COHERENT®

Vitara

Automated, Hands-Free Ultrashort Pulse Ti:Sapphire Oscillator

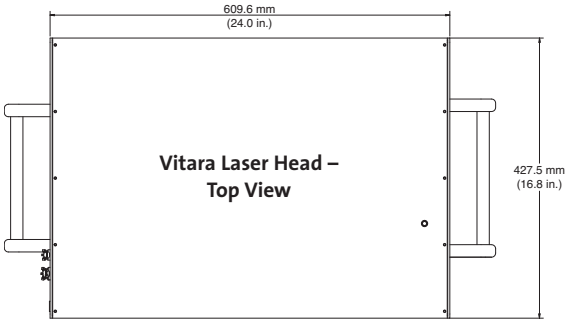
Features

- Fully automated for hands-free, reliable operation
- Computer controlled bandwidth
- Computer tunable center wavelength
- PowerTrack™ active optimization
- <12 fs pulsewidth capability
- Low noise
- Integrated Verdi™-G pump laser
- Compact footprint

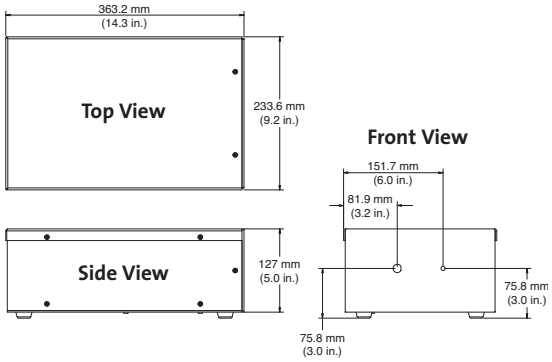
Options and Accessories

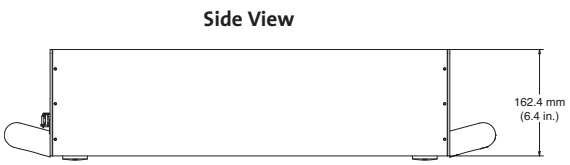
- Carrier-Envelope Phase (CEP) Stabilizer
- Pulse synchronization – Synchrolock-AP
- Integrated, calibrated spectrometer
- Compact Pulse Compressor – CPC-II
- Second Harmonic Generator
- Factory configurable for use with internal or external pump laser

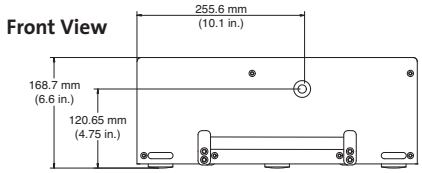
Mechanical Specifications

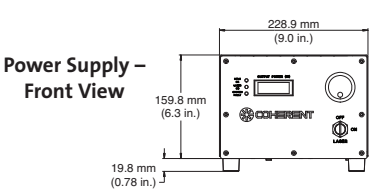


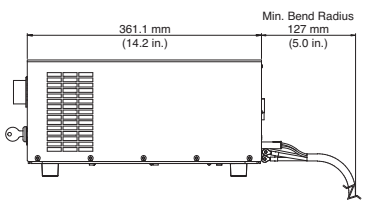
Vitara Controller











Superior Reliability & Performance

Vitara™

Automated, Hands-Free Ultrashort Pulse Ti:Sapphire Oscillator

System Specifications[1,2]

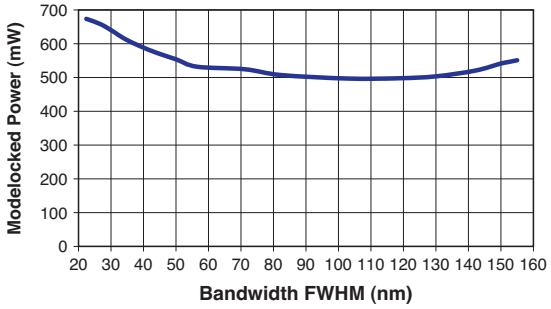
	Vitara
Power (mW)	
at 30 nm bandwidth	>525
at 60 nm bandwidth	>450
at 100 nm bandwidth	>425
Bandwidth FWHM (nm)	<30 to >125
Tuning Range	
at 30 nm bandwidth	755 to 860
at 60 nm bandwidth	765 to 840
at 100 nm bandwidth	790 to 820
Compressed Pulsewidth[3] (fs) with External CPC-II (not included)	<12
Uncompressed Pulsewidth[3] (fs)	<20 (typically <15)
RMS Noise[4] (%)	<0.05
Power Stability[5] (%)	±0.5
Repetition Rate[6] (MHz)(standard)	80
Spatial Mode	TEM00
Beam Diameter[7] (mm)	2
Beam Divergence (mrad)	<1
Polarization	Horizontal

Electrical and Cooling Requirements

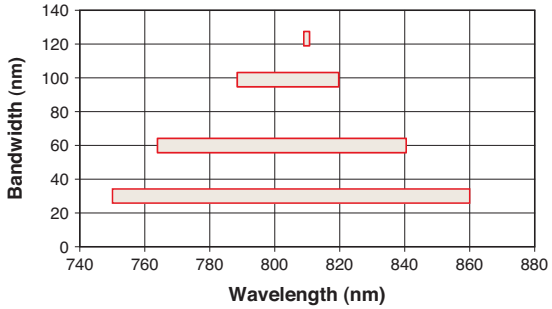
Voltage	100 to 240
Current Max. (A)	5
Line Frequency (Hz)	50 to 60
Cooling	Closed-loop water chiller (included)

[1] Specifications subject to change.
[2] Specifications apply at 800 nm center wavelength and 80 MHz rep. rate unless otherwise stated.
[3] At max. bandwidth and measured with an FC Spider from APE GmbH.
[4] Measured from 10 Hz to 10 MHz.
[5] Measured over 2 hrs. after 30 min. warm-up at constant environmental temperature.
[6] Can be factory set between 65 MHz to 95 MHz.
[7] Average $1/e^2$ diameter measured at output.

Vitara Typical Power vs. Bandwidth at 80 MHz



Vitara Typical Tuning Range vs. 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 Vitara 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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