



DATASHEET

01.2019

# Led HUB<sup>®</sup>

## HIGH-POWER LED LIGHT ENGINE

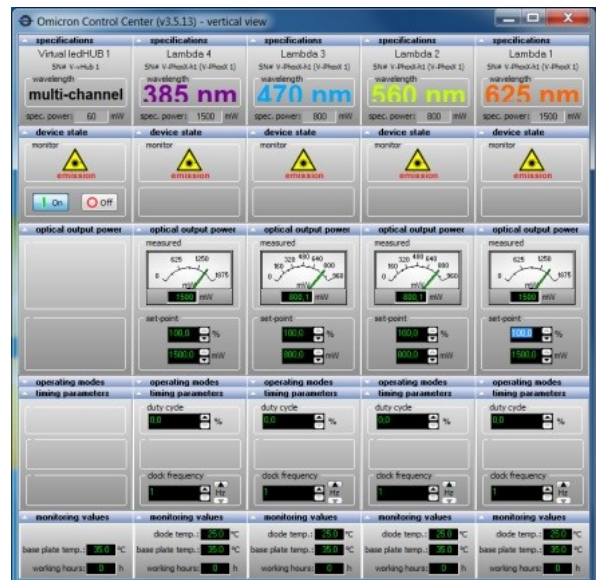
Multicolor LED Light Engine with up to six TEC-cooled LED Modules



The Omicron LedHUB is a high power LED light source for Biotech, industrial and analytical applications. With its up to 6 different wavelengths between 340 and 950nm it can be used in applications like widefield microscopy, calcium imaging, optogenetics, chemical analysis, forensics and many more. The modular principle of the LedHUB<sup>®</sup> provides the possibility to start with only one or two wavelengths initially and user-upgradeability to further wavelengths at a later stage. The capability of fast switching between the wavelengths and high speed analogue modulation of the intensity is a key feature for demanding applications.

Dimensions:

Control Software:



For more online information:



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LedHUB® - Specifications:	
<b>Model:</b>	<b>LedHUB® with up to 6 wavelengths</b>
<b>Available wavelengths:</b>	340nm / 50mW* 365nm / 400mW* 385nm / 1000mW* 405nm / 500mW* 455nm / 500mW* 470nm / 400mW* 505nm / 200mW* 505...600nm / 800mW* - wavelength selectable by bandpass filter 528nm / 250mW* 595nm / 250mW* 625nm / 500mW* 660nm / 500mW* 730nm / 600mW* 820nm / 600mW* 850nm / 600mW* 940nm / 600mW* * The optical output power depends on the used fiber / liquid light guide diameter and installed bandpass filters
<b>Available fiber coupling types:</b>	2mm Liquid Light Guide 3mm Liquid Light Guide 5mm Liquid Light Guide SMA-905 connectorized Quartz fibers FC/PC connectorized Quartz fibers
<b>Excitation bandpass filters:</b>	6x Bandpass filter (1 per wavelength) - easily exchangeable by user - 25mm standard diameter filters
<b>External Modulation:</b>	6x Analogue modulation input: Frequency: DC...200kHz Rise-/falltime: <2µs Extinction ratio: ∞, infinite Input signal type: 0...5V or 0...10V (user configurable) Connector type: BNC or Sub-D  6x Digital modulation input: Frequency: DC...200kHz Rise-/falltime: <2µs Extinction ratio: ∞, infinite Input signal type: TTL (5V) Connector type: BNC or Sub-D
<b>Internal signal generation:</b>	6 Individually programmable PWM frequency generators (1 for each wavelength) Frequency: up to 200kHz Duty-Cycle: 1...99%
<b>External synchronization:</b>	1x SYNC-Input for synchronisation to external signals Input signal type: TTL (5V) Connector type: BNC or Sub-D 1x SYNC-Output for synchronisation of external units Output signal type: TTL (5V) Connector type: BNC or Sub-D
<b>Control interface:</b>	Type: USB 2.0 and RS-232
<b>Control software:</b>	Omicron Control Center - Windows™ based laser control software
<b>Supply voltage:</b>	100-240VAC, 50/60Hz, 250W max.
<b>Mechanical size:</b>	19 inch rack housing, 2 height units L x W x H: 383mm x 484mm x 88mm ( without fiber coupler and connectors)
<b>Available options:</b>	LLGA2 - Liquid Light Guide Adapter including 2mm Liquid Light Guide (1.5m) LLGA3 - Liquid Light Guide Adapter including 3mm Liquid Light Guide (1.5m) LLGA5 - Liquid Light Guide Adapter including 5mm Liquid Light Guide (1.5m) LH5MA - Fiber coupling unit for SMA-905 connectorized fibers LHF5PC - Fiber coupling unit for FC/PC connectorized fibers  LHOLYMP - Olympus microscope adapter for 3mm Liquid Light Guides LHLEICA - Leica microscope adapter for 3mm Liquid Light Guides LHZEISS - Zeiss microscope adapter for 3mm Liquid Light Guides LHNIKON - Nikon microscope adapter for 3mm Liquid Light Guides

## Laser Safety classification:

300-400nm:



390-410nm:



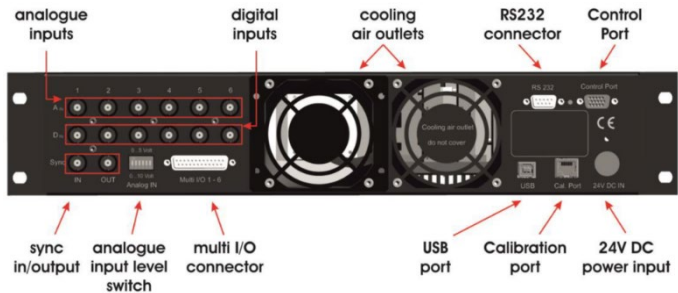
400-700nm:



700-2000nm:



## Control Interface



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