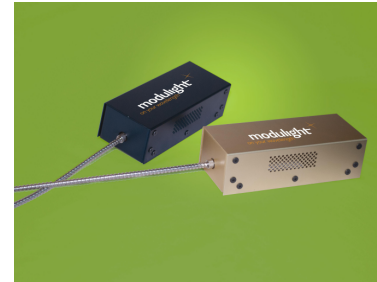


# LimeLight

Single-emitter based laser systems

## Overview

LimeLight laser systems offered by Modulight respond to needs of systems integrators to find an easy-to-use laser solution fitting to their application. LimeLight products are offered with Modulight's unique wavelength range from blue to NIR. Standard products come with fiber output with 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 OEM version available on request.



## Applications

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

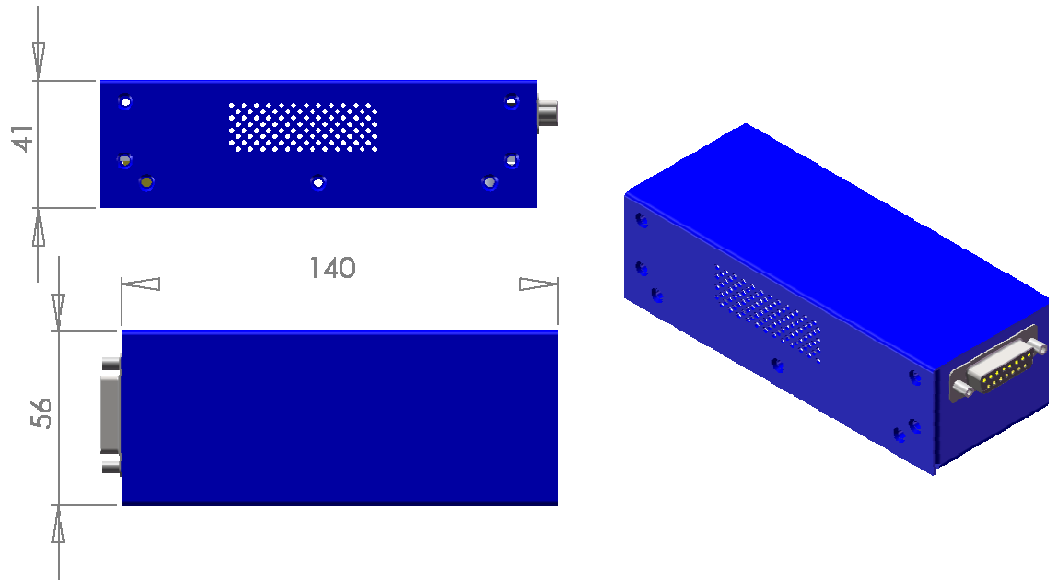
## Electro-optical Parameters

Parameter	Symbol	ML2110	ML2012	ML2013	ML2014	ML2015	ML2016	Unit
Wavelength	$\lambda$	465	635	650	808	1470	1550	nm
Optical Output Power	$P_{OPT}$	1000	400	750	1500	700	500	mW
Input Current	$I_{IN}$	2.0...2.2	0.4...1	0.4...1	0.4...1	0.4...1	0.4...1	A
Input Voltage	$V_{IN}$	12	12	12	12	12	12	V <sub>DC</sub>
Input Power	$P_{IN}$	<25	<10	<10	<12	<12	<12	W
Output Modulation	f	0(CW)...1	0(CW)...1	0(CW)...1	0(CW)...1	0(CW)...1	0(CW)...1	kHz
Minimum Pulse Width	$\tau_{min}$	50	50	50	50	50	50	$\mu$ s
Power Stability	$\delta P$	1	1	1	1	1	1	%
Laser operating temperature	$T_{OP}$	20	20	20	25	20	20	°C

## Fiber Pigtail Characteristics (standard, other options available)

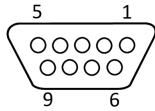
Parameter	Symbol	Typical Value	Unit
Core Diameter	$\varnothing_{CORE}$	200	$\mu$ m
Cladding Diameter	$\varnothing_{CLAD}$	220	$\mu$ m
Coating Diameter	$\varnothing_{COAT}$	~500	$\mu$ m
Fiber Numerical Aperture	NA	0.22	-
Minimum Bending Radius (short-term)	$R_{MIN1}$	22	mm
Minimum Bending Radius (long-term)	$R_{MIN2}$	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



Material used for the housing is anodized aluminum. Please consult factory for further details.

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



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.



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

### Liability note

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