

CoLID-II 1064nm Short Pulse Fiber Laser for LiDAR

Product Description:



The CoLID series 1064nm pulsed fiber laser of Connet is a laser source delivering high peak power and high pulse energy. Using MOPA configuration and all-fiber optimized design, the laser can offer the high peak power and the near diffraction-limit quality output beam.

Connet CoLID series 1064nm pulsed fiber laser (CoLID-II-1064) employs the rectangle module package in compact and rugged design, integrated with the output monitor for synchronization. The high-quality MCU being internally integrated for easy control with the built-in high power isolator before output for protection. CoLID-II-1064 is easily deployed and maintenance-free, ensuring a long-life and cost-effective operations. The laser supports the external trigger mode in TTL signal. The repetition rate of the laser is determined by the input trigger signal and the pulse width can be adjusted by connecting to the computer. It is quite suitable for system integration.

Applications:

- LiDAR
- Range finding
- Target detection
- 3D scanning
- Telemetry

Features:

- High peak power: up to 10kW
- Average power: up to 2W
- Repetition rate adjustable: 30-500kHz
- Pulse energy: up to 50uJ
- Excellent beam quality



Specifications:

| Parameter | Unit | Specification | | |
|--|--------------------|----------------------------------|---------|---------|
| | | Min | Typ. | Max |
| Part no. | | CoLID-II-1064 | | |
| Center wavelength | nm | 1059 | 1064 | 1069 |
| Pulse energy | μJ | - | - | 50 |
| Peak power | kW | - | - | 10 |
| Average power | W | - | - | 2 |
| Pulse width | ns | 1 | - | 50 |
| Repetition rate | kHz | 30 | - | 500 |
| Beam quality | M^2 | <1.1 | | |
| Polarization | | Random | | |
| Output power stability ¹ (8hrs) | % | - | ± 2 | ± 3 |
| Output isolator | | Yes | | |
| Operating temperature | $^{\circ}\text{C}$ | -35 | - | +65 |
| Storage temperature | $^{\circ}\text{C}$ | -40 | - | +85 |
| Power consumption ² | W | - | - | 24 |
| Operating voltage | V_{DC} | 12 | | |
| Trigger mode | | Internal or External TTL Trigger | | |
| Output fiber length | m | >0.3 | | |
| Optical connector | | FC/APC or Collimator | | |
| Dimension | mm | 135(L)x90(W)x30(H) | | |

Specifications:

- The output power stability is measured under 25°C after 30 minutes' warm-up.
- Power consumption is related to output power and operating conditions.

Ordering Information:

- CoLID-II-1064-XX-YY-ZZ-FA
- XX: Pulse width in ns
- YY: Repetition rate in kHz
- ZZ: Peak power in kW
- FA: FC/APC connector, Collimator (Col) is optional.
- Example: CoLID-II-1064-02-200-04-FA

CoLID-II 1064nm Short Pulse Fiber Laser, 2ns pulse width, 200kHz repetition rate, 4kW peak power, FC/APC connector