

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 1, 2026

ANRITSU

Anritsu MW90010A OTDR

The Anritsu MW90010A isaCoherent OTDR (C-OTDR) for detecting faults in ultra-long optical submarine cables up to 12,000 km that include multiple EDFA repeaters. Coherent detection improves dynamic range and sensitivity versus conventional OTDRs, enabling evaluation at service deployment and troubleshooting of in-service faults on DWDM submarine systems. A tunable probe source covers 1535.03 to 1565.08 nm on the ITU-T grid with +/-0.2 nm accuracy. The successor model is the MW90010B. Submarine cable fault location and characterization; evaluation of new ultra-long haul cables at deployment; in-service troubleshooting of repeated DWDM submarine links; measurement of cable loss, bending loss, and fiber length on spans with repeater spacing of 80 km or more. Interfaces: USB (2 ports, Rev 1.1), USB mouse, PS/2 keyboard, VGA Power: 100-120 / 200-240 VAC, 50/60 Hz, less than or equal to 300 VA Allow 30-minute warm-up. Observe laser safety for Class ratings on the unit. Confirm DSF / submarine plant compatibility and loading wavelength selection before measuring live EDFA chains. This is notaconventional access/metro mini-OTDR (MW9076 / MT9085 class). Coherent submarine C-OTDR performance depends on published Pin / ASE conditions. Confirm MW90010A vs successor MW90010B on the faceplate.



MODEL

**Anritsu
MW90010A**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

MW90010A

LISTING

<https://aumictechlabs.com/products/mw90010a-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Anritsu MW90010A is a Coherent Optical Time Domain Reflectometer (C-OTDR) engineered for testing and diagnostics of ultra-long submarine optical cables. It detects faults in cables up to 12,000 km with 10 meter resolution, functioning through repeater chains spaced 80 km or greater. The coherent detection architecture delivers dynamic range exceeding 17 dB (S/N=1), enabling sensitivity measurements across the C-band spectrum. A tunable integrated light source, compact footprint, and touch-panel interface make it suitable for field deployment and in-service troubleshooting of new and operational cable systems.

Technical Specifications

Maximum Measurement Distance: 12,000 km Distance Resolution: 10 meters Wavelength Range (Probe Light): 1535.03 nm to 1565.08 nm Wavelength Accuracy: ± 0.2 nm (20°C to 30°C) Optical Output Power: 0 dBm to +13 dBm Output Power Steps: 0.5 dB increments Dynamic Range (S/N=1): >17 dB Pulse Width Options: 3 μ s, 10 μ s, 30 μ s, 60 μ s, 100 μ s Typical Measurement Time: 15 minutes (1000 km range, 2^{16} averagings, smoothing enabled) Internal Memory: 2.8 GB Warm-up Time: 30 minutes (20°C to 30°C)

Key Features

Integrated tunable light source with ± 0.2 nm wavelength accuracy Simultaneous waveform display of up to 8 traces Real-time measurement, zoom/shift, and 2-point loss analysis functions Extended post-measurement averaging capability Color LCD display with touch-panel, rotary knob, and keypad control Data storage to internal memory or external USB media in Telcordia SR-4731 format Ethernet interface supporting remote PC operation Multiple optical connector options: FC, SC, DIN, ST, LC, HMS-10/A

Typical Applications

New submarine cable deployment validation In-service cable fault location and characterization Performance evaluation through EDFA repeater chains Long-distance optical link troubleshooting

Compatibility & Integration

Supports ITU-T G.653 (Dispersion-Shifted Fiber) Compatible with NETWORKS emulation software (version 4.1 or newer) for Windows PC-based waveform analysis and PDF report generation Dimensions: 320 mm (W) $\times$ 177 mm (H) $\times$ 451 mm (D); 17 kg maximum weight

Features & description

From manufacturer datasheet

Features

- Coherent detection OTDR for submarine cables to 12,000 km
- Tunable probe wavelength 1535.03 to 1565.08 nm (50 GHz ITU-T grid steps)
- Dynamic range greater than 17 dB (one-way, S/N=1 under published conditions)
- Sampling resolution 10 m; distance accuracy $\pm 10\text{ m} \pm 0.5\text{e-6} \times \text{distance}$
- Loading (dummy) light source at probe $\pm 50\text{ GHz}$ for EDFA loading
- 8.4-inch XGA color LCD with touch panel
- Internal memory about 2.8 GB; USB, VGA, optional remote control
- Compact portable chassis less than 17 kg

MW90010A Characteristics / Specifications

PARAMETER	VALUE
Model	MW90010A
Manufacturer	Anritsu
Instrument Type	Coherent optical time domain reflectometer (C-OTDR)
Replacement	MW90010B
Fiber Under Test	ITU-T G.653 (DSF) class per brochure
Optical Connectors	FC, SC, DIN, HMS-10/A, ST (replaceable, PC type)
Probe Wavelength	1535.03 to 1565.08 nm (vacuum, 50 GHz steps)
Wavelength Accuracy	+/-0.2 nm (+20 C to +30 C)
Loading Light Source	probe wavelength +50 GHz or -50 GHz selectable
Pulse Width	3, 10, 30, 60, 100 us
Optical Output Power	0 to +13 dBm, 0.5 dB steps
Conditions	10 us pulse, average 2 ¹⁶ , distance range 1000 km, smoothing on; Ps -57 dBm @ Pin; Pase -20 dBm/nm @ Pin
Dead Zone	0.5 km (3 us pulse)
Distance Accuracy	+/-10 m +/-0.5 × 10 ⁻⁶ x measurement value (excludes IOR uncertainty)
Distance Range	100 km; 500 km to 12,000 km in 500 km steps
Measurement Time	about 15 minutes (1000 km range, 2 ¹⁶ averages)
Average Times	2 ⁸ to 2 ²⁴
IOR Settings	1.300000 to 1.700000 (0.000001 steps)
Monitor Output	-25 to -15 dBm (OTDR wavelength monitor)
Display	8.4 in XGA (1024 × 768) color LCD touch panel
Interfaces	USB (2 ports, Rev 1.1), USB mouse, PS/2 keyboard, VGA
Power	100-120 / 200-240 VAC, 50/60 Hz, less than or equal to 300 VA
Dimensions	320 × 177 × 451 mm
Mass	less than 17 kg Standard Operating Conditions Allow 30-minute warm-up. Observe laser safety for Class ratings on the unit. Confirm DSF /

PARAMETER	VALUE
	submarine plant compatibility and loading wavelength selection before measuring live EDFA chains.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications

Specifications

PARAMETER	VALUE
Model	MW90010A
Manufacturer	Anritsu
Instrument Type	Coherent optical time domain reflectometer (C-OTDR)
Replacement	MW90010B
Fiber Under Test	ITU-T G.653 (DSF) class per brochure
Optical Connectors	FC, SC, DIN, HMS-10/A, ST (replaceable, PC type)
Probe Wavelength	1535.03 to 1565.08 nm (vacuum, 50 GHz steps)
Wavelength Accuracy	+/-0.2 nm (+20 C to +30 C)

Warm-up: 30 minutes (+20 C to +30 C)

Specifications

PARAMETER	VALUE
Loading Light Source	probe wavelength +50 GHz or -50 GHz selectable
Pulse Width	3, 10, 30, 60, 100 us
Optical Output Power	0 to +13 dBm, 0.5 dB steps

Dynamic Range (one way, S/N=1): greater than 17 dB

Specifications

PARAMETER	VALUE
Conditions	10 us pulse, average 2 ¹⁶ , distance range 1000 km, smoothing on; Ps -57 dBm @ Pin; Pase -20 dBm/nm @ Pin
Dead Zone	0.5 km (3 us pulse)
Distance Accuracy	+/-10 m +/-0.5 x 10 ⁻⁶ x measurement value (excludes IOR uncertainty)
Distance Range	100 km; 500 km to 12,000 km in 500 km steps

Sampling Resolution (IOR=1.500000): 10 m

Specifications

PARAMETER	VALUE
Measurement Time	about 15 minutes (1000 km range, 2 ¹⁶ averages)
Average Times	2 ⁸ to 2 ²⁴
IOR Settings	1.300000 to 1.700000 (0.000001 steps)
Monitor Output	-25 to -15 dBm (OTDR wavelength monitor)
Display	8.4 in XGA (1024 x 768) color LCD touch panel
Interfaces	USB (2 ports, Rev 1.1), USB mouse, PS/2 keyboard, VGA
Power	100-120 / 200-240 VAC, 50/60 Hz, less than or equal to 300 VA
Dimensions	320 x 177 x 451 mm
Mass	less than 17 kg

Standard Operating Conditions

Allow 30-minute warm-up. Observe laser safety for Class ratings on the unit. Confirm DSF / submarine plant compatibility and loading wavelength selection before measuring live EDFA chains.

Operational Notes

This is notaconventional access/metro mini-OTDR (MW9076 / MT9085 class). Coherent submarine C-OTDR performance depends on published Pin / ASE conditions. Confirm MW90010A vs successor MW90010B on the faceplate.

Laser Safety

laser safety for Class ratings on the unit. Confirm DSF / submarine plant compatibility and loading wavelength selection before measuring live EDFA chains. Operational Notes This is notaconventional access/metro mini-OTDR (MW9076 / MT9085 class). Coherent submarine C-OTDR performance depends on published Pin / ASE conditions. Confirm MW90010A vs successor MW90010B on the faceplate.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

788 S 500 E, Pleasant Grove, UT 84062
sales@aumictech.com · +1 (484) 841-9341
<https://aumictechlabs.com>

NIST-traceable calibration · SAM registered ·
30-day returns
NAICS 423690 · 811210 · 541380
Generated August 1, 2026

Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.