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modulight

www.modulight.com

Single-emitter based OEM solution

Offered with laser diodes over the whole wavelength range from 635nm to 1650nm

Ready2Lase

Single-emitter OEM sub-systems offered by Modulight are the answer to popular demand for easy-to-use laser module with the options of customization from chip level to the system level. Customizable options include, but are not limited to, wavelength, power, and output specification, control interface, form factor, and various operating parameters. Basic configuration is based on Modulight Butterfly module line-up. Other package types available on request.

Applications

Defense	Industrial	Medical
Illumination Sensing	Optical pumping Measurement and analysis	Therapeutic procedures Diagnostics Dental

Electro-optical parameters

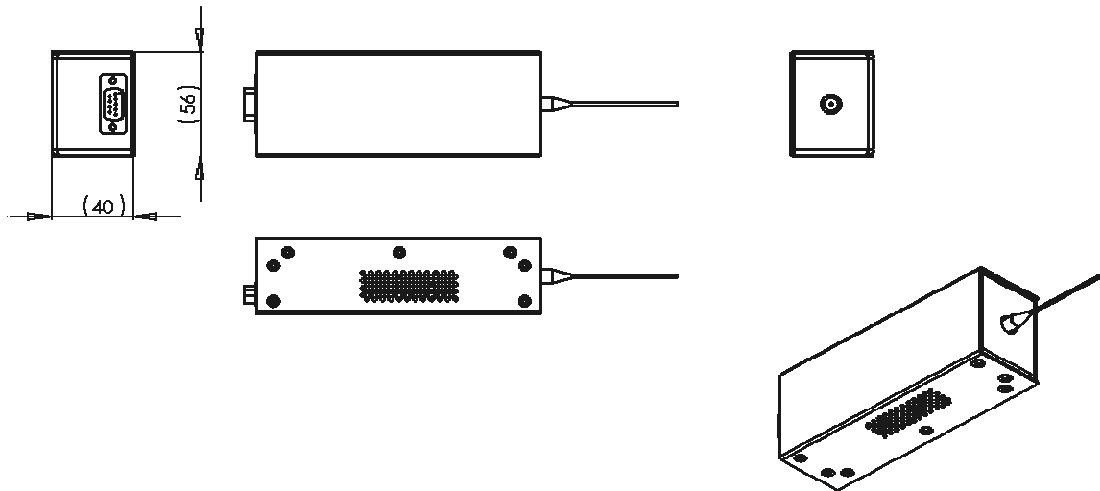| Parameter	Symbol	ML1972	ML1767	ML1973	ML1988	ML1981	Unit
Wavelength	λ	635	650/665	808/810	940/980	1470/1550	nm
Optical Output Power	P_{OPT}	500	750	1500	1500	700	mW
Input voltage	V_{IN}			12			V_{DC}
Input current	I_{IN}			0.4…1			A
Output modulation	f			0 (CW)… 1			kHz
Input power	P_{IN}	<10	<10	<12	<12	<12	W

Optional features

- Internal or external power output control
- Internal or external modulation control
- Temperature control (standard version with constant temperature)
- Integrated LCD display

Fiber Pigtail Characteristics (standard, other options available)

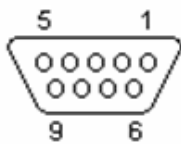| Parameter	Symbol	Typical Value	Unit
Core Diameter	$\varnothing_{CORE}$	200	µm
Cladding Diameter	$\varnothing_{CLAD}$	220	µm
Coating Diameter	$\varnothing_{COAT}$	~500	µm
Fiber Numerical Aperture	NA	0.22	-
Minimum Bending Radius (short-term)	R_{MIN1}	22	mm
Minimum Bending Radius (long-term)	R_{MIN2}	44	mm
Fiber Core Material		Pure silica	
Fiber Cladding Material		Fluorine doped silica	
Fiber Coating Material		Acrylate	
Connector at the fiber end		SMA-905 or receptacle type for SMA-905	

Package Information

(56)

(40)

Material used for the housing is anodized aluminum. Please consult factory for further details.
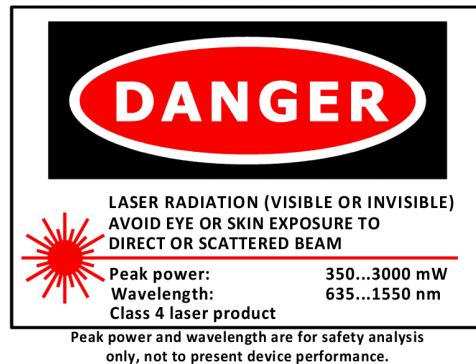
Pin Assignment (customizable, below can be used as a reference)

5   1

9   6

Pin number	Assignment	Pin number	Assignment
1	+12V input	6	External modulation (0/+5V)
2	GND	7	External modulation (reference)
3	Laser temperature	8	External control for output power
4	Laser temperature	9	Internal / calibration
5	Enable signal / interlock		

Safety Information

- The laser light emitted from this laser device may be visible or invisible, depending on the laser selected. The laser light is 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.

DANGER

LASER RADIATION (VISIBLE OR INVISIBLE)
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED BEAM

Peak power:	350...3000 mW
Wavelength:	635...1550 nm
Class 4 laser product	

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

Liability note

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