

Cybel

Lighting the Way

www.cybel-llc.com

ASTROLIGHT

2000nm, 5kW
Pulsed Fiber Laser

Key Features

- **High energy (up to 20uJ)**
- **High peak power (up to 5kW)**
- **Adjustable repetition rate (75kHz 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 40 C)**
- **PM version**

Applications

- **LIDAR-LADAR**
- **Range finding**
- **Atmospheric monitoring**
- **Non linear optics conversion**
- **Seed source for Amp**

The CYBEL ASTROLIGHT series is a 2000nm eye safe pulsed fiber laser that delivers short pulses (4-12ns) over a wide range of repetition rates (50kHz-1.5MHz) with high pulse energy (up to 20uJ).

The ASTROLIGHT provides 5W of average power with up to a 5kW 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 ASTROLIGHT is an efficient and compact all-fiber OEM unit specifically designed for airborne or ground sensing applications.



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ASTROLIGHT Specifications

OPTICAL	Unit	Value	Comments
Wavelength	nm	1950	1940nm to 2000nm
Mode of Operation		pulsed	
Repetition Rate	KHz	75 to 1500	Adjustable
Pulse Width	ns	4 to 12	Software Adjustable
Average Output Power	W	5	
Output Peak Power	kW	5	@250kHz, 4ns for Po
Output Energy-/Pulse	uJ	20	@250Hz
Output Power Tunability	%	3-100	
Optical Polarization		Elliptical	Time varying
Beam Quality (M ²)		<1.3	
Maximum Reflectivity of External System	dB	-40	No output isolator
Output Fiber Length		0.3m	
Monitor Fiber Length		1.0m	
ELECTRICAL			
Voltage	V	18 to 30 volts	
Warm- up Time	min	20	
Power Consumption	W	<80	@Pout max
Interface		USB and RS232	
Control Mode		ACC	
GENERAL			
Dimensions	mm	215 x 191 x 51	w/o heat sink
Storage Temperature	°C	-20 to 65	
Operating case temp.	°C	10 to 40	
Humidity	%	5 to 95	Non condensing

CUSTOMIZATION

The **ASTROLIGHT** 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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