

Micra-5

Broadband Ultrafast Ti:Sapphire Oscillator

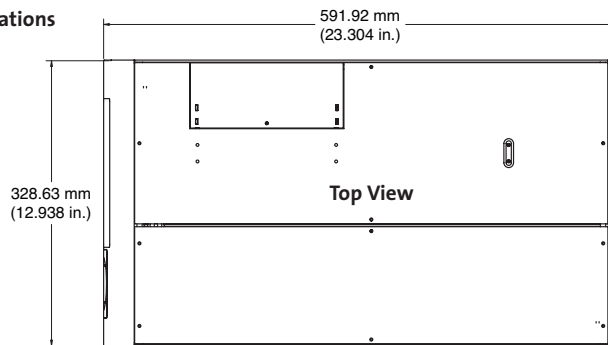
Features

- Integrated Coherent Verdi™ solid-state pump laser
- Excellent long-term stability
- Extremely broad spectral bandwidth for short pulse generation
- Low noise
- Spectral bandwidth adjustable from <math><30\text{ nm}</math> to $>100\text{ nm}$
- Compact footprint
- Tunable center wavelength
- Repetition rate options
- PowerTrack™ active optimization

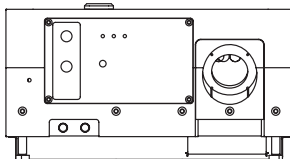


Mechanical Specifications

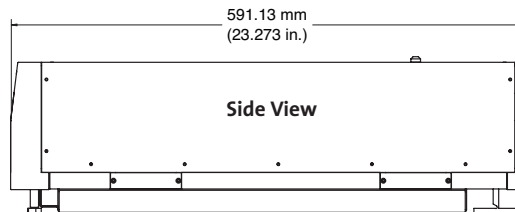
Laser Head



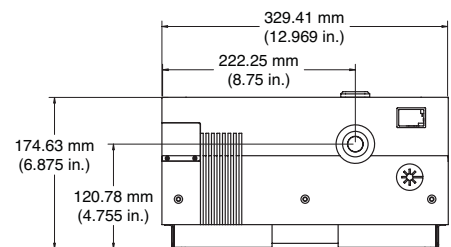
Rear View



Side View



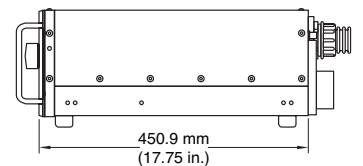
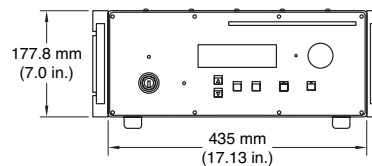
Front View



Front View

Side View

Power Supply



Superior Reliability & Performance

Micra™-5

Ultrafast Oscillator

System Specifications

Avg. Modelocked Power at 800 nm	>300 mW
Bandwidth (manually adjustable)	<30 nm to >100 nm
Tuning Range (manually adjustable)	780 to 820 nm (with approx. 100 nm pulse bandwidth) 760 to 850 nm (with approx. 50 nm pulse bandwidth) 750 to 860 nm (with approx. 30 nm pulse bandwidth)
Repetition Rate (manually adjustable)	76 to 82 MHz
Pulsewidth	Near transform limited (with external dispersion compensation)
Noise ¹	0.1% rms
Power stability ²	±1%
Polarization	>100:1 Horizontal
Spatial Mode	TEM ₀₀ (M ² <1.3) ³
Beam Divergence	<2 mrad
Beam Diameter ⁴	1.25 mm

Electrical and Cooling Requirements

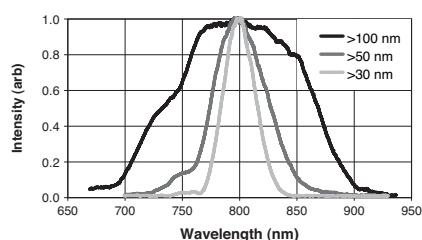
Voltage	90 to 250V
Current Max.	15.5A @ 85 vac
Frequency	47 to 63 Hz
Cooling	Conductively-cooled to integrated heat sink. A closed-cycle chiller is included.
Laser Head Dimensions (L x W x H)	566.5 x 326.4 x 174.6 mm (22.3 x 12.8 x 6.9 in.)
Beam Height	120.6 mm (4.75 in.)

Measurement Tools

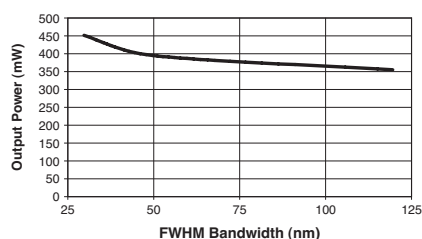
Meter	FieldMaxII-TO power meter (part number 1070873)
Sensor	PS10 power detector (part number 0012-4595)

- ¹ Measured from 10 Hz to 10 MHz.
² Measured over 2 hrs after 30 min. warm up at constant environmental temperature.
³ Average of X & Y.
⁴ Average 1/e² diameter (±0.25 mm) measured at output port.

Typical Pulse Bandwidth



Typical Output Power vs Pulse Bandwidth



Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice.

Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Micra lasers. For full details of this warranty coverage, please refer to the Service section at www.Coherent.com or contact your local Sales or Service Representative.



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