

# PM-215-MPO

## Pocket optical power meter USB probe

**The PM-215 MPO cuts  
larger power meters  
to ribbons**

### Description:

The PM-215-MPO optical power meter is a small, pocket size low cost item. The small size does not prevent the optical meter fulfilling all technical requirements for field equipment. The tester can be used as pocket power meter or as USB probe, part of testing workstation. The unit can be easily carried in the pocket or on the belt.

There are two versions for simultaneous measurement:

12/24 multifiber MPO/MTP connectors

16/32 multifiber MPO/MTP connectors

The Li-Pol rechargeable battery ensures long term working time with a minimum life time of 2 years. The unit is able to store 100 measurements which can be uploaded to PC and managed with SmartProtocol software or Data Exporter.



PM-215-MPO



MPO-12/24  
Input adapter



MPO-16/32  
Input adapter

### Features:

- Two functions:
  - Portable power meter
  - USB probe – accessory of Testing Workplace
- MPO/MTP connector: 12/24 or 16/32 fibers
- Multimode applications
- Backlight option
- Small size, light weight
- Absolute and Relative optical power measurement
- Internal two level memory structure
- Capacity up to 100 measurements
- SmartProtocol SW – test reports creating
- Data Exporter – data download to Excel sheet
- USB port for:
  - USB probe - full control via simple commands
  - charging the battery
  - data upload to PC
  - firmware upgrade
- Build-in Li-Pol rechargeable battery pack
- Auto Off, battery status indicator

### Standard accessories:

- Power meter
- MPO/MTP input adapter
- Power charging adapter
- Traceable calibration certificate
- Soft carrying case
- USB cable
- SmartProtocol SW

### Optional

- Hybrid Master MTP patchcord<sup>1</sup>
- Hard carry case (TE-HC-01)



TE-HC-01  
Hard carry case (265 x 270 x 90 mm)

Note: 1) Hybrid MPO patchcord on request, please define connector type

### Specifications:

Photo detector MM – large-scale Si  
 Working wavelengths MM 850 nm  
 Uncertainty  $\pm 5\%$  (@ -27 to +20 dBm)  
 $\pm 10\%$  (@ -30 to -27 dBm)  
 Resolution 0.01  
 Dynamic range -30 dBm to +20 dBm  
 Dimensions 24 x 47 x 71 mm  
 Weight Less than 90 g  
 Temperature operating -10 to +50 °C  
 storage -40 to +70 °C  
 Humidity (non cond.) 0 – 95%  
 Operating temperature -10 to +50 °C  
 Battery working time > 35 hrs  
 Battery life time > 2 years  
 Compliant with RoHS-requirements (2002/95/EG, 27.01.2003)

### Note:

850 nm @ -10 dBm

850 nm  
including MTP/MPO adapter  
battery loaded

between battery charging

### Ordering code:

multifiber multimode tester:

**PM-215-MPO-MM-(16)-(L)** standard tester for 12/24 MTP/MPO connectors  
**-16** tester 16/32 MTP/MPO connectors  
**-L** tester with Backlight option

### Application:

- Optical components testing
- Optical networks measurement
- Test reports creating

### SmartProtocol compatible (refer to TEQ\_02-07\_EN-SmartProtocol)

**Loss Testing Report**

Trace: OPTOKON Cable House - Znojmo  
 Route: OPTOKON Cable House - Jihlava  
 End A: OPTOKON End B: Jihlava  
 Power Meter: FMA20/FMA207090 Fiber Length: 8000 m  
 No. of Splices: 10 Splice Loss: 0.1 dB  
 No. of Connectors: 2 Connector Loss: 0.5 dB  
 No. of Passive Devices: 0 Passive Device: 3.6 dB  
 Fiber Attenuation 1310 nm: 0.35 dB/km Loss Limit 1310 nm: 4.80 dB  
 Fiber Attenuation 1550 nm: 0.20 dB/km Loss Limit 1550 nm: 3.60 dB

Fiber	Loss [dB] 1310 nm			Loss [dB] 1550 nm			Note
	A-B	A-A	Avg	A-B	A-A	Avg	
1	4.32	4.24	4.28	3.48	3.42	3.45	PASS
2	4.43	4.41	4.42	3.58	3.53	3.56	PASS
3	4.59	4.47	4.53	3.26	3.22	3.24	PASS
4	4.13	4.21	4.17	3.28	3.18	3.23	PASS
5	4.52	4.54	4.53	3.33	3.31	3.32	PASS
6	4.62	4.51	4.51	3.18	3.12	3.15	FAIL
7	4.18	4.25	4.22	3.44	3.36	3.40	PASS
8	4.25	4.26	4.26	3.41	3.41	3.41	PASS
9	4.38	4.35	4.37	3.27	3.27	3.27	PASS
10	4.69	4.48	4.58	3.15	3.19	3.18	FAIL
11	4.11	4.13	4.12	3.27	3.15	3.21	PASS
12	4.27	4.24	4.26	3.59	3.48	3.54	PASS
Avg	4.42	4.31	4.38	3.43	3.32	3.40	
Max	4.62	4.51	4.51	3.15	3.12	3.14	
Min	4.11	4.13	4.12	3.24	3.18	3.21	

**Data Selection**

Wavelength: 1310 nm

Position	Value
1/4	0.48
1/5	3.99
1/6	3.19
1/10	0.48
1/11	3.99
1/12	3.19
1/16	0.48
1/17	3.99
1/18	3.19
1/22	0.48
1/23	3.99

**SmartProtocol 1.0.0** (c) copyright OPTOKON Co., Ltd. 2007

Operator: Mleada Rychnovská Date: 13.6.2007  
 Company: OPTOKON Co., Ltd., spol. s r.o.  
 Trace: OPTOKON Cable House - Znojmo  
 Route: OPTOKON Cable House - Jihlava  
 End A: OPTOKON End B: Jihlava  
 Power Meter: Fiber Length [m]: 6000  
 No. of Splices: 10 Splice Loss [dB]: 0.1  
 No. of Connectors: 2 Connector Loss [dB]: 0.5  
 No. of Passive Devices: 0 Passive Device [dB]: 3.6  
 Wavelength: 1310 [nm] Fiber Attenuation [dB/km]: 0.35

### DataExporter compatible (refer to TEQ\_08-13\_EN-DataExporter)

**OPTOKON data exporter 1.1**

Cable	Fiber	WaveLength	dBm
001	001	1310	-5.1
001	002	1310	-5.24
001	003	1310	-4.95
001	004	1310	-4.74
001	005	1310	-5.01
001	006	1310	-6.36
001	007	1310	-5.98
001	008	1310	-4.05
001	009	1990	-3.05
001	010	1990	-3.24
001	011	1990	-3.28
001	012	1990	-2.84
001	013	1990	-2.73
001	014	1990	-4.05
001	015	1990	-4.18
001	016	1990	-3.83

**Export settings**

Export device details  
 Export table header

Decimal separator: , .

Ok

	A	B	C	D	E
1	OFT820	OFT8200008			
2	Cable	Fiber	WaveLength	dBm	
3	1	1	1310	-5.1	
4	1	2	1310	-5.24	
5	1	3	1310	-4.95	
6	1	4	1310	-4.74	
7	1	5	1310	-5.01	
8	1	6	1310	-6.36	
9	1	7	1310	-5.98	
10	1	8	1310	-6.05	
11					
12					
13					