



Coherent OTDR MW90010A



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1. MW90010A Outline

Coherent OTDR MW90010A

Currently, mobile data traffic is increasing due to the 5G rollout, and cross-border communications are expanding with construction of more data centers. The importance of submarine cables facilitating large-capacity and high-speed communications to meet these demands is increasing more and more.

Laying submarine cables takes a long time and is very expensive; faults due to problems can become serious, which requires precise evaluation beforehand.

In addition, faults must be repaired quickly, requiring precise evaluation in the shortest time.

The Coherent OTDR MW90010A facilitates troubleshooting of long-distance submarine cables including multiple repeaters (EDFA).

Its compact, lightweight design is easily portable for on-site and on-board use, while the touch panel facilitates easy operation.

Just one MW90010A is all that is necessary to support all cable construction stages, including confirmation of optical-circuit integrity, fault location at problems, and data management.

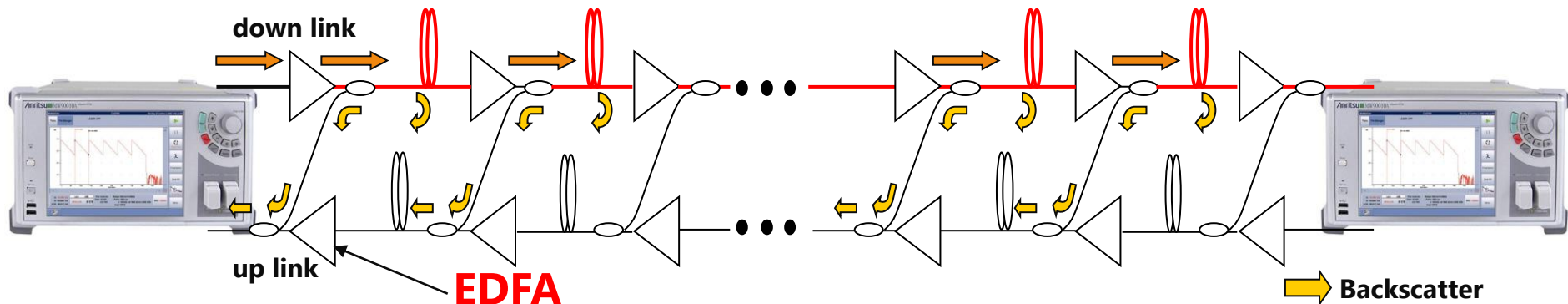
What is a Coherent OTDR?

It is a measuring instrument for troubleshooting optical submarine cables.

Since these cables are usually several thousand km long, they depend upon repeaters composed of optical amplifiers.

When there is an EDFA optical amplifier in a circuit, backscatter light from the EDFA cannot be observed. Detection of backscattered light requires configuring a system using up and down circuits.

A coherent OTDR is required for optical submarine cables because faults cannot be detected using a normal OTDR.





2. MW90010A Product Outline

MW90010A Product Outline

MW90010A External View (Front)

Large, Easy-to-See, Color LCD

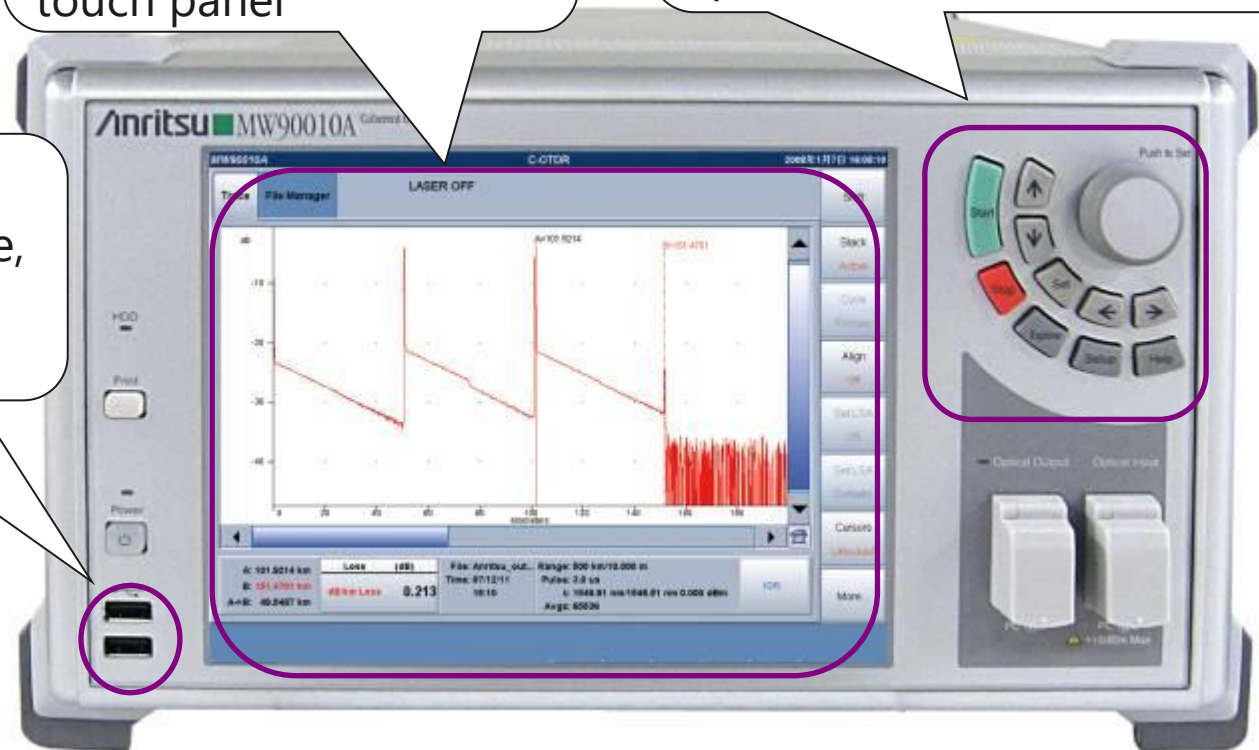
Direct operation with touch panel

Rotary Knob and Keypad

For settings and operations in addition to touch-panel operation

USB Memory Ports

For connecting mouse, keyboard, USB memory stick

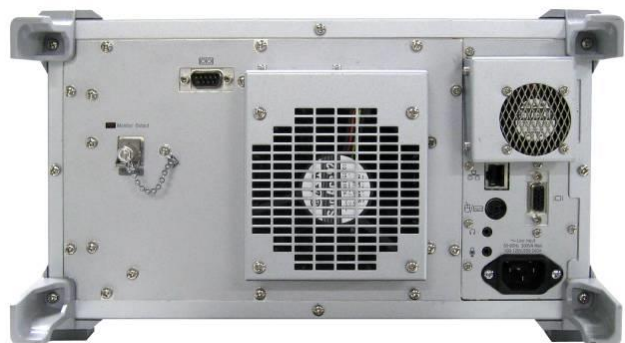


MW90010A External View (Side and Back)



Light and Small C-OTDR

Easy site work at less than 17 kg and very compact



Built-in Standard I/Fs

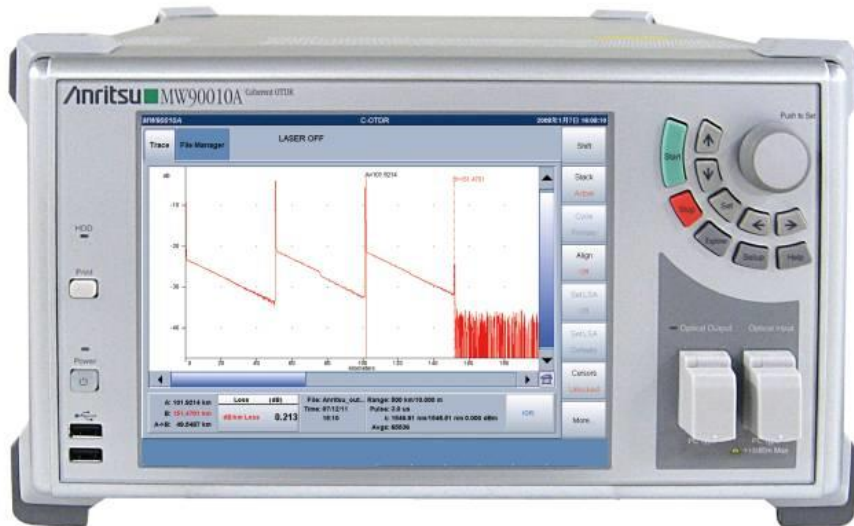
Standard interfaces, including USB ports for USB mouse and keyboard, VGA output, etc.



3. MW90010A Key Features

MW90010A Key Features

Small size and light weight C-OTDR



Size:

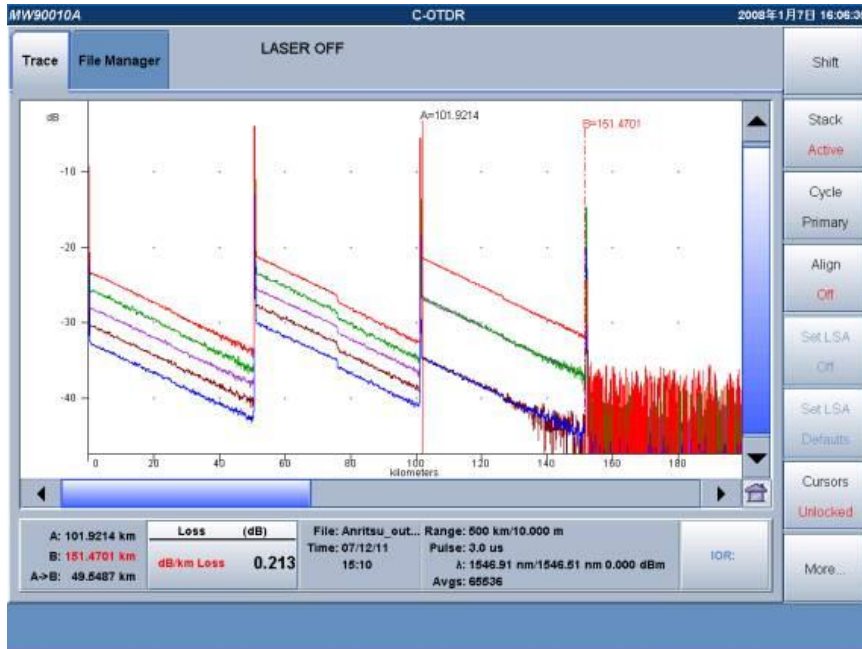
320 (W) x 177 (H) x 451 (D) mm

Mass:

17 kg max.

- ❑ All-in-one platform with built-in tunable light source
- ❑ Easy portability for on-site troubleshooting

Excellent GUI

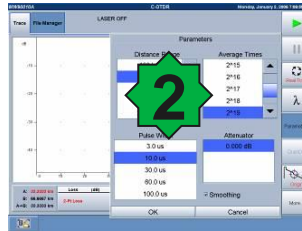


- Simple touch-panel operation
- Multi-waveform display

□ Simple 3-Step Operation



Set wavelength.



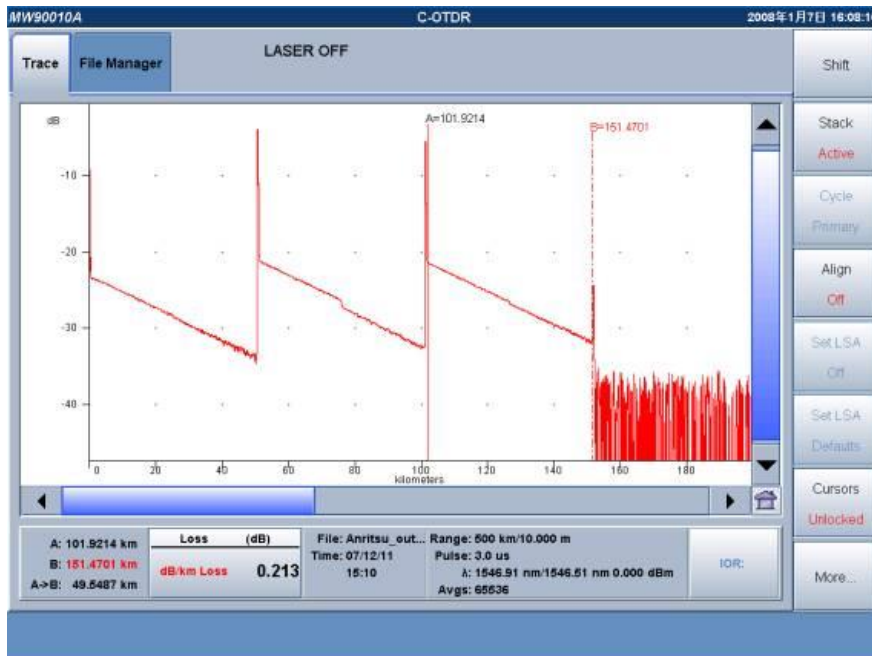
Set measurement conditions.



Start measurement.

Wide Dynamic Range

Standard optical submarine cables have repeaters every 50 to 60 km.



The MW90010A supports

- High-resolution troubleshooting measurements with repeaters at intervals of more than 80 km (10 μ s pulse width, theoretical value)

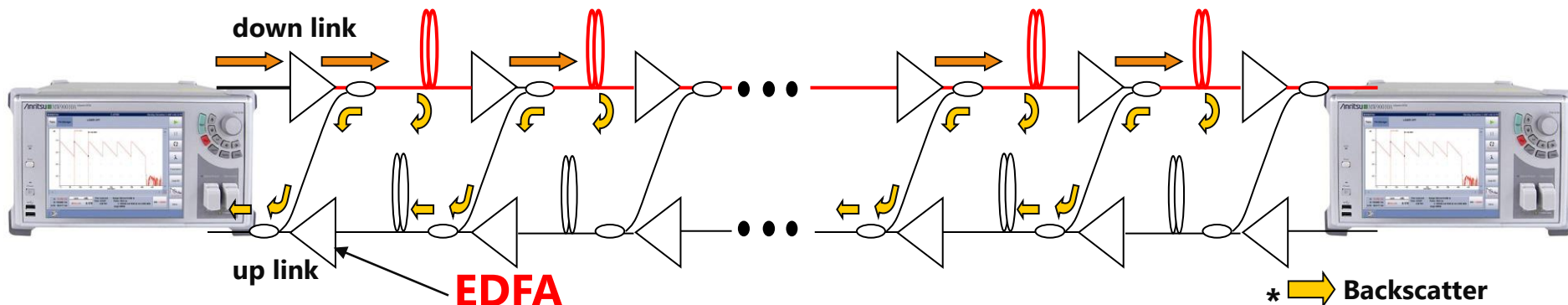
MW90010A Key Features

Short measurement times with wide dynamic range and high S/N

Measurement in 15 minutes

(2^{16} averagings, 1000-km distance range)

The MW90010A has a wide dynamic range and high S/N to support quick troubleshooting of optical submarine cables.



MW90010A Key Features

Built-in Tunable Light Source with wavelength accuracy of ± 0.2 nm



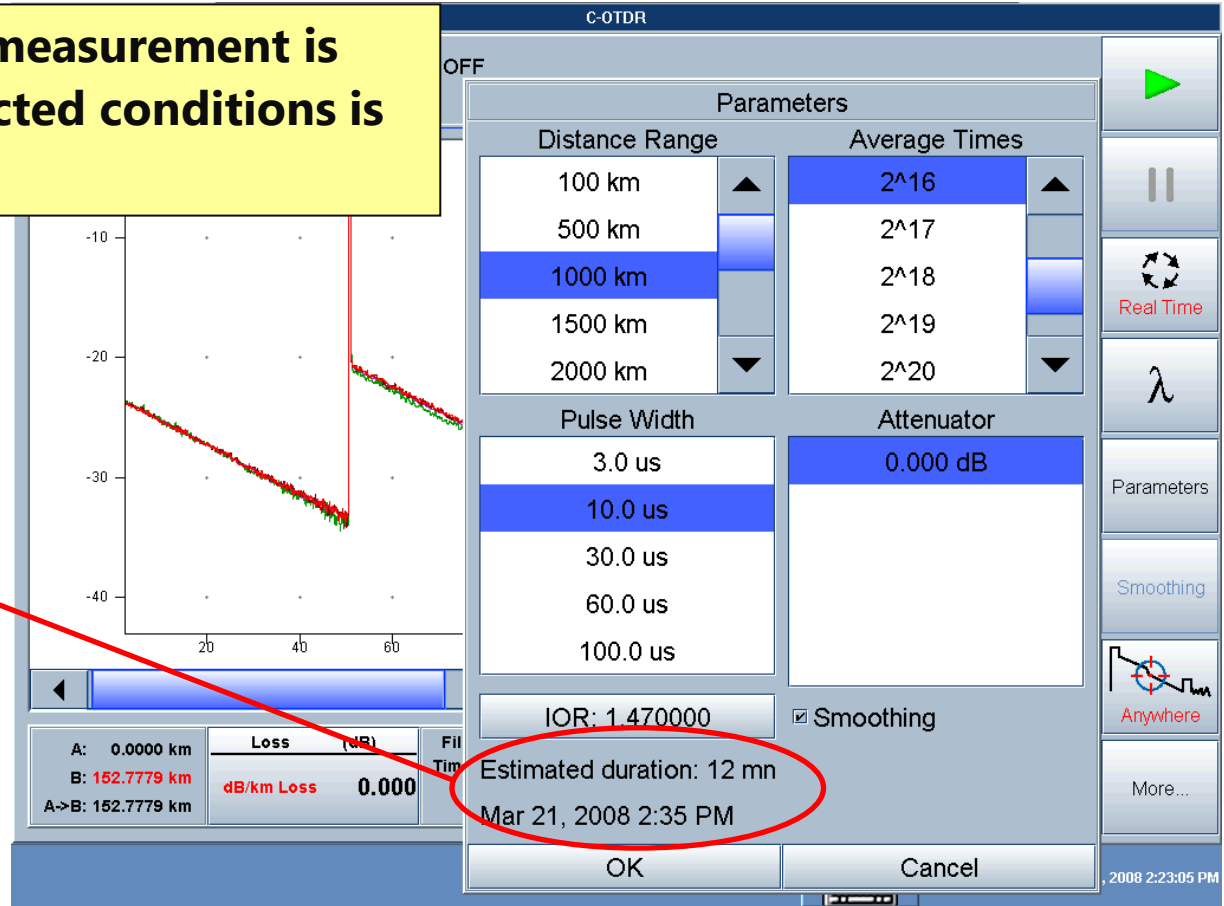
- 1535.03 to 1565.08 nm wavelength range
- 0.4 nm interval setting
- Stable measurement with Probe and Dummy optical outputs
- Optical power setting range of 0 to +13 dBm

MW90010A Key Features

The time until measurement is completed is displayed.

The estimated time until measurement is completed under the selected conditions is displayed.

Estimated duration: 12 mn
Mar 21, 2008 2:35 PM

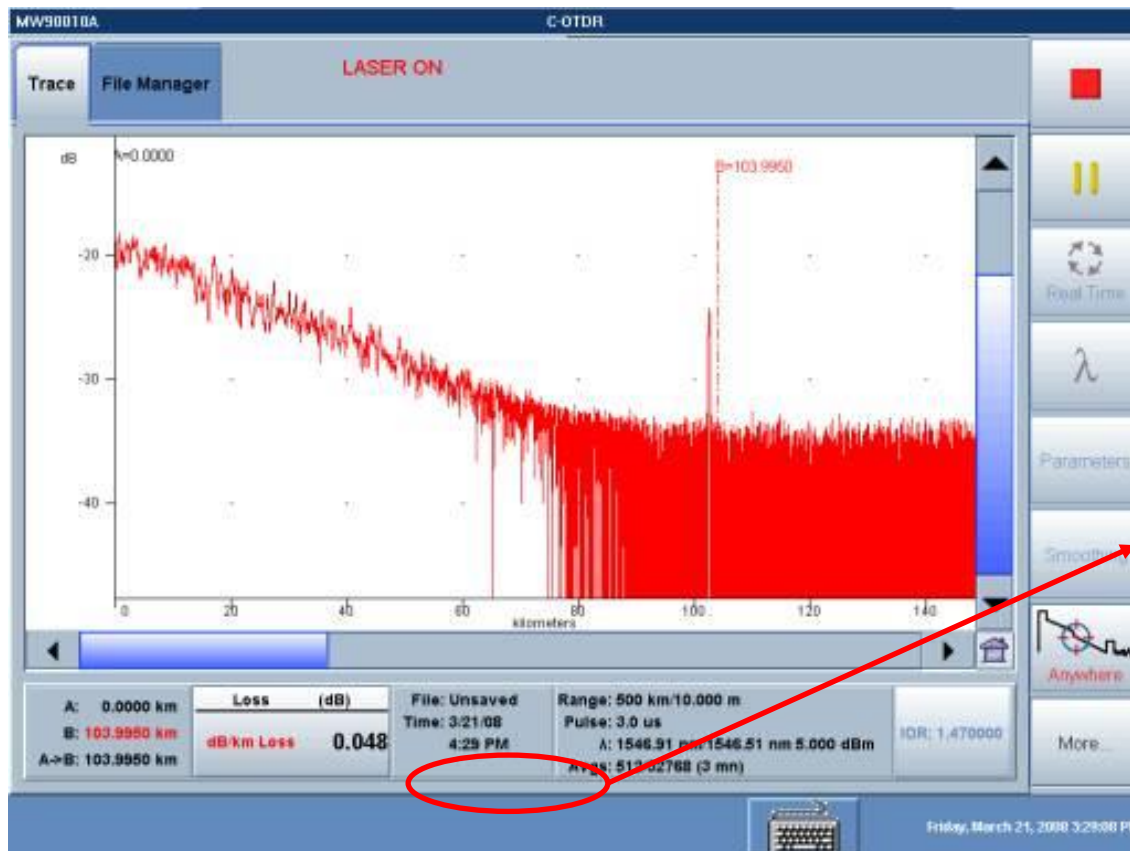


The total estimated time and progress are displayed.

MW90010A Key Features

The measurement progress is displayed.

During measurement, the number of elapsed averagings and the time remaining until measurement is completed are displayed.



If measurement is interrupted, the waveform is displayed based on the averagings completed until the interruption.

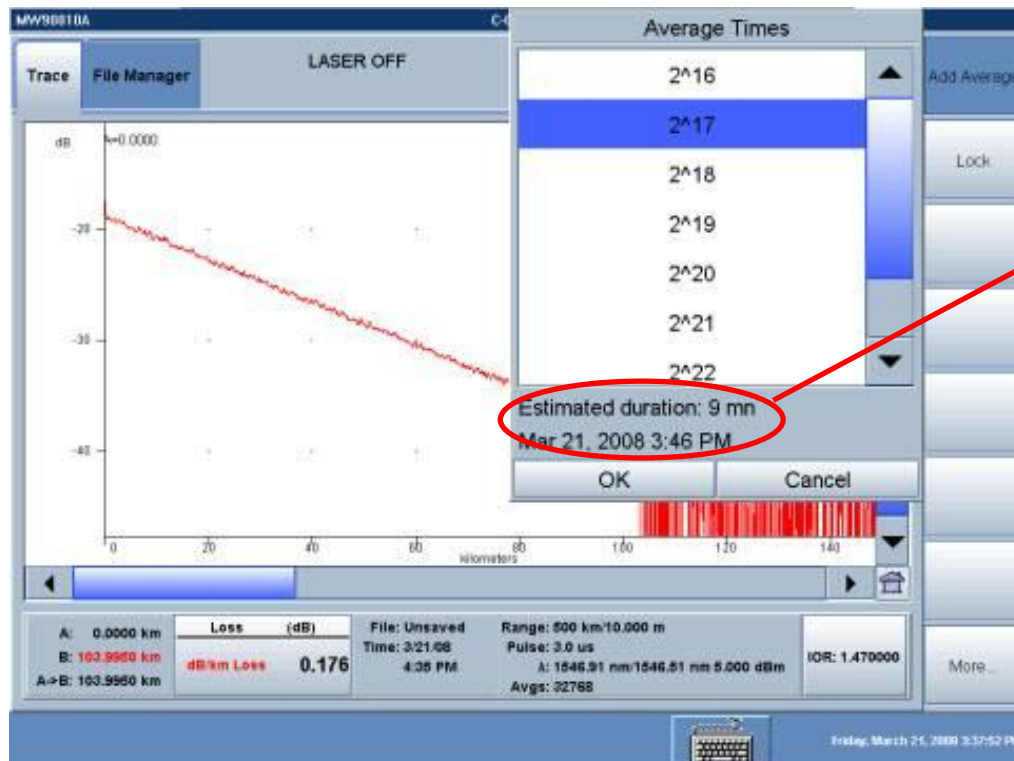
Avg: 512/32768 (3 mn)

MW90010A Key Features

Additional averaging measurement is supported.

Sometimes, the anticipated result is not obtained because the specified number of averagings was insufficient, or it is necessary to perform measurements under several averaging conditions.

Using the MW90010A, extra averagings can be added even after measurement is completed to continue measurement.



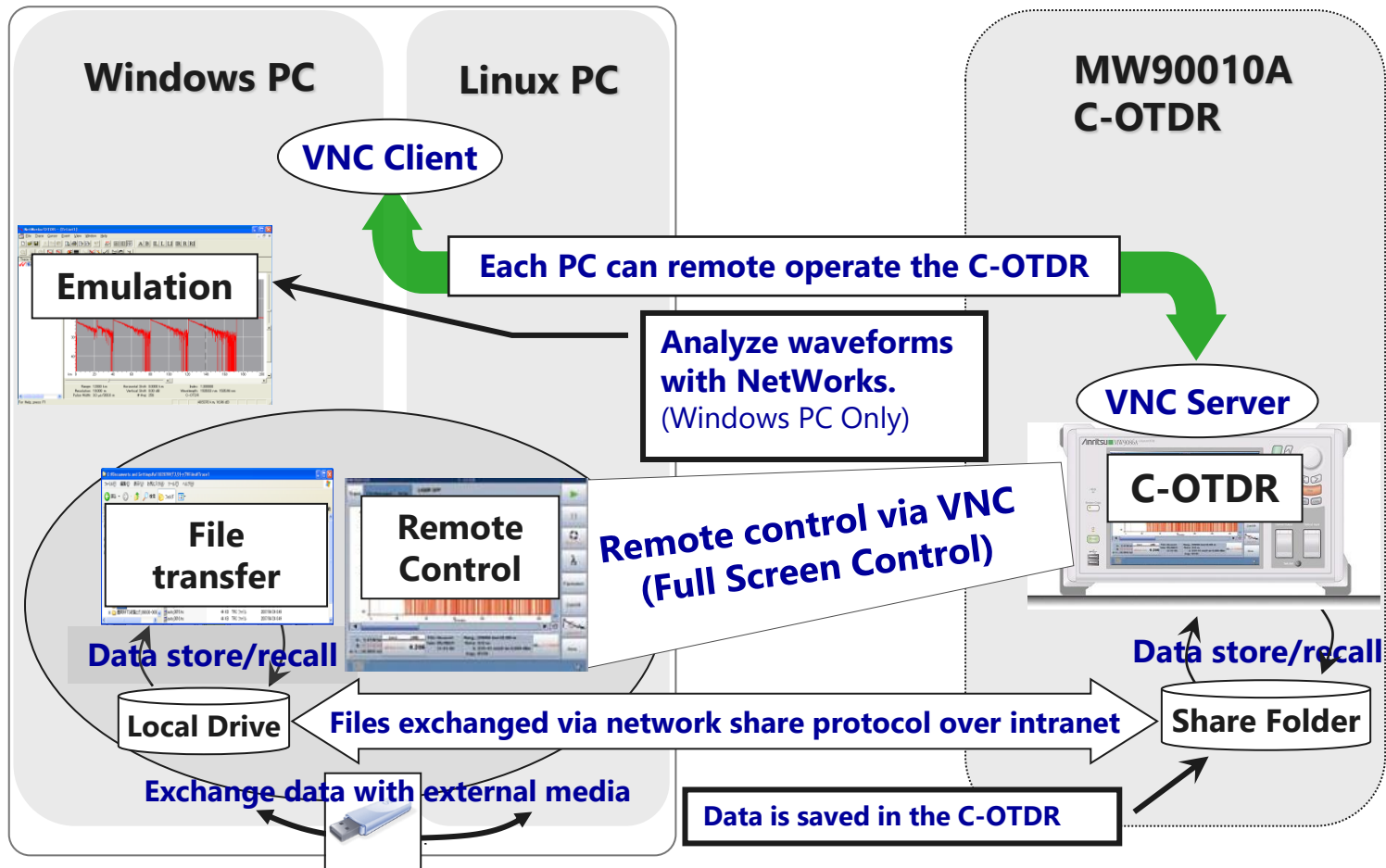
Estimated duration: 9 mn

When more averagings are added, the estimated extra time is displayed.

MW90010A Key Features

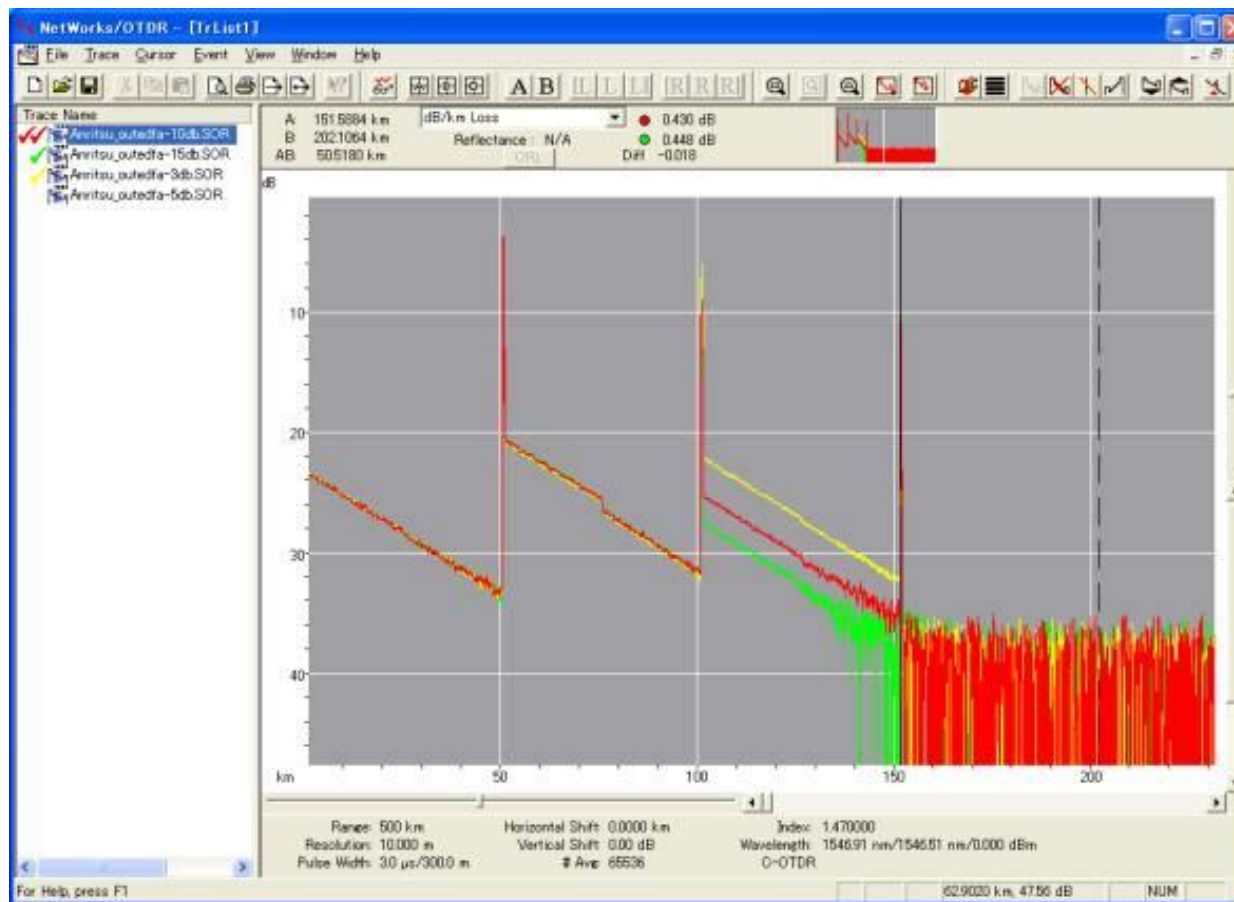
Remote Operation

The MW90010A can be remotely controlled over Ethernet from a PC.



Emulation Software

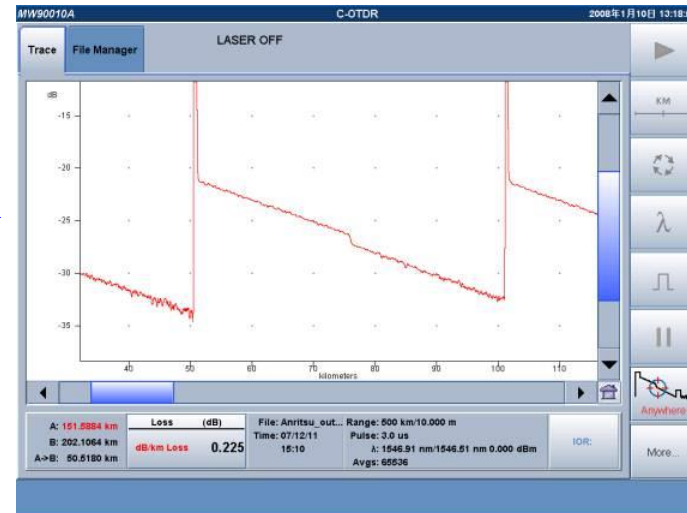
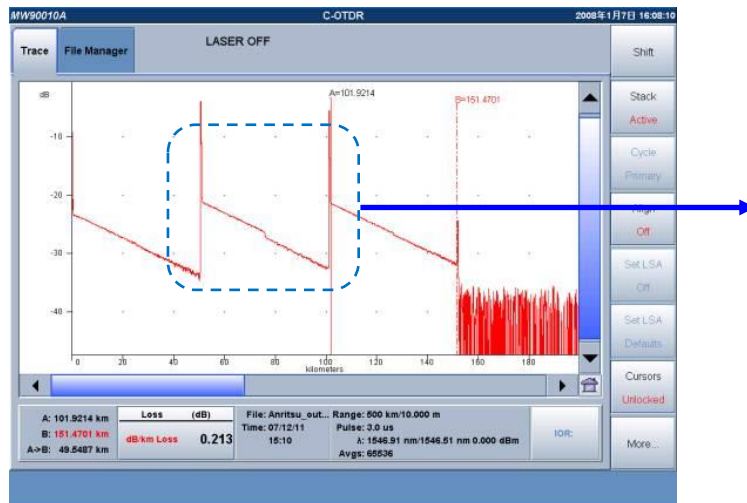
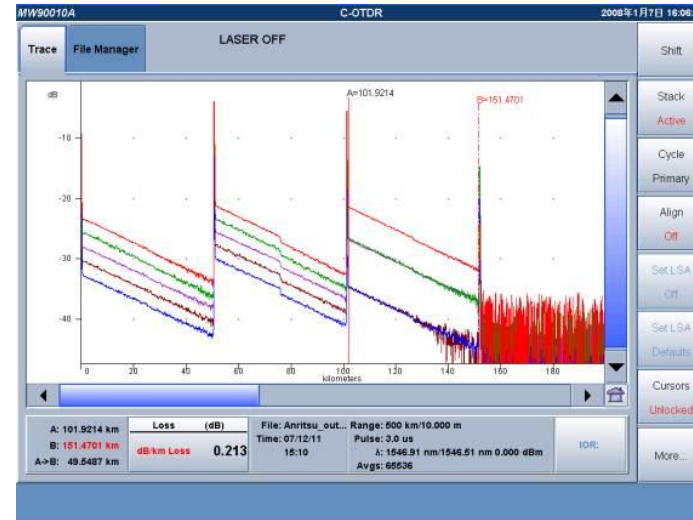
Captured waveform data can be analyzed on a Windows PC using the NETWORKS emulation software (version 4.1 or newer).



MW90010A Key Features

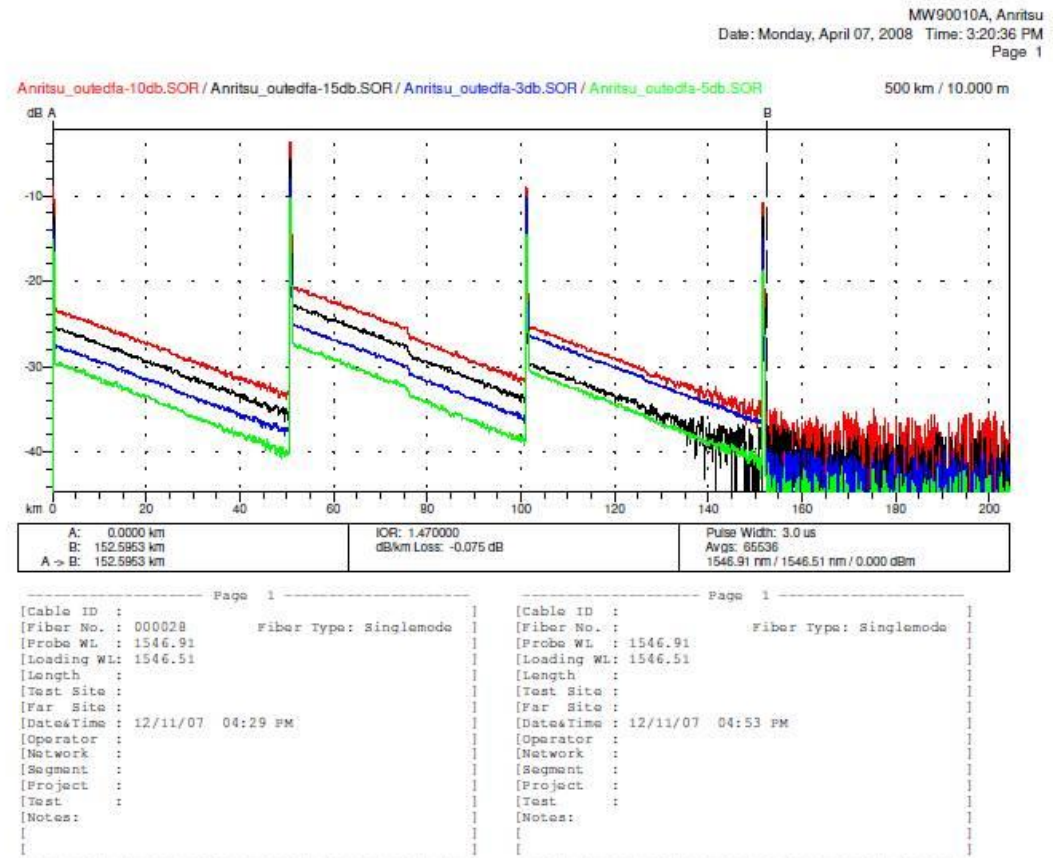
Built-in OTDR standard functions

- ❑ Real-time measurement
- ❑ 2-point loss measurement
- ❑ Zoom and Shift functions
- ❑ Multi-waveform display (8 max.)



Others

- ❑ Reporting function (pdf)
- ❑ Online help
- ❑ Data storage
 - Internal memory (2.8 GB)
 - External USB memory



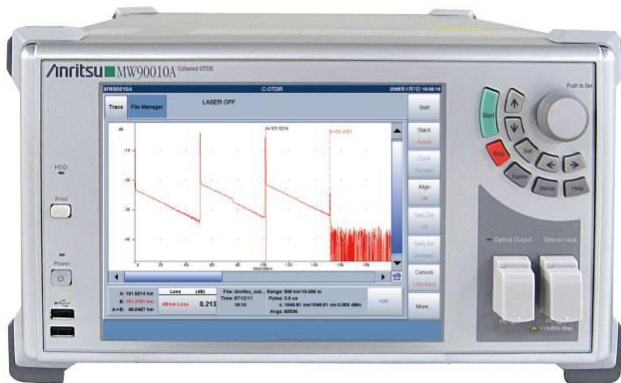
Ordering Information



Ordering Information

Model/Order No.

Order No.	Name
MW90010A	Coherent OTDR



Model/Order No.	Name
W3030AE	<p>-Standard accessories-</p> <p>Power Cord</p> <p>MW90010A Operation Manual (CD)</p> <p>-Options-</p>
MW90010A-001	Remote Control Function
MW90010A-002	OS Upgrade to WES2009
MW90010A-101	Remote Control Function Retrofit
MW90010A-102	OS Upgrade to WES2009 Retrofit
MW90010A-037	FC Connector
MW90010A-038	ST Connector
MW90010A-039	DIN 47256 Connector
MW90010A-040	SC Connector
MW90010A-043	HMS-10/A Diamond Connector

Ordering Information

Model/Order No.

Model/ Order No.	Name
	-Application Parts-
NETWORKS	Emulation Software (Version 4.1 or newer)
B0335C	Carrying Case
B0604A	Rack Mount Kit
J0617B	Replaceable optical connector(FC-PC)
J1409A	Replaceable optical connector(ST)
J1410A	Replaceable optical connector(DIN)
J1411A	Replaceable optical connector(SC)
J1412A	Replaceable optical connector(HMS-10/A)
J0057	Optical adapter FC type
J0635	Optical Fiber Cord with FC-PC at both ends (SM, with FC-PC at both ends)
J0952A	FC · PC-FC · APC(SG)-1M-SM

Model/ Order No.	Name
	-Application Parts-
Z0914A	Ferrule cleaner
Z0915A	Replacement reel for ferrule cleaner
Z0284	Adapter cleaner
W3024AE	MW90010A Operation Manual (Printed version)
Z0397A	FC adapter cap
Z0413A	SC adapter cap
Z0414A	HMS-10 adapter cap

The Anritsu logo is displayed in a bold, green, sans-serif font. Below it, the tagline "Advancing beyond" is written in a smaller, black, sans-serif font. The background features a light green gradient with several curved, parallel lines in shades of green and yellow on the right side.

Anritsu

Advancing beyond