DESCRIPTION

PH500 Series OTDR is lightweight, easy to operate and has a low reflection LCD with more than 12 operating hours with its IP65 protection level, making it perfect for outdoor field testing.

With its large 7-inch color screen, PH500 Series OTDR is a highly integrated platform that features a high-capacity Lithium-Ion battery, an optional USB microscope (inspection probe) and built-in optical test functions such as PON test module, visual fault locator (VFL), optional power meter and laser source, making it an ideal tools for installation, service turn-up, and maintenance of FTTx/Access optical networks.

FEATURES

- Integrated platform design, easy to use and rugged
- IP65 protection level for outdoor environment
- 7-inch outdoor LCD screen
- Optional PON live network testing (1625nm)
- Optional MMF test module (850/1300nm)
- Support multi-language display and input
- Optical Link Explorer™ (OLE™) is used enabled to simplify analyzing

APPLICATIONS

- FTTX test with PON networks
- CATV network testing
- Access network testing
- LAN network testing
- Metro network testing
- Lab and factory testing
- Live fiber troubleshooting

STANDARD FEATURES

VFL (Visual Fault Locator)

VFL is available as an standard module in PH500 series OTDR, offered with a built-in 650nm visual fault locator and a FC/UPC connector.

OPTIONAL FEATURES

MULTIMODE

Besides the standard single-mode (1310/1550nm) test, PH500 series OTDR supports multi-mode (850/1300m) and test mode as an option to analyze multi-mode fiber networks.

PON Live Testing

PH500 Series OTDR uses 1625nm wavelength with built-in-filter for live network testing without impacting the live network.

PM (Power Meter)

PH500 Series OTDR comes with optional built-in power meter allowing technicians to verify optical signal easily.

LS (Laser Source)

PH500 Series OTDR comes with optional built-in laser source through OTDR laser Port that allows technicians to verify the total loss of the local network easily with a power meter.

FM (Fiber Microscope)

The optional fiber microscope (inspection probe) facilitates the inspection before connector mating. PH500 Series OTDR offers this capability through a USB port connection, which allows quick and easy inspection of connector end faces.

Note : Specifications are subject to change without notice

SPECIFICATIONS

Dimension (mm)	253 x 168 x 73.6 (1.5kg (battery included))
Display	7 inch TFT-LCD with LED backlight (touch screen function is optional)
Interface	1 x RJ45 port, 3 x USB port(USB2.0,Type A USB x 2, Type B USB x 1)
Power Supply	10V(DC), 100V(AC) to 240V(AC), 50~60Hz
Battery	7.4V(DC)/4.4Ah lithium battery (with air traffic certification), operating time: 12 hours, Telcordia GR-196-CORE, charging time: <4 hours (power off)
Power Saving	Backlight off: Disable/1 to 99minutes Auto shutdown: Disable/1 to 99minutes
Data Storage	Internal memory: 4GB (about 40,000 groups of curves)
Language	User selectable (English, Thai, Vietnamese) -contact us for availability of other language
Environmental Conditions	Operating temperature and humidity: -10°C~+50°C, ≤95% (non-condensation) Storage temperature and humidity: -20°C~+75°C, ≤95% (non-condensation) Proof: IP65(IEC 60529)

Models

PH500-M	850/1300nm
PH500-MD	850/1300/1310/1550nm
PH500-D	1310/1550nm
PH500-T	1310/1550/1625nm

STANDARD ACCESSORIES

Carrying Case

User Guide

Power adapter

Li Battery

USB Cord

CD

FC Adapter

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TECHNICAL PARAMETERS

Model	Testing wavelength (MM:±20nm, SM:±10nm)	Dynamic range (dB)	Event/Attenuation dead-zone (m)
PH500-M21	850/1300	19/21	1.2/8m
PH500-MD21	850/1300 1310/1550	19/21 35/33	1.2/8m 0.8/4m
PH500-MD22	850/1300 1310/1550	19/21 40/38	1.2/8m 1/4m
PH500-D26	1310/1550	26/24	0.8/4m
PH500-D35	1310/1550	35/33	0.8/4m
PH500-D40	1310/1550	40/38	1/4m
PH500-D43	1310/1550	43/41	1/5m
PH500-D45	1310/1550	45/43	0.8/3.6m
PH500-TP35	1310/1490/1550	35/33/33	0.8/4m
PH500-T40F	1310/1550/1625	40/38/38	1/4m
PH500-T43F	1310/1550/1625	43/41/41	1/5m
PH500-TC35F	1310/1550/1650	35/33/31	1/5m

Pulse Width	Single mode: 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1µs, 2µs, 5µs, 10µs ,20us Multi mode: 850nm： 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1us 1300nm： 3ns, 5ns, 10ns, 20ns, 50ns, 100ns, 200ns, 500ns, 1us, 2us
Distance Range	Single mode: 100m, 500m, 2km, 5km, 10km, 20km, 40km, 80km, 120km, 160km, 240km Multi mode: 500m, 2km, 5km, 10km, 20km, 40km, 80km
Sampling Resolution	0.05m
Sampling Point	Maximum 128,000 points
Linearity	≤0.05dB/dB
Scale Indication	X axis: 4m~70m/div, Y axis: Minimum 0.09dB/div
Distance Resolution	0.01m
Distance Accuracy	±(1m+measuring distance× 0.003% +sampling resolution) (excluding IOR uncertainty)
Reflectance Accuracy	Single mode: ±2dB, multi mode: ±4dB
IOR Setting	1.2000 ~ 1.7000
Units	km, miles, feet
OTDR Trace Format	Telcordia universal, SOR, issue 2(SR-4731) OTDR: User selectable automatic or manual set-up
Testing Modes	Visual fault locator: Visible red light for fiber identification and troubleshooting Light source: Stabilized Light Source, (CW, 270Hz, 1kHz, 2kHz output) Field microscope probe
Fiber Event Analysis	Auto or manual operation, displayed in table format User defined PASS/FAIL thresholds: -Reflective and non-reflective events: 0.01 to 1.99dB (0.01dB steps) -Reflective: 0.01 to 32dB (0.01dB steps) -Fiber end/break: 3 to 20dB (1dB steps
Other Functions	Real time sweep: 1Hz Averaging modes: Timed (1 to 3600 sec.) Live fiber detect: Verifies presence communication light in optical fiber Trace overlay and comparison

Note : Specifications are subject to change without notice

VFL Module (Visual Fault Locator) - Standard

Power	10mW, CW/2Hz
Interface	1 x RJ-45, 3 x USB (Type A x 2, Type B x 1)
Display	7-inch TFT-LCD (Touch Screen is Optional)
Battery	7.4V/4.4Ah Lithium Battery
Working Temperature	-10ºC ~ +50ºC
Storage Temperature	-20ºC ~ +70ºC
Humidity	≤95% (No-condensation)
Dimension (mm)	253 x 168 x 73.5
Weight (kg)	1.5 (with battery)

PM Module (Power Meter) - Optional

Wavelength Range	800 - 1700
Calibrated Wavelength (±10nm)	850/1300/1310/1490/1550/1625/1650nm
Test Range	Type A: -65 ~ 5dBm (standard), Type B : -40 ~ 23dBm (optional)
Resolution	0.01dB
Accuracy	±0.35dB ± 1nW
Connector	FC/UPC or specify
Modulation Identification	270/1kHz/2kHz, Pinput ≥ -40dBm

OLS Module (Optical Light Source) - Optional

Working wavelength(±10nm)	1310/1550/1625nm
Output power	Adjustable -25 ~ 0dBm
Accuracy	±0.5dB
Connector	FC/UPC or specify

FM Module (Fiber Microscope, AX-FIM-4) - Optional

Magnification	400X
Resolution (µm)	1.0
Field of View (mm)	0.40 x 0.31
Working/Storage Temperature (ºC)	-18 ~ 35
USB Interface	1.1/2.0
Sensor	1/3 decimeter, 2 million pixels
Weight (kg)	0.15
Dimension (mm)	235 x 95 x 30

Fiber Launcher (FL-A1-1000-SCA-SCU) - Optional

Fiber Type	SMF / MMF
Typical Fiber Loss attenuation	≤0.32dB/km, ≤0.18dB/km
Dimension (mm) L x W x H	241 x 140 x 76
Casing Material	Plastic
Weight (without fiber) (g)	470
Operating Temperature (°C)	-40 ~ 55

Note : Specifications are subject to change without notice

ORDERING INFORMATION

EXAMPLE : PH500-D40SSCUNMTN

PH500	D	40	S	SCU	N	M	T	N

Model (nm)

M	850/1300
MD	850/1300/ 1310/1550
D	1310/1550
T	1310/1550/1625

Laser Source

S	With laser source
N	Without laser source

Water Proof

P	With Water Proof
N	Without Water Proof

Touch Screen

T	With touch screen
N	Without touch screen

Dynamic Range

21	19/21dB for Model M or 19/21/35/33 dB for Model MD
22	19/21/40/38dB for Model MD
26	26/24dB for Model D
32	32/30 dB for Model D
35	35/33dB for Model D
40	40/38dB for Model D
43	43/41dB for Model D
45	45/43dB for Model D
40F	40/38/38dB for Model T with filter
43F	43/41/41dB for Model T with filter

Connector

FCU	FC/UPC
SCU	SC/UPC
STU	ST/UPC
FCA	FC/APC
SCA	SC/APC
STA	ST/APC

Fiber Microscope

M	With fiber microscope
N	Without fiber microscope

Power Meter

OPM-A	Power Meter Type A
OPM-B	Power Meter Type B
N	Without Power Meter

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