Chirped module with VBG compressor

CM-V

The CM-V is the most compact and robust ultrafast pulse stretcher+compressor pair on the market. Every stretcher+compressor unit is paired in-house and features an indie TPSR-V that has been individually designed and tuned to a specific volume Bragg grating (VBG) compressor. This attention to detail results in a superior phase control and performance that are unmatched in the industry.

indie developed the CM-V to ensure the highest possible performance for ultrafast lasers using VBG pulse compression.

Our exclusive FBG dispersion management expertise facilitates accurate phase control, which enables pedestal-free fs pulses.

In-house pairing of each TPSR-V to a specific volume Bragg grating (VBG) compressor minimizes phase errors for optimal pulse compressibility.

Our flexible and user-friendly software make it easy to integrate the CM-V into any laser design.

Applications

- Material Processing
- Laser Surgery
- Spectroscopy
- THz Generation
- Multiphoton Microscopy

Features

- Time saving
- Robust
- Compact
- Cost-effective
- Integrated

Features Details

- **Time saving:** indie has the facilities, skills and resources to pair TPSR-V and VBG units far more efficiently than most end-users.
- **Robust:** The compact, all-fiber construction remains operational in changing environmental conditions.
- **Compact**: The CM-V is the most compact pulse stretcher+compressor pair in the industry.
- **Cost-effective:** The composite design of the CM-V, combined with full electronic control, results in shorter cycle times, increased throughput, and lower operating costs.
- **Integrated:** Software integration between the CM-V and the laser system enables dynamic and precise pulse control and virtually eliminates hardware alignment and servicing.

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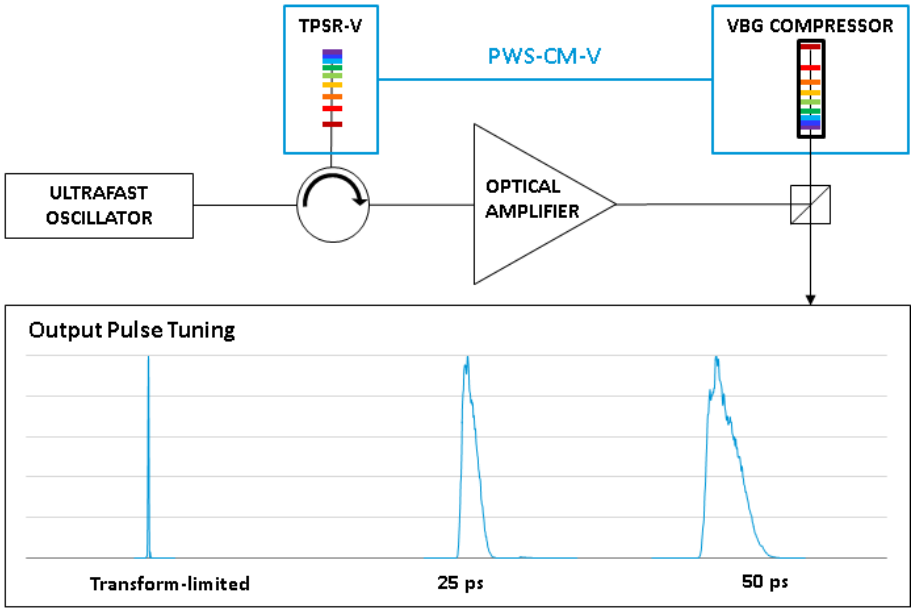
Chirped module with VBG compressor

CM-V

Chirped-Pulse Amplification with a VBG Compressor



General Specifications

Parameters		Units
Center wavelength band (1)	1	µm
Minimum input pulse duration	≥150	fs
FBG spectral shape (2)	Customizable	
Total stretching window	≤500	ps
VBG compressor matching	GD function and phase error matching	
Pulse tuning	From transform-limited up to 50	ps
Dispersion tuning	D_2, D_3 and D_4	
Fiber type	PM	
Module dimensions	14 x 22 x 130	mm
Control	USB/I^2C	
VBG Diffraction efficiency	85	%
VBG Dimensions	5 x 5 x 50	mm

(1) Other wavelengths available upon request
(2) Amplifier gain bandwidth enhancement available upon request