



Second Harmonic Bandwidth Compressor

FEATURES

- 515 nm output
- $< 10 \text{ cm}^{-1}$ spectral bandwidth
- 2 – 4 ps pulse duration
- $> 30\%$ conversion efficiency
- Used to pump ORPHEUS-PS
- Small footprint



SHBC is a second harmonic bandwidth compressor dedicated to the generation of narrow-bandwidth picosecond pulses from a broad-bandwidth output of PHAROS and CARBIDE femtosecond lasers.

SHBC enables the creation of versatile optical setups which use fixed-wavelength or tunable narrow-bandwidth picosecond pulses in combination with tunable-wavelength broadband femtosecond pulses. In particular, such setups are of interest in sum-frequency generation (SFG) spectroscopy.

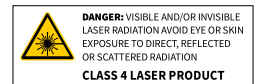
SPECIFICATIONS

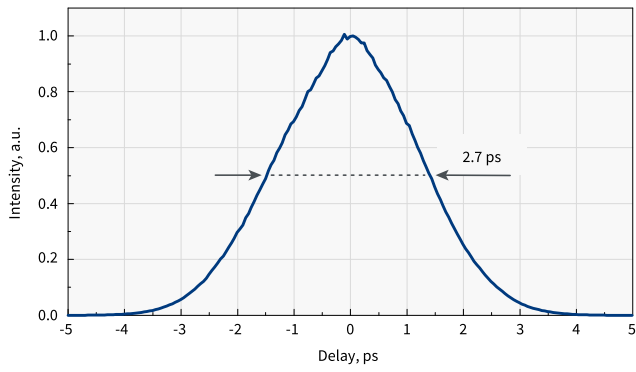
Model	SHBC
OUTPUT CHARACTERISTICS	
Output wavelength ¹⁾	515 nm \pm 5 nm
Conversion efficiency	$> 30\%$
Spectral bandwidth ²⁾	$< 10 \text{ cm}^{-1}$
Pulse duration ³⁾	2 – 4 ps
PUMP LASER REQUIREMENTS	
Pump source	PHAROS or CARBIDE with uncompressed output option
Pump pulse energy	40 μJ – 4 mJ
Maximum pump power	40 W
DIMENSIONS	
Housing (L \times W \times H)	426 \times 351 \times 119 mm
Recommended area for fixing (L \times W \times H)	450 \times 400 \times 150 mm

¹⁾ Depends on pump laser model.

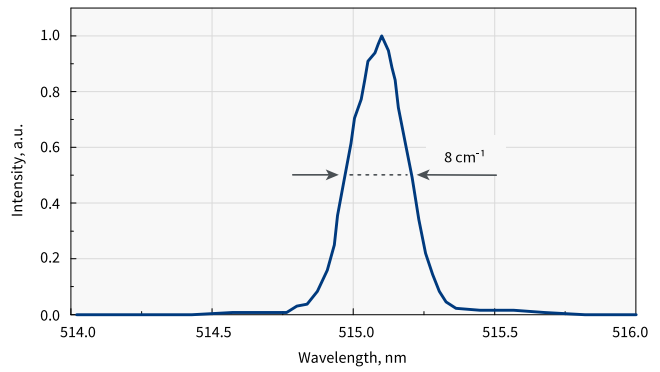
²⁾ $< 2 \text{ cm}^{-1}$ model available; contact sales@lightcon.com.

³⁾ SHBC can be adjusted to shorter pulse durations at the expense of narrow spectral bandwidth.



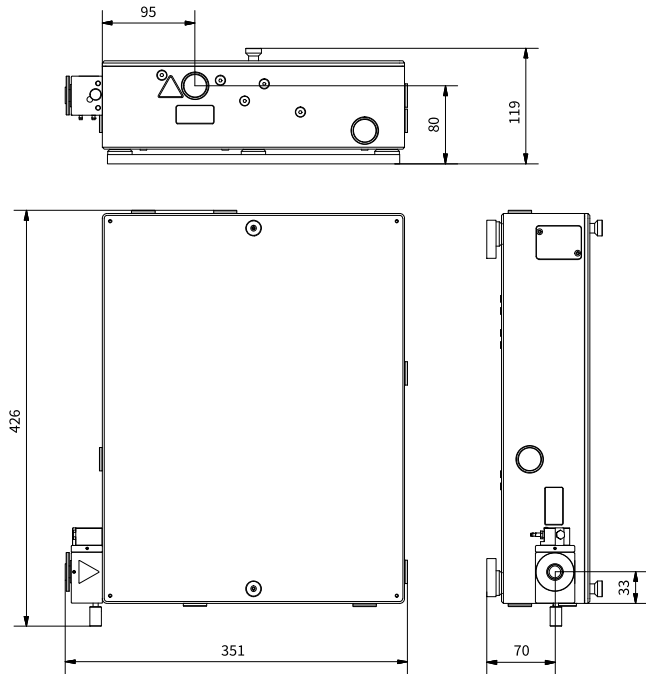


Typical pulse duration of SHBC output



Typical spectrum of SHBC output

DRAWINGS



Photonic Solutions Ltd
 Unit 2.2 Quantum Court
 Heriot-Watt University Research Park
 Edinburgh EH14 4AP
 Tel: 0131 664 8122
 Fax: 0131 449 7301
 Email: sales@photronicsolutions.co.uk
 Web: www.photronicsolutions.co.uk