

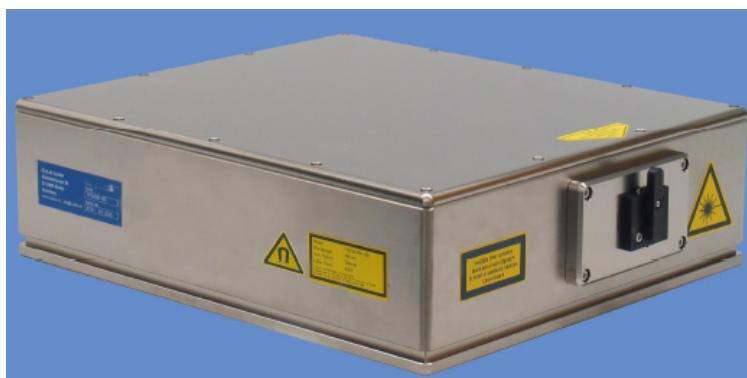
SFQCW-266nm Series CW Single-frequency YAG Lasers

The DPSS CW deep UV laser series SFQCW-266, diode pumped continuous wave solid state laser, comes with a resonant frequency conversion stage, emitting a fixed wavelength of 266nm. The laser head is contained in a sealed aluminium housing, which allows operation in a wide range of environmental conditions. Heat removal from the laser head is done by air convection.

The SFQCW-266 plug & play laser comes with a control unit, allowing either push button control or remote control operation via serial (RS232 & USB) interface. The lasers offer excellent beam quality with an M2 below 1.3, beam divergence below 0.8mrad (full angle), low intensity noise below 0.5% rms (100 kHz-10MHz) and a good power stability (<1% in 8 hours). These CW laser units are the proper tools for industrial use and intensive R&D applications as Raman Spectroscopy, Wafer inspection and Photoluminescence where a long coherence length is required.

Features:

- Single frequency
- Low noise
- TEM00
- Long coherence length of 1000m
- High beam quality M2 < 1.3
- Small footprint (rugged and compact)
- Conduction cooling
- User friendly
- Line width < 300 kHz



Applications:

- Raman
- Inspections
- Analytics
- DVD mastering

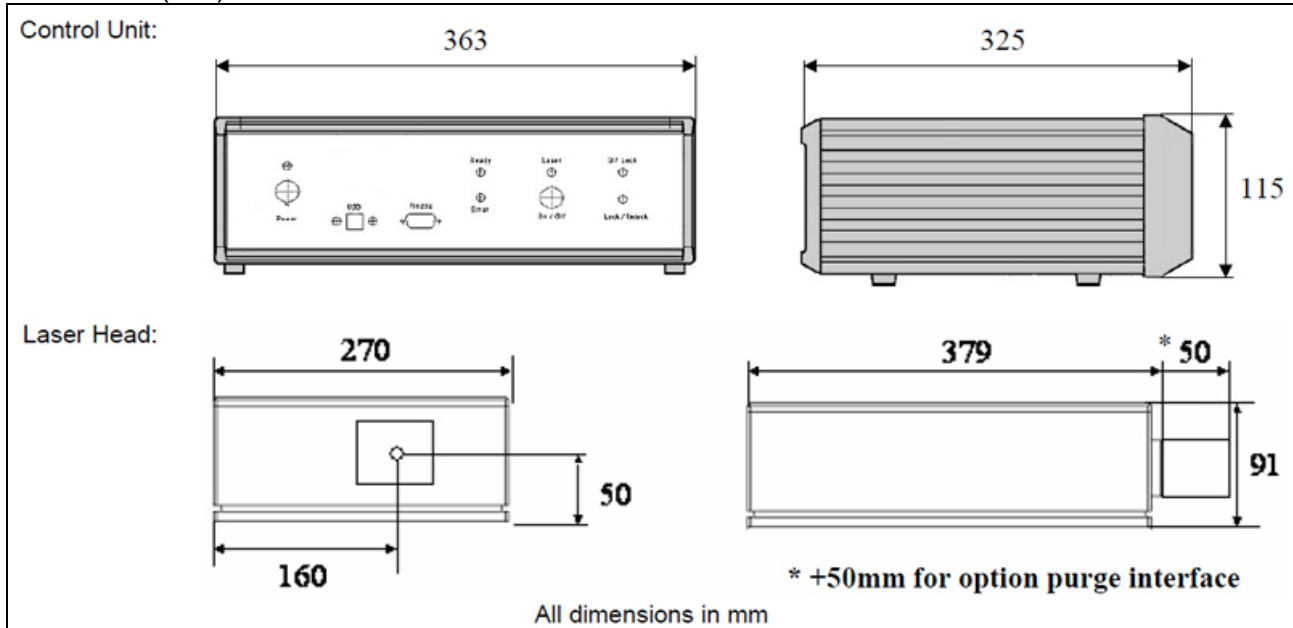
Model	SFQCW-266-10	SFQCW-266-50	SFQCW-266-100	SFQCW-266-200
Nominal output power	10mW	50mW	100mW	200mW
Output power stability	2-12mW	5-55mW	10-110mW	20-220mW
Wavelength	266nm			
Linewidth	<300kHz			
Coherence length	>1000m			
Beam quality factor M ²	<1.3			
Polarization	Vertical, >100:1			
Beam diameter	0.55mm±20%			
Beam divergence(full angle)	<0.8mrad			
Beam positioning stability ¹	<3urad/K			
Static alignment tolerance ⁴	Position<±0.25mm, Angle<±2.5mrad			
Power stability ¹ (8h, 1s average)	<1% rms			
Noise (100kHz-10MHz)	<0.5% rms			
Line voltage	90V – 250VAC			
Power consumption mean (Max)	100W (200W)			
Communication interface	USB/RS232			
Safety equipment	Key switch, interlock			
Dimensions control unit	363x325x115 mm ³			
Weight control unit	5.3kg			
Dimensions laser head	379x270x91 mm ³			379(+50) ⁵ x270x91 mm ³
Weight laser head	17kg			
Operating temperature	20-35°C non-condensing			
Warm-up time (cold start)	<15minutes			

Purge Interface for Exit Window		CDA 0.5LPM, ~2%RH, particle filter 0.01µm
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Notes:

1. After 30 minutes warm-up in the temperature range 20 - 35°C, temperature change < 1°C/hour.
2. The exit window is equipped with the Manual Window Shifter (MWS) in case of external photo contamination.
3. This laser system is not equipped with the Automatic Crystal Shifter (ACS) due to the lower power densities on all internal optical elements.
4. Position and angle of static alignment tolerances are specified with regard to laser beam exit.
5. Length of laser head is +50mm expanding by using purge interface.

Dimensions (mm):



CW DPSS All-solid-state Lasers



We offer all series of CW diode-pumped solid-state lasers with laser wavelengths at 473nm, 532nm, 589nm and 1064nm with maximum laser power 4W. These lasers are widely used in scientific, medical, industrial and entertainment applications. We have many years of experience in researching and developing DPSS laser systems.

- Laser power is stable and adjustable
- Protected with overheating and over current
- Can be externally controlled with high speed modulation
- Suitable for scientific research, medical treatment, biological engineering, stage laser show, etc

List of Main CW DPSS Lasers

Part Number	Wavelength	Laser Power
ST-I-N-473-xxx	473nm	20/50/100mW
ST-II-N-473-xxx	473nm	100/150/200mW
ST-I-N-532-xxx	532nm	50/100/150/200/300mW
ST-II-N-532-xxx	532nm	0.5/1/1.5/2/3/4W
ST-III-N-532-xxx	532nm	5/6/7/8/10W
ST-II-N-589-xxx	589nm	50/100/150/200/300/500/800/1000mW
ST-II-N-1064-xxx	1064nm	0.5/1/1.5/2/3/4W

Remarks: 1) In the part number, xxx means laser power in mW or W; 2) Other power levels available upon request; 3) fiber output delivery available upon request; 4) There are 2 or 3 average power stabilities for all lasers and default is 5%; 5) There are 2 types of power supplies: integrated and OEM. The power input of integrated is 110V-220VAC and the power input of OEM is 12VDC.

473nm CW DPSS Lasers

Part Number	ST-I-N-473-xxx	ST-II-N-473-xxx
Wavelength (nm)	473	473
Operation Mode	CW	CW
Beam Mode	TEM00	TEM00
Output Power (mW)	20/50/100	100/150/200
Average Power Stability (Over 4hrs)	<1%/<3%/<5%	<1%/<3%/<5%
Beam Divergence (full angle, mrad)	1.2	1.5
Beam Diameter at Aperture (mm)	<1.5	<3
Beam Height from Base Plate	27	50
Warm-up Time (min)	<10	<10
Cooling	Air	Air
Operation Tem. (°C)	15-35	15-35
Power Supply	ST-IIA(GT1)/ST-OEM-B(GT1)	ST-IIIA(GT2)/ST-OEM-B(GT2)
Expected Lifetime (hrs)	10,000	10,000
Laser Head Dimension (mm)	136x50x47	205x60x60
Laser Head Weight (kg)	0.5	0.8
Power Supply Dimension (mm)	168x164x80/149x80.5x49	168x164x80/149x80.5x49
Power Supply Weight (kg)	1.5/0.5	1.5/0.5

532nm CW DPSS Lasers

Part Number	ST-I-N-532-xxx	ST-II-N-532-xxx	ST-III-N-532-xxx
Wavelength (nm)	532	532	532
Operation Mode	CW	CW	CW
Beam Mode	TEM00	TEM00	TEM00
Output Power	50/100/150/200/300mW	0.5/1/1.5/2/3/4W	5/6/7/8/10W
Average Power Stability (Over 4hrs)	<1%/<3%/<5%	<1%/<3%/<5%	<3%/<5%
Beam Divergence (full angle, mrad)	1.2	1.5	1.5
Beam Diameter at Aperture (mm)	<1.5	<3	<4
Beam Height from Base Plate	27	50	90
Warm-up Time (min)	<10	<10	<10
Cooling	Air	Air	Air
Operation Tem. (°C)	15-35	15-35	15-35
Power Supply	ST-IIA(GT1)/ST-OEM-B(GT1)	ST-IIIA(GT2)/ST-OEM-B(GT2)	ST-IIIA(GT2)/ST-OEM-B(GT2)
Expected Lifetime (hrs)	10,000	10,000	10,000
Laser Head Dimension (mm)	136x50x47	205x60x60	320x164x80
Laser Head Weight (kg)	0.5	0.8	4.5
Power Supply Dimension (mm)	168x164x80/149x80.5x49	168x164x80/149x80.5x49	168x164x80/149x80.5x49
Power Supply Weight (kg)	1.5/0.5	1.5/0.5	1.5/0.5
Warranty (months)	12	12	12

589nm CW DPSS Lasers

Part Number	ST-II-N-589-xxx
Wavelength (nm)	589
Operation Mode	CW
Beam Mode	TEM00
Output Power (mW)	50/100/150/200/300/500/800/1000
Average Power Stability (Over 4hrs)	<1%/<3%/<5%
Beam Divergence (full angle, mrad)	1.5
Beam Diameter at Aperture (mm)	<3
Beam Height from Base Plate	50
Warm-up Time (min)	<10
Cooling	Air
Operation Tem. (°C)	15-35
Power Supply	ST-IIIA(GT2)/ST-OEM-B(GT2)
Expected Lifetime (hrs)	10,000
Laser Head Dimension (mm)	205x60x60
Laser Head Weight (kg)	0.8
Power Supply Dimension (mm)	168x164x80/149x80.5x49
Power Supply Weight (kg)	1.5/0.5
Warranty (months)	12

1064nm CW DPSS Lasers

Part Number	ST-II-N-1064-xxx
Wavelength (nm)	1064
Operation Mode	CW
Beam Mode	TEM00
Output Power (W)	0.5/1/1.5/2/3/4
Average Power Stability (Over 4hrs)	<1%/<3%/<5%
Beam Divergence (full angle, mrad)	<1.5
Beam Diameter at Aperture (mm)	<3
Beam Height from Base Plate	50
Warm-up Time (min)	<10
Cooling	Air
Operation Tem. (°C)	15-35
Power Supply	ST-IIIA(GT2)/ST-OEM-B(GT2)

Expected Lifetime (hrs)	10,000
Laser Head Dimension (mm)	205x60x60
Laser Head Weight (kg)	0.8
Power Supply Dimension (mm)	168x164x80/149x80.5x49
Power Supply Weight (kg)	1.5/0.5
Warranty (months)	12