

DATASHEET

01.2019



Plug & Play Laser Light Engines with up to 6 user-upgradable wavelengths



The LightHUB+* Plug&Play laser light engines can be equipped with up to six DPSS or diode lasers of different wavelengths in a compact and rugged design. Wavelengths between 375nm and 1550nm and optical output powers up to 300mW per laser line are possible. The LightHUB+ can be upgraded by the end-user from 1...6 wavelengths easily. Pre-assembled upgrade-kits consisting of the laser head, optical combiner block and an interface card can be installed at any time. The fibre output can be equipped with single-mode, polarization-maintaining fibres or multi-mode fibres with various output connectors or collimated beam diameters starting from 0.7mm. Six individual analogue and digital modulation inputs as well as a RS-232 and USB interface allow easy integration input control environmets. The system is designed to be both passively or actively cooled. By mounting it on an optical table or a thicker breadboard, passive cooling is possible. If the system is operated in a free-standing desktop use, the optional active cooling unit with temperature controlled fans can be attached underneath.

Dimensions



 $(l \times w \times h)$:

402 x 402 x 97mm³ (without fibre coupler)

402 x 402 x 182mm³ (with optional cooling unit)

Weight:

Approx. 16kg (depending on installed lasers)

Approx. 34kg (with optional cooling unit)

Control Software









For more online information:



LightHUB+® - Specifications:		
Available models:	LightHUB+ Laser Light Engine	
available wavelengths and powers: (internal laser power)	375nm / 20mW, 70mW 395nm / 120mW 405nm / 60mW, 120mW, 300mW 415nm / 120mW 425nm / 120mW 445nm / 120mW 445nm / 100mW 445nm / 100mW 4473nm / 20mW, 80mW, 100mW, 300mW 488nm / 20mW, 80mW, 100mW, 150mW, 200mW 505nm / 80mW 515nm / 25mW, 50mW, 80mW, 100mW, 150mW 532nm / 50mW, 80mW, 100mW, 150mW 532nm / 50mW, 80mW, 100mW, 150mW 552nm / 20mW, 60mW, 80mW, 100mW, 150mW 561nm / 20mW, 50mW, 80mW, 100mW, 150mW 633nm / 100mW 633nm / 100mW 633nm / 100mW 642nm / 140mW 647nm / 140mW 660nm / 130mW 685nm / 50mW 705nm / 40mW 785nm / 120mW, 200mW 888nm / 140mW 880nm / 140mW 880nm / 140mW 810nm / 150mW 81550nm / 100mW	
Fibre coupling:	Fibre output:	ingle-mode, (PM) or Multi-mode fibres FC/APC, FC/PC, FCP8 or SMA and collimated outputs diameters on customer's demand
Modulation Capabilities		up to 1.5MHz up to 150kHz (full ON/OFF)
Control interfaces:	Ir	SB 2.0 / RS-232 hterlock ey-Switch
Laser control software:	Windows™ based laser control software	
Supply voltage:	12VDC or 90-240VAC, 50/60Hz	
Available options	LH+.COOL - optional active cooling unit for LightHUB+ XX.CDRH - optional CDRH remote control box	
Mechanical size:	L x W x H: 402mm x 402 x 97 mm (without cooling unit) L x W x H: 402mm x 402 x 182 mm (with attached cooling unit)	

Laser Safety classification:

INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM P₀ \$ 500mW $\lambda = 315 \cdot 400$ nm Class 3B Laser product IEC60825-1:2014

LASER RADIATION
AVOID EXPOSURE TO BEAM
P₉ < 500mW

\(\lambda = 400 - 700 nm \)
Class 3B Laser product
IEC60825-1:2014

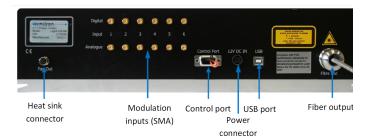
INVISIBLE LASER RADIATION AVOID EXPOSURE TO BEAM $P_o \leq 500 mW$ $\lambda = 700 - 1064 nm$ Class 3B Laser product IEC60825-1:2014

LASER RADIATION AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION CLASS 4 LASER PRODUCT P_o ≤ 1W $\lambda = 400 - 700 \, \text{nm}$ IEC60825-1:2014

INVISIBLE LASER RADIATION AVOID EYE
OR SKIN EXPOSURE TO DIRECT OR
SCATTERED RADIATION
CLASS 4 LASER PRODUCT
P₃ ≤ 1W
λ = 700 - 1064 nm
IEC60825-1:2014

Control Interface

Ordering Code



LH+.BASE

LH+KITXXX-YYY

L

LightHUB+ Base Unit incl. 488nm/60mW diode laser and 2m long SM/PM broadband fiber

Laser upgrade kit for LightHUB+ and LightHUB Ultra systems XXX= wavelength, YYY= laser power

LH+.COOL Optional cooling unit for Table-Top use of LightHUB+ Light Engines

of LightHUB+ Light Engines

LH+.SHUTTER Optional single fail safe shutt

Optional single fail safe shutter module for LightHUB+ Light Engines