

# Second Harmonic Bandwidth Compressor

Narrowband 515 nm output

Picosecond pulses from a femtosecond pump

$< 10 \text{ cm}^{-1}$  or  $< 2 \text{ cm}^{-1}$  spectral bandwidth



## Specifications

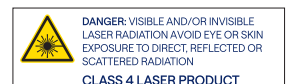
Model	SHBC-515	SHBC-NB
<b>OUTPUT CHARACTERISTICS</b>		
Output wavelength <sup>1)</sup>	515 nm $\pm$ 5 nm	
Conversion efficiency	> 30%	> 6% @ 3 – 6 $\mu$ J pump > 10% @ 6 – 30 $\mu$ J pump > 15% @ 30 – 200 $\mu$ J pump
Spectral bandwidth	$< 10 \text{ cm}^{-1}$ <sup>2)</sup>	$< 2 \text{ cm}^{-1}$
Pulse duration	2 – 4 ps <sup>2) 3)</sup>	50 – 100 ps
<b>PUMP LASER REQUIREMENTS</b>		
Pump laser	CARBIDE or PHAROS with uncompressed output <sup>4)</sup>	CARBIDE or PHAROS <sup>4)</sup>
Repetition rate	Single-shot – 1 MHz	
Pump pulse energy	40 $\mu$ J – 4 mJ	3 – 200 $\mu$ J
Maximum pump power	40 W	10 W
<b>DIMENSIONS</b>		
Housing (L x W x H)	426 x 351 x 119 mm	400 x 195 x 187 mm
Input height	70 mm	125 mm
Output height	80 mm	125 mm

<sup>1)</sup> Depends on the pump laser model.

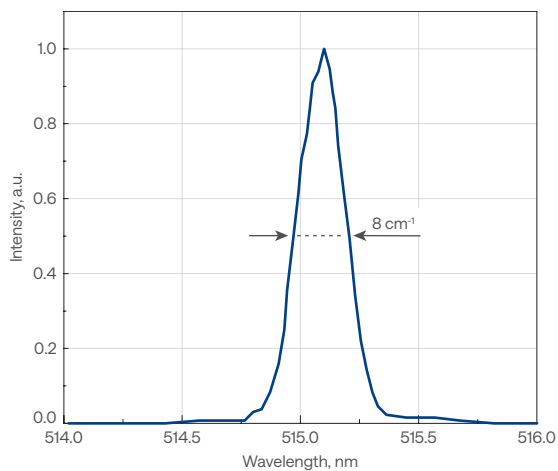
<sup>2)</sup> SHBC-515 can be adjusted to shorter pulse durations at the expense of spectral bandwidth.

<sup>3)</sup> When paired with ORPHEUS-PS, the spectral width and pulse duration are optimized for the best OPA performance.

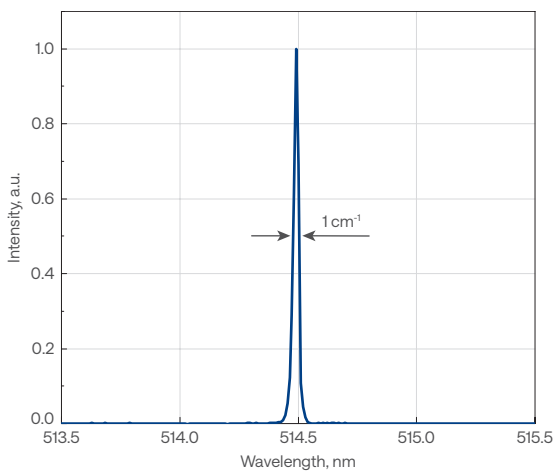
<sup>4)</sup> Not compatible with PHAROS-UP.



SHBC-515 typical output spectrum

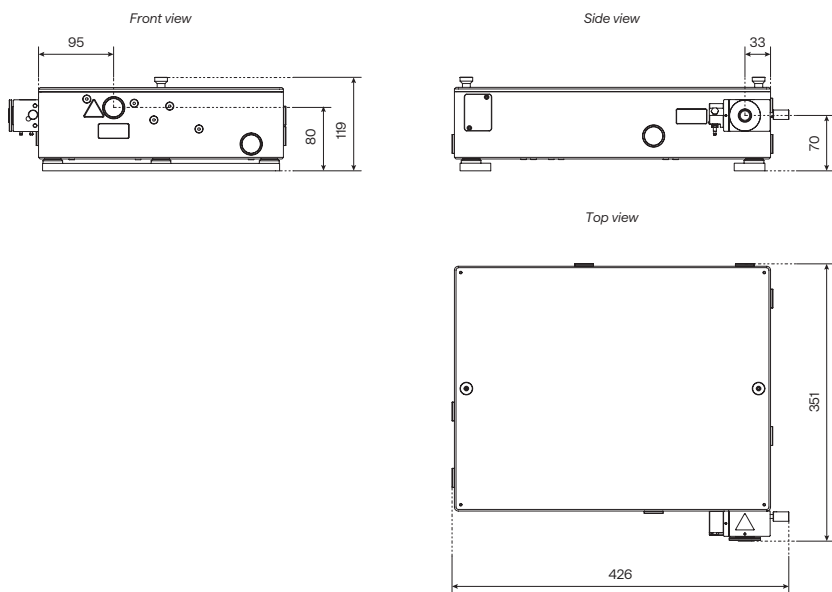


SHBC-NB typical output spectrum



## Drawings

SHBC-515



SHBC-NB

