

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

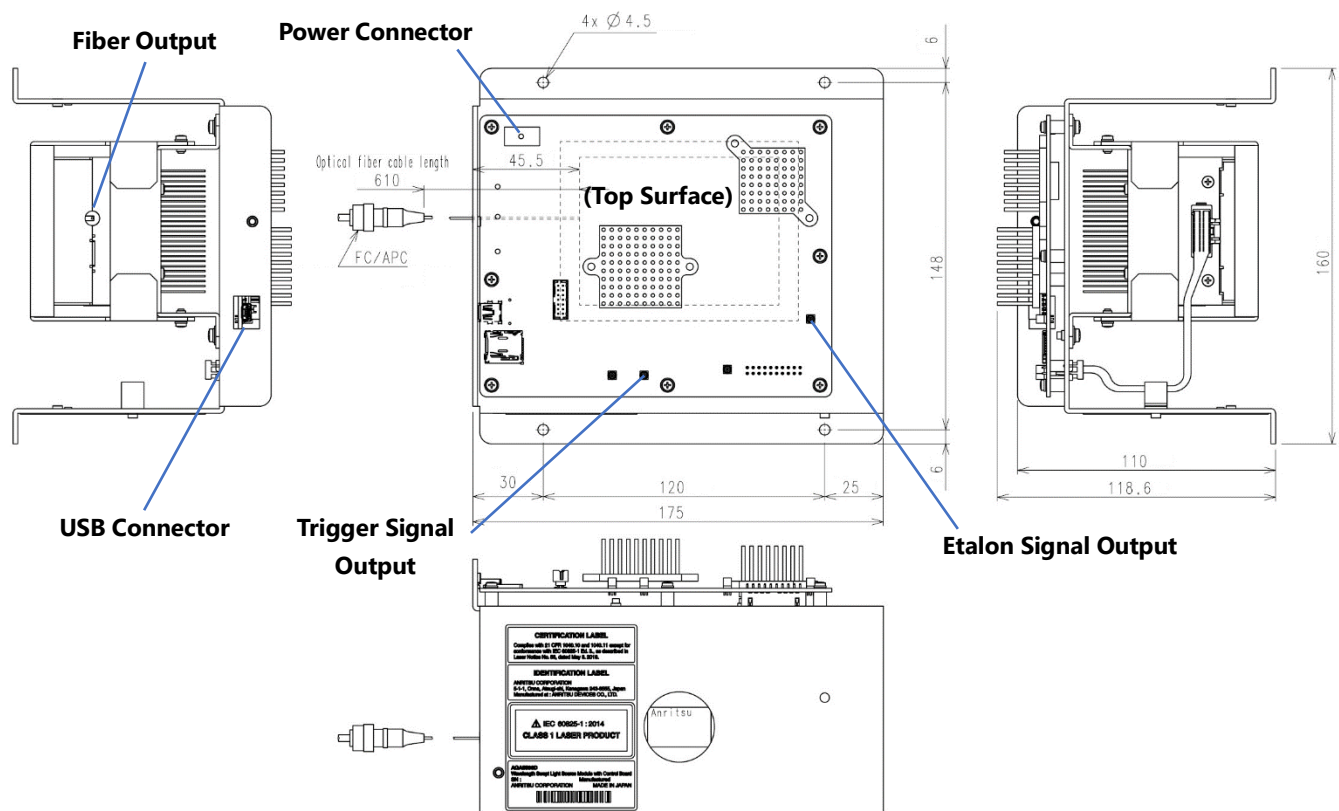
- 1550 nm band swept laser
- Single-longitudinal-mode oscillation without mode hopping
- Compact, lightweight assembly
- Sweep frequency: 1,250 Hz (AQA5500D)
150 Hz (AQB5500D)
- Wavelength sweep setting width via USB I/F from PC
- Wavelength trigger position setting via USB I/F from PC



APPLICATION

- 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



Unit : mm

OPTICAL AND ELECTRICAL CHARACTERISTICS

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 ^{*1}
Trigger Signal Output	LVTTTL		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 ^{*2}
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, EN 60825-1:2014/A11:2021, 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	Main Unit Wavelength Swept Light Source
—	Standard Accessories CD-ROM 1 disk Contents – Operation Manual, Control Software, USB Driver Operation Manual 1 copy

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





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Please read "Notes on Handling Optical Devices" before use.
<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>



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