

Integrated Harmonic Generators

515 nm, 343 nm, 257 nm,
or 206 nm output

Automated harmonic selection

Mounted directly on the laser head



CARBIDE-CB3
with a 2H-3H module

Specifications

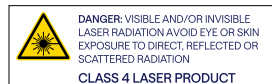
Model	2H	2H-3H	2H-4H	2H-5H	30W UV ¹⁾	50W UV ¹⁾
Output wavelength ²⁾ (automated selection)	1030 nm 515 nm	1030 nm 515 nm 343 nm	1030 nm 515 nm 257 nm	1030 nm 515 nm 206 nm	1030 nm 515 nm 343 nm	1030 nm 515 nm 343 nm
Pump pulse energy	20 – 2000 μ J	50 – 2000 μ J	20 – 2000 μ J	100 – 1500 μ J	80 – 400 μ J	60 – 400 μ J
Pump pulse duration	< 300 fs				$\approx$ 500 fs	
Conversion efficiency / Output power	> 50% (2H)	> 50% (2H) > 25% (3H)	> 50% (2H) > 10% (4H) ³⁾	> 50% (2H) > 5% (5H) ⁴⁾	30 W (3H)	50 W (3H)
Beam quality, M ²	$\leq$ 400 μ J pump	< 1.3 (2H) < 1.4 (3H)	< 1.3 (2H) n/a (4H)	n/a	< 1.3 (3H)	< 1.3 (3H)
	> 400 μ J pump	< 1.4 (2H) < 1.5 (3H)	< 1.4 (2H) n/a (4H)	n/a		

¹⁾ Refer to CARBIDE-CB3-UV for more details.

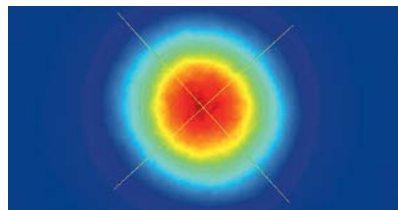
²⁾ Depends on the pump laser model. Up to the 5th harmonic available;
contact sales@lightcon.com for more details.

³⁾ Maximum output power of 5 W.

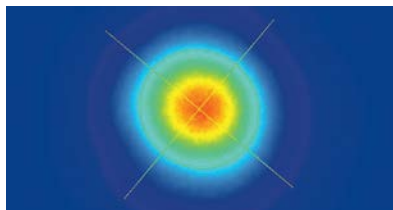
⁴⁾ Maximum output power of 0.2 W.



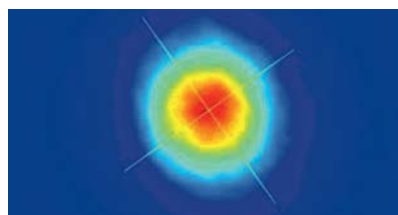
CARBIDE-CB5 (100 kHz, 6 W)
Typical 1H beam profile



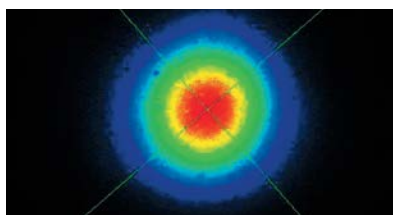
CARBIDE-CB5 (100 kHz, 3.4 W)
Typical 2H beam profile



CARBIDE-CB5 (100 kHz, 2.2 W)
Typical 3H beam profile



CARBIDE-CB5 (100 kHz, 100 mW)
Typical 4H beam profile



CARBIDE-CB3-80W with a harmonic generator
Pulse energy vs repetition rate

