

ASTROLIGHT 2000nm, 5kW Pulsed Fiber Laser

Key Features

- High energy up to 20uJ
- High peak power up to 5kW
- Adjust. PRF up to 1.5MHz
- Adjust. pulse width: 4-12ns
- High beam quality $M^2 < 1.3$
- Compact & rugged design
- RS 232 or USB interface
- Optical trigger output
- Operation Temp 10 to 40°C

Applications

- LIDAR-LADAR
- Range finding
- Atmospheric monitoring

Cybel Thulium & Holmium Amplifiers & laser products

- ♦ MISTRAL-AMP 1W- 2051
- ♦ MISTRAL-AMP 20W-2051
- ♦ SCIROCCO-AMP 1W-1950
- ♦ MAESTRO-AMP20W-2000
- ♦ VULCAN 10W-1950
- ♦ MAGNI-NL 10W-1950
- ♦ HELIOS-AMP 5W- 2100

The CYBEL ASTROLIGHT-2000 is a 2000nm eye safe pulsed fiber laser that delivers short pulses (4-12ns) over a wide range of pulse repetition frequencies (100kHz-1.5MHz) with high pulse energy (up to 20uJ).

The **ASTROLIGHT-2000** provides 5W of average power with up to 5kW of peak power in a near-Gaussian beam ($M^2 < 1.3$). It is integrated into a compact OEM Skyline unit (200x150x43mm³). Output power and monitoring of key operating parameters are controlled from either a RS 232 or USB port while the pulses are triggered by either an external TTL input signal or through internal software control.

The **SKYLINE** is an efficient all-fiber OEM unit specifically designed for airborne or ground sensing applications.



ASTROLIGHT-2000 Specifications

OPTICAL	Unit	Value	Comment
Center wavelength	nm	1950	1940nm to 2000nm
Mode of operation		Pulsed	
Repetition rate	kHz	100 to 1500	
Pulse width	ns	4 to 12	Software adjustment
Average output power	W	5	
Output peak power	kW	5	@250kHz, 4ns for Pave
Output energy/pulse	μJ	20	
Output power tunability	%	3-100	
Output polarization		Elliptical	Time varying PM option available
Beam quality (M ²)	M ²	<1.3	
Maxi. reflectivity of ext. sys.	dB	-40	No output isolator
Output fiber length	m	0.5	
Monitor fiber length	m	1	
ELECTRICAL			
Voltage	V	18 to 30	
Warm-up time	min	20	
Supply power consumption	W	<100	@Pout max
Control interface		USB and RS 232	
Control mode		ACC	
GENERAL			
Dimensions	Mm	200x150x43	w/o heat sink
Operating temperature	°C	-10 to 50	
Operating relative humidity	%	0 to 95	Non-condensing

CUSTOMIZATION

The **ASTROLIGHT-2000 laser** 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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