ML6609

UV 349 nm laser source

This adaptation of Modulight's ML6600 platform is designed to be integrated as a UV laser source for Flow Cytometry applications. The system is manufactured in ISO13485 certified fab. The platform supports preventive maintenance with predictive analytics and machine learning algorithms, powered by Modulight Cloud.

Applications

The laser source is designed especially for Flow Cytometry applications with the key criteria in mind: Stability in terms of output power and beam pointing, excellent single-mode beam quality, and narrow linewidth tailored to match the 349 nm absorption peak of the latest UV fluorochromes. The Gaussian output beam can be further tailored to specific needs, e.g. into top-hat profile. The laser can be used as a stand-alone system and operated with a PC GUI but is also easy to integrate as a part of Flow Cytometer system.

Output of ML6600 UV laser engine is a collimated free-space beam with excellent beam quality, but fiber coupling is optionally available. ML6600 includes control electronics and heat sink. The power supply is delivered separately.

In addition to Flow Cytometry-applications, the product can be used for Confocal Microscopy, Genomics and Proteomics, Semiconductor Inspection and Metrology.

Electro-optical Characteristics[1]

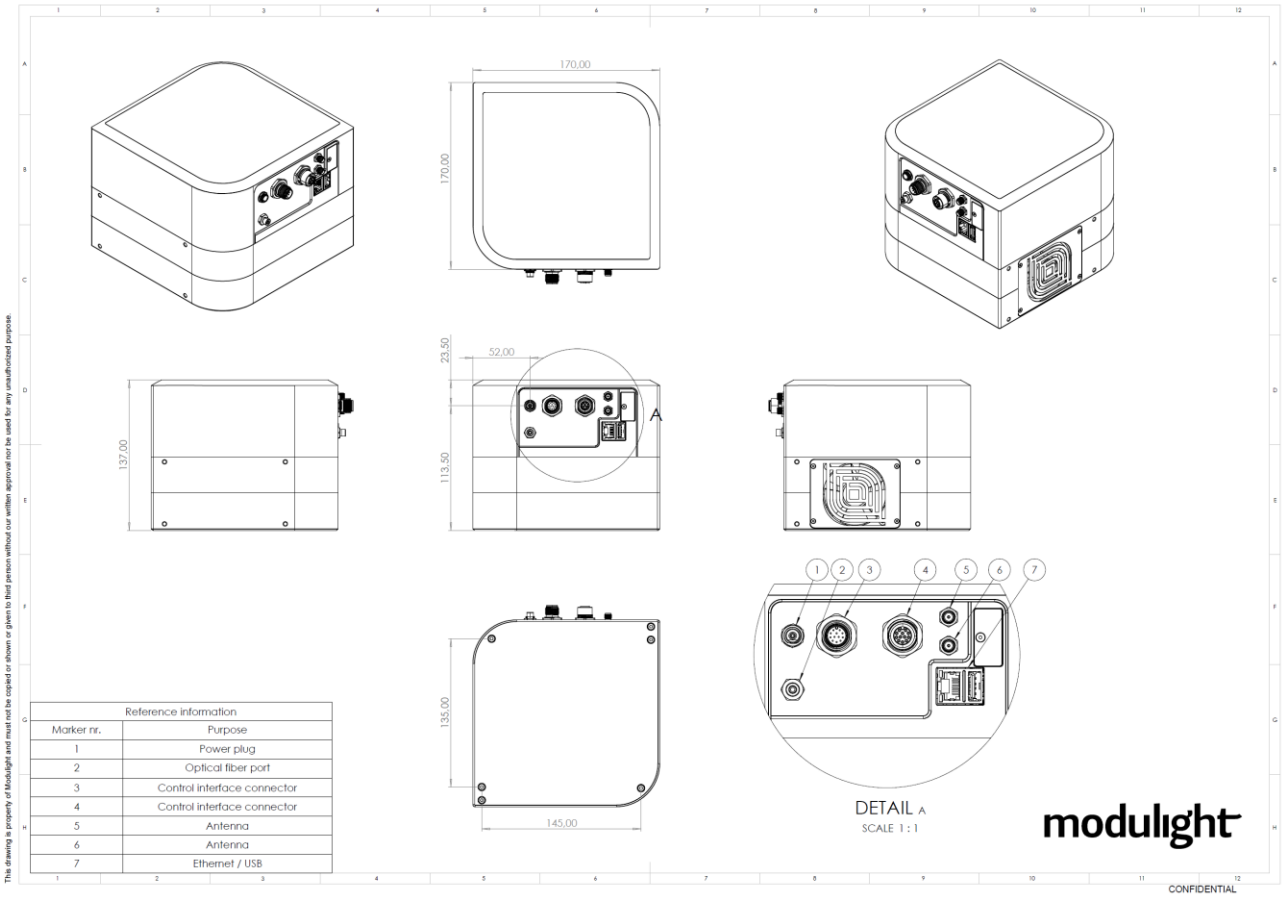
Parameter	Specification	Unit
Central Wavelength	349 ±1	nm
Available Optical Output Power, free space beam	10, 20, 50	mW
Mode of Operation	CW	
Power Stability, peak-to-peak	<2	%
Spatial Mode	TEM_{00}	
Beam Quality	<1.2	M^2
Beam Pointing Stability Over Temperature	<10	µrad/K
Polarization	Linear, Horizontal, ±5	°

[1]Tailored configurations available

General characteristics

Parameter	Specification	Unit
Dimensions	170 x 170 x 137	mm
Cooling	Air	
Supply Voltage	24	VDC
Communication Interface	RS232, RS422	
Power Consumption	Max. 200, Typical <150	W
Baseplate Temperature, max.	<40	°C
Ambient Operating Temperature	18-35	°C
Warm-up time	<10	min

Mechanical Specification

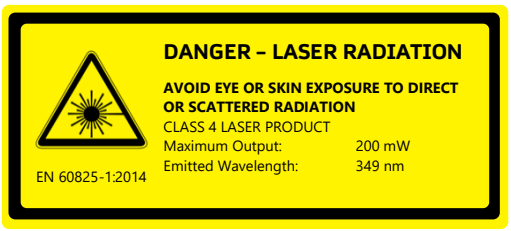


Reference information	
Marker nr.	Purpose
1	Power plug
2	Optical fiber port
3	Control interface connector
4	Control interface connector
5	Antenna
6	Antenna
7	Ethernet / USB

All dimensions are millimeters (mm).

Safety Information

- The laser light emitted from this laser diode is invisible and potentially 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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RoHS compliance

The product complies with EU RoHS 2 (Directive 2011/65/EU) and China RoHS II (Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products)