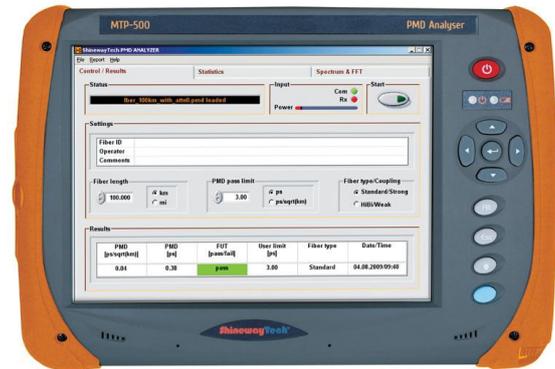# MTP-500 PMD Analyzer

PMD Characterization System for High-Speed Optical Network Installation & Certification

> MTP-500 Polarization Mode Dispersion (PMD) Analyzer consisting of an independent optical source (the Source) and the analyzer module (the Receiver) tests single-mode fibers quickly and easily. It measures PMD using the ITU-T G.650 recommended method with high-speed scanning technique, which ensures the best immunity against fiber movement. Windows XP platform and easy to use analysis software shorten learning process and enhance productivity.

Features

- ITU-T G.650 recommended method for PMD characterization:
    - Accurate total PMD, PMD coefficient
    - Intelligent certification: Threshold setting enables auto Pass/Fail assessment
- Fully support 10G/40G/100G DWDM optical network upgrade test
- High-speed scanning technique enables the best immunity against fiber movement during test
- Compliant with G.650.2, EIA/TIA FOTP-124 & IEC-61941
- High dynamic range for long span measurement
    - 40dB or 200Km
    - 48dBw high power light source available for 240Km
- Industry's fastest measurement speed: 2s
- Test through optical amplifiers
- Suitable for aerial and buried fiber infrastructure
- Windows XP with PMD Analyzer software for fast setup and easy handling
- Easy to use touch screen
- Professional and comprehensive test report
- Internal battery supports 5 hours continuous operation
- Rugged casing, field application ready
- External ports: RG45x1, RS232x1, USBx2, VGAx1
- CE, FCC certificates

MTP-500-A PMD Analyzer

MTP-500-L PMD Source

PMD Test System - Measurement Report

Measurement ID

Test set-up

Wavelength range	1525-1570nm
Step size	0.05nm

Measured data

PMD [ps/sqrt(km)]	PMD [ps]	FUT [pass/fail]	User limit [ps]	Fiber type	Date/Time
0.04	0.38	pass	3.00	Standard	04.08.2009/09:48

PMD statistics

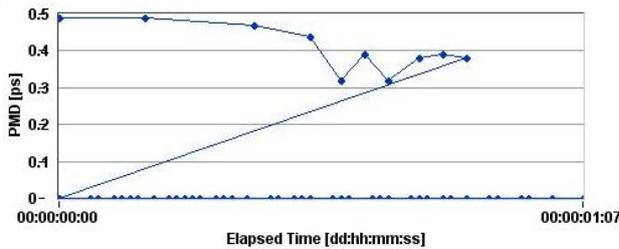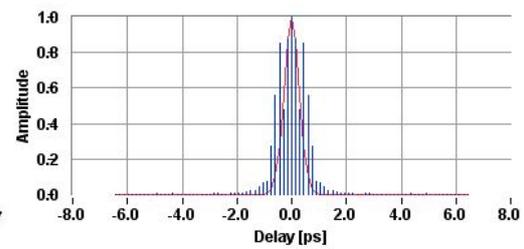|		
Number of PMD measurements	10	
Delay between measurements [HH:MM:SS]	00:00:00	
Average PMD [ps]	0.41	
Standard deviation [ps]	0.06	
Max. PMD value [ps]	0.49	
Min. PMD value [ps]	0.32	
PMD [ps] #1	0.49	
PMD [ps] #2	0.49	
PMD [ps] #3	0.47	
PMD [ps] #4	0.44	
	0.32	
	0.39	
	0.32	
	0.38	
	0.39	
	0.38	

Histogram
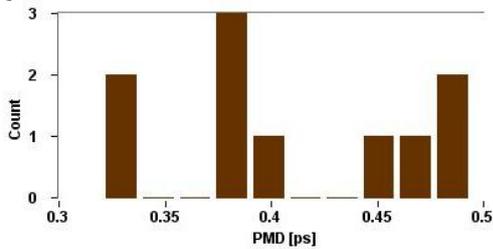
spectrum
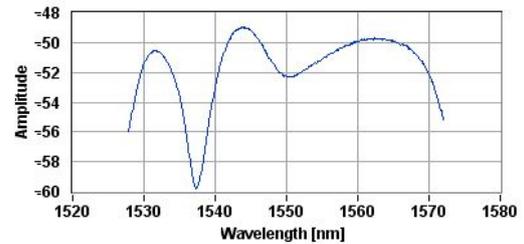
Drift

& Gauss

Specifications

Model	MTP-500
Operating System	Windows XP
Display	10.4" TFT Touch Screen (800×600)
Connectivity	USB×2; RJ-45 (10/100 Mbit/s)×1; RS232×1; VGA×1
Data Storage	4G CF Card
MTP-500-L PMD Source	
Wavelength (nm)	1525-1565
Output Power	< 20mW
MTP-500-A PMD Analyzer	
Dynamic Range (dB)	>40 (Optional 48dB)
Measurement Method	ITU-T G650
PMD Range [1]	0.2 - 35ps
PMD Accuracy [2]	±(0.1ps+5% of PMD)
DGD Range [3]	0.5 - 90ps (for Polarization Maintaining Fiber)
DGD Accuracy [3]	$\pm$ (0.1ps + 3% of DGD)
Wavelength Scanning Time	< 100 ms
Measurement Time	2-10s (depending on PMD value)
General Specifications	
Power Supply	Li-Ion Rechargeable Battery / AC Adaptor
Battery Life	(Continuous operation) PMD Analyzer ≥5hrs; Source ≥7hrs
Operating Temperature	0℃ - 40℃
Storage Temperature	-20℃ - 60℃
Relative Humidity	0-90% (non-condensing)
Weight	PMD Analyzer: 3.1kg; Source: 1kg
Dimensions (H×W×T)	PMD Analyzer: 320×240×90mm; Source: 170×170×55mm

Notes:

(1) For standard SMF, with strong mode coupling, length≥100m;

(2) For standard SMF, with strong mode coupling, length≥100m, with single standard PMD emulator;

(3) For HiBi fiber, with weak mode coupling.

* Specifications subject to change without notice

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