



MW9076 Series

Optical Time Domain Reflectometer

1.31/1.41/1.55/1.625 μm (SM)



Tomorrows Technology, Today

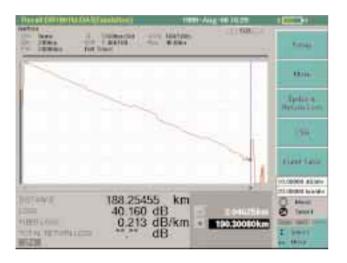
Highest Basic Performance and Measuring Speed

- 45 dB high dynamic range
- 8 m short dead zone
- Simple measurement of chromatic dispersion from one end of optical fiber
- Measurement in 10 s (Full-Auto mode), 0.15 s real-time sweep
- Automatic execution of functions such as wavelength/channel switching, file saving, printing, etc., just by pressing Start key in repeat measurement mode
- 5 cm high resolution, 50,000 sampling points
- 8.4 inch TFT-LCD color display
- 7.2 inch color STN-LCD display for easy viewing under direct sunlight
- Optional 4 or 8 optical channel selector unit
- 6-hour battery life with remaining-power display
- Data read/write in Bellcore GR196 file format

M	odel	MW9076B1	MW9076B	MW9076C	MW9076D
Optical fiber		SM	SM	SM	SM
Wavelength		1.31/1.55 µm ± 25 nm	1.31/1.55 µm ± 25 nm	1.31/1.55/1.625 µm ± 25 nm	1.31/1.41/1.55/1.625 µm ± 3 nm
Dynamic range		40.5/38.5 dB (typical value)	45/43 dB (typical value)	41.5/39.5/37 dB	34/33/32/29.5 dB
Dead zone (Fresnel, back-scatterd)		1.6/8 m	1.6/8 m	1.6/8 m	3/25 m
CI	nromatic dispersion				✓
Li	ght source function		✓	✓	
	Visible light source	✓	✓	✓	✓
	Optical power meter		✓	✓	
Options	High power optical power meter		✓	✓	
	Optical channel selector unit	✓	✓	✓	
Ex	xplanation	General purpose OTDR for mid-distance SM optical fiber installation and maintenance. Offering superior cost performance.	High performance OTDR: Ideal for users requiring long- distance optical fiber installa- tion and maintenance.	High performance three wavelength OTDR for testing at both the two standard SM window, but also the 1625 nm window used for fiber monitoring.	A four wavelength OTDR with superb wavelength accuracy that can be used for conventional OTDR applications and chro- matic dispersion measure- ment of WDM transmission

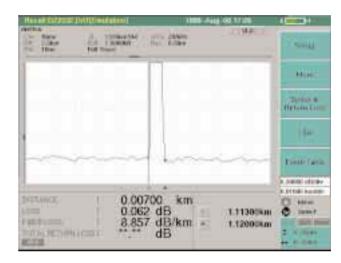
High Dynamic Range

When using a wavelength of 1.55 μm , a point 190 km distant can be measured.



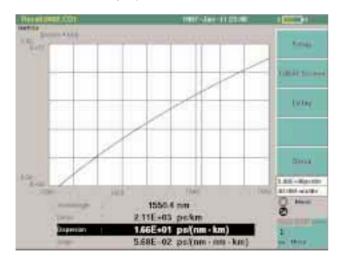
Short Dead Zone

Clearly measure up to near end by 8 m dead zone (back-scatter)



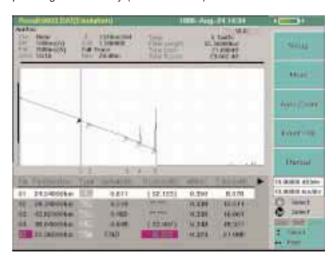
Chromatic Dispersion Measurement

World's first OTDR* with chromatic dispersion measurement. *For OTDRs marketed by September, 1999



High-Speed Measurement

Measurement results are displayed in 10 seconds (min.) after pressing the Start key (full-auto mode).



Compact, Lightweight, and Easy to Operate









- 1 Status-indicating LED
- 2 Function keys
- 3 Menu key
- 4 Start key
- 6 Arrow key
- 6 Select key
- Battery pack
- Optical power meter connector
- 9 Visible light source connector
- OTDR connector and light source connector for optical loss measurement
- 11 External monitor (VGA) connector
- PC card slot (two PC cards connectable)
- External keyboard connector
- FDD
- 15 Tilt stand

- 16 AC adapter connector
- 17 Power switch
- Back light and contrast control
- 10 RS-232C (COM1) connector
- 20 Centronics connector
- RS-232C (COM2) connector Control of external optical channel selector



MW9076D is mounted.

MU960001A/960002A Optical Channel Selector Unit



The optical channel selector unit is mounted.

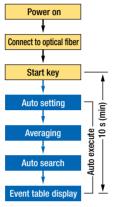


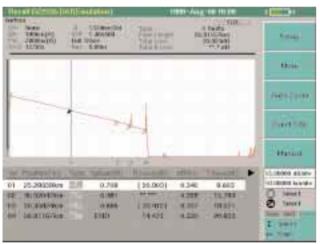
MU250000A1 Display Unit

High-Speed Measurement

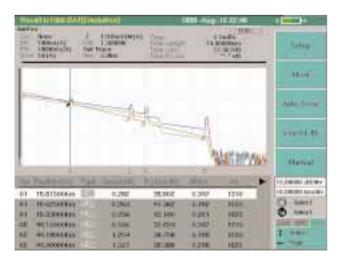
Full Automatic Mode

Measurement results are displayed by simply pressing the Start key. All complicated settings of distance range, pulse width, attenuator, and maker can be automatically executed. Measurement speed in this mode was significantly increased. When the wavelengths are set to ALL, wavelengths are automatically changed.



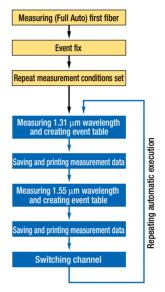


Event table



Repeated Measurement

A series of operations, such as measurement, wavelength switching, data saving, optical channel switching, and next optical fiber measurement, can be executed automatically under preset measurement conditions. This mode is ideal for measuring a multi-core optical fiber.

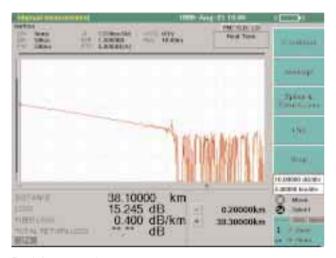




Repeat task setting

High-Speed Real Time Sweeping

A market leading real-time sweep mode of 0.15 seconds, making it ideal for all multi-fiber testing and in particular real-time monitoring of fusion or mechanical splices.



Real time sweeping

Measurement Modes and Measurement Items

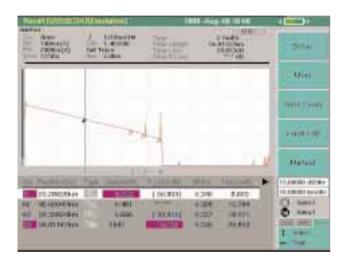
Measure -ment item	Full automatic	Automatic	Manual	Repeated measurement	Real time
Distance	√ *1	√ *2	√ *3	√ *5	√ *6
Total loss	√ *1	√ *²	√ *³	√ *5	√ ∗6
Connection loss	√ *1	√ *2	√ *4	√ *5	√ *6
Return loss	√ *1	√ *2	√ *4	√ *5	√ *6
Total return loss	√ *1	√ *²	√ *³	√ *5	
Chromatic dispersion values			√ * ⁷		

- *1: Measured results are displayed in table format by simply pressing the Start key. The wavelength can also be switched automatically. The fiber connection points are automatically detected. Measurement items at that points are displayed.
- *2: Unlike full automatic mode, automatic mode enables the manual setting of pulse width, distance range, sampling point number and average. Measurement items are the same as them of the full automatic measurement.
- *3: The distance and total loss are measured by setting a 2-point marker
- *4: The distance and total loss are measured by setting a 6-point marker.
- *5: A series of operations (e.g., measurement, wavelength switching, data saving, optical channel switching, next optical fiber measurement) can be executed automatically under preset measurement conditions. This mode is ideal for measuring multi-core optical fiber. This mode can be used from both full automatic mode, automatic mode, and manual mode.
- *6: The waveform at any point can be measured in real time (0.15 s/sweep) by setting the six markers.
- *7: At chromatic measurement screen the group delay, dispersion values and dispersion slope of an optical fiber are automatically calculated by setting a marker at the end or connecting point of the optical fiber being measured. (Supported in MW9076D only)

Various Useful Functions

Warning Level Setup Function

In automatic measurement mode, an event warning value can also be set in addition to a detection threshold value. For example, the threshold value can be set to the acceptance level, and warning value to a pass/rejection decision level. In this case, all events will be detected, and those exceeding the warning value are displayed in another color, therefore, enabling the operator to easily identify possible "borderline" events.



Communication Light Check Function

Before measurement with the OTDR, a check can be made to determine if there is any communication light in the fiber to be measured. This function prevents erroneous measurement of the fiber to be measured or interference with the transmission equipment.

Optical Channel Selector Control Function

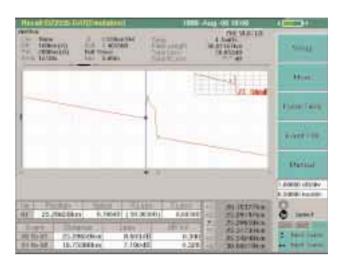
In addition to using the built-in optical channel selector unit, the MN9662A, MN9664A,

MN9672A or MN9674A
Optical Channel Selector can be controlled via the RS-232C interface. By using these selectors, an optical fiber cable consisting of up to 16 cores can be measured automatically.



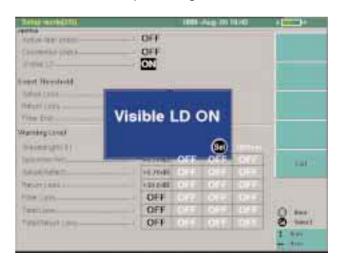
Full-View Window

A window for total waveform display is supported.



Visible Light Source

A 635 nm visible light source option is available for the detection of breaks and loss points along the fiber to be measured.



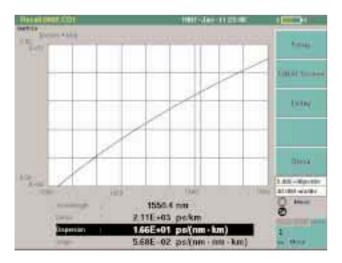
OLTS Function

Optical fiber loss can be measured using the optical power meter function (option) and light source function (standard). Two types of optical power meters are supported: One is measurement range of –70 to +3 dBm (MW9076B/C-02 option), the other is measurement range of –50 to +23 dBm (MW9076B/C-03 option).



Chromatic Dispersion Measuring Function

The MW9076D 4-wavelength OTDR can measure chromatic dispersion values from one end of an optical fiber. The operator will be given measured figures for group delay, total dispersion figure, zero dispersion wavelength and dispersion slope for the fiber to be measred.



VGA Output Terminal

The VGA connector outputs the screen interface to a CRT monitor, which is very useful for production-line applications.

Large Internal Memory

About 18 MB internal memory is provided as standard. The following table shows the number of waveforms which can be saved in each media.

Media	GR196	Analysis
FDD (1.4 MB)	123	67
PC-ATA card (40 MB)	3560	1950
PC-ATA card (160 MB)	14200	7800
Internal memory (18 MB)	1600	870

Number of data points: 5,000

Specifications

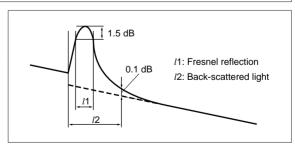
• Optical Time Domain Reflectometer (main frame)

Model	MW9076B	MW9076C	MW9076B1	MW9076D		
Wavelength	1310/1550 ±25 nm*1	1310/1550/1625 ±25 nm*1	1310/1550 ±25 nm*1	1310/1410/1550/1625 ±3 nm*1		
Measurable optical fiber	10/125 µm single-mode optical fiber (ITU-T G.652)					
Optical connector	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	FC, SC, DIN, HMS-10/A, ST (replaceable, PC type)				
Distance range		1, 2.5, 5, 10, 25, 50, 100, 200, 250, 400 km				
Pulse width	10, 20, 50, 100, 500, 1000, 200,					
Dynamic range*2 (S/N=1)	42.5 dB (1.31 μm) 40.5 dB (1.55 μm) 41.5 dB (1.31 μm) 33.5 dB (1.31 μm) 33.5 dB (1.31 μm) 33.5 dB (1.41 μm) 33.5 dB (1.55 μm) 33.5 dB (1.55 μm) 45 dB (1.31 μm) 37 dB (1.625 μm) 43 dB (1.55 μm) 38.5 dB (1.55 μm) 38.5 dB (1.55 μm)					
Dead zone (back-scattered light)*3	≤8 m (1.31 μm) ≤9 m (1.55 μm) ≤8 m (1.31 μm) ≤9 m (1.55 μm) ≤8 m (1.31 μm) ≤9 m (1.55 μm) ≤25 m					
Dead zone (Fresnel reflection)*4	≤1.6 m ≤1.6 m ≤3 m					
Marker resolution	0.05 to 800 m					
Sampling resolution	0.05 to 80 m					
Sampling points*5	Quick mode: 5001, 6251 Normal mode: 20001, 25001 High mode: 40001, 50001					
Distance measurement accuracy	±1 m ±3 x measurement distance x 10 ⁻⁵ ±marker resolution (excluding uncertainty caused by fiber IOR) 0.1 m ±3 x measurement distance x 10 ⁻⁵ ±marker resolution (excluding uncertainty caused by fiber IOR)					
Loss measurement accuracy	±0.05 dB/dB or ±0.1 dB (whichever is greater)					
Return loss measurement accuracy	±2 dB					
Automatic measurement	Measurement items: Total loss, total return loss. Each event distance, connection loss, return loss, or reflection amount (displays in table format) Threshold values Connection loss: 0.01 to 9.99 dB (in 0.01 dB steps) Return loss: 20 to 60 dB (in 1 dB steps) Fiber-end: 1 to 99 dB (in 1 dB steps) Warning values Splice connection loss: 0.1 to 10 dB (in 0.01 dB steps) Connector connection loss: 0.1 to 10 dB (in 0.01 steps) Return loss: 10 to 50 dB (in 0.1 dB steps) Fiber loss: 0.1 to 10 dB (in 0.01 steps) Total loss: 0.1 to 60 dB (in 0.1 steps) Total return loss: 10 to 50 dB (in 0.1 dB steps) Number of detected events: Up to 99 Automatic setting: Distance range, pulse width, averaging count (time) Measurement time: ≤60 s (in full automatic measurement mode) Connection check: Automatic check of front panel connector connection quality Communication light check:					
Manual measurement	Check for presence of communication light in optical fiber to be measured Measurement items: Transmission loss and distance between 2 points, loss per unit length between 2 points, connection loss, return loss/reflection amount, total return loss Real-time sweep: 0.1 to 0.2 second or less*6					

Model	MW9076B	MW9076C	MW9076B1	MW9076D
Optical loss measurement light source function	Applicable optical fibers: SM optical fiber (ITU-T G.65: Optical connectors: Shared with OTDR (same pot Light-emitting elements: FP-LD Center wavelength: 1310/1550 ±25 nm (MW9076 1310/1550 ±25 nm (MW9076 1310/1550 ±25 nm (MW9076 1310/1550/1625 ±25 nm (MW9076C, CV) Spectrum width: ≤5/10 nm (MW9076B, CW, 2 ≤5/10/10 nm (MW9076C, CV) Output level accuracy: -3 ±1.5 dBm (CW, 25°C, SM) Optical output short term stabilication of the second point from the second poi			
Chromatic dispersion measurement function		Provided		
Other functions	Waveform storage (Bellcore. SOR or Anritsu. Dat format, user selectable), print output (Centronics), repeated measurement function (A series of operations such as wavelength switching, waveform storage, and printing can be executed by pressing a single key.), relative distance set (zero cursor set), calendar clock, distance unit set (km, kf, mi), title input (up to 32 characters), remaining battery power display			
Laser safety specification	21CFR Class 1, IEC Pub 825-1 Class 1			
Power	≤35 W max. (at charging), 4 W (in standard state, MU250000A power consumption included.)			
Battery	Continuous operation: 6 h (typi	,	,	
Dimensions and mass	290 (W) × 194 (H) × 30 (D) mm (MW9076B/C main frame) 290 (W) × 194 (H) × 75 (D) mm (MU250000A Display Unit included) ≤1.3 kg (MW9076B main frame only) ≤3.6 kg (MW9076B, MU250000A display unit and battery pack included) ≤1.4 kg (MW9076C main frame only) ≤3.7 kg (MW9076C, MU250000A display unit and battery pack included)		290 (W) \times 194 (H) \times 77 (D) mm (MW9076D main frame) 290 (W) \times 194 (H) \times 122 (D) mm (with MU250000A Display Unit) \le 3.1 kg (MW9076D main frame only), \le 5.4 kg (with MU250000A Display Unit and battery pack included)	
Environmental condition	Operating temperature and humidity: −10° to 40°C, ≤ 85% (no condensation) Storage temperature and humidity: −20° to 60°C, ≤ 85% Vibration: Conforming to MIL-T-28800E Class 3 Shock: 76 cm height, 6 surfaces, 8 corners*7 Dust-proofing: MIL-T-28800E Drip-proofing: MIL-T-28800E EN55011 (1991, Group 1, Class A), EN50082-1 (1992)			
Safety	Not applicable to EN61000-3.2 EN61010-1 (1993, Installation	(1995) Category II, Pollution Degree II)		
	<u> </u>			

- *1 At 25°C, pulse width: 1 µs
 *2 At 25°C, pulse width: 20 µs, averaging time: 180 s
 *3 Pulse width: 10 ns, return loss: 40 dB (Refer to the figure right)
 *4 Pulse width: 10 ns (Refer to the figure right)
 *5 Either value is automatically selected in each mode, depending on the distance range.
 *6 Distance range: 50 km, full scale, loss mode: 2PA, room temperature, 25 km optical fiber connected
- *7 Droped on the floor of plywood fixed by concrete. Not applicable to the MW9076D

Note: MW9076D can accept a special wavelength request. Please consult us.



MU250000A/A1 Display Unit

RS-232C-2 (57.6 kbps max,), with mini-DIN 8-pin connector Printer interface: 8-bit parallel interface (Centronics), with D-sub 25-pin connector Keyboard interface: IBM US ENGLISH (101 keys) 106 keys compatible, with mini-DIN 6-pin connector VGA output connector: Mini-DIN 10-pin connector FDD Built-in 3.5 inch (1.44 MB/720 kB) 10 to 26.4 Vdc 100 to 250 Vac (rated), 50/60 Hz, ≤50 VA max. Power supply (Specific AC adapter is used.)		Jonana Biopius Cint
RS-232C-1 (115.2 kbps max.), with D-sub 9-pin connector RS-232C-2 (57.6 kbps max,), with mini-DIN 8-pin connector Printer interface: 8-bit parallel interface (Centronics), with D-sub 25-pin connector Keyboard interface: IBM US ENGLISH (101 keys) 106 keys compatible, with mini-DIN 6-pin connector VGA output connector: Mini-DIN 10-pin connector FDD Built-in 3.5 inch (1.44 MB/720 kB) 10 to 26.4 Vdc 100 to 250 Vac (rated), 50/60 Hz, ≤50 VA max. (Specific AC adapter is used.)	Display	8.4 inch color, TFT-LCD (640 × 480 pixels, transparent type, with back light) MU250000A1 Unit: 7.2 inch color, STN-LCD (640 × 480 pixels,
10 to 26.4 Vdc 100 to 250 Vac (rated), 50/60 Hz, ≤50 VA max. Power supply (Specific AC adapter is used.)		RS-232C-1 (115.2 kbps max.), with D-sub 9-pin connector RS-232C-2 (57.6 kbps max,), with mini-DIN 8-pin connector Printer interface: 8-bit parallel interface (Centronics), with D-sub 25-pin connector Keyboard interface: IBM US ENGLISH (101 keys) 106 keys compatible, with mini-DIN 6-pin connector VGA output connector: Mini-DIN 10-pin connector
100 to 250 Vac (rated), 50/60 Hz, ≤50 VA max. (Specific AC adapter is used.)	FDD	Built-in 3.5 inch (1.44 MB/720 kB)
used. (Mounted in main frame)	Power supply	100 to 250 Vac (rated), 50/60 Hz, ≤50 VA max. (Specific AC adapter is used.) Battery: CGR-B/802 Lithium ion battery pack can be
Power ≤35 W	Power	≤35 W
Dimensions and mass 290 (W) x 194 (H) x 45 (D) mm, ≤1.9 kg		290 (W) x 194 (H) x 45 (D) mm, ≤1.9 kg
Restricted by memory card specifications when a memory card is mounted. AC adapter: Depend on the conditions of AC adapter Operation temperature and humidity: -10° to +40°C, ≤85% (no condensation), +5° to 40°C, ≤80% (FDD is used.) Storage temperature and humidity: -20° to 60°C, ≤85% Vibration: Conform to MIL-T-28800E Class 3 Shock: 76 cm height, 6 surfaces, 8 corners Dust proofing: Conform to MIL-T-28800E Drip proofing: Conform to MIL-T-28800E		memory card is mounted. AC adapter: Depend on the conditions of AC adapter Operation temperature and humidity: -10° to +40°C, ≤85% (no condensation), +5° to 40°C, ≤80% (FDD is used.) Storage temperature and humidity: -20° to 60°C, ≤85% Vibration: Conform to MIL-T-28800E Class 3 Shock: 76 cm height, 6 surfaces, 8 corners Dust proofing: Conform to MIL-T-28800E
EMC Same as MW9076 series	EMC	Same as MW9076 series
Safety Same as MW9076 series	Safety	Same as MW9076 series

Battery pack

Battery	Lithium ion secondary battery
Voltage, capacity	14.4 V, 2550 mAh (36.72 Wh)
Continuous drive time	See the MW9076 series specifications
Charging time	≤1.5 h
Dimensions and mass	134.5 (W) × 89.5 (H) × 20.5 (D) mm, ≤390 g

AC adapter: ADP60WB24.0

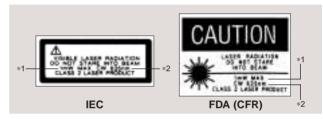
Rated AC input	100 to 240 Vac, 50/60 Hz
Rated DC output	24 Vdc, 2.5 A
Dimensions and mass	109.5 × 62.5 × 31 mm, ≤350 g
Safety specifications	UL, CSA, TUV, CE, AS
Environmental conditions	Operating temperature and humidity: 0° to +40°C, 80% Storage temperature and humidity: -20° to +80°C, 90%

• Visible light source: MW9076B/B1/C/D-01

Central wavelength	635 ±15 nm (at 25°C)
Optical output	-3.0 ±1.5 dBm
Output optical fiber	10/125 μm, SM (ITU-T G.652)
Optical connector	FC, SC, ST, DIN, DIAMOND (HMS-10/A) *Replaceable
Optical safety	IEC Pub 825-1 Class 2, 21CFR Class 2
Environmental conditions	Same as MW9076 series
EMC	Same as MW9076 series
Safety	Same as MW9076 series

Safety measures for laser products

This option complies with optical safety standards in Class 2 of the IEC pub. 825-1 and the FDA (21CFR1040.10, USA); the following descriptive labels are affixed to the product (FDA labels is only affixed to product for export to the USA).



The maximum output is indicated under *1, and the wavelength under *2. Caution: Do not look directly into the laser beam.

Optical power meter: MW9076B/C-02, MW0976B/C-03

Applicable optical fiber	10/125 μm, SM (ITU-T G.652)
Optical connector	FC, SC, ST, DIN, DIAMOND (HMS-10/A) *Replaceable
Wavelength range	1.2 to 1.7 µm
Measurement range	Option 02: +3 to -70 dBm (continuous light) +0 to -73 dBm (modulated light) Option 03: +23 to -50 dBm (continuous light) +20 to -53 dBm (modulated light)
Measurement accuracy	Option 02: ±5% (–30 dBm, 1.31/1.55 μm, continuous light) Option 03: ±5% (–10 dBm, 1.31/1.55 μm, continuous light)
Environmental conditions	Same as MW9076 series
EMC	Same as MW9076 series
Safety	Same as MW9076 series

MU960001A/960002A Optical Channel Selector Unit

Model	MU960001A MU960002A		
Configuration	ation 1 × 4 1 × 8		
Wavelength	1.2 to 1.65 µm (The special wavelength are		
range	1.31/1.55 μm.)		
Optical fiber	10/125 μm, SM (ITU-T G.652)		
Optical connector	FC, SC, ST, DIN, DIAMOND (HMS-10/A) *Replaceable		
Insertion loss	≤2.5 dB ≤4.5 dB		
Environmental conditions	Same as MW9076 series (not applicable to the shock		
Dimensions	290 (W) x 194 (H) x 47 (D) mm		
Mass	≤1.5 kg ≤2.0 kg		
EMC	Same as MW9076 series		
Safety	Same as MW9076 series		

Highest Basic Performance and Measuring Speed

- 45 dB high dynamic range
- 8 m short dead zone
- Simple measurement of chromatic dispersion from one end of optical fiber
- Measurement in 10 s (Full-Auto mode), 0.15 s real-time sweep
- Automatic execution of functions such as wavelength/channel switching, file saving, printing, etc., just by pressing Start key in repeat measurement mode
- 5 cm high resolution, 50,000 sampling points
- 8.4 inch TFT-LCD color display
- 7.2 inch color STN-LCD display for easy viewing under direct sunlight
- Optional 4 or 8 optical channel selector unit
- 6-hour battery life with remaining-power display
- Data read/write in Bellcore GR196 file format

Мо	del	MW9076B1	MW9076B	MW9076C	MW9076D
Optical fiber		SM	SM	SM	SM
Wavelength		1.31/1.55 µm ± 25 nm	1.31/1.55 µm ± 25 nm	1.31/1.55/1.625 µm ± 25 nm	1.31/1.41/1.55/1.625 µm ± 3 nm
Dynamic range		40.5/38.5 dB (typical value)	45/43 dB (typical value)	41.5/39.5/37 dB	34/33/32/29.5 dB
Dead zone (Fresnel, back-scatterd)		1.6/8 m	1.6/8 m	1.6/8 m	3/25 m
Chromatic dispersion					✓
Lig	nt source function		✓	✓ ·	
	Visible light source	✓	✓	✓ ·	√
(0	Optical power meter		✓	✓	
Options	High power optical power meter		✓	✓	
	Optical channel selector unit	✓	✓	✓	
Exp	olanation	General purpose OTDR for mid-distance SM optical fiber installation and maintenance. Offering superior cost performance.	High performance OTDR: Ideal for users requiring long- distance optical fiber installa- tion and maintenance.	High performance three wavelength OTDR for testing at both the two standard SM window, but also the 1625 nm window used for fiber monitoring.	A four wavelength OTDR with superb wavelength accuracy that can be used for conventional OTDR applications and chro- matic dispersion measure- ment of WDM transmission

Model/order No.	Name	Remarks
J0057	Optical adapter FC type	
J0486□* ⁴	Optical fiber cord	With FC-PC at both ends (SM)
B0442	Soft carrying case	440 (W) × 310 (H) × 110 (D) mm
Z0435	Soft carrying case	430 (W) × 300 (H) × 170 (D) mm
Z0436	Hard carrying case	Holds main frame and thermal printer
J0617B	Replaceable optical connector (FC)	
J0618D	Replaceable optical connector (ST)	
J0618E	Replaceable optical connector (DIN)	
J0618F	Replaceable optical connector (HMS-10/A, HFS-13/A)	
J0619B	Replaceable optical connector (SC)	
J0654A	Serial interface cord	For remote control with IBM-PC/AT or J-310 (9pin-9pin)
J0655A	Serial interface cord	For PC-98 remote control (9pin-25pin)
J0977	Serial interface cord	For connection with external optical channel selector
Z0434	Mini-DIN conversion adapter	For keyboard (Z0301A)
J0978	VGA conversion cable	For external monitor
	Peripherals	
DPU-414-31B	Thermal printer	∫ 108 to 132 V, 60 Hz, 0° to +40°C, Seiko products
PW-4007-U1	AC adapter	(printer cable: sold separately)
DPU-414-31B	Thermal printer	∫ 207 to 253 V, 50Hz, 0° to +40°C, Seiko products
PW-4007-E1	AC adapter	(printer cable: sold separately)
J0614	Printer connection cable	For DPU-414
	Supplies	
TP411-28CL	Printer paper	For DPU-414 Thermal printer (10 rolls/set)

- *1: Specify one of FC, ST, DIN, SC or DIAMOND. When the connector type is not specified, FC-PC is supplied.
- *2: The optical power meter (option 02) and high-level-input optical power meter (option 03) cannot be mounted at the same time.
- *3: The optional optical power meter and high-level-input optical power meter cannot be set for MW9076B1 or MW9076D.
- *4: Specify one of A-2, B4, C7 or S3.



ANRITSU CORPORATION

5-10-27, Minamiazabu, Minato-ku, Tokyo 106-8570, Japan Phone: +81-3-3446-1111 Telex: J34372

Fax: +81-3-3442-0235

Overseas Subsidiaries

• U.S.A.

ANRITSU COMPANY

North American Region Headquarters

1155 East Collins Blvd., Richardson, Tx 75081, U.S.A. Phone: +1-972-644-1777 Fax: +1-972-644-3416

Canada

ANRITSU ELECTRONICS LTD.

Unit 102, 215 Stafford Road West Nepean, Ontario K2H 9C1, Canada Phone: +1-613-828-4090 Fax: +1-613-828-5400

Brasil

ANRITSU ELETRÔNICA LTDA.

Praia de Botafogo 440, Sala 2401 CEP 22250-040, Rio de Janeiro, RJ, Brasil Phone: +55-21-5276922 Fax: +55-21-537-1456

U.K.

ANRITSU LTD.

200 Capability Green, Luton, Bedfordshire LU1 3LU, U.K. Phone: +44-1582-433200 Fax: +44-1582-731303

Germany ANRITSU GmbH

Grafenberger Allee 54-56, 40237 Düsseldorf 1, Germany Phone: +49-211-96855-0 Fax: +49-211-96855-55

France

ANRITSU S.A.

9, Avenue du Québec Z.A. de Courtabœuf 91951 Les Ulis Cedex, France Phone: +33-1-60-92-15-50 Fax: +33-1-64-46-10-65

Italy

ANRITSU S.p.A. Via Elio Vittorini, 129, 00144 Roma EUR, Italy Phone: +39-06-502-26-66 Fax: +39-06-502-24-25

Sweden

ANRITSU AB

Botvid Center, Fittja Backe 1-3 145 84 Stockholm, Sweden Phone: +46-853470700 Fax: +46-853470730

Singapore

ANRITSU PTE LTD

6, New Industrial Rd., #06-01/02, Hoe Huat Industrial Building, Singapore 536199 Phone: +65-282-2400 Fax: +65-282-2533

Hong Kong ANRITSU COMPANY LTD.

Suite 719, 7/F., Chinachem Golden Plaza, 77 Mody Road, Tsimshatsui East, Kowloon, Hong Kong, China Phone: +852-2301-4980 Fax: +852-2301-3545

Specifications are subject to change without notice.

Korea

ANRITSU CORPORATION

14F Hyun Juk Bldg. 832-41, Yeoksam-dong, Kangnam-ku, Seoul, Korea Phone: +82-2-553-6603 Fax: +82-2-553-6604~5

Australia

ANRITSU PTY LTD.

Unit 3/170 Forster Road Mt. Waverley, Victoria, 3149, Australia Phone: +61-3-9558-8177 Fax: +61-3-9558-8255

• Taiwan

ANRITSU COMPANY INC.

6F, 96, Sec. 3, Chien Kou North Rd. Taipei, Taiwan, R.O.C.

Phone: +886-2-2515-6050 Fax: +886-2-2509-5519