

CPC-II

Compact Pulse Compressor for Vitara

The CPC-II pulse compressor accessory for Vitara is designed to deliver near transform-limited pulses at the target sample. The CPC-II achieves this by introducing continuously variable negative Group Delay Dispersion (GDD/prechirp) to precisely compensate for normal dispersion of downstream optics. Using chirped-mirror technology, the CPC-II provides an ultra-compact footprint for maximum ease-of-use and the input and output beam ports are in line to enable simple experimental setups.

FEATURES & BENEFITS

- Maximizes peak power for enhanced nonlinear processes
- Coarse and fine GDD control for precise pulse compression
- In-line input and output ports for easy alignment
- Pre-compensates for positive dispersion from downstream optics
- Ultra-compact footprint

APPLICATIONS

- Second Harmonic Generation
- THz Generation
- Coherent Anti-Stokes Raman Scattering (CARS)
- Multiphoton Imaging
- Non-Linear Optics



SPECIFICATIONS ¹	CPC-II
Typical GDD Compensation Range (fs ²) ($\pm 10\%$)	-440 to -2640
Course GDD Tuning Step Size (fs ²)	10 steps of approx. -220
Fine GDD Tuning (fs ²)	Continuous over approx. +400
Transmission Efficiency (%)	>75
Input Wavelength Range (nm)	700 to 900
Input Bandwidth (nm)	≤ 125
Typical Output Pulse Length ² when used with Vitara-T ³ (fs)	
for 100 nm bandwidth	<15
for 50 nm bandwidth	<25
for 30 nm bandwidth	<40
Input Beam Diameter (mm)	~ 2

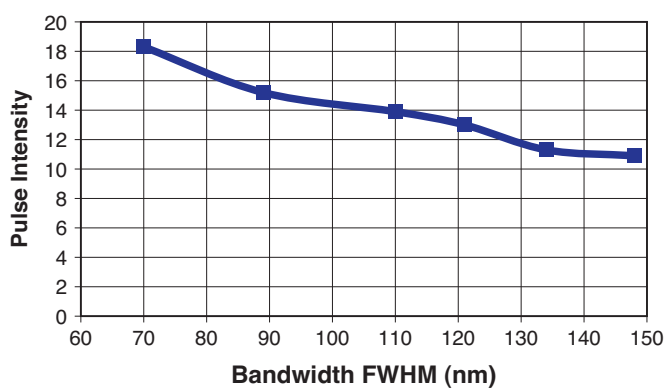
¹ Subject to change without notice.

² Assumes an autocorrelation deconvolution factor of 0.65.

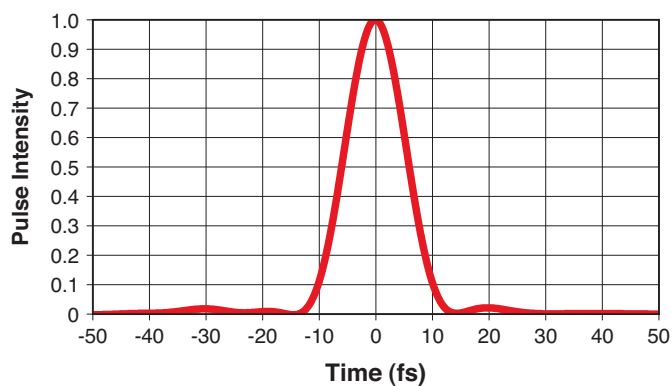
³ Pulse length and bandwidth defined at FWHM.

TYPICAL PERFORMANCE DATA

**Typical Compressed Pulse Width
from Vitara-T with CPC-II**

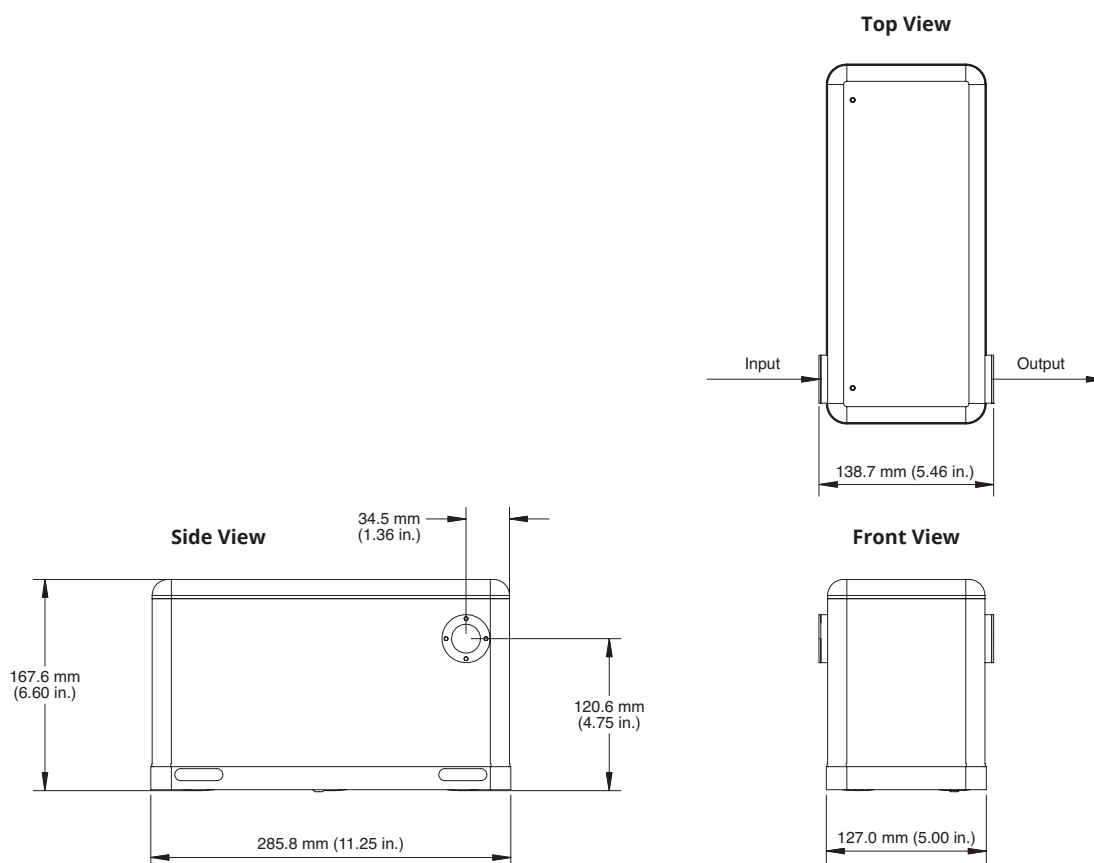


**Typical Compressed Pulse Width
from Vitara-T with CPC-II
(pulse measured using FC Spider)**



MECHANICAL SPECIFICATIONS

CPC-II



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Coherent offers a limited warranty for all CPC-II Compact Pulse Compressors. 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. MC-027-08-0M0520Rev.A Copyright ©2020 Coherent, Inc.