

MISTRAL-2051

2051nm, 1-5 W CW

Fiber Amplifier

Key Features

- Output power 1-2-5W
- Bandwidth: 2045-2055nm
- Single frequency operation
- Single mode, $M^2 \approx 1$
- Compact & rugged design
- Standard or PM Fiber
- High Polarization ER
- RS 232 Interface
- Operation Temp: 10 to 40°C
- Protection option against LOS

Applications

- CO₂ monitoring, DIAL
- Testing and Measurement
- Preamplifier
- LIDAR
- Interferometer

SKYLINE SERIES

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

- ◆ MANTARAY-1060
- ◆ STINGRAY-1550
- ◆ SCIROCCO-1950
- ◆ HELIOS-2100

The CYBEL MISTRAL-2051 is a line of Thulium-doped fiber amplifiers designed for amplification of eye-safe light in the wavelength range 2045 to 2055nm. Our model **MISTRAL-2051** has been specifically designed for operation around the important CO₂ absorption line near 2051nm and provides the user with stable and high performance. The amplifier can deliver 1 to 5W of single transverse mode output power for 1mW of narrow linewidth (5kHz) input signal.

The **MISTRAL-2051** comes either as a standard or a polarization maintaining fiber amplifier in an efficient and compact OEM unit suitable for system integration. Output power and monitoring of key operating parameters such as automatic current control (ACC) mode are controlled from an RS 232 port. Amplifier protection due to a loss of input signal is offered as an option. The Benchtop version is also available at this power level or higher output power.



MISTRAL-2051 Specifications

OPTICAL	Unit	Value	Comment
Center wavelength	nm	2051	2045 to 2055nm
Input signal power	mW	1	@2051nm
Input signal linewidth	MHz	<3	
Minimum output power	W	1, 2, 5	Depending on Model#
ASE output power	mW	20	@Pout=1W, Pin=3mW
Polarization ext. ratio (ER)	dB	≥ 17	PM version
Beam quality (M ²)		<1.1	
Output isolator	dB	30	Optional
In/out fiber length	m	1	Armored cable, FC/APC
Fiber type		Standard or PM	SM or PM 1950 low bend loss
Monitor fiber length	m	1, Optional	Armored cable, FC/APC
ELECTRICAL			
Voltage	V	18 to 30	
Warm-up time	min	20	
Supply power consumption	W	30	@Pout max=1W
Control interface		USB and RS 232	
Control mode		ACC	
GENERAL			
Dimensions	mm	200x150x43	w/o heat sink
Storage temperature	°C	-20 to 65	
Operating temperature	°C	10 to 40	
Operating relative humidity	%	5 to 95	Non-condensing

CUSTOMIZATION

The SKYLINE is an amplifier 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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