

PHOENIX+ 2039

20W CW & Pulsed Fiber Laser

Key Features

- CW or Pulsed modes
- CW Pout 20 W
- Ppeak > 130 W @50 ns & 2 MHz
- Linewidth < 10 kHz
- Single mode, $M^2 < 1.1$
- Rep. Rate 1 MHz to 2 MHz
- Pulse width 50 ns - 250 ns
- Standard or PM version
- Operation Temp: 10 to 35 °C

The **CYBEL PHOENIX+ 2039** is a benchtop fiber laser that can operate either in a CW or ns pulsed mode. This narrow linewidth (<10 kHz) laser can deliver a 20 W CW power & 130 W peak power for 50 ns pulses and 2 MHz frequency rep. rate. It is available in either one or two interleave channel wavelengths (e.g. 2039 & 2040 nm). The repetition rate can be adjusted between 1 MHz to 2 MHz while the pulse width can be set between 50 ns to 250 ns. Other wavelengths in the 2 micron bandwidth are available.

The **PHOENIX+ 2039** laser comes in a 19" 4U rack mount benchtop unit with either a standard or an all polarization maintaining (PM) fiber. Benchtop control is done from the front panel or via a USB port.

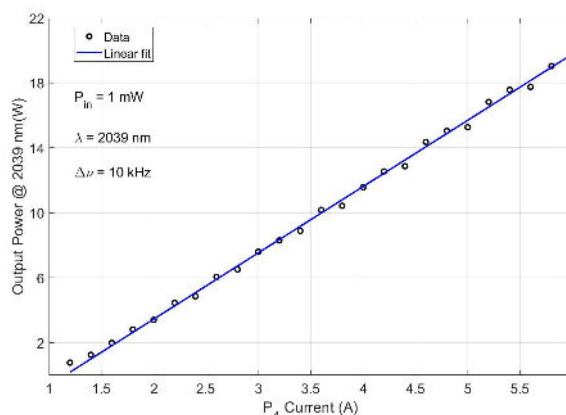
Applications

- Differential LIDAR (DIAL)
- Nonlinear Studies
- Laser pumping
- Testing and Measurement



Cybel 2μm Laser & Amplifier Products

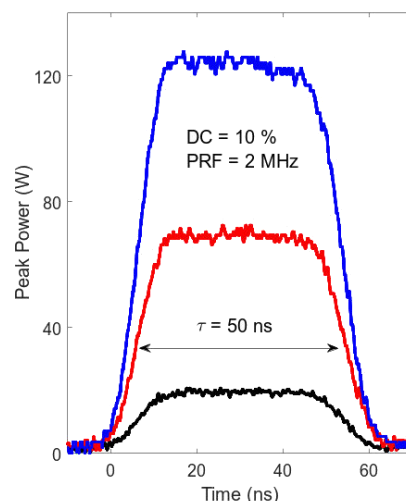
- ♦ MISTRAL-AMP 5W- 2051
- ♦ SCIROCCO-AMP 5W-1950
- ♦ MAESTRO-AMP 20W-2000
- ♦ MAGNI-NL 10W-1950
- ♦ VULCAN 10W-1950
- ♦ ASTROLIGHT 5W-1950



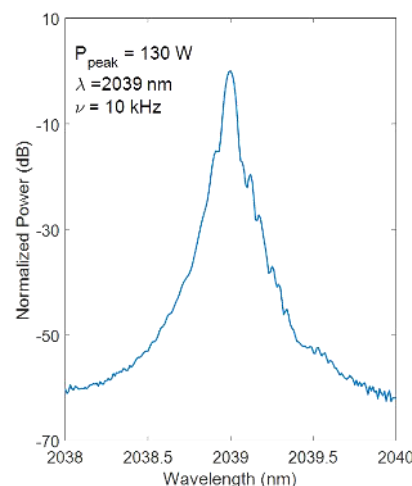


PHOENIX+ 2039 Pulsed Fiber Laser

OPTICAL	Unit	Value
Wavelength tuning range	nm	2039
Average output power	W	20
Peak power 50ns @ 2MHz	W	130
Output signal spectra width	kHz	<10
Polarization ext. ratio (PER)	dB	≥ 20
Signal to noise ratio (OSNR)	dB/nm	45
Beam quality (M ²)	M ²	<1.1
Output power stability @ 20W	%	3
Output isolator	dB	20
Output fiber length	m	1
Connector		FC/APC
ELECTRICAL		
Voltage	V	110-220
Warm-up time	min	20
Supply power consumption	W	100
Control interface		USB
Control mode		ACC
GENERAL		
Dimensions	inch	19" 4U
Control Storage temperature	°C	-20 to 65
Operating case temperature	°C	10 to 35
Operating relative humidity	%	5 to 95



Peak power at 2039 nm vs. Pulse width



Linewidth

CUSTOMIZATION

The **PHOENIX+ 2039** is a laser platform that can be customized to match Customers' specific requirements. Please contact Cybel.

COMPLIANCE with Regulatory Requirements: These BENCHTOP 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.





LIGHTING THE WAY

PHOENIX-2040

1W CW & Pulsed Fiber Laser

Key Features

- CW or Pulsed modes
- Ave. Pout 1W
- Peak power > 10W
- Pulsed energy > 0.5μJ
- Linewidth < 50kHz
- Single mode, $M^2 \approx 1$
- Rep. Rate 100kHz - 4MHz
- Pulse width 20ns-1μs
- Standard or all-PM version
- Operation Temp: 10 to 35°C
- Efficient cooling system

The CYBEL PHOENIX-2040 is a benchtop fiber laser that can operate either in a CW or ns pulsed mode. This narrow linewidth (<50kHz) laser can deliver a 1W average power, 10W peak power, and 0.5 μJ energy for 50ns pulses and 2MHz frequency rep. rate. It is available in either one or two to interleave channel wavelengths (e.g. 2039 & 2040nm). The repetition rate can be adjusted between 100kHz to 4MHz while the pulse width can be set between 20ns to 1μs. Other wavelengths in the 2 microns are available.

The PHOENIX-2040 laser comes in a 19" 2U rack mount benchtop unit with either a standard or an all polarization maintaining (PM) fiber. Benchtop control is done from the front panel or via a USB port.

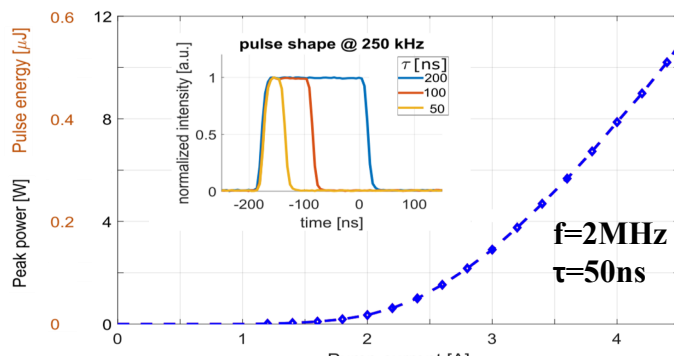
Applications

- Differential LIDAR (DIAL)
- Nonlinear Studies
- Laser pumping
- Testing and Measurement
- Wind Speed Monitoring



Cybel 2μm Laser & Amplifier Products

- ♦ MISTRAL-AMP 5W- 2051
- ♦ SCIROCCO-AMP 5W-1950
- ♦ MAESTRO-AMP 20W-2000
- ♦ MAGNI-NL 10W-1950
- ♦ VULCAN 10W-1950
- ♦ ASTROLIGHT 5W-1950



LIGHTING THE WAY

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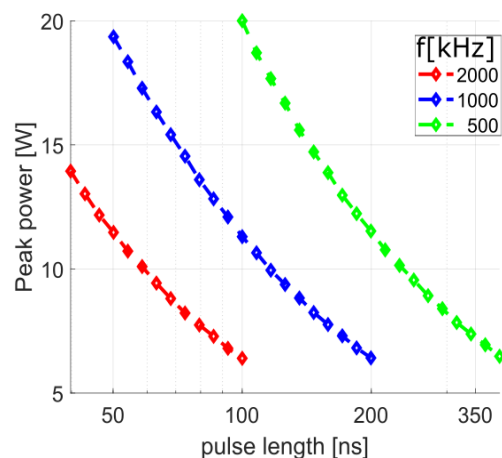
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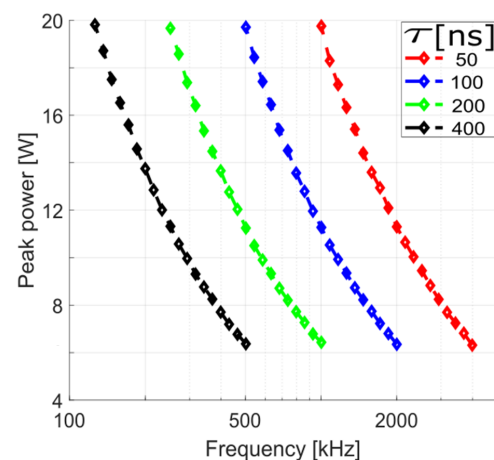
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PHOENIX-2040 Pulsed Fiber Laser

OPTICAL	Unit	Value
Wavelength tuning range	nm	2040
Average output power	W	1
Peak power 50ns @ 2MHz	W	10
Output signal spectra width	kHz	<50
Polarization ext. ratio (PER)	dB	≥ 20
Signal to noise ratio (OSNR)	dB/nm	45
Beam quality (M ²)	M ²	<1.1
Output power stability @ 1W	%	3
Output fiber length	m	1
Connector		FC/APC
ELECTRICAL		
Voltage	V	110-220
Warm-up time	min	20
Supply power consumption	W	100
Control interface		USB
Control mode		ACC
GENERAL		
Dimensions	inch	19" 2U
Control Storage temperature	°C	-20 to 65
Operating case temperature	°C	10 to 35
Operating relative humidity	%	5 to 95



Peak power at 2040nm vs. Pulsewidth



Peak Power at 2040nm vs. Frequency

CUSTOMIZATION

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