

Lighting the Way

www.cybel-llc.com

SPACELIGHT

1064nm Pulsed High Power Fiber Laser

Key Features

- High Energy (up to 40uJ)
- High peak power (up to 10kW)
- Adjustable Repetition rate (200kHz to 1.5MHz)
- · Adjustable pulse width
- High beam quality (M2 <1.3)
- Compact & rugged design
- RS232 or USB interface
- Optical trigger output
- Operation (-10 to 50 C)
- PM version

The CYBEL SPACELIGHT series is a 1064nm pulsed fiber laser that delivers short pulses (2-8ns) over a wide range of repetition rates (200kHz-1.5MHz) with high pulse energy (up to 40uJ).

The **SPACELIGHT** comes in either a 5W or 10W average power configurations with up to a 10kW of peak power in a near-Gaussian beam ($M^2 < 1.3$).

Output power and key monitoring and operating parameters are controlled from either a RS232 or USB port while the pulses are triggered by either an external TTL input signal or through internal software control.

The **SPACELIGHT** is and efficient and compact all-fiber OEM unit specifically designed for airborne or ground sensing applications.

Applications

- LIDAR-LADAR
- Range finding
- Mapping
- Remote sensing
- Non linear optics conversion
- Seed source for Amp



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SPACELIGHT Specifications

| OPTICAL | Unit | SPACELIGHT-5 | SPACELIGHT-10 | Comments |
|-----------------------------------------|------|----------------|---------------|---------------------|
| Wavelength | nm | 1064 | | 1060nm to 1070nm |
| Mode of Operation | | pulsed | | |
| Repetition Rate | kHz | 200 to 1500 | | Adjustable |
| Pulse Width | ns | 4 | 4 | Software Adjustable |
| Average Output Power | W | 5 | 10 | |
| Output Peak Power | kW | 5 | 10 | @250kHz for Po |
| Output Energy-/Pulse | uJ | 20 | 40 | @250kHz |
| Output Power Tunability | % | 5-100 | | |
| Optical Polarization | | Elliptical | | Time varying |
| Beam Quality (M²) | | 1.1 | 1.3 | |
| Maximum Reflectivity of External System | dB | -40 | | No output isolator |
| Output Fiber Length | | 0.5m | | Armored cable |
| Monitor Fiber Length | | 0.5m | | Armored cable |
| ELECTRICAL | | | | |
| Voltage | V | 18 to 30 volts | | |
| Warm-up Time | min | 20 | | |
| Power Consumption | W | <70 | <150 | @Pout max |
| Interface | | USB and RS 232 | | |
| Control Mode | | ACC | | |
| GENERAL | | | | |
| Dimensions | mm | 215 x 150 x 51 | | w/o heat sink |
| Storage Temperature | °C | -20 to 65 | | |
| Operating Case Temp. | °C | -10 to 50 | | |
| Humidity | % | 5 to 95 | | Non condensing |

CUSTOMIZATION

The **SPACELIGHT** is a laser platform that can be customized to match Customer's 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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