

## Wavelength Swept Light Source **AQA5500D/AQB5500D**

The AQA5500D/AQB5500D Wavelength Swept Light Source outputs single-longitudinal-mode laser light that wavelength is swept phase-continuously without mode hopping. The compact, lightweight assembly with built-in light-source has the same performance as the bench-top AQA5500P/AQB5500P models.

### Features

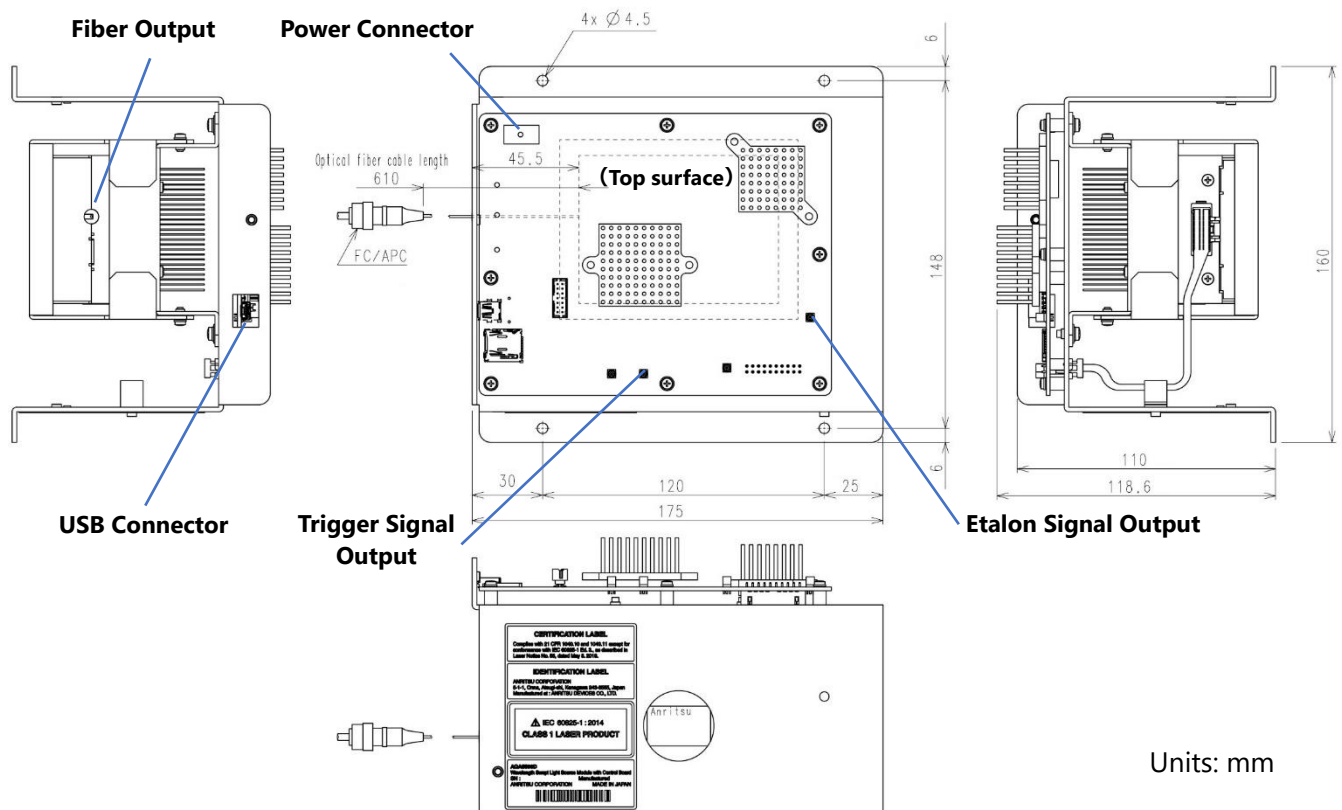
- 1550 nm band swept laser
- Single-longitudinal-mode oscillation without mode hopping
- Compact, lightweight assembly
- Sweep frequency: 1,250 Hz (AQA5500D)  
150 Hz (AQB5500D)
- Wavelength sweep setting width via USB I/F from PC
- Wavelength trigger position setting via USB I/F from PC



### Applications

- Precision dimensional metrology using optical interferometry
- In combination with optical coherence tomography (OCT) equipment
- Temperature, torsion, deformation, and vibration measurements using optical fiber sensing
- Inspecting optical-device wavelength characteristics, etc.

### Dimensions



Units: mm

## Optical/Electrical Specifications

Item	AQA5500D	AQB5500D	Remarks
Optical Connector	FC/APC		Internal optical fiber: SMF
Optical Fiber Length	610 ±50 mm		-
Oscillation Mode	Single longitudinal and mode-hop-free		Monitoring range: approximately 70% of wavelength sweep range centered on sweep center wavelength
Optical Output Wavelength Change Method	Sinusoidal		-
Center Wavelength	1550 ±5 nm		AQA5500D: at 110-nm sweep AQB5500D: at 70-nm sweep
Wavelength Sweep Range	30 to 110 nm	15 to 70 nm	Wavelength sweep setting resolution: 1 pm
Sweep Frequency	1250 ±50 Hz	150 ±20 Hz	Not adjustable
Average Optical Output	≥10 mW		CW Output: Class 1 <sup>1)</sup>
Trigger Signal Output	LVTTL		Interface: MMCX-R-PC (40) Trigger signal output setting resolution: 1 pm
Etalon Signal Output	Analog		Interface: MMCX-R-PC (40)
Power Supply	+12 ±0.5 V, maximum current consumption: 3.2 A		Interface: B4P-VH-B (LF) (SN)
Control Interface	USB 2.0 (type: mini-B)		-
Dimensions	160 (W) × 118.6 (H) × 175 (D) mm		Excluding protrusions
Mass	<1.0 kg		-
Operating Conditions	Temperature: 0° to 50°C, Relative Humidity: ≤85%		No condensation, requires air-cooling <sup>2)</sup>
Storage Environment	Temperature: -20° to +60°C, Relative Humidity: ≤95 %		No condensation or icing

\*About 30-minutes warmup

- 1) This product complies with the IEC 60825-1:2014, 21 CFR1040.10, and 1040.11 laser safety regulations; the following safety labels are affixed to the product.
- 2) To keep the light source module and control boards in the nominal operating temperature range, use air cooling/conditioning matching the usage environment (recommended airflow of 2 m/s in +50°C operating environment)



## AQA5500D/AQB5500D Ordering Information

Model	Name
AQA5500D	<b>Main Unit</b> Wavelength Swept Light Source
-	<b>Standard Accessories</b> CD-ROM 1 disk Contents – Operation Manual, Control Software, USB Driver Operation manual 1 copy

Model	Name
AQB5500D	<b>Main Unit</b> Wavelength Swept Light Source
-	<b>Standard Accessories</b> CD-ROM 1 disk Contents – Operation Manual, Control Software, USB Driver Operation manual 1 copy



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