

ORION-2000

$\Delta\nu \approx 10$ kHz, $P_{out} \approx 0.5$ W
DFB Fiber Laser

Key Features

- Wavelength: 1900 - 2050 nm
- λ tunability: +/- 0.4 nm
- Spectral width ~ 10 kHz
- Pout without amp < 10 mW
- Pout with amp: 0.5 W
- Single mode, $M^2 \approx 1.1$
- Operation Temp: 0 to 50°C
- Standard or All-PM version
- Optional Output collimator
- OEM unit or Benchtop 19" x 2U

The **CYBEL ORION-2000** is a single frequency narrow linewidth (10 kHz) DFB Fiber Bragg Grating (FBG) laser emitting in the range of 1900 to 2050 nm. The laser wavelength can be fine-tuned by +/- 0.4 nm with temperature adjustment.

The DFB-FBG alone delivers 10 mW of CW output power, and more than 500 mW of output power with an additional amplifier stage.

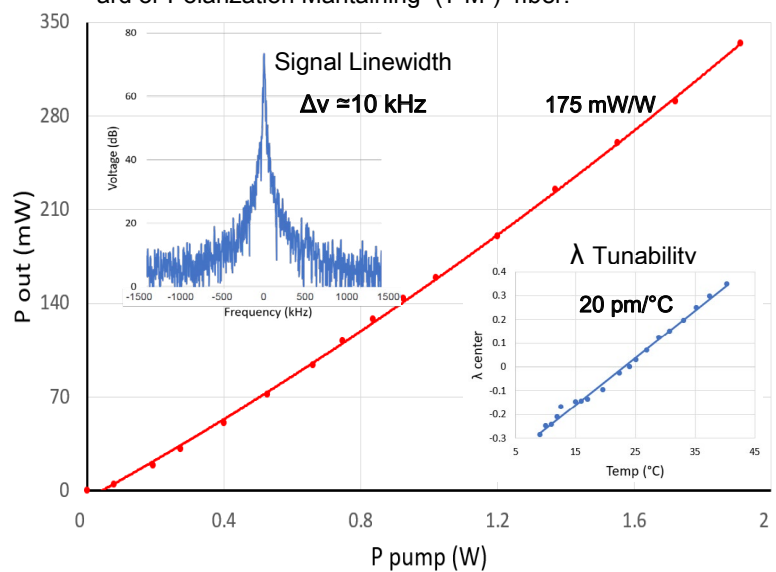
The **ORION-2000** laser comes either in a Skyline OEM package or a turnkey benchtop unit, the output fiber can be Standard or Polarization Maintaining (PM) fiber.

Applications

- Interferometry
- Seed Laser
- Testing and Measurement
- Gas sensing

SKYLINE SERIES

- ◆ VULCAN-1064
- ◆ VULCAN-1550
- ◆ MAGNI-NL 1950
- ◆ ASTROLIGHT-1950
- ◆ SCIROCCO-1950
- ◆ MISTRAL-2051
- ◆ HELIOS-2100



Amplified Output for 2039 nm DFB Laser

ORION-2000 Specifications

OPTICAL	Unit	Value	Comment
Wavelength range	nm	1900 - 2050	Other wavelengths available
Spectral width	kHz	10 kHz	Gaussina Estimation
Output power without amplification	mW	< 10	Output Power dependent on λ
Output power with amplification	mW	500	
Output power stability	%	1	RMS After 15 min warm-up time
Polarization ext. ratio	dB	≥ 18	PM version
Beam quality (M^2)	M^2	<1.1	
Output isolator	dB	25	Optional with Output collimator
In/out fiber length	m	1	SM or PM
Connector		FC/APC	Other connectors and Collimators available
ELECTRICAL			
Voltage	V	18-30	OEM SKYLINE
Warm-up time	min	15	
Power consumption	W	20	@Pave max= 0.5 W
Control interface		USB	
Control mode		ACC	
GENERAL			
Dimensions (OEM)	mm	200x150x43	OEM SKYLINE
Storage temperature	°C	-20 to 65	
Operating case temperature	°C	0 to 50	Cooling via forced air
Operating relative humidity	%	5 to 95	Non-condensing

CUSTOMIZATION

The **ORION-2000** 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.

