



Second Harmonic Bandwidth Compressor

FEATURES

- 515 nm picosecond pulses from femtosecond pump
- $< 10 \text{ cm}^{-1}$ spectral bandwidth
- 2 – 4 ps pulse duration
- $> 30\%$ conversion efficiency
- Used to pump ORPHEUS-PS
- Compact 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 (in combination

with ORPHEUS-PS) 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 and femtosecond stimulated Raman spectroscopy (FSRS).

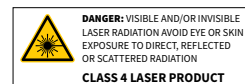
SPECIFICATIONS

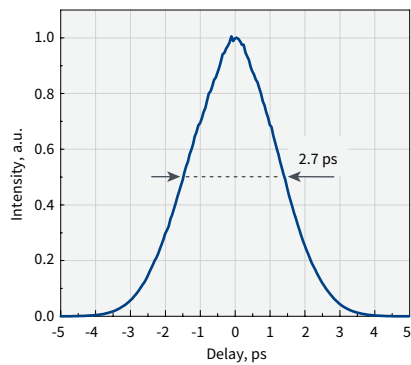
Model	SHBC
OUTPUT CHARACTERISTICS	
Output wavelength ¹⁾	515 nm \pm 5 nm
Conversion efficiency	$> 30\%$
Spectral bandwidth ²⁾	$< 10 \text{ cm}^{-1}$
Pulse duration ³⁾	2 – 4 ps
PUMP LASER REQUIREMENTS	
Pump source	PHAROS or CARBIDE with uncompressed output option
Pump pulse energy	40 μJ – 4 mJ
Maximum 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.

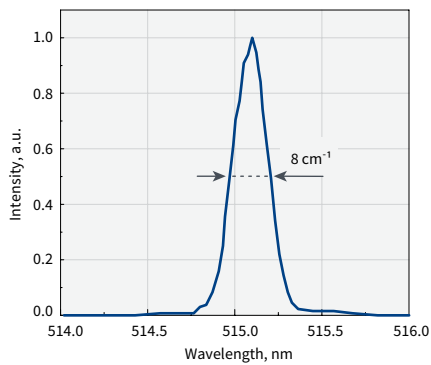
²⁾ $< 2 \text{ cm}^{-1}$ model available; contact sales@lightcon.com.

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

