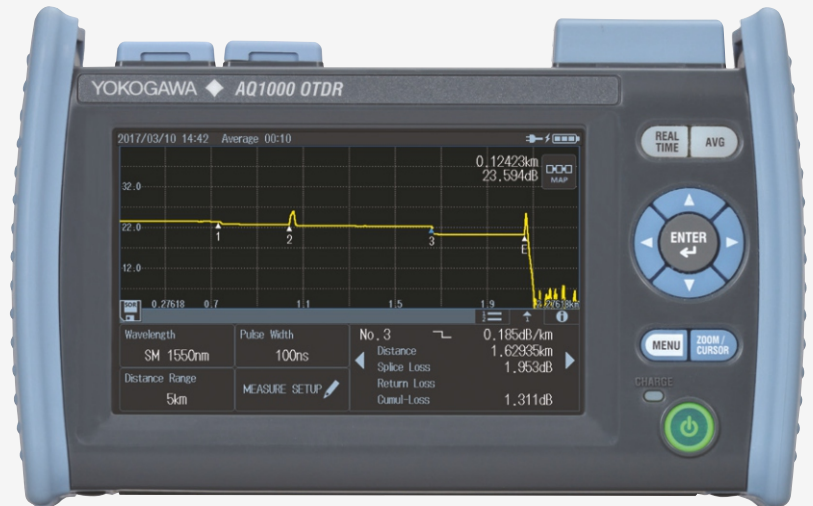


Good things  
come in small  
packages



## AQ1000 Optical Time Domain Reflectometer

### At-a-glance

The AQ1000 satisfies test and measurement needs in analyzing access optical networks.

- Wavelength: 1310 / 1550nm
- Dynamic ranges: 32 / 30dB
- Quick boot-up under 10 seconds!
- Long battery operation time over 10 hours
- OTDR view modes: Trace view & Map view
- Multi-touch touchscreen
- Built-in Power checker(PC), Light source(LS)
- PDF reporting
- USB power feeding
- Very light weight: 660gms



Precision Making

## Major specifications

### OTDR

Items	Specifications
Wavelength (nm) <sup>*4</sup>	1310 ±20/1550 ±20
Applicable fiber	SM (ITU-T G.652)
Distance range (km)	0.2, 0.5, 1, 2, 5, 10, 20, 30, 50, 100, 200, 256
Pulse width (ns)	3, 10, 20, 30, 50, 100, 200, 300, 500, 1000, 2000, 5000, 10000, 20000
Sampling resolution	min. 5 cm
Number of sample points	max. 256000
Distance measurement accuracy (m)	±(1 m + Measurement distance × 2 × 10 <sup>-5</sup> ±1 sampling resolution)
Event dead zone (m) <sup>**1</sup>	≤ 0.8
Attenuation dead zone (m) <sup>**2, *4</sup>	4/5
Dynamic range (dB) <sup>**3, *4</sup>	32/30
Loss measurement accuracy	±0.03 dB/dB
Reflection accuracy	±2 dB
Laser class <sup>†</sup>	Class 1M or 1

\*1: Pulse width = 3 ns, Return loss ≥ 55 dB, at a 1.5 dB or less point from an unsaturated peak level. \*2: Pulse width = 10 ns, Return loss ≥ 55 dB, at a point where the backscatter level is within ±0.5 dB of the normal level. \*3: Pulse width = 10000 ns, Measurement time = 3 minutes, Sampling resolution = 8 m, SNR = 1. \*4: typical

### General specifications

Items	Specifications						
Display*	5.0 inch color TFT LCD WVGA (Capacitive touchscreen) Resolution: 800 × 480 pixel						
External interfaces	USB2.0 × 2 (Type A × 1: Host, Type micro B × 1: USB mass storage devices, DC power supply) Wireless LAN (WLAN option): IEEE802.11b/g/n						
Dimensions	185 mm (W) × 116 mm (H) × 56 mm (D) (excluding projections)						
Weight	Approx. 660 g						
Environmental conditions	<table> <tr> <td>Temperature</td><td>Operating: -10°C to 50°C, (10 to 35°C during charging, excluding a USB power adapter) (0 to 50°C when WLAN using) Storage: -20°C to 60°C</td></tr> <tr> <td>Humidity</td><td>5 to 90%RH (No condensation)</td></tr> <tr> <td>Altitude</td><td>4000 m or less</td></tr> </table>	Temperature	Operating: -10°C to 50°C, (10 to 35°C during charging, excluding a USB power adapter) (0 to 50°C when WLAN using) Storage: -20°C to 60°C	Humidity	5 to 90%RH (No condensation)	Altitude	4000 m or less
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Humidity	5 to 90%RH (No condensation)						
Altitude	4000 m or less						
Power requirements	DC 5 V±10%, max. 1.5 A						
Battery	<table> <tr> <td>Type</td><td>Lithium ion polymer</td></tr> <tr> <td>Operating time</td><td>10 hours or more (Telcordia GR-196-CORE Issue 2, September 2010)</td></tr> <tr> <td>Recharge time</td><td>5 hours (typical)</td></tr> </table>	Type	Lithium ion polymer	Operating time	10 hours or more (Telcordia GR-196-CORE Issue 2, September 2010)	Recharge time	5 hours (typical)
Type	Lithium ion polymer						
Operating time	10 hours or more (Telcordia GR-196-CORE Issue 2, September 2010)						
Recharge time	5 hours (typical)						
Safety standard	EN61010-1						
Laser safety	EN 60825-1:2014, IEC 60825-1:2007, GB 7247.1-2012, FDA 21CFR1040.10 and 1040.11						
EMC	<table> <tr> <td>Emission</td><td>EN 61326-1 Class A, EN 55011 Class A Group 1</td></tr> <tr> <td>Immunity</td><td>EN 61326-1 Table2</td></tr> </table>	Emission	EN 61326-1 Class A, EN 55011 Class A Group 1	Immunity	EN 61326-1 Table2		
Emission	EN 61326-1 Class A, EN 55011 Class A Group 1						
Immunity	EN 61326-1 Table2						
Wireless	Wireless LAN (option) EN300 328 V2.1.1, EN301 489-1 and 17						

\* The LCD may contain some pixels that are always ON or OFF (0.002% or fewer of all displayed pixels including RGB), but this is not indicative of a general malfunction.

#### Yokogawa's approach to preserving the global environment

- Yokogawa's electrical products are developed and produced in facilities that have received ISO14001 approval.
- In order to protect the global environment, Yokogawa's electrical products are designed in accordance with Yokogawa's Environmentally Friendly Product Design Guidelines and Product Design Assessment Criteria.

### Power checker function

Items	Specifications
Wavelength setting (nm)	1310/1490/1550/1625/1650
Measurement range (dBm)	-50 to -5
Measurement accuracy (dB)*	±0.5

\* CW, 1310 nm (with a spectral width of 10 nm or less), Optical input power 100 μW (-10 dBm), SM fiber (ITU-T G.652) with FC/PC connector, Wavelength setting: Measured wavelength ±0.5 nm, Excluding a secular change of equipment. (add 1% one year after calibration.)

### Stabilized light source function

Items	Specifications
Wavelength (nm)	1310 ±25/1550 ±25
Optical output level	-3 dBm ±1 dB
Output power stability (dB) *	±0.05
Modulation mode	CW, 270 Hz, 1 kHz, 2 kHz
Laser class <sup>†</sup>	Class 1M or 1

\* for 5 minutes at a constant ambient temperature within 23°C ±2°C.

### Visible light source function (VLS option)

Items	Specifications
Wavelength (nm)	650 ±20
Optical output level	-3 dBm or more (Peak)
Modulation mode	CW, 2 Hz
Laser class <sup>††</sup>	Class 3R

Note.

All the specifications are valid at 23°C ±2°C and after a warming up for 5 minutes or more, unless otherwise stated.

† Class 1M: IEC 60825-1:2007, GB 7247.1-2012, Class 1: EN 60825-1:2014

†† EN 60825-1:2014, IEC 60825-1:2007, GB 7247.1-2012

### Model and suffix code

Model	Suffix codes	Descriptions
AQ1000		AQ1000 OTDR
Optical connector	-USC	Universal Adapter (SC)
	-UFC	Universal Adapter (FC)
	-ASC	Universal Adapter (SC Angled-PC)
Visible light source	/VLS	Visible Light Source
Wireless LAN*	/WLN	Wireless LAN

\* The use of wireless LAN is subject to the regulation of each country. For more detail, please consult with our sales representatives.

### Accessories (Sold separately)

Model	Suffix codes	Descriptions
735070		AQ7932 Emulation Software (Ver. 6.01 or later)
Language	-EN	English
	-CH	Chinese
	-KO	Korean
735482		Universal adapter (for OTDR port)
Optical connector	-FCC	FC
	-SCC	SC
A1590WL		USB cable for DC power supply, Length 1 m
B8105EP		Strap

#### NOTICE

- Before operating the product, read the user's manual thoroughly for proper and safe operation.
- Company names and product names appearing in this document are the registered trademarks of their respective companies.
- "Typical" or "Typ." in this document means "Typical value", which is for reference, not guaranteed specification.

**2-Year Warranty**