

MW90010A

Coherent OTDR

Product Introduction MW90010A Coherent OTDR

April 21, 2008

Marketing Division
Product Solution dept.

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MW90010A Outline

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MW90010A Outline

MW90010A Coherent OTDR

Broadband Internet access is spreading worldwide and there is a dramatic increase in demand for fast international connections. Based on future forecasts of optical submarine cable capacity, it will be necessary to increase the capacity of current networks and lay new submarine cables. Newly deployed cables require evaluation at service start and in-service troubleshooting. The MW9001A Coherent OTDR is the perfect solution for troubleshooting ultra-long-distance, submarine optical fiber cables with multiple repeaters (EDFA). In comparison to previous instruments for measuring submarine optical cables, it is less than half the weight and size for easy on-site portability and operations. The all-in-one unit supports every stage from cable troubleshooting through to data management.

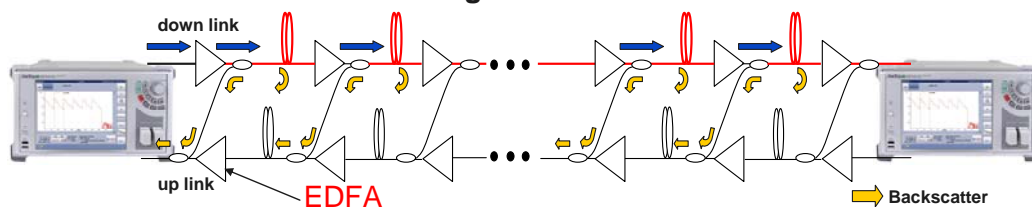
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MW90010A Outline

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.



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MW90010A Product Outline

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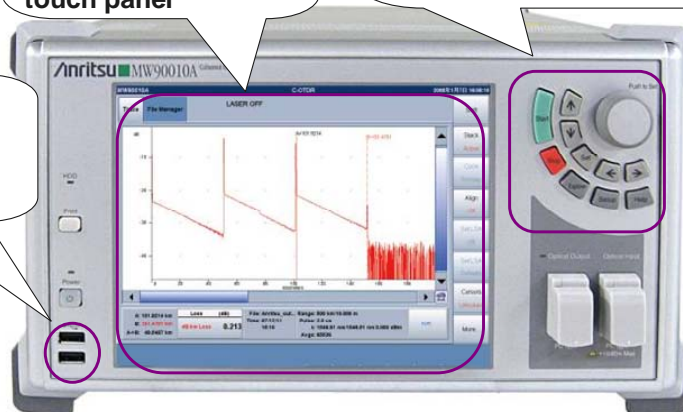
MW90010A Product Outline

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

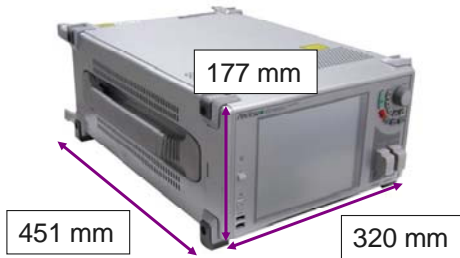


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MW90010A Product Outline

MW90010A External View (Side and Back)



World's Lightest and Smallest 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.

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MW90010A Key Features

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MW90010A Key Features

Less than half the weight and size of previous C-OTDRs



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

Mass:
17 kg max.

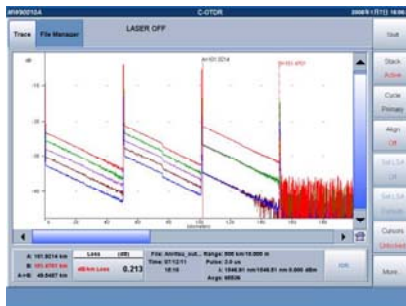
- ◆ All-in-one platform with built-in tunable light source
- ◆ Easy portability for on-site troubleshooting

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MW90010A Key Features

Excellent GUI



Successor to popular Anritsu CMA5000 series with Windows XP-based GUI

- ◆ Simple touch-panel operation
- ◆ Multi-waveform display

◆ Simple 3-Step Operation



Set wavelength.



Set measurement conditions.



Start measurement.

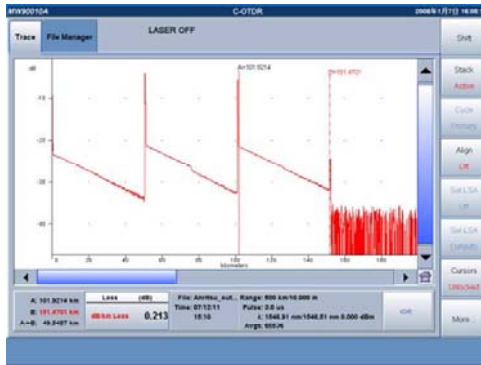
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MW90010A Key Features

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)

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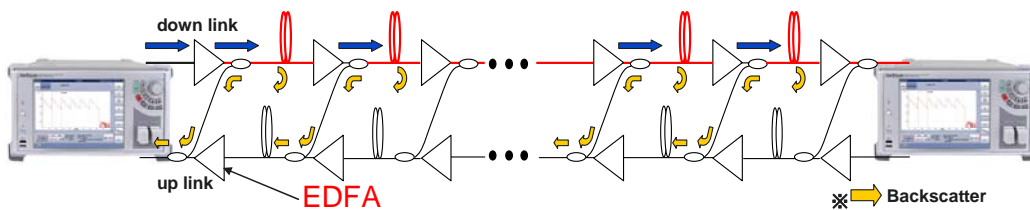
MW90010A Key Features

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.



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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

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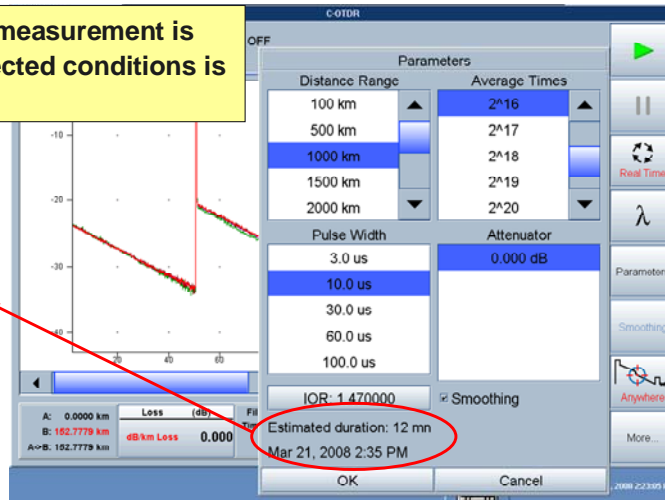
MW90010A Key Features

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.



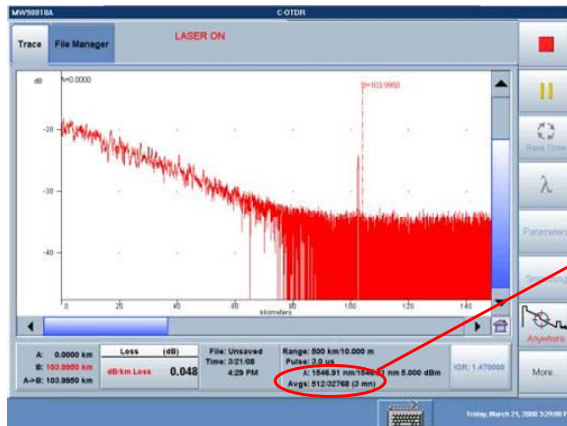
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MW90010A Key Features

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)

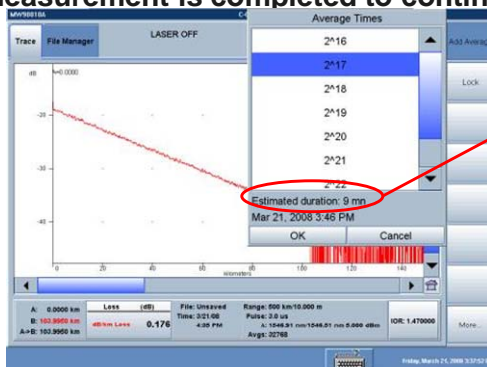
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MW90010A Key Features

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.

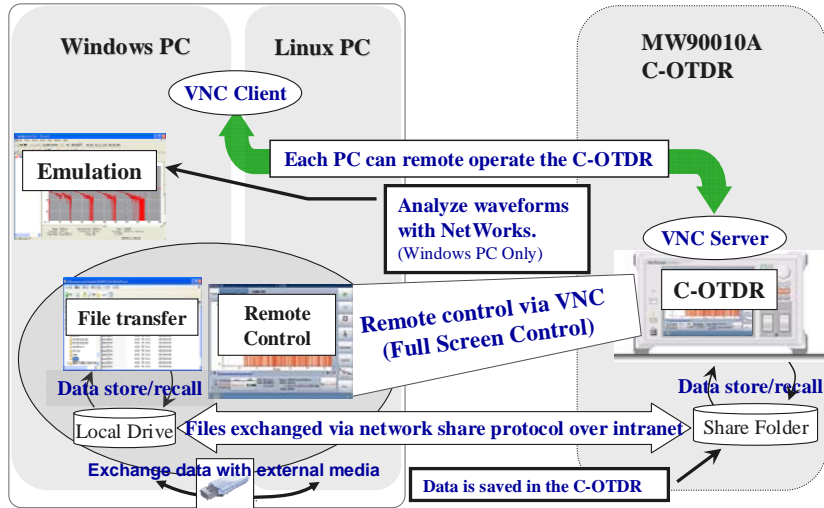
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MW90010A Key Features

Remote Operation

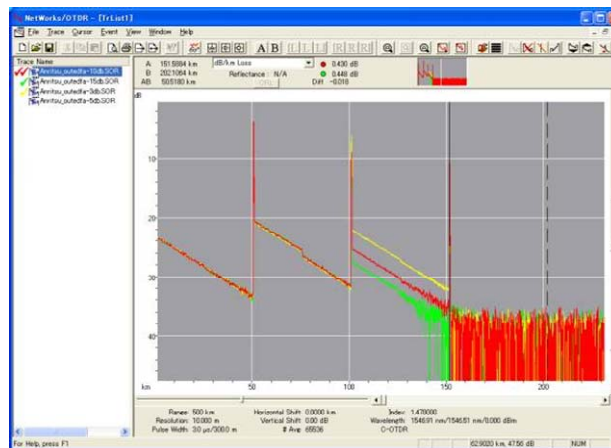
The MW90010A can be remotely controlled over Ethernet from a PC.



MW90010A Key Features

Emulation Software

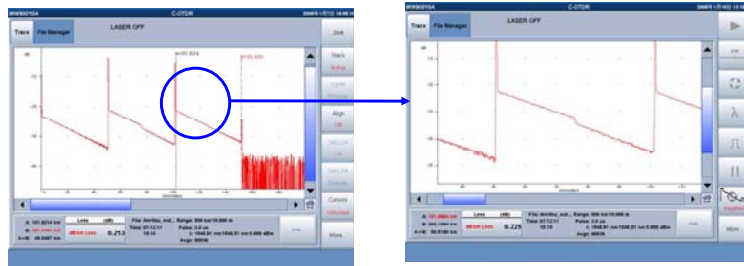
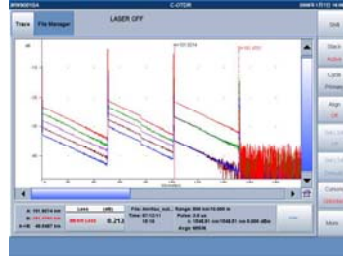
Captured waveform data can be analyzed on a Windows PC using the NETWORKS emulation software (version 4.1 or newer).



MW90010A Key Features

Built-in OTDR standard functions

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



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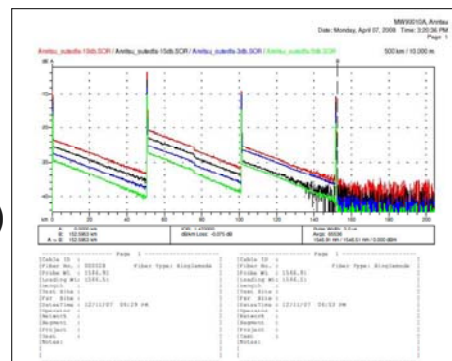
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MW90010A Key Features

Others

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



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Ordering Information

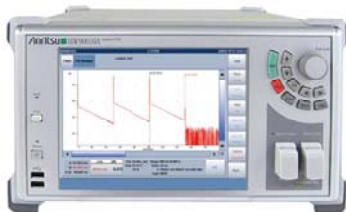
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Ordering Information

Model/Order No.

Order No.	Name
MW90010A	Coherent OTDR



Model/Order No.	Name
	-Standard accessories-
	Power Cord
	MW90010A Operation Manual (CD)
	-Options-
MW90010A-33	LC Connector
MW90010A-37	FC Connector
MW90010A-38	ST Connector
MW90010A-39	DIN 47256 Connector
MW90010A-40	SC Connector
MW90010A-43	HMS-10/A Diamond Connector

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Ordering Information

Model / Order No.

Model/Order No.	Name	Model/Order No.	Name
	-Application Parts-		-Application Parts-
NETWORKS		Z0914A	Ferrule cleaner
B0335C	Carrying Case	Z0915A	Replacement reel for ferrule cleaner
B0604A	Rack Mount Kit	Z0284	Adapter cleaner
J0617B	Replaceable optical connector(FC-PC)	W3024AE	MW90010A Operation Manual (Printed version)
J1409A	Replaceable optical connector(ST)	Z1043A	Optical connector cap (LC)
J1410A	Replaceable optical connector(DIN)	Z0397A	FC adapter cap
J1411A	Replaceable optical connector(SC)	Z0411A	ST adapter cap
J1412A	Replaceable optical connector (HMS-10/A)	Z0412A	DIN adapter cap
J1413A	Replaceable optical connector(LC)	Z0413A	SC adapter cap
J0057	Optical adapter FC type	Z0414A	HMS-10 adapter cap

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