



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

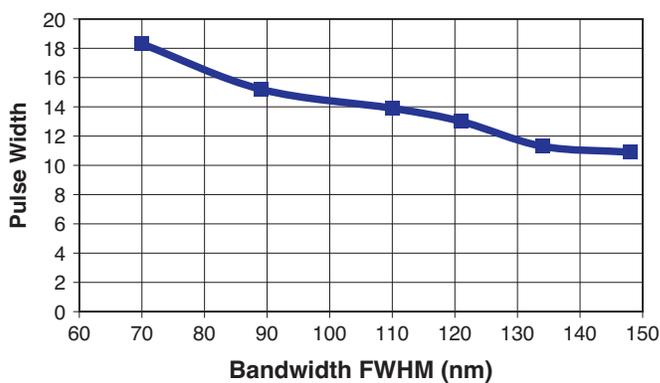
<sup>1</sup> Subject to change without notice.

<sup>2</sup> Assumes an autocorrelation deconvolution factor of 0.65.

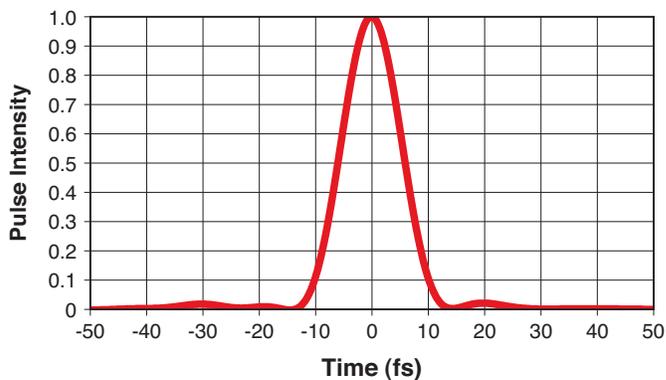
<sup>3</sup> Pulse length and bandwidth defined at FWHM.

## TYPICAL PERFORMANCE DATA

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

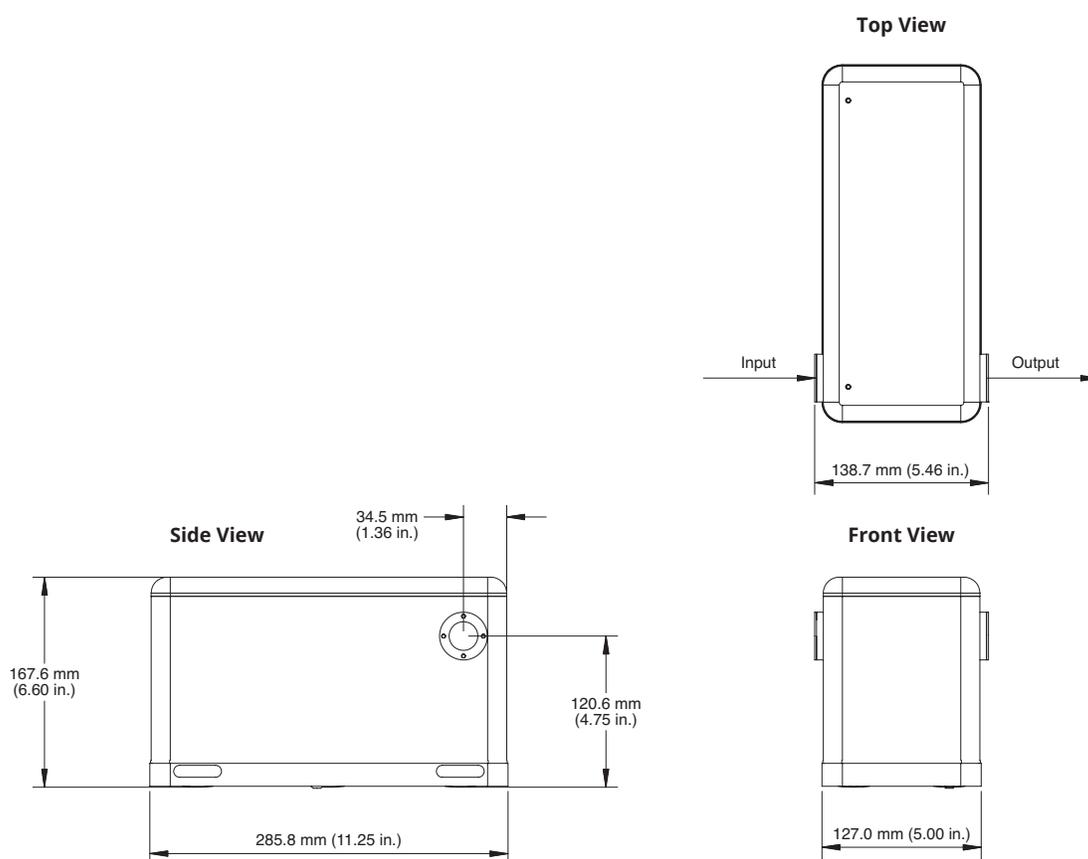


Typical Compressed Pulse Width  
from Vitara-T with CPC-II  
(pulse measured using FC Spider)



## 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](http://www.coherent.com) or contact your local Sales or Service Representative. MC-027-08-0M0421Rev.B Copyright ©2021 Coherent, Inc.