performing link loss testing or troubleshooting
- Angled-PC Connector: You can connect an optical fiber with an angled-PC connector directly to the OTDR. The angled PC connector is often used for CATV networks to reduce the influence of reflection

## USEFUL SUPPORT FUNCTIONS

- Checking the Connection with OTDR Plug Check Function  
The plug check function monitors the condition of the optical connectors and displays an alarm if the connection is not properly made. This function is useful for checking damage, dirt, or other problems with optical plugs at OTDR or on the fiber under test. It is also useful for helping technicians to remember to connect the fiber under test
- Detecting Fault Events Fault Event Display Function  
The fault event display function detects and displays abnormal connection or reflection points. Of the events detected by this function, abnormal events that cross a specified threshold value are highlighted in the event table and waveform display
- Measurement with Comparison to Reference Waveform -Trace Fix Function  
This function enables you to freeze the display of one waveform and overlap it on real-time or averaged waveforms. This is useful for creating a template when installing multi-core fiber, or for checking aged deterioration during maintenance on existing fiber networks. In addition to the last measured waveform, a waveform can be loaded from a file for use as a reference waveform
- USB Function  
This function is useful because it can be used for external memory, printing, and communications. It comes standard with 2 USB1.1 compliant connector ports (types A and B)

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- Saving Files to USB Memory -Type A  
Using a USB memory stick and USB hard disk allows you to save large amounts of data. Also, you can easily transfer the saved data to a PC
- Printing on an External Printer -Type A  
You can print screen images and measured data on USB printers.
- Remote Control -Type B  
It can be remotely controlled from an external PC by connecting a USB cable from one to the other.
- Accessing the Internal Memory -Type B  
You can easily access the internal memory with USB cable from an external PC.

## SPECIFICATIONS

- Horizontal Axis Parameters
  - Sampling resolution : 5 cm, 10 cm, 20 cm, 50 cm, 1 m, 2 m, 4 m, 8 m, 16 m, 32 m
  - Readout resolution : 1 cm (Min.)
  - Number of sampled data : Up to 50,000 points
  - Group refractive index : 1.30000 to 1.79999 (in 0.00001 steps)
  - Unit of distance : km, kf or miles
  - Distance measurement accuracy : Sum of the following 3 errors
    - Offset error :  $\pm 1$  m
    - Scale error: Measurement distance  $\times 2 \times 10^{-5}$
    - Sampling error:  $\pm 1$  sampling resolution
- Vertical Axis Parameters
  - Vertical axis scale : 0.2 dB/div, 0.5 dB/div, 1 dB/div, 2 dB/div, 5 dB/div, 7.5 dB/div
  - Readout resolution : 0.001 dB (Min.)
  - Loss measurement accuracy :  $\pm 0.05$  dB/dB
- OTDR Measurement Function
  - Distance measurement : Displays up to eight digits of relative one-way direction between two arbitrary points on the trace
  - Loss measurement : Displays one-way loss in steps of 0.001 dB to a maximum of 5 digits. Displays one-way loss, loss per unit length, and splice loss between any arbitrary points on the trace
  - Return loss measurement : Measures return loss and total return loss of a fiber cable or between two arbitrary points on the trace
- OTDR Analysis Functions
  - Analysis functions : Multi trace analysis, 2 way trace analysis, differential trace analysis, section analysis
- Internal Memory
  - Memory capacity : 1000 waveforms or more. It can store measured waveforms and measurement conditions
- Display
  - Display : 8.4-inch color TFT LCD, semi-transparent
  - Total number of displayed pixels : 640 (horizontal)  $\times$  480 (vertical) pixels
- External Interface
  - USB : USB1.1 Type A and Type B, one each
    - Type A: For external memory or external printer
    - Type B: For connecting to an external PC for remote control or access to the OTDR's internal memory.
- File Formats
  - File formats
    - Read: SOR, TRD, TRB, SET
    - Write: SOR (Telcordia), SET, CSV, BMP, JPG, PNG
- General Specifications
  - Operating environment : Temperature 0 to 45°C (0 to 35°C when charging the battery)  
Humidity 85% RH or less (no condensation)
  - Storage temperature : -20 to 60°C
  - Battery : Operation time 6 hours  
Recharge time 5 hours
  - Rated power voltage : 100 to 240 VAC
  - Rated supply frequency : 50 to 60 Hz
  - Power consumption : Max 70 W