

PM-212-MTP-GE Multifiber optical power meter

Description:

The PM-212-MTP-GE optical power meter is designed to measure absolute or relative optical power in optical networks terminated with multifiber MTP/MPO connectors. Because of use the large scale Ge photodiode the tester can measure overall optical power level from all fibers of MTP/MPO connectors in wide wavelength range.

There are two versions for simultaneous measurement:

12/24 multifiber MPO/MTP connectors

16/32 multifiber MPO/MTP connectors

The memory capacity allows storage and uploading of up to 100 measurements including memory position or fiber number, wavelength, absolute value or relative value and insertion loss. The SmartProtocol PC evaluation software supports memory download, test report generation and Data Exporter for data download to Excel sheet.

The rechargeable battery ensures long term working with a minimum service life of 2 years. Batteries can be charged via a USB port or external AC/DC adaptor. The controlled charging process ensures optimal battery status and extended operation time.



Features:

- Easy measurement of multifiber connectors
- MTP/MPO input connector: 12/24 or 16/32 fibers
- Two functions:
 - - portable power meter
 - - USB probe - accessory of Testing Workplace
- Ge large scale photodetector
- Firmware upgrade via USB
- Displayed units: dBm, dB, mW
- High capacity memory
- SmartProtocol PC software
 - - memory download, reporting solution
- Data Exporter PC software
 - - data download to Excel sheet
- Battery charging via USB port
- Battery status indicator
- Absolute and Relative optical power measurement
- Powered by Li-Pol rechargeable battery

Specifications:

Photodetector active area	Large scale Ge photodiode 19.6 mm ²	
Working wavelength range	800 - 1800 nm	
Dynamic range:	-40 dBm to +10 dBm	800 - 1800 nm
Uncertainty	± 5%	1310, 1550 nm @ -20 dBm
Resolution	0.01	
Dimensions	80 x 47 x 25 mm	including MTP/MPO adapter
Weight	Less than 90 g	
Temperature operating Temperature storage Humidity (non condensing)	-10 to +50 °C -40 to +60 °C 0 - 95%	
Battery working time	> 95 hrs	
Battery life time	> 2 years	980 mAh Li-Pol

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
- Hard carry case (TE-HC-01)



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

SmartProtocol compatible

Loss Testing Report

Date: 19.6.2007
Operator: Miroslav Rychter
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: PM202 (PM202000) Fiber Length: 8000 m
No. of Splices: 10 Splice Loss: 0.1 dB
No. of Connectors: 2 Connector Loss: 0.3 dB
No. of Passive Devices: 0 Passive Device: 3.6 dB
Fiber Attenuation 1310 nm: 0.30 dB/km Loss Limit 1310 nm: 4.85 dB
Fiber Attenuation 1550 nm: 0.20 dB/km Loss Limit 1550 nm: 3.60 dB

Fiber	Loss @B 1310 nm			Loss @B 1550 nm			Note
	A-B	B-A	Avg.	A-B	B-A	Avg.	
1	0.52	0.45	0.49	0.40	0.52	0.46	PASS
2	0.43	0.41	0.42	0.30	0.37	0.34	PASS
3	0.59	0.41	0.50	0.28	0.37	0.32	PASS
4	0.52	0.52	0.52	0.28	0.33	0.31	PASS
5	0.52	0.54	0.53	0.33	0.37	0.35	PASS
6	0.52	0.51	0.51	0.28	0.33	0.30	FAIL
7	0.19	0.26	0.22	0.24	0.26	0.25	PASS
8	0.26	0.26	0.26	0.20	0.21	0.21	PASS
9	0.26	0.26	0.26	0.20	0.21	0.21	PASS
10	0.68	0.48	0.58	0.15	0.17	0.16	FAIL
11	0.11	0.13	0.12	0.27	0.18	0.23	PASS
12	0.37	0.26	0.32	0.30	0.28	0.34	PASS
Avg	0.40	0.37	0.39	0.23	0.27	0.25	
Min	0.11	0.13	0.12	0.15	0.17	0.16	
Max	0.59	0.54	0.53	0.28	0.33	0.31	

Data Selection

Wavelength: 1310 nm

Recorded Data

Position	Value
1/4	0.48
1/5	3.39
1/6	3.19
1/7	0.48
1/10	0.48
1/11	3.39
1/12	3.19
1/16	0.48
1/17	3.39
1/18	3.19
1/22	0.48
1/23	3.39

SmartProtocat 1.0

Loss Testing Report

Operator: Miroslav Rychter Date: 19.6.2007
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]: 8000
No. of Splices: 10 Splice Loss [dB]: 0.1
No. of Connectors: 2 Connector Loss [dB]: 0.3
No. of Passive Devices: 0 Passive Device [dB]: 3.6
Wavelength: 1310 [nm] Fiber Attenuation [dB/km]: 0.36

DataExporter compatible

OPTOKON data exporter 1.1

Options

Connecting to device: Connected device: **OFT820 OFT8200008**

Serial ports: COM4

Export settings

Export device details
 Export table header

Decimal separator: .

Cable	Fiber	Wavelength	dBm
<input checked="" type="checkbox"/>	001 001	1310	-5.1
<input checked="" type="checkbox"/>	001 002	1310	-5.24
<input checked="" type="checkbox"/>	001 003	1310	-4.95
<input checked="" type="checkbox"/>	001 004	1310	-4.74
<input checked="" type="checkbox"/>	001 005	1310	-5.01
<input checked="" type="checkbox"/>	001 006	1310	-6.36
<input checked="" type="checkbox"/>	001 007	1310	-5.98
<input checked="" type="checkbox"/>	001 008	1310	-6.05
<input type="checkbox"/>	001 009	1550	-3.06
<input type="checkbox"/>	001 010	1550	-3.24
<input type="checkbox"/>	001 011	1550	-3.38
<input type="checkbox"/>	001 012	1550	-2.84
<input type="checkbox"/>	001 013	1550	-2.73
<input type="checkbox"/>	001 014	1550	-4.06
<input type="checkbox"/>	001 015	1550	-4.16
<input type="checkbox"/>	001 016	1550	-3.83

Export to Excel
Export to Clipboard

F10

	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					

Application:

- Optical components testing
- Optical networks measurement

Ordering Code:

Multifiber single mode tester

PM-212-MTP-GE-(16) tester with Ge photodetector, MTP/MPO 12/24 fibers input interface
-16 tester 16/32 MTP/MPO connectors