# **OTDR PH300 SERIES**

1310/1550nm (30/28dB, 35/33dB), 1650nm (30dB, 35dB)





## **DESCRIPTION**

The PH300 Series OTDR is designed with a lightweight and user-friendly graphical user interface. PH300 Series OTDR offer accurate and complete fiber evaluation, which allows error-free testing with single button operation. It is cost effective, with high resolution and compact in size.

Suitable for installation, operation and maintenance of optical networks.

## **FEATURES**

- 5-inch capacitive touchscreen, portable and easy to carry
- Supports 10mw VFL, OLS, OPM, OLTS, OLE<sup>TM</sup> and fiber microscope
- Ultra-short 1m/4m deadzone
- Available 1625nm live fiber testing module
- Exports in SOR and PDF formats
- Supports pass-through 1x32 splitter PON networks
- Optical Link Explorer<sup>TM</sup> (OLE<sup>TM</sup>) is used enabled to simplify analyzing

#### **APPLICATIONS**

- Real-time troubleshooting
- Access network testing
- LAN/WAN network testing
- CATV network testing
- · Metro network testing
- · Lab and factory testing

## **SPECIFICATIONS**

Wavelength (nm)	Dynamic Range (dB)	30/28	35/33	30	35
Attenuation Dead-zone (m) Fiber Type Pulse Width  Distance Accuracy ±(0.75m+test distance x 3 x 10 <sup>-5</sup> +sampling resolution) (excluding IOR uncertainty) Linearity (dB/dB)  Sampling Points 128,000  Loss Resolution (dB) 1.30000~1.70000  Optical Port OTDR: FC/UPC or SC/UPC (APC is available) Display Sinch TFFT-LCD (touch screen) Data Storage USB2.0 Port USB Type-C Cable Port Working Temperature (*C) Storage Temperature (*C)  Storage Temperature (*C) Humidity (%) Battery 3.7V/7000mAh lithium battery, support fast charge Dimension (mm) 195 x 141 x 44 Weight (kg) OPTICAL POWER METER  Output Power (dBm) Calibrated Wavelength (nm) Measurement Range (dBm)  Output Power (dBm)  Same as OTDR Output Power (dBm)  VISUAL FAULT LOCATOR Working Wavelength Output Power (dBm)  Output Power (dBm)  Same as OTDR  VISUAL FAULT LOCATOR Working Wavelength Output Power USBUM 10mm Unyme 10mm VISUAL FAULT LOCATOR  Working Wavelength Output Power	Wavelength (nm)	1310/1550 1650		550	
Fiber Type Pulse Width 3ns~20us  Distance Accuracy ±(0.75m+test distance x 3 x 10 5 + sampling resolution) (excluding IOR uncertainty) Linearity (dB/dB) \$0.03 Sampling Points 128,000 Loss Resolution (dB) 1.30000~1.70000 Optical Port OTDR: FC/UPC or SC/UPC (APC is available) Display 5 inch TFT-LCD (touch screen) Data Storage 16GB card USB2.0 Port USB Type-C Cable Port Working Temperature (*C) 10 °85 (Non-condensing) Humidity (%) 8 10 °85 (Non-condensing) Battery 3.7V/7000mAh lithium battery, support fast charge Dimension (mm) 195 x 141 x 44 Weight (kg) 0.9kg (battery included)  OPTICAL POWER METER Output Power (dBm) Calibrated Wavelength (nm) Measurement Range (dBm) -60°+5  OPTICAL LIGHT SOURCE Working Wavelength Output Power (dBm)  Same as OTDR Output Power (dBm)  VISUAL FAULT LOCATOR Working Wavelength Output Power Output Power  VISUAL FAULT LOCATOR Working Wavelength Output Power Output Power	Event Dead-zone (m)	≤1m			
Pulse Width     3ns~20us       Distance Accuracy     ±(0.75m+test distance x 3 x 10 <sup>-5</sup> +sampling resolution) (excluding IOR uncertainty)       Linearity (dB/dB)     \$0.03       Sampling Points     128,000       Loss Resolution (dB)     0.001       IOR Setting     1.30000~1.70000       Optical Port     OTDR: FC/UPC or SC/UPC (APC is available)       Display     5 inch TFT-LCD (touch screen)       Data Storage     16GB card       USB 1,0 Port     USB 1,0 Port       Working Temperature (°C)     0°85 (Non-condensing)       Storage Temperature (°C)     0°85 (Non-condensing)       Humidity (%)     0°85 (Non-condensing)       Battery     3.7V/7000mAh lithium battery, support fast charge       Dimension (mm)     195 x 141 x 44       Weight (kg)     0.9kg (battery included)       OPTICAL POWER METER       Output Power (dBm)     > -10       Calibrated Wavelength (nm)     850/1300/1310/1490/1550/1625/1650nm       Measurement Range (dBm)     -60~+5       OPTICAL LIGHT SOURCE       Working Wavelength     Same as OTDR       Output Power (dBm)     > -10       VISUAL FAULT LOCATOR       Working Wavelength     650nm±10nm       Output Power     10mw	Attenuation Dead-zone (m)	≤4m			
Distance Accuracy       ±(0.75m+test distance x 3 x 10 <sup>5</sup> +sampling resolution) (excluding IOR uncertainty)         Linearity (dB/dB)       \$0.03         Sampling Points       128,000         Loss Resolution (dB)       0.001         IOR Setting       1.30000~1.70000         Optical Port       OTDR: FC/UPC or SC/UPC (APC is available)         Display       5 inch TFT-LCD (touch screen)         Data Storage       16GB card         USB Type-C Cable Port         Working Temperature (°C)       0~85 (Non-condensing)         Storage Temperature (°C)       0~85 (Non-condensing)         Humidity (%)       0~85 (Non-condensing)         Battery       3.7V/7000mAh lithium battery, support fast charge         Dimension (mm)       195 x 141 x 44         Weight (kg)       0.9kg (battery included)         OPTICAL POWER METER         Output Power (dBm)       > -10         Calibrated Wavelength (nm)       850/1300/1310/1490/1550/1625/1650nm         Measurement Range (dBm)       -60~+5         OPTICAL LIGHT SOURCE         Working Wavelength       Same as OTDR         Output Power (dBm)       > -10         VISUAL FAULT LOCATOR         Working Wavelength       650nm±10nm         Output Powe	Fiber Type	SMF			
Linearity (dB/dB)  Sampling Points  Loss Resolution (dB)  O.001  IOR Setting  OTDR: FC/UPC or SC/UPC (APC is available)  Display  Data Storage  Data Interface  USB2.0 Port  Working Temperature (°C)  Storage Temperature (°C)  Humidity (%)  Battery  Dimension (mm)  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength  Output Power (dBm)  OUTDR: FC/UPC or SC/UPC (APC is available)  1.30000~1.70000  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  OUTDR: FC/UPC or SC/UPC (APC is available)  1.30000~1.70000  OPTICAL POWER METER  OUTDR: FC/UPC or SC/UPC (APC is available)  1.30000~1.70000  OPTICAL LIGHT SOURCE  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  OUTPUT Power  OUTPUT Power	Pulse Width	3ns~20us			
Sampling Points  Loss Resolution (dB)  1.30000~1.70000  Optical Port  OTDR: FC/UPC or SC/UPC (APC is available)  Display  Data Storage  16GB card  USB2.0 Port  USB Type-C Cable Port  Working Temperature (°C)  Storage Temperature (°C)  Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  OPTICAL LIGHT SOURCE  OUTPUT Power (dBm)  Same as OTDR  OUTPUT Power (dBm)  OUTPUT Power (dBm)  OUTPUT Power (dBm)  OUTPUT Power  OUTPUT	Distance Accuracy	$\pm$ (0.75m+test distance x 3 x 10 <sup>-5</sup> +sampling resolution) (excluding IOR uncertainty)			
Loss Resolution (dB)  IOR Setting  1.30000~1.70000  Optical Port  OTDR: FC/UPC or SC/UPC (APC is available)  Display  5 inch TFT-LCD (touch screen)  Data Storage  16GB card  USB2.0 Port  Working Temperature (°C)  Storage Temperature (°C)  Storage Temperature (°C)  O ~85 (Non-condensing)  Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Acailarated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  Same as OTDR  Output Power (dBm)  > -10  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  Output Power		≤0.03			
IOR Setting  Optical Port  OTDR: FC/UPC or SC/UPC (APC is available)  Display  5 inch TFT-LCD (touch screen)  Data Storage  16GB card  USB2.0 Port  USB Type-C Cable Port  Working Temperature (°C)  Storage Temperature (°C)  Fundity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  Same as OTDR  Output Power (dBm)  Output Power (dBm)  OUTSUAL FAULT LOCATOR  Working Wavelength  Output Power  OUTPUT DOMEN  OUTPUT DOMEN  Same as OTDR  Output Power (dBm)  Output Power (dBm)  OUTPUT DOMEN  Same as OTDR  Output Power (dBm)  OUTPUT DOMEN  OUTPUT	Sampling Points	128,000			
Optical Port       OTDR: FC/UPC or SC/UPC (APC is available)         Display       5 inch TFT-LCD (touch screen)         Data Storage       16GB card         USB 2.0 Port       USB Type-C Cable Port         Working Temperature (°C)       -10 ~+ 50         Storage Temperature (°C)       0~85 (Non-condensing)         Humidity (%)       0~85 (Non-condensing)         Battery       3.7V/7000mAh lithium battery, support fast charge         Dimension (mm)       195 x 141 x 44         Weight (kg)       0.9kg (battery included)         OPTICAL POWER METER         Output Power (dBm)       > -10         Calibrated Wavelength (nm)       850/1300/1310/1490/1550/1625/1650nm         Measurement Range (dBm)       -60~+5         OPTICAL LIGHT SOURCE         Working Wavelength       Same as OTDR         Output Power (dBm)       > -10         VISUAL FAULT LOCATOR         Working Wavelength       650nm±10nm         Output Power       10mw	Loss Resolution (dB)	0.001			
Display Data Storage 16GB card USB2.0 Port USB Type-C Cable Port Working Temperature (°C) Storage Temperature (°C) Storag	IOR Setting	1.30000~1.70000			
Data Storage16GB cardData InterfaceUSB 2.0 PortWorking Temperature (°C)-10 ~+ 50Storage Temperature (°C)0~85 (Non-condensing)Humidity (%)0~85 (Non-condensing)Battery3.7V/7000mAh lithium battery, support fast chargeDimension (mm)195 x 141 x 44Weight (kg)0.9kg (battery included)OPTICAL POWER METEROutput Power (dBm)> -10Calibrated Wavelength (nm)850/1300/1310/1490/1550/1625/1650nmMeasurement Range (dBm)-60~+5OPTICAL LIGHT SOURCEWorking WavelengthSame as OTDROutput Power (dBm)> -10VISUAL FAULT LOCATORWorking Wavelength650nm±10nmOutput Power10mw	Optical Port	OTDR: FC/UPC or SC/UPC (APC is available)			
Data Interface  USB Type-C Cable Port  Working Temperature (°C)  Storage Temperature (°C)  Now Storage Temperature (°C)  Storage Temperature (°C)  Storage Temperature (°C)  O°85 (Non-condensing)  Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  Same as OTDR  Output Power (dBm)  > -10  VISUAL FAULT LOCATOR  Working Wavelength  650nm±10nm  Output Power	Display	5 inch TFT-LCD (touch screen)			
Data Interface  USB Type-C Cable Port  -10 ~+ 50  Storage Temperature (°C)  Non-condensing)  Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  Same as OTDR  Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  Output Power  Output Power  Output Power  OUTDIAL LIGHT SOURCE  For a source of the control of the cont	Data Storage	16GB card			
Working Temperature (°C)  Storage Temperature (°C)  Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  > -10  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  OUTPUT Power  OUTPUT Power  OPTICAL LIGHT SOURCE  OUTPUT Power (dBm)  > -10  VISUAL FAULT LOCATOR  Output Power  Output Power	Data Interface	USB2.0 Port			
Storage Temperature (°C)0~85 (Non-condensing)Humidity (%)0~85 (Non-condensing)Battery3.7V/7000mAh lithium battery, support fast chargeDimension (mm)195 x 141 x 44Weight (kg)0.9kg (battery included)OPTICAL POWER METEROutput Power (dBm)> -10Calibrated Wavelength (nm)850/1300/1310/1490/1550/1625/1650nmMeasurement Range (dBm)-60~+5OPTICAL LIGHT SOURCEWorking WavelengthSame as OTDROutput Power (dBm)> -10VISUAL FAULT LOCATORWorking Wavelength650nm±10nmOutput Power10mw		USB Type-C Cable Port			
Humidity (%)  Battery  3.7V/7000mAh lithium battery, support fast charge  Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Same as OTDR  Output Power (dBm)  > -10  VISUAL FAULT LOCATOR  Working Wavelength  Output Power  Output Power  10mw	Working Temperature (°C)	-10 ~+ 50			
Battery Dimension (mm)  195 x 141 x 44  Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength  Output Power		,			
Dimension (mm)195 x 141 x 44Weight (kg)0.9kg (battery included)OPTICAL POWER METEROutput Power (dBm)> -10Calibrated Wavelength (nm)850/1300/1310/1490/1550/1625/1650nmMeasurement Range (dBm)-60~+5OPTICAL LIGHT SOURCEWorking WavelengthSame as OTDROutput Power (dBm)> -10VISUAL FAULT LOCATORWorking Wavelength650nm±10nmOutput Power10mw		ζ,			
Weight (kg)  OPTICAL POWER METER  Output Power (dBm)  Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength  Output Power	-	3.7V/7000mAh lithium battery, support fast charge			
OPTICAL POWER METER  Output Power (dBm) > -10  Calibrated Wavelength (nm) 850/1300/1310/1490/1550/1625/1650nm  Measurement Range (dBm) -60~+5  OPTICAL LIGHT SOURCE  Working Wavelength Same as OTDR  Output Power (dBm) > -10  VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm  Output Power 10mw	Dimension (mm)	195 x 141 x 44			
Output Power (dBm) >-10 Calibrated Wavelength (nm) 850/1300/1310/1490/1550/1625/1650nm Measurement Range (dBm) -60~+5  OPTICAL LIGHT SOURCE Working Wavelength Same as OTDR Output Power (dBm) >-10  VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm Output Power 10mw	Weight (kg)				
Calibrated Wavelength (nm)  Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength  Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength  Output Power	OPTICAL POWER METER				
Measurement Range (dBm)  OPTICAL LIGHT SOURCE  Working Wavelength Same as OTDR Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm Output Power 10mw	• •				
OPTICAL LIGHT SOURCE  Working Wavelength Same as OTDR  Output Power (dBm) > -10  VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm  Output Power 10mw	5				
Working Wavelength Output Power (dBm)  VISUAL FAULT LOCATOR  Working Wavelength Output Power  10mw	Measurement Range (dBm)				
Output Power (dBm) > -10  VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm Output Power 10mw	OPTICAL LIGHT SOURCE				
VISUAL FAULT LOCATOR  Working Wavelength 650nm±10nm  Output Power 10mw	Working Wavelength	Same as OTDR			
Working Wavelength 650nm±10nm Output Power 10mw	Output Power (dBm)	> -10			
Output Power 10mw	VISUAL FAULT LOCATOR				
· · · · · · · · · · · · · · · · · · ·		650nm±10nm			
Working Mode CW/1Hz/2Hz	-	-			
	Working Mode	CW/1Hz/2Hz			

Note: Specifications are subject to change without notice



## **OTDR PH300 SERIES**

## 1310/1550nm (30/28dB, 35/33dB), 1650nm (30dB, 35dB)



- 1) Dynamic range is measured with 20us pulse width, averaging time is 180s, SNR=1.
- 2) Event dead-zone is measured with 3ns pulse width, return loss>-45dB
- 3) Attenuation dead-zone is measured with 3ns pulse width, return loss>-55dB

## OPTICAL LINK EXPLORER TM (OLETM)

The OLE<sup>™</sup> Test was developed using multiple pulse width acquisitions and advanced algorithms to characterize the fiber-under-test and display the events using iconic symbols.

## **FEATURES**

- Complex OTDR results are displayed in easy-to-understand iconic symbols
- Easy to use, single button operation, automatic analysis and intuitive link map display
- Automatic multiple pulse width and wavelength acquisition
- · Identify each event on the fiber, automatically including splicing points, macro bends, connectors and optical splitters.

## **STANDARD ACCESSORIES**



## **ORDERING INFORMATION**

Part No	Description
PH300-D30SCU1	PH300 Series OTDR, 1310/1550nm (30/28dB), VFL, SC/UPC, OPM, $OLE^{TM}$
PH300-D35SCU1	PH300 Series OTDR, 1310/1550nm (35/33dB), VFL, SC/UPC, OPM, $OLE^{TM}$
PH300-SA30F1SCA1	PH300 Series OTDR, 1650nm (30dB), VFL, SC/APC, OPM, OLE <sup>TM</sup>
PH300-SA35F1SCA1	PH300 Series OTDR, 1650nm (35dB), VFL, SC/APC, OPM, OLE <sup>TM</sup>

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Rev No : K-02

Printed Date : 05/09/2024

