SOLE™ Compact laser light engines with up to 6 wavelengths

The SOLE laser light engines combine up to six wavelengths in a compact and rugged design. Wavelengths between 375 nm and 830 nm and optical output powers up to 150 mW per laser line are possible, using high quality solid-state lasers from our co-operation partners Omicron and Cobolt. Especially designed for demanding applications in life sciences, like e.g. fluorescence microscopy and flow cytometry, releasing the user or system integrator from spending time on laser and optics alignment. High-speed analog and digital modulation as well as fast switching between the individual wavelengths is realized by Omicron´s proprietary DEEPSTAR® technology. All SOLE™ light engines offer single-mode polarization maintaining fiber coupling or free-space output with high stability.

SOLE™ key features:

- Up to 6 wavelengths beam-combined in one compact housing
- 18 different wavelengths available
- Direct modulation and fast switching between wavelengths
- Single-mode, polarization maintaining fiber coupling with customizable fiber outputs
- Vibration isolated and temperature stabilized design
- USB 2.0 control interface
- Windows™ based laser control software included.
- OEM and custom specified versions available

SOLE-3 front view:

SOLE-3 rear view:

SOLE™ - Specifications:

Available models:	SOLE-3 - 3-Channel light engine with up to 3 wavelengths SOLE-6 - 6-Channel light engine with up to 6 wavelengths		
Available Wavelengths and powers (internal laser power):	375nm / 20mW 405nm / 60mW, 120mW 445nm / 50mW 457nm / 25mW, 50mW 473nm / 20mW 488nm / 20mW, 60mW 515nm / 25mW, 50mW, 100mW 532nm / 25mW, 50mW, 100mW, 150mW 561nm / 25mW, 50mW, 75mW, 100mW, 150mW 594nm / 25mW, 50mW, 100mW 638nm / 40mW, 100 mW 642nm / 140mW 660nm / 130mW 685nm / 50mW 705nm / 40mW 730nm / 40mW 808nm / 140mW 830nm / 140mW		
Fiber coupling:	**Type:**	Single-mode, polarization maintaining or Multi-mode	
	Fiber output:	FC/APC, FC/PC and collimated outputs on customers demand	
Free emission:	**beam diameter**	0.7mm $1/e^2$, others available on request	
Modulation capabilities:	**Diode lasers:**	digital modulation:	> 180 MHz
		analog modulation:	> 5 MHz
		electronic shutter:	> 300 kHz
	DPSS Lasers:	digital modulation:	> 30 MHz
		analog modulation:	> 5 MHz
		electronic shutter:	> 300 kHz
	Extinction ratio:	digital modulation:	> 500 : 1
		analog modulation:	> 1000 : 1
		electronic shutter:	> 2.500.000 : 1
	Input signals:	digital modulation:	TTL or 0…1V/50 Ohm
		analog modulation:	0…10V or 0…1V/50 Ohm
		electronic shutter:	TTL
Control interface:	**Type:**	USB2.0 / RS-232	
Laser control software:		Windows™ based laser control software	
Supply voltage:	**Mains:**	90…245VAC, 50/60Hz	
Mechanical size:	**SOLE-3**	19” rack type housing with 2 height units	
		L x W x H: 480mm x 484mm x 88mm (without fiber coupler)	
	SOLE-6	19” rack type housing with 3 height units	
		L x W x H: 480mm x 484mm x 132mm (without fiber coupler)	

Manufactured in co-operation with:

Omicron-Laserage Laserprodukte GmbH
Raiffeisenstrasse 5e
63110 Rodgau, Germany
web: www.omicron-laser.de

For more information please contact:

von Gegerfelt PHOTONICS
Hermann-Löns-Strasse 4
DE-64625 Bensheim, Germany
Tel. +49 (0)6251 860 99 20 - Fax. +49 (0)6251 860 99 17
web: www.vgphotonics.eu
e-Mail: info@vgphotonics.eu