



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, transfective 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.aftele.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.

Features

- Handheld, 0.9 kg (2 lb)
- 850/1300/1310/1550 nm
- 1.5 m (typ.) event dead zone
- 22 dB (MM), 26 dB (SM) dynamic range
- Integrated VFL (650 nm)
- Tool-free, switchable adapters (ST/SC/FC)
- Bellcore (GR-196) .SOR file format
- CompactFlash™ memory card
- Tool-free Lilon battery (6 hour life)
- Transfective (indoor/outdoor) touch-screen display

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	(2) 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

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.



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	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	
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	
Distance Uncertainty (m)	± (1 + 0.005% x distance + data point spacing)	
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 Lilon 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 \pm 2°C (73.4°F \pm 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 μ s pulse width not available at 850 nm.
4. New battery.
5. Typical, from fully discharged to fully charged state, unit may be operating.

