

[Imprint](#)  
[privacy policy](#)

- [Home](#)
- [Lasers](#)
  - [Diode Lasers](#)
    - [CW Lasers](#)
    - [Modulated Lasers](#)
    - [PhoxX Lasers](#)
    - [PhoxX+ Lasers](#)
    - [LuxX Lasers](#)
    - [LuxX+ Lasers](#)
    - [BrixX Lasers](#)
    - [QuixX ps Lasers](#)
    - [High-Power / Multiline](#)
  - [DPSS Lasers](#)
  - [Light Engines](#)
- [LED Sources](#)
- [Light Engines](#)
- [Downloads](#)
- [Apps](#)
- [News/Press](#)
- [About us](#)
- [Distributors](#)
- [Support](#)

You are here: [Home](#) → [Lasers](#) → [Diode Lasers](#) → [CW Lasers](#)

[CWA](#)

[CWA.L](#)

[CWA.L.WS/US](#)

[CWA.L.NB](#)

**CWA.L – High stability CW laser diode  
modules for OEM Applications**



**OEM high stability CW laser diode modules with intelligent controller for machine integration**

Bluephoton® CWA Serie – 375nm – 488nm  
 Greenphoton® CWA Serie – 515nm  
 Redphoton® CWA Serie – 635nm – 1060nm

**Specifications CWA.L-Models**

	<b>Blue- / Greenphoton® CWA.L</b>	<b>Redphoton® CWA.L</b>
Wavelengths & Powers (other wavelengths and powers on request)	<b>Single-Mode (SM):</b> 375nm / 20mW 375nm / 70mW 395nm / 120mW 405nm / 55mW 405nm / 120mW 405nm / 300mW 415nm / 120mW 425nm / 120mW 445nm / 50mW 445nm / 100mW 457nm / 100mW 460nm / 100mW 473nm / 20mW 473nm / 80mW 473nm / 100mW 488nm / 20mW 488nm / 60mW 488nm / 80mW 488nm / 100mW 488nm / 150mW 488nm / 200mW 515nm / 25mW 515nm / 50mW	<b>Single-Mode (SM):</b> 635nm / 5mW 637nm / 150mW 639nm / 40mW 643nm / 150mW 647nm / 150mW 658nm / 130mW 670nm / 15mW 685nm / 35mW 785nm / 120mW 808nm / 200mW 830nm / 200mW 852nm / 150mW 980nm / 150mW 1016nm / 100mW 1060nm / 100mW <b>Multi-Mode (MM):</b> 638nm / 250mW 670nm / 500mW 808nm / 1000mW u.v.m.

515nm / 80mW

**Multi-Mode (MM):**

375nm / 200mW ( $M^2 = 7...8$ )

405nm / 400mW ( $M^2 = 5...6$ )

405nm / 600mW ( $M^2 = 5...6$ )

445nm / 500mW ( $M^2 = 2...3$ )

445nm / 1200mW ( $M^2 = 5...6$ )

Beam diameter (other diameters on request)	1.25mm ( $1/e^2$ ) +/- 0.25mm (MM beam diameter may vary)	1.25mm ( $1/e^2$ ) +/- 0.25mm (MM beam diameter may vary)
Beam quality $M^2$	<1.2 (SM) <3 (MM)	<1.2 (SM) <10 (MM)
Astigmatism (corrected)	<0.2*ZR	<0.2*ZR
Beam ellipticity	<1.1:1 (SM)	<1.1:1 (SM)
Polarisation	>100:1 vertical	>100:1 vertical
Power stability*	<0.5% / h	<0.5% / h
Noise 0Hz-100MHz*	<0.5% peak<math>\leftrightarrow</math>peak (CW)	<0.5% peak<math>\leftrightarrow</math>peak (CW)
Modulation speed	Analog: 100Hz Digital: 10kHz	Analog: 100Hz Digital: 10kHz
Supply voltage	24VDC / 2 Amp.	
Features	Safety-Interlock RS-232 Interface Remote-connector	
Options	LDM.COL - collimator objective LDM.FOC - customized focussing objective LDM.FASY.XXX - fibre coupling unit LDM.AAC - Automatic Aging Compensation LDM.24VPSU - 85-245VAC, 50/60Hz power supply unit	

\* Noise and power stability values of IR lasers may vary

The lasers of the CWA.L Series are highly-stable, temperature-stabilized diode lasers for OEM employment in machines, devices and instruments. As a result of their intelligent laser controller with interface RS-232, these lasers can be integrated seamlessly into applications and controller. Through the standardized Command Line Interface (CLI), you have at all times full control of all parameters of the laser, such as e.g. laser diode temperature, laser powers and currents, operating modes and lots more. The high-precision temperature stabilization to a maximum diode temperature variation of  $<0.02^{\circ}\text{K}$  and the stable power source for the laser diode, enable extreme power stability and very low noise levels.

The systems consist of a laser head and a laser controller in the EMC-screened modular housing, with supply voltage input 24 V DC, according to industrial standard. The integrated modulation inputs for analog power modulation with up to 1 kHz and TTL modulation with up to 10 kHz, enable integration into control and measurement processes. As in case of all lasers of the Bluephoton® and Redphoton® series, the laser head can be very simply adapted to customer specifications by the use of the modular principle.

## **Press Releases**

### **1.2 Watt blue diode laser**

### **488nm diode lasers**

## **Contact**

Omicron-Laserage Laserprodukte GmbH  
Raiffeisenstrasse 5e  
63110 Rodgau-Dudenhofen  
Germany

Tel:

+49-(0)6106-8224-0

Fax:

+49-(0)6106-8224-10

email:

[mail@omicron-laser.de](mailto:mail@omicron-laser.de)