

Key Features

- Laser linewidth: 10 kHz
- Typ. λ : 2000 nm, other λ 's available.
- High energy up to 200 mJ
- Output power up to 20 W
- PRF from 100 Hz to 2 kHz
- Pulse width: 250 μ s - 5 ms
- Beam quality $M^2 < 1.1$
- PER: 18 dB

Applications

- LIDAR-LADAR
- Range finding
- Airborne Mapping
- Remote sensing
- Non linear optics conversion

BEACON SERIES

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

- ◆ BEACON-1064
- ◆ BEACON-1550

The CYBEL BEACON-2000 is a Quasi CW (QCW) up to 20 W pulsed fiber laser at 2000 nm. This laser delivers pulses from 250 μ s to 5 ms over a wide range of repetition rates from 100 Hz to 2 kHz.

The BEACON-2000 is an efficient and compact OEM unit (200x150x43 mm³) in either standard or PM fiber. Its robust design has been battle tested for airborne or ground sensing applications, undergone environmental testing.

This laser output power and key operating parameters are controlled from either an RS-232 or USB port. The pulses are triggered by either an external TTL input signal or internal software command.

BEACON-2000 20W QCW Laser



BEACON-2000 Specifications

| OPTICAL | Unit | Min | Max | Comments |
|---------------------------------------|-----------------|------------|------|--|
| Mode of Operation | | Pulsed | | |
| Wavelength | nm | 2000 | | Other λs Available |
| Linewidth | kHz | 10 | | |
| Repetition Rate | Hz | 100 | 2000 | Adjustable |
| Pulse Width | μs | 250 | 5000 | Adjustable |
| Output Peak Power | W | 20 | | |
| Output Energy/Pulse | mJ | 10 | 200 | |
| Average Output Power | W | 5 | | |
| Output Power Tunability | % | 10 - 100 | | |
| Polarization Ext. Ratio (PER) | dB | 20 | | PM Version |
| Output Beam Quality (M ²) | | 1.1 | | Diffraction Limited |
| Signal to Noise Ratio (OSNR) | dB | 45 | | OSA Res. = 0.1nm |
| Output Power Stability (RMS) | % | 3 | | After 20 Min Warm-Up Time |
| Output Fiber Length | m | 1 | | FC/APC Connector |
| Output Isolation | dB | 20 | | Optional |
| Connector | | FC/APC | | Other Connectors and Collimators Available |
| ELECTRICAL | | | | |
| Voltage | V | 18 to 30 | | |
| Warm Up Time | min | 20 | | |
| Power Consumption | W | 45 | | @ Pout Max= 5 W |
| Control Interface | | RS-232 | | |
| Mode of Operation | | ACC | | |
| GENERAL | | | | |
| Dimensions | mm ³ | 200x150x43 | | W/O Heat Sink |
| Storage Temperature | °C | -10 to 70 | | |
| Operating Case Temp. | °C | 10 to 50 | | Cold Plate Recommended |
| Humidity | % | 5 to 95 | | Non Condensing |

CUSTOMIZATION

The **Beacon** 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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