

ML6500 series

RGB laser systems

Overview

ML6500 laser systems offered by Modulight respond to needs of systems integrators to find an easy-to-use laser solution fitting to their application. ML6500 products are offered with Modulight's unique wavelength range from blue to NIR. Standard 6500 series products offer a perfect solution to the visible wavelengths. They come equipped with receptacle fiber output and SMA-905 connector, integrated driver, and cooling controller. The systems can be controlled through a USB port with a standard PC user interface or by an analog/digital control signal directly. Other package types as well as medical safety features available on request.



Applications

Defense	Industrial	Medical	Display
Illumination Sensing	Optical pumping Measurement and analysis	Therapeutic procedures Diagnostics Dental	Laser projection Laser show Application testing

Electro-optical Parameters

Parameter	Symbol	ML6500-465	ML6500-532	ML6500-635	Unit
Wavelength	λ	465	532	635	nm
Max. Optical Output Power	P_{OPT}	1	1	1	W
Maximum input Current	I_{IN}	2	6	3	A
Input Voltage	V_{IN}	15	15	15	V _{DC}
Input Power	P_{IN}	<25	<80	<25	W
Requires cooling module*		No	Yes	Yes	

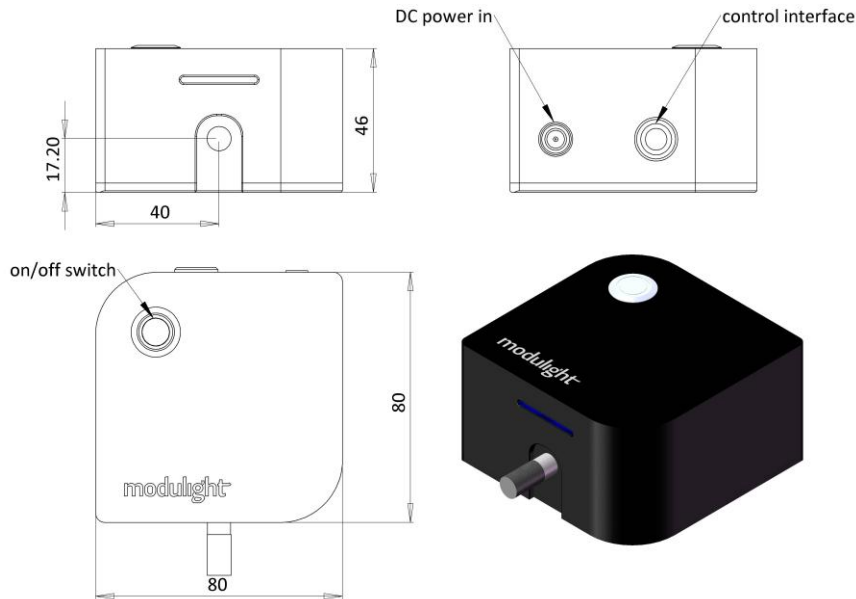
* Optional cooling module is available separately

Fiber Pigtail Characteristics (standard, other options available)

Parameter	Symbol	Typical Value	Unit
Core Diameter*	\varnothing_{CORE}	200	μm
Fiber Numerical Aperture	NA	0.22	-
Connector at the fiber end		SMA-905 or receptacle type for SMA-905	

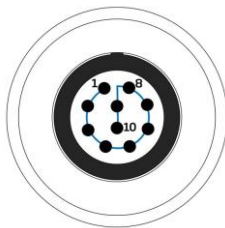
* Typical fiber output for ML6500-532 is 400 μm / NA 0.22

Package Information



Material used for the housing is anodized aluminum or anodized aluminum and copper based on product version. Please consult factory for further details.

Pin Assignment (customizable, below can be used as a reference)



Pin #	Name	Description	Pin #	Name	Description
1	V _{MON}	Laser current monitoring output, see chart	6	LASER ON	High→Fire laser
2	+3.3V	High impedance (1kohm) voltage output	7	ENABLE	High→Enable laser driver
3	V _{SET}	Laser setpoint input, max 2.5 V, see control chart	8	GND	Signal ground
4	DNC	Do not connect	9	DATA0	USB+ / TXD optional serial interface
5	DNC	Do not connect	10	DATA1	USB- / RXD optional serial interface

Safety Information

- The laser light emitted from this laser device is visible. The laser light can be harmful to the human eye. Avoid eye and skin exposure to the beam, both direct and reflected.
- Products are subject to the risks normally associated with sensitive electronic devices including static discharge, transients, and overload. Please ensure ESD protection prior to handling the products.
- These Modulight products are not intended for use in systems where product malfunction can reasonably be expected to result in personal injury.



Peak power and wavelength are for safety analysis only, not to present device performance.

Liability note

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