

**Aumictech**

Test & measurement • bought, sold, repaired, calibrated

Data Sheet

August 1, 2026

ANRITSU

Anritsu MS9020D Optical Loss Test Set

The Anritsu MS9020D is a handheld optical loss test set that combines plug-in LD or LED light sources with plug-in optical power sensors (and an optional return-loss unit) in one field instrument. It covers optical loss measurement in the 0.66, 0.85, 1.3, and 1.55 μm bands with CW and modulated (270 Hz, 1 kHz, 2 kHz) source modes for wide dynamic-range measurements with reduced stray-light effects. Absolute power readings use wavelength calibration in 5 nm steps. The product was discontinued (Anritsu cites April 2007 class); replacement platforms include CMA5 / CMA50 family loss test sets. Field optical loss measurement on SM, GI, and plastic fibers; return loss measurement on 1.3 μm SM fiber (0 to 40 dB with RL unit); absolute optical power metering; modulated-source loss tests in the presence of ambient light. Connectors: direct or FC/ST/DIN/SC/HMS-10/A adapters (sensor dependent) With return-loss plug-in: 1.3 μm SM fiber, approximately 0 to 40 dB range Install matching source and sensor plug-ins for the fiber type and wavelength. Use modulated mode when ambient light interferes. Zero/reference loss measurements per manual before quoting absolute loss. Performance is entirely plug-in dependent—inventory installed LD/LED and sensor modules before quoting wavelength and range. Maximum optical loss measurement capability is cited up to about 67 dB in Anritsu overviews depending on



MODEL

Anritsu MS9020D

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

MS9020D

LISTING

<https://aumictechlabs.com/products/ms9020d-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The Anritsu MS9020D Optical Loss Test Set is a portable instrument for measuring optical power, loss, and return loss across fiber optic networks. It verifies system performance and diagnoses faults in optical fiber installation and maintenance. The modular design accommodates plug-in light source and sensor units, enabling rapid wavelength switching and one-touch measurement of common band pairs. A 0.635 μm visible light source facilitates fiber break detection up to 5 km with flickering identification capability.

Technical Specifications

Optical Loss Measurement
Dynamic range: up to 67 dB
Wavelength bands: 0.66 μm , 0.85 μm , 1.3 μm , 1.55 μm
Modes: Continuous Wave (CW) and modulated light (270 Hz, 1 kHz, 2 kHz)
Measurement resolution: 0.1%–1% (W/W REL) or 0.01 dB–0.1 dB (dBm/dB REL)
Optical Return Loss Measurement Range: 0 to 40 dB for 1.3 μm single-mode fiber
Connectors and optical devices measurable via dedicated return loss units

Power Meter Functionality
Wavelength calibration in 5 nm steps at three wavelengths
Automatic sensor deviation compensation in 5 nm steps
Direct absolute value reading

Light Source and Sensor Options
4 LD (laser diode) sources
7 LED sources
Switchable source units support one-touch measurement of 0.85/1.3 μm and 1.3/1.55 μm combinations

Key Features
Plug-in source and sensor architecture enables fast unit exchange
Modulated light function reduces stray light interference for improved measurement accuracy
0.635 μm visible light source with flicker mode for fiber identification
Measurement blanking capability
Battery alarm for low voltage indication
30-minute settings backup during power loss or battery replacement
Backlight display with on/off control

Typical Applications
Fiber optic network installation verification
In-service fault diagnosis and troubleshooting
Return loss characterization of single-mode fiber connectors and passive components
Field power measurements with wavelength calibration

Compatibility & Integration
Connectors and Adapters FC, ST, DIN, HMS-10/A, and SC via interchangeable adapter units
Bare fiber and fiber adapter support
Optional connectors: MA9004A, MA9005A

Power Options
AC mains
Rechargeable battery
Dry cells

Dimensions/Weight
90 mm W × 190 mm H × 38 mm D
700 g

Data Interface
Recorder-out port for external logging

Features & description

From manufacturer datasheet

Features

- Modular plug-in LD sources (4 types), LED sources (7 types), sensors (8 types), and return-loss unit
- Optical loss bands: 0.66 / 0.85 / 1.3 / 1.55 μm class
- CW and modulated source modes (270 Hz, 1 kHz, 2 kHz)
- Power meter display in W, W(REL), dBm, dB(REL)
- Sensor wavelength compensation in 5 nm steps
- Auto power-off after about 5 minutes idle
- Powered by AC adapter, Ni-Cd battery, or UM-3 alkaline/manganese cells

MS9020D Characteristics / Specifications

PARAMETER	VALUE
Technical Specifications	Mainframe
Model	MS9020D
Manufacturer	Anritsu
Instrument Type	Optical loss test set (modular source + power meter)
Unit Display	W, W(REL), dBm, dB(REL); 4 digits
Resolution	0.1 to 1% (W); 0.01/0.1 dB (dBm/dB); blanking possible
Averaging	on/off selectable
Modulation	CW, 270 Hz, 1 kHz, 2 kHz (2 kHz for MA9621A class sensors)
Applicable Fiber (with appropriate units)	GI, SM (ITU-T G.652), plastics Light Source Units (examples)
Elements	LED, LD, EE-LED, FP-LD
Wavelengths	0.635, 0.66, 0.85, 1.3, 1.31, 1.55 um and dual-wavelength combinations
CW Output Level (examples)	LED about -47 to -10 dBm; LD/FP-LD about -3 dBm; EE-LED about -42 to -36 dBm Optical Power Sensors (examples)
Wavelength Range	about 0.38 to 1.8 um depending on Si / InGaAs sensor
Measurement Range	about -70 to +20 dBm CW (sensor dependent; e.g. MA9421A / MA9621A class tables)
Accuracy	about +/-5% under reference conditions
Connectors	direct or FC/ST/DIN/SC/HMS-10/A adapters (sensor dependent) Return Loss
Optical loss bands	0.66 / 0.85 / 1.3 / 1.55 um class
Return loss	measurement on 1.3 um SM fiber (0 to 40 dB with RL unit); absolute optical power metering; modulated-source loss tests in the presence of ambient light.
Fiber type	and wavelength. Use modulated mode when ambient light interferes. Zero/reference loss measurements per manual before quoting absolute loss.

MS9020D Specifications

PARAMETER	VALUE
Anritsu MS9020D Optical Loss Test Set	Overview
Key Features	- Modular plug-in LD sources (4 types), LED sources (7 types), sensors (8 types), and return-loss unit
Optical Power Sensors (examples)	Wavelength Range: about 0.38 to 1.8 um depending on Si / InGaAs sensor

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

PARAMETER	VALUE
Specifications	Mainframe
Model	MS9020D
Manufacturer	Anritsu
Instrument Type	Optical loss test set (modular source + power meter)
Unit Display	W, W(REL), dBm, dB(REL); 4 digits
Resolution	0.1 to 1% (W); 0.01/0.1 dB (dBm/dB); blanking possible
Averaging	on/off selectable
Modulation	CW, 270 Hz, 1 kHz, 2 kHz (2 kHz for MA9621A class sensors)
Applicable Fiber (with appropriate units)	GI, SM (ITU-T G.652), plastics

Light Source Units (examples)

Specifications

PARAMETER	VALUE
Elements	LED, LD, EE-LED, FP-LD
Wavelengths	0.635, 0.66, 0.85, 1.3, 1.31, 1.55 um and dual-wavelength combinations
CW Output Level (examples)	LED about -47 to -10 dBm; LD/FP-LD about -3 dBm; EE-LED about -42 to -36 dBm

Optical Power Sensors (examples)

Specifications

PARAMETER	VALUE
Wavelength Range	about 0.38 to 1.8 um depending on Si / InGaAs sensor
Measurement Range	about -70 to +20 dBm CW (sensor dependent; e.g. MA9421A / MA9621A class tables)
Accuracy	about +/-5% under reference conditions
Connectors	direct or FC/ST/DIN/SC/HMS-10/A adapters (sensor dependent)

Return Loss
With return-loss plug-in: 1.3 um SM fiber, approximately 0 to 40 dB range

Standard Operating Conditions

Install matching source and sensor plug-ins for the fiber type and wavelength. Use modulated mode when ambient light interferes. Zero/reference loss measurements per manual before quoting absolute loss.

Operational Notes

Performance is entirely plug-in dependent-inventory installed LD/LED and sensor modules before quoting wavelength and range. Maximum optical loss measurement capability is cited up to about 67 dB in Anritsu overviews depending on source/sensor pairing. Confirm MS9020D vs later CMA5/CMA50 replacements.

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.