



OPTOWARE

Optical Handheld Tester Sets



Auto λ detection and power measurement
Automatic measurement to save time & cost
Smartphone Apps & Bluetooth Interface



19 λ CWDM Wavelength Meter

- Auto λ detection for CWDM 19-wavelength
- Auto power calibration & display



FTTx/PON Wavelength Meter

- 1310/1490/1550nm auto λ detection
- Auto power calibration & display



Optical Power Measurement

- Optical network power measurement
- Power measurement for system & module



Insertion Loss Measurement

- Optical network & component IL measurement
- IL measurement for CWDM 16-wavelength



Smartphone Interface

- Communicates with smartphone via bluetooth
- Smartphone application software

Specifications

Parameters		Values
Fiber type		Single-mode, 9/125um
Optical interface		SC/PC or FC/PC (PC/APC selectable)
Operation		Wavelength Power Meter / Insertion Loss Meter
Auto wavelength detection		1270~1625nm for CWDM 19 wavelength (WPM-19)
Measurement range		+6 ~ -40dBm
Resolution		0.01dB
Measurement accuracy		± 0.5 dB @-20dBm
Display unit		nm, dB, dBm
Battery	Type	Li-ion Polymer Rechargeable
	Power	3.7V
	Life	25hrs (Continuous usage)
	Charging time	2.5hrs
General Spec	Size(HxWxD) & Weight	138x73x30mm, 205g
	Temperature (operating)	-10 $^{\circ}$ C to 50 $^{\circ}$ C (0~90%)
	Temperature (storage)	-30 $^{\circ}$ C to 60 $^{\circ}$ C (0~90%)
	Display	LCD with LED backlight
	Data storage	1600 measurements
	Accessories	5V AC adapter & Manual

Auto 1nm resolution λ detection and power measurement
Automatic measurement to save time & cost
Smartphone Apps & Bluetooth Interface



Wide range Wavelength Meter

- Auto λ detection from 1270nm to 1610nm
- Auto power calibration & display



FTTx/PON Wavelength Meter

- 1310/1490/1550nm auto λ detection
- Auto power calibration & display



Optical Power Measurement

- Optical network power measurement
- Power measurement for system & module



Insertion Loss Measurement

- Optical network & component IL measurement
- IL measurement for CWDM 16-wavelength



Smartphone Interface

- Communicates with smartphone via bluetooth
- Smartphone application software

Specifications

Parameters		Values
Fiber type		Single-mode, 9/125um
Optical interface		SC/PC or FC/PC (PC/APC selectable)
Operation		Wavelength Power Meter / Insertion Loss Meter
Auto wavelength detection		1270~1625nm for WDM 1nm wavelength
Measurement range		+6 ~ -40dBm
Wavelength Resolution		1 nm
Power Resolution		0.01dB
Measurement accuracy		± 0.5 dB @-20dBm
Display unit		nm, dB, dBm
Battery	Type	Li-ion Polymer Rechargeable
	Power	3.7V
	Life	25hrs (Continuous usage)
	Charging time	2.5hrs
General Spec	Size(HxWxD) & Weight	138x73x30mm, 205g
	Temperature (operating)	-10 $^{\circ}$ C to 50 $^{\circ}$ C (0~90%)
	Temperature (storage)	-30 $^{\circ}$ C to 60 $^{\circ}$ C (0~90%)
	Display	LCD with LED backlight
	Data storage	1700 measurements
	Accessories	5V AC adapter & Manual

Power Meter & Light Source Smartphone Apps & Bluetooth Interface



Optical Power Measurement
- Optical network power measurement
- Power measurement for components & system



Stabilized Laser Source
- Reference light source for loss test
- Wide variable range of output power



Return Loss Measurement
- FTTx/PON return loss measurement
- Optical component return loss measurement



Insertion Loss Measurement
- FTTx/PON connector IL measurement
- Optical network & component IL measurement



Smartphone Interface
- Controlled by smartphone via bluetooth
- Displayed on smartphone via bluetooth
- Smartphone application software

Specifications

Parameters	Values	
Fiber & Connector type	Single-mode, SC/APC or FC/APC	
Operation mode	Return Loss / Laser Source	
	Power Meter / Insertion Loss	
Optical Return Loss (RL)	Wavelength	1310nm, 1550nm or 1310/1550nm ±15nm
	Spectral width (rms)	<5nm
	Measurement range	0~60dB
	Resolution	0.01dB
Optical Laser Source (LS)	Measurement accuracy	±0.5dB(0~40dB), ±1.0dB(40~60dB) @ 20±3℃
	Wavelength	1310nm, 1550nm or 1310/1550nm ±15nm
	Spectral width (rms)	<5nm
Optical Power Meter (PM)	Output power range	-3 ~ -40dBm
	Stability	±0.2dB(15minutes) at 23±3℃
	Wavelength range	1100 ~ 1650nm
General Spec	Calibrated wavelength	1310/1490/1550nm
	Measurement range	+6 ~ -65dBm
	Resolution	0.01dB
	Measurement accuracy	±0.5dB @ -20dBm
General Spec	Size(HxWxD) & Weight	138x73x30mm, 205g
	Temperature (operating)	-10℃ to 50℃ (0~90%)
	Temperature (storage)	-30℃ to 60℃ (0~90%)
	Batteries	Lithium-Ion Rechargeable, AC Adapter
	Battery life	11hrs (for ORL Meter), 30hrs (for Power Meter)
	Display	LCD with LED backlight
	Data storage	300 measurements

3λPM 3-Lambda Power Meter

Simultaneous λ detection & Calibration

B/G/E -PON 3wavelength Power Meter & Insertion Loss Tester (1310/1490/1550nm)



3λ FTTx/PON Wavelength Meter
- Simultaneous measurement of 1310/1490/1550nm
- Auto power calibration & display



Optical Power Measurement
- Optical network power measurement
- Power measurement for system & module



Insertion Loss Measurement
- Optical network & component IL measurement
- Simultaneous IL measurement for 3-wavelengths

Specifications

Parameters	Values	
Fiber type	Single-mode, 9/125um	
Optical interface	SC/PC or FC/PC (PC/APC selectable)	
Operation mode	Power Meter / Insertion Loss Meter	
Auto wavelength detection	1310/1490/1550nm	
Measurement range	+6 ~ -50dBm	
Resolution	0.01dB	
Measurement accuracy	±0.5dB @ -20dBm	
Display unit	nm, dB, dBm	
Battery	Type	Li-ion Polymer Rechargeable
	Power	3.7V
	Life	25hrs (Continuous usage)
	Charging time	2.5hrs
General Spec	Size(HxWxD) & Weight	138x73x30mm, 205g
	Temperature (operating)	-10℃ to 50℃ (0~90%)
	Temperature (storage)	-30℃ to 60℃ (0~90%)
	Display	LCD with LED backlight
	Data storage	300 measurements
Accessories	5V AC adapter & Manual	

Specially designed for distinguishing the connection status of ONT with bidirectional PON power meter function



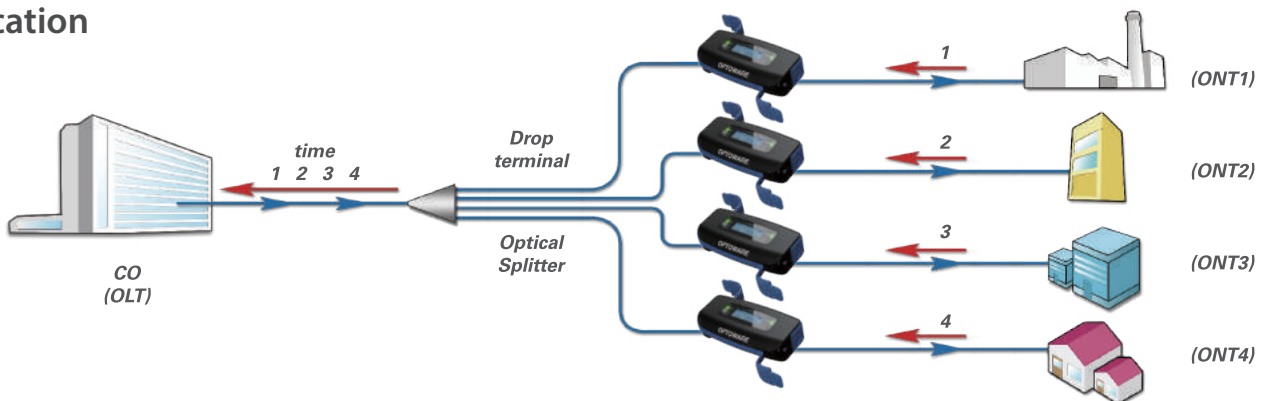
Features

- Easy to check the ONT connection status at FTTH drop box
- Unused port detection at FTTH drop terminal side
- Indicator for signal presence or absence of OLT and ONT
- Bidirectional power meter between OLT and ONT
- Optical power measurement of ONT signal in burst mode
- General power meter for 1310/1490/1550nm in CW mode

- Portability & Universal adapter applied
- Support to recharge by USB port
- Compact size and Very low cost
- Robust, shock-proof, splash-proof design for field operation



Application



*LED Status Light



Specifications

Parameters		Values
Adapter type		Default : PC/Universal Adapter (Option : APC/FC , APC/SC)
Fiber type		Single-mode
Laser type		Default : 1310nm ± 20nm(FP-LD)
Measurement Range		CW : +10 ~ -60dBm / Burst : +10 ~ -30dBm
Power meter	FOC-100-3	1310nm Burst, 1310, 1490 & 1550nm
	FOC-100-CWDM	1310nm Burst, 1310, 1430, 1450, 1470, 1490, 1510, 1530, 1550, 1570, 1590 & 1610nm
Display		LCD w/LED backlight / 2color LED (OLT & ONT Indicator)
Battery type		Li-ion rechargeable
Charging		Micro-USB power cable
Size(HxWxD) & Weight		128.2x66.2x30mm, 150g