

Key Features

- High pulse energy: >20μJ
- Optical bandwidth 1nm
- High peak power: >1.5kW
- Adjustable Freq. rep. rate
- Adjustable pulse width
- Gaussian beam profile: $M^2 \approx 1$
- Compact & rugged design
- Operation: -10 to 50 °C
- Standard and PM version

Applications

- LIDAR - LADAR
- Range finding
- Target illumination
- Remote sensing

MAKO SERIES

Also available at different standard wavelengths with same high performance and compact footprint:

- ◆ MAKO-1030
- ◆ MAKO-1064
- ◆ MAKO-1550+
- ◆ MAKO-NL-1550
- ◆ MAKO-NL-1900
- ◆ MAKO-NL-2000

The CYBEL MAKO-1550 is a compact 1550nm eye safe pulsed fiber laser that can deliver either 1.5kW 4ns pulses. The laser output has a near-Gaussian profile ($M^2 \approx 1$).

The MAKO-1550 pulse width (4 to 50ns) and repetition rate (10 to 2,000kHz) are continuously adjustable through an analog input control. The optical output power is adjustable through a separate digital control.

The MAKO-1550 is an efficient, ultra-compact (97x78x15mm³) and ultra-light (150g), all-fiber OEM unit specifically designed for sensing applications requiring small footprint.



MAKO-1550: 97x78x15mm³

MAKO-1550 Specifications

| OPTICAL | Unit | Value | Comment |
|------------------------------|----------------|----------------|--------------------------------------|
| Center wavelength | nm | 1545 | Other wavelengths available |
| Optical bandwidth, pulsed | nm | 1 | >95% power in band, 2.5kW peak power |
| Average output power, pulsed | W | 1.5 | 50kHz, 20ns |
| Pulse repetition rate | kHz | 10 to 2000 | Adjustable |
| Power tunability | % | 0 to 100 | |
| Pulse width | ns | 4 to 50 | Adjustable |
| Peak power | kW | 1.5 | |
| Energy-per-pulse | μJ | 30 | |
| ASE level, pulsed | % | 2 | %power, 50kHz, 20ns, 1.5W avg. power |
| Pulse energy variation | % RMS | 5 | 50kHz, 20ns, 1.5W avg. power |
| Output mode M ² | M ² | 1.1 | |
| Output mode, MFD | μm | 11.5 | |
| Output fiber length | cm | 50 | Other lengths available |
| Output fiber description | | 3mm SS, FC/APC | Armored cable available on request |
| ELECTRICAL/MECHANICAL | | | |
| Mechanical package | mm | 97x78x15 | |
| Supply power consumption | W | 15 | 25°C, 1.5W output power |
| Control interface | | RS 232 | |
| ENVIRONMENTAL | | | |
| Operating temperature | °C | -10 to 50 | |
| Operating relative humidity | % | 0 to 95 | Non-condensing |

CUSTOMIZATION

The **MAKO** is a laser platform that can be customized to match Customers' specific requirements. Please contact Cybel.

COMPLIANCE with Regulatory Requirements: These OEM products are Class 4 lasers as designated by the Center for Device and Radiology Health (CDRH). As such they are intended only in integration into other equipment and do not comply with CDRH requirement. It is the customer responsibility for CDRH certification of the full system that incorporates this industrial laser.



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