DATASHEET

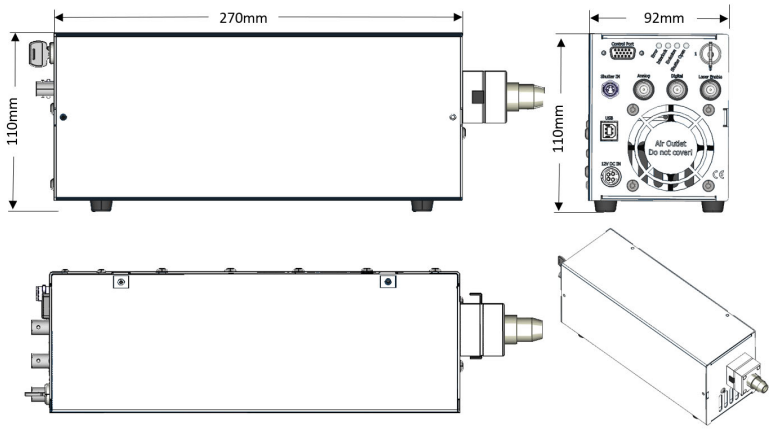
03.2021

LaserNest

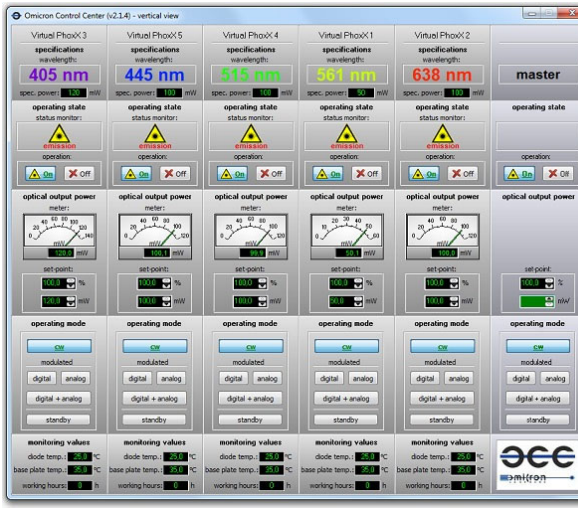
LaserNest® High-Performance Desktop Diode Lasers for industrial, scientific and laboratory use

The LaserNest® systems are a combination of the well-established LuxX+ diode lasers and a desktop-style housing. This combination represents an easy to use plug&play laser light source for science, research and industry. The high-performance systems can be equipped with one laser module of wavelengths from UV to the near IR range and offer fast analogue intensity modulation with up to 3MHz and high-speed digital modulation up to 250MHz. The additional electronic shutter function provides full ON/OFF modulation with a switching time of <1µs and frequencies up to 500kHz.

Dimensions:



Control Software



Omicron-Laserage Laserprodukte GmbH
Phone: +49 (0) 6106 8224-0
Raiffeisenstraße 5e
63110 Rodgau – Germany

Fax: +49 (0) 6106 8224-10
www.omicron-laser.de
mail@omicron-laser.de

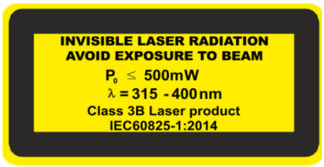
For more online information:

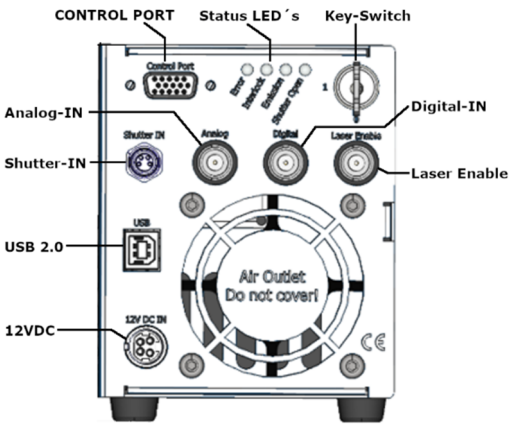
Specifications LaserNest Diode Laser Series

	LaserNest® Series			
Wavelengths & Powers (other wavelengths and powers on request)	LaserNest® 375-20	375nm / 20mW	LaserNest® 515-80	515nm / 80mW
	LaserNest® 375-70	375nm / 70mW	LaserNest® 515-100	515nm / 100mW
	LaserNest® 395	395nm / 120mW	LaserNest® 515-150	515nm / 150mW
	LaserNest® 405-20	405nm / 20mW	LaserNest® 633-100	633nm / 100mW
	LaserNest® 405-60	405nm / 60mW	LaserNest® 638-40	638nm / 40mW
	LaserNest® 405-120	405nm / 120mW	LaserNest® 638-100	638nm / 100mW
	LaserNest® 405-300	405nm / 300mW	LaserNest® 638-150	638nm / 150mW
	LaserNest® 415	415nm / 120mW	LaserNest® 638-200	638nm / 200mW
	LaserNest® 425	425nm / 120mW	LaserNest® 642	642nm / 140mW
	LaserNest® 445-50	445nm / 50mW	LaserNest® 647	647nm / 140mW
	LaserNest® 445-100	445nm / 100mW	LaserNest® 660	660nm / 130mW
	LaserNest® 445-500	445nm / 500mW	LaserNest® 685	685nm / 50mW
	LaserNest® 457-100	457nm / 100mW	LaserNest® 705	705nm / 40mW
	LaserNest® 457-500	457nm / 500mW	LaserNest® 730	730nm / 40mW
	LaserNest® 460-100	460nm / 100mW	LaserNest® 785-120	785nm / 120mW
	LaserNest® 473-20	473nm / 20mW	LaserNest® 785-200	785nm / 200mW
	LaserNest® 473-80	473nm / 80mW	LaserNest® 808	808nm / 140mW
	LaserNest® 473-100	473nm / 100mW	LaserNest® 830	830nm / 140mW
	LaserNest® 488-25	488nm / 25mW	LaserNest® 850	850nm / 100mW
	LaserNest® 488-60	488nm / 60mW	LaserNest® 945	945nm / 200mW
	LaserNest® 488-80	488nm / 80mW	LaserNest® 980	980nm / 100mW
	LaserNest® 488-100	488nm / 100mW	LaserNest® 1030	1030nm / 100mW
	LaserNest® 488-150	488nm / 150mW	LaserNest® 1060	1060nm / 150mW
	LaserNest® 488-200	488nm / 200mW	LaserNest® 1080	1080nm / 80mW
	LaserNest® 505-80	505nm / 80mW	LaserNest® 1310	1310nm / 50mW
	LaserNest® 515-25	515nm / 25mW	LaserNest® 1550	1550nm / 100mW
	LaserNest® 515-50	515nm / 50mW		

Light output options	Single-Mode fibre: SM/PM fibres with FC/PC, FC/APC, FCP8 or collimated output beam Multi-Mode fibre: MM fibres with 50....1500µm core diameter and FC/PC or SMA connectors Liquid Light Guide output: LLG´s with 2, 3, 5 or 8mm core diameter
Long term power stability	<0.5% / 8h (CW)
RMS Noise 20Hz...20MHz	<0.2% (CW)
Operation Modes **Mode 1** **Mode 2** **Mode 3** **Mode 4** **Mode 5**	 CW operation (ACC - Automatic Constant Current) CW operation (APC - Automatic Power Control) Analogue modulation Digital modulation Analogue + Digital modulation
Analogue modulation **Input signal type**	>3MHz 0...5V (1,2kOhm) or 0...1V (50Ohm) - user configurable
Digital modulation **Input signal type**	>250MHz Single-ended input: TTL (200Ohm) or 0...1V (50Ohm) - user configurable Differential-ended input: PECL / LVDS / HSTL etc. - autom. detected
Laser Enable (electronic shutter) **Input signal type**	>500kHz (full ON/OFF) TTL (2kOhm)
Rise- and falltime	Analogue: < 100ns Digital: < 1.5ns Laser Enable: < 100ns
Extinction ratio	Analogue: > 1000 : 1 Digital: > 250 : 1 Laser Enable: infinite (full ON/OFF)
Supply voltage	80-240VAC / 50-60Hz
Control interface	RS-232 and USB 2.0
Dimensions	270 mm x 92 mm x 110mm (l x w x h) (w/o fibre coupler)
Options & Accessories	LN.SHUTTER Fail-Safe laser safety shutter XX.Fxxx Clean-Up Filter (xxx = laser wavelength)

Laser Safety classification:





Ordering Information:

LN . □□□□ - □□□ . □□□

Wavelength in **nm**

Power in **mW**

Type of light output : **SMF** = Single-Mode PM fibre
MMF = Multi-Mode fibre
LLG = Liquid Light Guide