

“SparkLight” Turnkey Laser Platform

630 – 1550 nm 2 – 50 W



OVERVIEW

SparkLight turnkey laser platform is Modulight’s response to users in search of a ready-to-use laser system. Accommodating most lasers in Modulight’s product lineup, the turnkey laser platform offers all auxiliary devices required to operate a high-performance semiconductor laser array: cooling, constant current/power driving, digital supervisory circuit and user interface.

The turnkey laser platform can be modified to power up a wide selection of lasers, from 630 nm to 1550 nm, with a broad choice of output powers, from 2 W to 50 W. The platform is designed for reliable CW operation with optional low bandwidth modulation input. A SMA-905 connector ensures repeatable connection of the pigtail fibre.



APPLICATIONS

Material processing Medical Research

ELECTRO-OPTICAL CHARACTERISTICS (LASER-DEPENDENT)

| Parameter | Symbol | Typical value | | | | Unit |
|---------------------------------|-----------|---------------|---------|-----------|-----------|---------|
| | | ML1762 | ML1822 | ML1820 | ML1821 | |
| Product code | | ML1762 | ML1822 | ML1820 | ML1821 | |
| Wavelength | λ | 635 | 808 | 940 | 1550 | nm |
| Optical Output Power | P_{OPT} | 3 | 50 | 25 | 12 | W |
| Power stability (24 hours) | | < 1 | <1 | < 1 | < 1 | % |
| Pigtail fiber core diameter | | 400 – 800 | 400-800 | 400 – 800 | 400 – 800 | μ m |
| Pigtail fiber NA | | 0.22 | 0.22 | 0.22 | 0.22 | - |
| Modulation bandwidth (optional) | | 10 | 10 | 10 | 10 | KHz |

All above values are typical for CW operation at 15 °C.

ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Rating | Unit |
|-----------------------------|-----------|------------------------|------|
| Relative Humidity | RH | 95 | % |
| Storage Temperature | T_{STG} | -20 - +50 | °C |
| Operating Temperature Range | T_{OP} | 0 - +35 | °C |
| Input Voltage | V_{IN} | 88 – 132 / 176 – 264 * | VAC |

*Selected by switch

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PACKAGE INFORMATION

SparkLight turnkey platform is offered as three different versions: OEM system, rack mounted for industrial applications, and a desktop case with easy-to-use touchscreen interface for research and industrial application development.