



SmartClass™ Fiber MPOx MPO Optical Loss Test Sets

Specifications

Power Meter

Specification	
Optical interface	MPO-12 Interface pinned. Compatible with 50/125 µm/PC Multimode MPO-12, 9/125 µm/APC Singlemode MPO-12. MTP Adapter with Shutter
Detector type	InGaAs
Wavelength range	850 to 1550nm
Wavelength settings	850nm, 1300nm, 1310nm, 1550nm
Calibrated wavelengths	Multimode: 850nm, 1300nm Singlemode: 1310nm, 1550nm
Power measurement range	-50 to +3 dBm
Max. permitted input level	+3 dBm
Overall measurement uncertainty ¹	Multimode: ± 0.7 dB ± 1 nW Singlemode: ± 0.6 dB ± 1 nW
Linearity	±0.15dB
Measurement units	dB, dBm
Display resolution	0.01 dB
Power meter functions	Absolute, relative, pass/fail,
Warm-up time	20 minutes

1. Under reference conditions at calibrated wavelengths, -5 to +45°C.

Light Source

Specification	Multimode	Single-Mode
Optical interface	MPO-12 Interface pinned, 50/125 µm/PC Multimode. MTP Adapter with Shutter	MPO-12 Interface pinned, 9/125 µm/APC Singlemode. MTP Adapter with Shutter
Source type and wavelengths	LED source 850 nm ± 20 nm 1300 nm ± 20 nm	Fabry-Perot laser diode 1310 nm ± 20 nm 1550 nm ± 20 nm
Spectral width (FWHM)	<170nm	<5nm
Launch condition	Encircled Flux compliant to TIA-526-14 and IEC 61280-4-1 ²	
Output power	-18 to -25 dBm	+2 to -5 dBm
Stability ¹ 15 min/8 hr	±0.05 / 0.25 dB	
Source modes	CW, tone, auto-λ, multi-λ	
Tone generator	270 Hz, 1 kHz, 2 kHz	

1. Single Channel, +5 to +45°C with ΔT = ±0.3 K after a 20-minute warm-up

2. At the output of the EF-TRC. Variations between EF measurement equipment may occur but EF compliance can be expected with a 95% confidence factor. Valid for IEC 61280-4-1 at 850 nm.

Tier 1

Specification	Multimode	Single-Mode
Testing speed for 12 channels ¹	6 seconds max	
Pass/fail limit standards	TIA 568.3, ISO 11801 and ISO/IEC 14763-3, link validation	
Fiber types	50/125 μm	9/125 μm
Nominal test wavelengths	850/1300 nm	1310/1550 nm
Maximum length measurement	1 km	10 km
Length measurement accuracy	$\pm 1.5 \text{ m} \pm 1\%$ of length	
Loss measurement uncertainty ^{2,3}	$\pm 0.15 \text{ dB}$	

1. Excludes referencing and connection times
2. Excluded fiber connector uncertainties.
3. After 20 min warm up, at constant temperature, no charging. For multimode loss measurements with 50/125 μm fibers (NA = 0.20). For single-mode loss measurements with 9/125 μm fibers (NA = 0.10).

Patchcord Microscope (PCM)

Specification		
Optical interface	FMAE MPO (many other adapters available)	
Auto pass/fail analysis standards	IEC 61300-3-35 and custom limits	
Live image	320 x 240 x 8 bit grey, 10 fps	
Light source	Blue LED, 100.000+ hours life	
Lighting technique	Coaxial	
Magnification field-of-view low/high	Horizontal	740/370 μm
	Vertical	550/275 μm
External USB connected P5000i digital inspection probe supported		

PCM models include 2330/115, 2330/015 and 2330/31

General

Specification	without PCM	with PCM
Display	High-contrast 3.5" color LCD with touch-screen functionality	
Data memory	Up to 10,000 loss test results (>1000 including inspection)	
Data readout	Via client USB interface, and wireless via USB WiFi/Bluetooth adapter (option)	
Electrical interfaces	2 x USB host, 1x micro USB, Ethernet	
Power supply	12 V, 2A with interchangeable wall plug for EU, UK, US, and AU	
Battery	Li-ion pack 3.7 V, 20 Wh (optional 8 NiMH/dry batteries)	
Battery life (Li-ion battery pack)	>12 hr	
Recommended recal. interval	3 years	
Dimensions (H x W x D)	208 x 112 x 64 mm (8.2 x 4.4 x 2.5 in)	208 x 153 x 64 mm (8.2 x 6.0 x 2.5 in)
Weight	750 g (1.6 lb)	850 g (1.85 lb)
Operating temperature range	-5 ° to +45 °C (23 ° to 113 °F)	
Storage temperature range	-25 ° to +55 °C (-13 ° to 131 °F)	