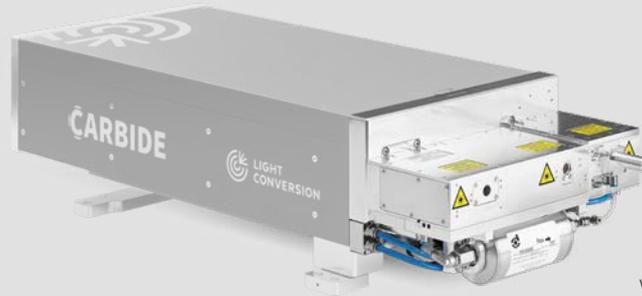


Integrated Harmonic Generators

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

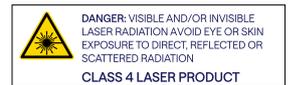
| Model | 2H | 2H-3H | 2H-4H | 2H-5H | 30W UV ¹⁾ | 50W UV ¹⁾ |
|--|-------------------------|-----------------------------|--|---------------------------------------|-----------------------------|-----------------------------|
| Output wavelength ²⁾ (automated selection) | 1030 nm 515 nm | 1030 nm 515 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 | 120 – 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) | < 1.4 (2H) < 1.5 (3H) | n/a (4H) | n/a | |

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

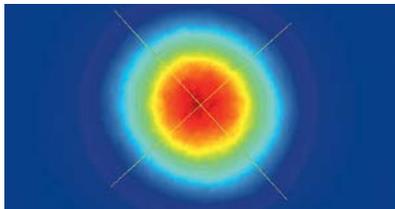
²⁾ Depends on the pump laser model. Up to the 5th harmonic available; contact sales@lightcon.com for more details.

³⁾ Maximum output power of 5 W.

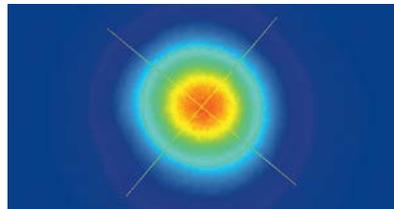
⁴⁾ Maximum output power of 0.2 W.



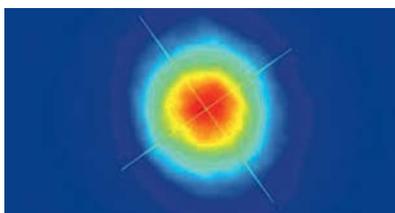
CARBIDE-CB5 (100 kHz, 6 W)
Typical 1H beam profile



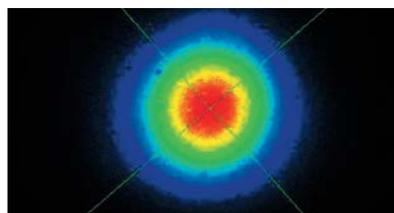
CARBIDE-CB5 (100 kHz, 3.4 W)
Typical 2H beam profile



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

