



DATASHEET

07.2021

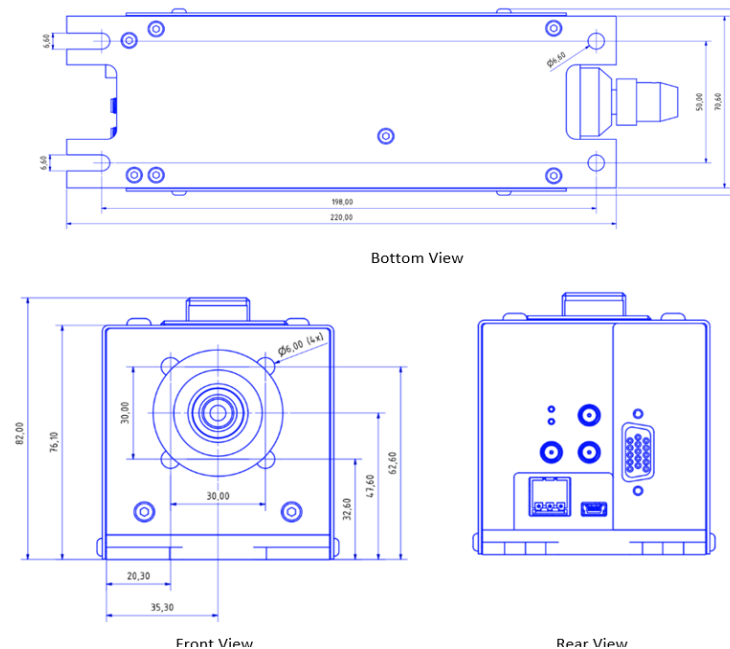
LedMOD[®] HP

TEC-cooled Ultra High Power
LED modules with optional fibre- or
Liquid Light Guide coupling



The LEDMOD HP modules offer great functionality and flexibility for applications in industry and research. With wavelengths from 365 to 700nm and optical output power of up to several watts, the LEDMOD HP series can be used in power-hungry many applications such as microscopy, chemical analysis, spectroscopy, forensics and other areas. The LED modules are available in a fibre- or liquid light guide coupled versions or with free space emission. The modules have modulation inputs for fast analogue intensity modulation with up to 500 kilohertz and digital modulation with a switching time of $< 2\mu\text{s}$. High-precision temperature stabilization of the LED chips ensures a very good performance and wavelength stability. This is important especially for applications that not only need an exact output power, but also a high stability of the emission spectrum. The digital modulation can be operated via external modulation signals, as well as an internal, programmable signal generator. A SYNC output ensures synchronization with external devices such as cameras, spectrometers and lock-in amplifiers. One or several LEDMOD HP modules can be comfortably controlled via RS-232 and USB 2.0 interface by either the supplied software 'Omicron Control Center' or the customer's own software.

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:



LEDMOD Series - Specifications	
	LEDMOD V2
Wavelengths & Powers (free emission) (other wavelengths and powers on request)	UV / Violet: 365nm / 3500mW 385nm / 4500mW 405nm / 4500mW VIS: 455nm / 3000mW 465nm / 3000mW 500..600nm / 2400mW 530nm / 650mW 635nm / 850mW White: 5600K / 2000mW
Free emission angle	120 - 130° (Deep-UV 10°)
Temperature control	active peltier cooling (TEC)
External modulation capabilities	up to 500kHz analogue modulation up to 500kHz digital modulation
Modulation inputs	1x Analogue modulation (0...5V / 2.5kOhm) via SMA Connector 1x Digital modulation (TTL / 5kOhm) via SMA Connector
Internal modulation capabilities	Up to 200kHz with programmable frequency and duty-cycle
Power setting resolution	internal: 12Bit external: analogue
SYNC output	TTL signal via SMA connector
Computer interface	USB-2.0 and RS-232
Operation modes	1.) external analogue control (0...5V) for output power and additional external TTL signal for ON/OFF modulation 2.) internal power control with external TTL for ON/OFF modulation 3.) internal power control CW (continues wave) operation (no external signals necessary) 4.) internal power control + programmable frequency and duty-cycle for ON/OFF modulation (no external signals necessary) 5.) external power control (0...5V) for output power + programmable frequency and duty-cycle for ON/OFF modulation
Control interface	15-pin HD-Sub-D connector
Dimensions (without fibre-coupling unit)	82 x 76.5 x 220mm (HxWxL).
Weight	1500...1700g (depending on the type of fibre / Liquid Light Guide coupler)
Supply voltage	11VDC-25VDC
Power consumption	80W max. <1W in standby
Environmental temperature	0°C-35°C
Special features	* Interlock function * fast analogue and digital modulation * TEC temperature control of LED chip * programmable PWM generator * SYNC output
Options	* High-efficiency fibre coupling into high-NA fused-silica fibres or 2/3/5mm Liquid Light Guides * Collimating and focussing objectives

LED Safety classification:

300-400nm:



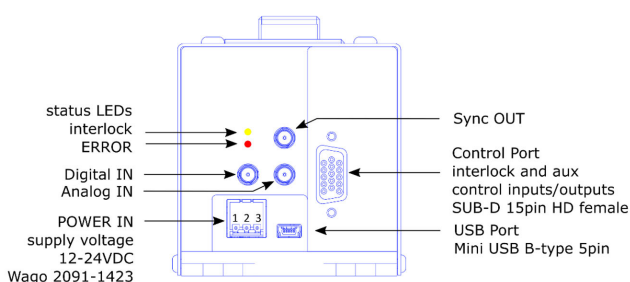
390-410nm:



400-700nm:



Control Interface



Ordering Code

LEDMOD.□□□.□□□.HP

Wavelength in nm (±5nm) Power in mW