

Wavelength Swept Light Source **AQA0600A**

The AQA0600A Wavelength Swept Light Source outputs single longitudinal mode laser light with mode-hop free and continuous wavelength phase-swept. The light source is built into 40 × 27 × 31.6 mm metal package.

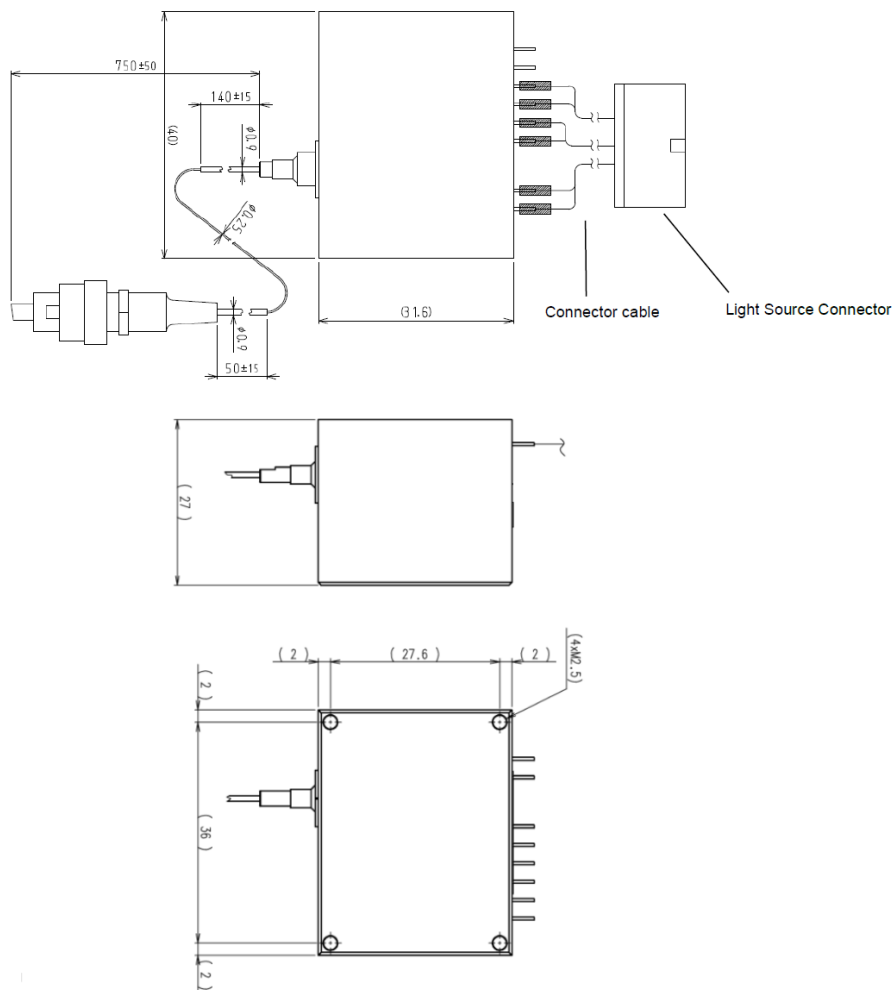
FEATURES

- 1060 nm band swept laser
- Single longitudinal mode oscillation with mode-hop free
- Compact, lightweight
- Sweep frequency : 1250 Hz, sinusoidal
- Wavelength sweep range : 30 nm
- Average optical output : ≥10 mW

APPLICATION

- OCT for internal structure measurement *OCT: Optical Coherence Tomography
- Integration into fiber sensing equipment
- Integration into bio-imaging equipment

DIMENSIONS

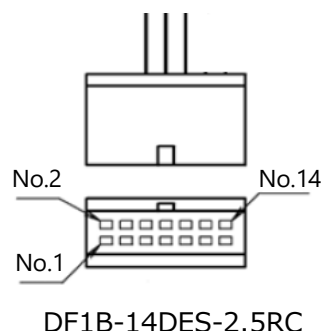


(Unit : mm)

PIN CONFIGURATION

No.	FUNCTION	No	FUNCTION
1	NC	8	LD cathode
2	NC	9	Thermistor
3	NC	10	Thermistor
4	NC	11	NC
5	MEMS coil	12	NC
6	MEMS coil	13	NC
7	LD anode	14	NC

TOP VIEW



ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Ratings	Unit
LD Forward Current	I_F	180	mA
LD Reverse Voltage	V_R	2	V
MEMS Driving Coil Applied Voltage	—	Drive voltage for wavelength sweep width up to 32.5nm	—
Operating Thermistor Temperature ^{*1}	T_{th}	+20 to +30	°C
Storage Temperature ^{*2}	T_{stg}	−20 to +60	°C

*Excess over the absolute maximum ratings may cause device failure.

*1 Relative Humidity: ≤85%, No condensation

*2 Relative Humidity: ≤95%, No condensation

OPTICAL AND ELECTRICAL CHARACTERISTICS ($T_{LD} = 25^{\circ}\text{C}$, $T_C = 25^{\circ}\text{C}$)

Item	Symbol	Test Condition	Rating	Unit
Optical Connector	—	—	FC/APC	—
Optical Fiber Length	—	SMF	750 ± 50	mm
Oscillation Mode	—	—	Single longitudinal and mode hop free	—
Optical Output Wavelength Change Method	—	—	Sinusoidal	—
Center Wavelength	λ_C	30 nm sweep	1060 ± 5	nm
Wavelength Sweep Range	—	—	30	nm
Sweep Frequency ^{*3}	—	—	1250 ± 50	Hz
Average Optical Output	P_f	—	≥ 10 ^{*4}	mW
Light Source Connector	—	—	HIROSE; DF1B-14DES-2.5RC	—
Connector Cable Length	—	—	60 ± 10	mm
Thermistor Resistance	R_{th}	$T_{th} = 25^{\circ}\text{C}$, $B = 3450 \text{ K} \pm 2\%$	$9.8 \leq R_{th} \leq 11.7$	kΩ
MEMS Coil Resistor	—	—	7 ± 2	Ω
Dimensions ^{*5}	—	Excluding protrusions	40 (W) × 27 (H) × 31.6 (D)	mm
Mass	—	—	< 200	g

*3 The sweep frequency depends on the mechanical oscillation frequency of the MEMS device built into the wavelength swept light source and cannot be adjusted by the user.

Do not use drive signal outside the 1250 ±50 Hz frequency range of the MEMS device, otherwise it may be damaged.

*4 The AQA0600A (this product) is designed as a component for use in customers' electronic products. As a result, it is excluded from 21 CFR 1040.10 compliance.

*5 This product is mounted using four M2.5 bolts in the bottom face. Use a torque driver to tighten these bolts to 0.07 to 0.08 N·m.



CAUTION : Handle the fiber of the enclosed device(s) with extreme care ; glass fiber is subject to breakage if mishandled and permanent damage to the device may result. Do not pull the device by the fiber or protective sleeve.
Do not coil the fiber into a loop of than 30 mm in radius.

SEMICONDUCTOR LASER

AVOID EXPOSURE
Invisible laser radiation is emitted from this aperture

DANGER

INVISIBLE LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION

OUTPUT POWER 800mW
WAVELENGTH 0.80 to 1.80 μ m
CLASS IV LASER PRODUCT

Caution - use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
This Product Complies with 21 CFR 1040.10 and 1040.11
Manufactured Anritsu Corp. 5-1-1 Onna, Atsugi-shi, Kanagawa, Japan



ANRITSU CORPORATION

SENSING & DEVICES COMPANY SALES DEPT.

<https://www.anritsu.com/sensing-devices>

Tel +81 46 296 6783 Fax +81 46 225 8390
5-1-1 Onna, Atsugi-shi, Kanagawa
243-8555 Japan



Contact URL

<https://www.anritsu.com/en-gb/sensing-devices/contact-us>

Please read "Notes on Handling Optical Devices" before use.

<https://www.anritsu.com/sensing-devices/guide/optdevices-handling>



■ This product and its manuals may require an Export License / Approval by the Government of the product's country of origin for re-export from your country.
Before re-exporting the product or manuals, please contact us to confirm whether they are export-controlled items or not. When you dispose of export-controlled items, the products / manuals need to be broken / shredded so as not to be unlawfully used for military purpose.

■ Anritsu Corporation reserves the right to change the content of the catalog at any time without notice.