Latest Portable OTDR Portfolio

Optical Time Domain Reflectometer
Selection Guide

Precision Making

Select from features and size

Modular Flagship OTDR
AQ7280 Series

Flagship modular frame offering the most configuration flexibility

- Multitasking feature capable of testing up to 4 fibers simultaneously
- Large "pinch zoom" responsive capacitive touchscreen

Multi Field Tester OTDR
AQ1210 Series

Midsize non-modular robust platform, small enough to be operated easily with one hand

- Smart and fully-featured, now includes multitasking

Entry level OTDR
AQ1000

Most compact and affordable model, yet still packed with the essential features

- Simple tablet-like touchscreen icon menu making it perfect for beginners

YOKOGAWA OTDR function comparison

● Standard ○ Option

Items		AQ7280	AQ1210	AQ1000
Dimensions (W) × (H) × (D) mm		287×210×80	210×148×69	185×116×56
Weight		2.8 kg	1 kg	660 g
Display	Size	8.4-inch	5.7-inch	5.0-inch
	Touchscreen	●	●	●
Battery operation		15 hours	10 hours	10 hours
Power supply		AC Adapter	USB power adapter	USB power adapter
Wired LAN		○	●*1	—
Wireless LAN		●*2 File transfer	●*3 File transfer & remote control	○
Multi-fiber measurement		●	●	—
Smart Mapper		○	●	—
Multi-tasking		●	●	—
Stabilized light source		○	●	●
Power checker*4		○	○	●
Optical power meter		○	○	—
Visible light source		○	○	○
Fiber surface test*5	Image display	●	●	—
	Automatic judgment	○	○	—
Auto/Multi-fiber loss test		—	●	—
Schedule function (Monitoring)		○	—	—
Momentary interruption monitoring		○*6	—	—

*1 A commercially available wired LAN adapter is required. (verified model: UE300 (TP-Link))
*2 A commercially available wireless SD card is required. (verified model: FlashAir™ (KIOXIA))
   (This feature may not be available due to the discontinuation of FlashAir™.)
*3 A commercially available wireless LAN adapter is required. (verified models: TL-WN725N (TP-Link), CF-WU810N (COMFAST))
*4 Integrated optical power meter
*5 A commercially available optical fiber scope is required. (verified models: DI-1000-B2/DI-2000-B2 (Lightel), FVO-730B-P (Eternal))
   (Available firmware for DI-2000-B2: AQ7280 (R2.08 or later), AQ1210 (R1.03 or later))
*6 /LAN option and AQ7940 Optical Fiber Monitoring Software are required.
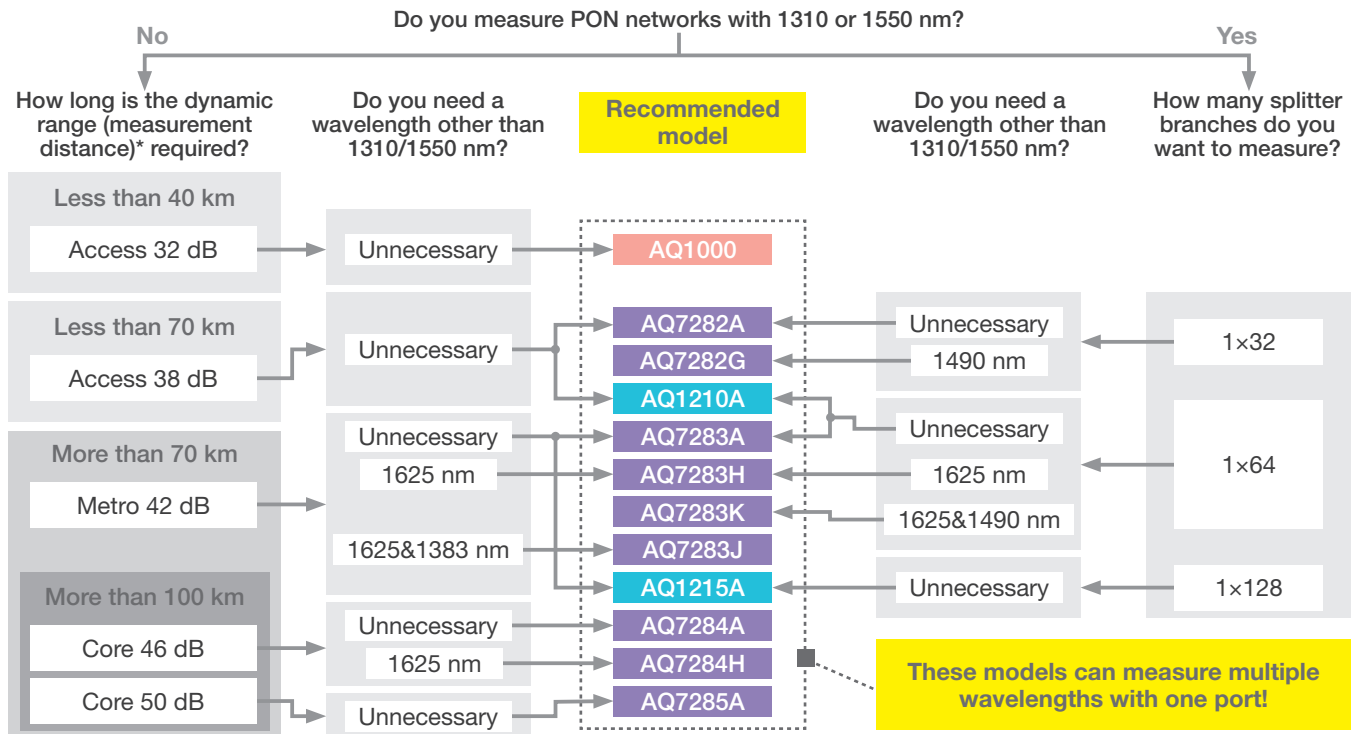
YOKOGAWA OTDR model map

Cable type	Target network			Test application					
	Area*		PON	Installation (measurement of new and dark lines)			Installation/Maintenance (measurement of new and live lines)		
				Model		Wavelength (nm)	Model		Wavelength (nm)
Single-mode optical fiber cable	Access	32 dB	—	AQ1000	—	1310 1550			
		38 dB	1×32	AQ7282	A	1310 1550			
					G	1310 1550 1490			
			1×64	AQ1210	A	1310 1550	AQ1210	E	1310 1550 1625
	Access/Metro	42 dB	1×64	AQ7283	A	1310 1550	AQ7283	E	1310 1550 1625
					H	1310 1550 1625			
					K	1310 1550 1625 1490		F	1310 1550 1650
					J	1310 1550 1625 1383			
			1×128	AQ1215	A	1310 1550	AQ1215	E	1310 1550 1625
								F	1310 1550 1650
							AQ1216	F	1310 1550 1650
	Metro/Core	46 dB	—	AQ7284	A	1310 1550			
					H	1310 1550 1625			
	Core	50 dB	—	AQ7285	A	1310 1550			
Multimode optical fiber cable	Access/LAN		1×64	AQ1210	D	1310 1550			
			—			850 1300			
	LAN		—	AQ7282	M	850 1300			

*The dB value is the maximum dynamic range of OTDRs for each target area.

Use flow chart to select from application and measurement performance

Installation of single mode fiber (measurement of new and dark fibers)
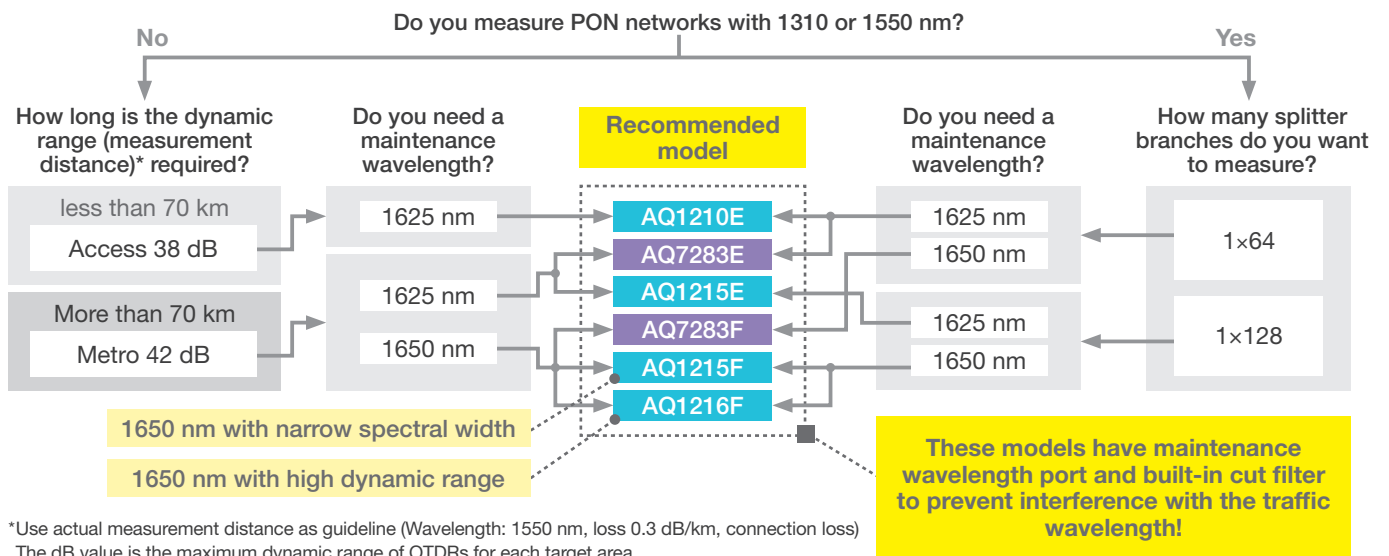
The installation models can measure multi trace, including traffic wavelengths (1310/1550 nm) using.

Do you measure PON networks with 1310 or 1550 nm?

No → / ← Yes

How long is the dynamic range (measurement distance)* required?	Do you need a wavelength other than 1310/1550 nm?	**Recommended model**	Do you need a wavelength other than 1310/1550 nm?	How many splitter branches do you want to measure?
Less than 40 km — Access 32 dB	Unnecessary	AQ1000		
Less than 70 km — Access 38 dB	Unnecessary	AQ7282A / AQ7282G / AQ1210A	Unnecessary / 1490 nm	1×32
More than 70 km — Metro 42 dB	Unnecessary / 1625 nm / 1625&1383 nm	AQ7283A / AQ7283H / AQ7283K / AQ7283J / AQ1215A	Unnecessary / 1625 nm / 1625&1490 nm / Unnecessary	1×64 / 1×128
More than 100 km — Core 46 dB	Unnecessary / 1625 nm	AQ7284A / AQ7284H		
Core 50 dB	Unnecessary	AQ7285A		

These models can measure multiple wavelengths with one port!

*Use actual measurement distance as guideline (Wavelength: 1550 nm, loss 0.3 dB/km, connection loss)
The dB value is the maximum dynamic range of OTDRs for each target area.

Installation and maintenance of single mode fiber (measurement of new and live lines)

Two separate ports effectively avoids mishaps by offering a dedicated port for the traffic wavelength and a second port for the (16xxnm) maintenance wavelength with built-in cut filter to prevent interference with the traffic wavelength.

Do you measure PON networks with 1310 or 1550 nm?

No → / ← Yes

How long is the dynamic range (measurement distance)* required?	Do you need a maintenance wavelength?	**Recommended model**	Do you need a maintenance wavelength?	How many splitter branches do you want to measure?
less than 70 km — Access 38 dB	1625 nm	AQ1210E / AQ7283E	1625 nm / 1650 nm	1×64
More than 70 km — Metro 42 dB	1625 nm / 1650 nm	AQ1215E / AQ7283F / AQ1215F / AQ1216F	1625 nm / 1650 nm	1×128

1650 nm with narrow spectral width
1650 nm with high dynamic range

These models have maintenance wavelength port and built-in cut filter to prevent interference with the traffic wavelength!

*Use actual measurement distance as guideline (Wavelength: 1550 nm, loss 0.3 dB/km, connection loss)
The dB value is the maximum dynamic range of OTDRs for each target area.

Installation of multimode fiber

Recommended model AQ7282M AQ1210D

Ordering information

| Minimum configuration | Not sold separately (Cannot be added after shipping) | Sold separately |

AQ7280 series

Items	Models	Suffix codes	Descriptions	Selection types
OTDR Mainframe	AQ7280	-□□	OTDR Mainfarme [Select one language: HJ, HE, HM, HC, HK, HR]	Required
		/LAN	Ethernet	Optional
		/FST	Fiber Surface Test function	Optional
		/MNT	Monitoring function	
		/SMP	Smart Mapper function	
		/SB	Shoulder Belt	
AC Adapter	739874	-□□	AC Adapter [Select one power cord type]	Required
OTDR Unit	AQ728□□	—	OTDR Unit [Select one model]	Required
		-□□□	[Select one connector type: USC, UFC, ULC, ASC, NUA]	
		/PC	Power Checker (Integrated optical power meter)	Optional
		/SLS	Stabilized Light Source	
OPM/VLS modules	AQ278□□	-□□□	OPM (Optical Power Meter) [Select one model] [Select one connector: SCC, FCC, SFC (2.5 mm dia.), LMC (1.25 mm dia.)] (Models with "V" include the VLS function.)	Optional
	AQ4780	—	VLS (Visible Light Source) (Fixed connector with 2.5 mm dia.)	

Note. The OTDR mainframe, OTDR units, AC adapter, and modules can be additionally purchased separately.

Accessories (Sold separately)

Items	Models	Suffix codes	Descriptions
Application software	AQ7933	-□□□□	Emulation Software (Multi-language) [Select one medium: SP01 (download), SC01 (CD)]
	735071	-HE	AQ7940 Optical Fiber Monitoring Software (Language: English/Japanese)
Additional option license	735050	-□□□	Additional option license [Select one option code: MNT, SMP, FST]
Optical connector adapter (for OTDR)	SU2005A	-□□□	Universal Adapter [Select one connector type: SCC, FCC, LCC] (When OTDR connector is ASC, select SCC. The ASC is not compatible with FCC and LCC.)
Optical connector adapter (for OPM)	735480	-□□□	Universal Adapter [Select one connector type: SCC, FCC]
	735481	-□□□	Universal Adapter [Select one connector type: SFC (2.5 mm dia.), LMC (1.25 mm dia.)]
Battery	739883	—	Battery pack (spare)
Belt	B8070CY	—	Shoulder Belt
Carrying case	739860	—	Soft Carrying Case

AQ1210 series

Items	Models	Suffix codes	Descriptions	Selection types
OTDR Mainframe	AQ121□□	—	OTDR [Select one language: HE, HM, HC, HK, HR]	Required
		-□□	[Select one language]	
		-□□□	[Select one connector for OTDR: USC, UFC, ULC, ASC]	
		-□□□	Optical Power Meter [Select one type: SPM, HPM, PPM] (The connector type is determined by that of OTDR)	Optionalss
		/PC	Power Checker (Integrated optical power meter)	
		/VLS	Visible Light Source	
		/FST	Fiber Surface Test function	Optional
		/SB	Shoulder Belt	

Note. A USB power adapter is also required. Please consult with our seles representatives for recommended products.

Accessories (Sold separately)

Items	Models	Suffix codes	Descriptions
Application software	AQ7933	-□□□	Emulation Software (Multi-language) [Select one medium: SP01 (download), SC01 (CD)]
Additional option license	735051	-FST	Additional option license (FST: Fiber Surface Test function)
Optical connector adapter (for OTDR)	735482	-□□□	Universal Adapter [Select one connector type: SCC, FCC, LCC, ASC]
Optical connector adapter (for OPM)	735480	-□□□	Universal Adapter [Select one connector type: SCC, FCC]
	735481	-□□□	Universal Adapter [Select one connector type: SFC (2.5 mm dia.), LMC (1.25 mm dia.)]
USB cable	A1681WL	—	USB Cable (Type-C at both ends)
Battery	739884	—	Battery pack (spare)
Belt	B8070CY	—	Shoulder Belt
Carrying case	SU2006A	—	Soft Carrying Case

AQ1000

Items	Models	Suffix codes	Descriptions	Selection types
OTDR Mainframe	AQ1000	—	OTDR [Select one model]	Required
		-□□□	[Select one connector for OTDR: USC, UFC, ASC]	
		/VLS	Visible Light Source	Optional
		/WLN	Wireless LAN	

Accessories (Sold separately)

Items	Models	Suffix codes	Descriptions
Application software	AQ7933	-□□□	Emulation Software (Multi-language) [Select one medium: SP01 (download), SC01 (CD)]
Optical connector adapter (for OTDR)	735482	-□□□	Universal Adapter [Select one connector type: SCC, FCC]
USB cable	A1590WL	—	USB Cable (DC power supply)
Strap	B8105EP	—	Strap