



DATASHEET

01.2019

LightHUB[®] ULTRA

Plug & Play Laser Light Engines with up to 7 user-upgradable wavelengths and 2 fibre outputs



The LightHUB Ultra laser light engines can be equipped with one to seven laser modules of different wavelengths from UV to the near IR range and offer fast analogue intensity modulation with up to 1,5MHz and digital full ON/OFF modulation with a switching time of <math><1\mu s</math> for each channel. The individual laser modules can easily be exchanged and added by the user. Hence the systems can be adapted to changing application requirements and are future-proof. With a direct and active temperature control of the laser modules and the complete laser bed it is possible to keep the power level ultra-stable. This feature guarantees reliable and repeatable results in the user application. The light of the various lasers is combined and coupled efficiently into one or two polarization-maintaining single-mode broadband or multi-mode fibres. The LightHUB Ultra offers the possibility to integrate a fast fibre-switch or a fibre splitter with defined splitting ratio. Laser modules with up to 300 milliwatt of optical output power and wavelengths between 375 and 1550nm can be used in the LightHUB systems. Optional clean-up filters and a fail safe laser safety shutter can be directly installed in the system to adapt the "LightHUB" system to the customer's application and safety requirements. High-impedance modulation inputs ensure easy interfacing to external devices like cameras, microscopes or DAC cards. The device can be conveniently controlled via the integrated USB-2.0 interface by the included software „Omicron Control Center" or third party software.

Dimensions



(l x w x h): 622 x 402 x 97mm³ (without fibre coupler)
 622 x 402 x 182mm³ (with optional cooling unit)

Weight: Approx. 22kg (depending on installed lasers)
 Approx. 40kg (with optional cooling unit)

Control Software



For more online information:

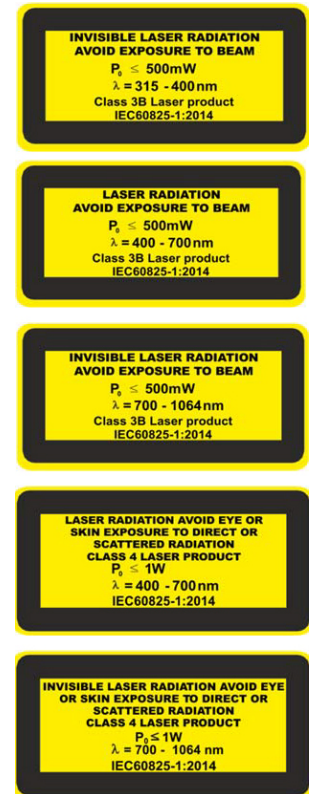


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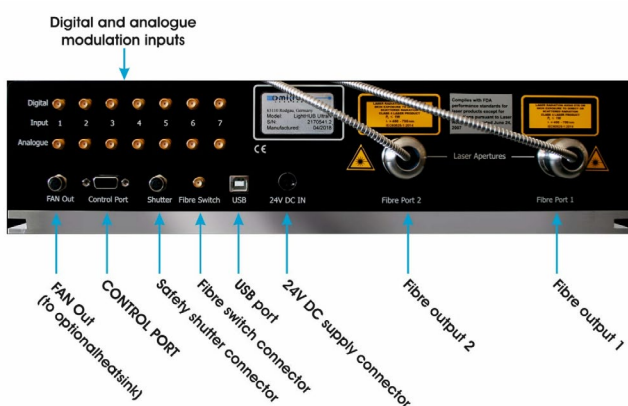
| LighthUB Ultra® - Specifications: | |
|---|---|
| Available models: | LighthUB Ultra Laser Light Engine |
| available wavelengths and powers: (internal laser power) | 375nm / 20mW, 70mW 395nm / 120mW 405nm / 60mW, 120mW, 300mW 415nm / 120mW 425nm / 120mW 445nm / 50mW, 100mW 457nm / 100mW 460nm / 100mW 473nm / 20mW, 80mW, 100mW, 300mW 488nm / 20mW, 60mW, 80mW, 100mW, 150mW, 200mW 505nm / 80mW, 100mW 515nm / 25mW, 50mW, 80mW, 100mW, 150mW 532nm / 50mW, 80mW, 100mW, 150mW 552nm / 20mW, 60mW, 80mW, 100mW, 150mW 561nm / 20mW, 50mW, 80mW, 100mW, 150mW 594nm / 60mW, 100mW 633nm / 100mW 638nm / 40mW, 100mW, 150mW, 200mW 642nm / 140mW 647nm / 140mW 660nm / 130mW 685nm / 50mW 705nm / 40mW 730nm / 40mW 785nm / 120mW, 200mW 808nm / 140mW 830nm / 140mW 850nm / 100mW 945nm / 200mW 980nm / 200mW 1030nm / 150mW 1060nm / 150mW 1080nm / 80mW 1310nm / 50mW 1550nm / 100mW Restrictions in some wavelength combinations may apply. Ask for possible combinations |
| Fibre coupling: | Number of fiber outputs: one or two Type: single-mode, (PM) or multi-mode fibres Fibre output: FC/APC, FC/PC, FCP8 or SMA and collimated outputs diameters on customer's demand |
| Modulation Capabilities | Analogue Modulation: up to 1.5MHz Digital Modulation: up to 150kHz (full ON/OFF) |
| Control interfaces: | Type: USB 2.0 Interlock Key-Switch Shutter (optional) Fibre-Switch (optional) |
| Laser control software: | Windows™ based laser control software |
| Supply voltage: | 24VDC or 90-240VAC, 50/60Hz |
| Available options | LH.ULTRA.COOL - optional active cooling unit XX.CDRH - optional CDRH remote control box LH.ULTRA.SHUTTER - optional fail-safe shutter LH.ULTRA.FIBERSWITCH - optional fast fiber switch |
| Mechanical size: | L x W x H: 622mm x 402mm x 97 mm (without cooling unit) L x W x H: 622mm x 402mm x 182 mm (with attached cooling unit) |

Laser Safety classification:



Control Interface

Ordering Code



- LH.ULTRA.BASE** LightHUB+ Base Unit incl. 488nm/60mW diode laser and 2m long SM/PM broadband fiber
- LH+KITXXX-YYY** Laser upgrade kit for LightHUB+ and LightHUB Ultra systems XXX= wavelength, YYY= laser power
- LH.ULTRA.COOL** Optional cooling unit for Table-Top use of LightHUB ULTRA Light Engines
- LH.ULTRA.SHUTTER** Optional single fail safe shutter module for LightHUB ULTRA Light Engines
- LH.ULTRA.FIBERSWITCH** Optional fiber switch upgrade kit for LightHUB Ultra (incl. 2m long SM/PM broadband fiber)