# M200 Handheld OTDR

The Noyes M200 from AFL Telecommunications offers unmatched OTDR capabilities in a handheld package weighing less than 1 kg (2 lb). Multimode, Single-mode, and 'Quad' wavelength models are offered. With short dead zone and intermediate range specifications, the M200 is ideal for Tier 2 testing of premises (building and campus) networks or certification and troubleshooting of FTTX PON networks. And its bright, transflective display makes it suitable for both indoor and outdoor operation.

The M200 is based on a new hardware/software platform that supports automatic and manual setup, precision event analysis, dual-wavelength testing, fiber identification using Noyes 'TR' test receivers, rich file naming and folder setup, 6 hour battery life, internal and removable media data storage, and USB connectivity. Test ports are equipped with tool-free adapters, which can be changed in seconds. A custom-designed polycarbonate case and shock-absorbing boot make it our most rugged OTDR ever.

Results are saved as industry standard .SOR files, which can be viewed, printed, and analyzed on a PC using free-ware available to you and your customers (go to www.afltele.com to download). Unit firmware, user settings, and test results are saved in non-volatile memory. Thus the M200 may be stored with battery removed for an extended period of time and still be up and running in seconds when needed.

## New Feature

USB Host Port offers a new convenient way to transfer data from the M200 to a PC. By using a standard USB Flash Drive (not included) to transfer traces, the user no longer needs a USB Cable, ActiveSync or a Compact Flash reader. Using the Tools in the M200 File Manager, one or more folders or files can be copied to a USB Flash Drive for transfer to a PC. Thousands of files will fit on a 64 MB or larger USB Flash Drive.

## Features

- Handheld, 0.9 kg (2 lb)
- 22 dB (MM), 26 dB (SM) dynamic range
- Integrated VFL (650 nm)
- Tool-free, switchable adapters
- Transflective (indoor/outdoor) touch-screen display
- USB Host and Function Ports

## Applications

- Tier 2 testing of premises networks
- FTTX PON certification and troubleshooting
- Fast fault location
- Splice verification
- Network documentation

## Ordering Information

| MODEL NUMBER | DESCRIPTION | TEST PORT ADAPTERS |
|---|---|---|
| M200-K-QUAD | 850/1300 nm multimode and 1310/1550 nm single-mode OTDR | (1) ST, (2) SC, and (1) FC * |
| M200-K-MM | 850/1300 nm multimode OTDR | ST and SC * |
| M200-K-SM | 1310/1550 nm single-mode OTDR | SC and FC * |

\* LC test port adapters are available (order separately).
All models include a rugged, soft-sided carry case with shoulder strap, 110/220 VAC power adapter with country-specific power cord, and user guide.

### NOYES
*Test & Inspection*

# AFL Telecommunications
A Fujikura Business

# M200 Handheld OTDR

## Specifications

| OTDR Specifications | | |
|---|---|---|
| | **Multimode** | **Single-mode** |
| Emitter Type | Laser | |
| Safety Class | Class 1 FDA 21 CFR 1040.0 & 1040.11 | |
| Center Wavelengths | 850/1300 nm | 1310/1550 nm |
| Wavelength Tolerance | ± 20 / ± 30 nm | ± 20 / ± 30 nm |
| Dynamic Range (SNR = 1) | 22 dB | 26 dB |
| Event Dead Zone [1] | 1.5 m | 1.5 m |
| Attenuation Dead Zone [2] | 9 m | 9 m |
| Pulse Widths [3] | 10, 30, 100, 300 ns, 1, 3 µs | 10, 30, 100, 300 ns, 1, 3, 10 µs |
| Range Settings | 250 m to 64 km | 250 m to 208 km |
| Data Points | Up to 16,000 | Up to 16,000 |
| Data Point Spacing | 0.25 m (range ≤ 4 km) Range/16000 (range ≥ 8 km) | |
| Group Index of Refraction (GIR) | 1.4000 to 1.6000 | |
| Distance Uncertainty (m) | ± (1 + 0.005% x distance + data point spacing) | |
| Trace File Format | Bellcore GR-196 Version 1.1 | |
| Trace File Storage Medium | Internal, non-volatile memory and removable Compact Flash Card | |
| Trace File Storage Capacity | > 100 internal; thousands on Compact Flash or USB Flash Drive | |
| Trace File Transfer to PC | USB Flash Drive Type 1.1, Compact Flash or Mini USB Cable with ActiveSync | |
| **Visual Fault Locator Specifications** | | |
| Emitter Type | Laser | |
| Safety Class | Class II FDA 21 CFR 1040.10 & 1040.11; IEC 825-1:1993, EN60825-1:1994 | |
| Wavelength | 650 nm | |
| Output Power (nominal) | 0.8 mw | |
| **General Specifications** | | |
| Size (in boot) | 23 x 11 x 7 cm (8.8 x 4.3 x 2.8 inches) | |
| Weight | 0.9 kg (2 lb) | |
| Operating Temperature | -10 to +50 °C | |
| Storage Temperature | -20 to +60 °C | |
| Relative Humidity | 0 to 95% RH (non-condensing) | |
| Power | Removable LiIon or 110/220 VAC power adapter | |
| Battery Life[4] | 6 hours | |
| Recharge Time [4 & 5] | 3 hours | |

All specifications are subject to change.

All specifications valid at 23°C ± 2°C (73.4°F ± 3.6°F) unless otherwise specified.

1. Typical distance between the two points 1.5 dB down each side of a reflective spike caused by a -40 dB (Multimode) or -45 dB (single-mode) event using 10 ns pulse width.

2. Typical distance from event location to point where trace is within 0.5 dB of backscatter.

3. 3 µs pulse width not available at 850 nm.

4. New battery.

5. Typical, from fully discharged to fully charged state, unit may be operating.

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www.AFLtele.com or 1.800.321.5298 / 1.603.528.7780