

HIRO

Customizable Harmonic Generator

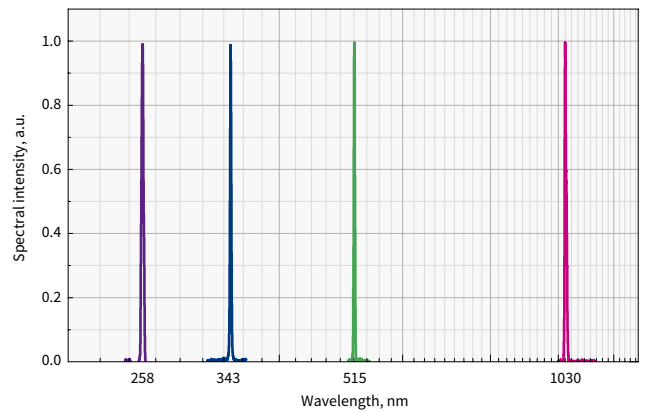
FEATURES

- 515 nm, 343 nm, and 257 nm outputs
- Simple selection of active harmonic
- Simultaneous or switchable outputs
- Customizable for additional options



HIRO is a customizable free-standing harmonic generator for PHAROS and CARBIDE lasers, and FLINT oscillators. It provides a high power harmonic radiation at 515, 343, and 258 nm wavelengths. The selection of an active harmonic is manual but requires less than a few seconds thanks to its unique optomechanical design.

HIRO can be customized for additional options such as beam size and collimation adjustment, white light continuum generation, as well as beam division and harmonics splitting, which makes all harmonics available at the same time.



HIRO output wavelengths

SPECIFICATIONS (pumped by PHAROS or CARBIDE lasers)

Model	PH1F1	PH1F2	PH1F3	PH1F4	PH_W1	Output polarization
Available outputs ^{1) 2)}	2H (515 nm)	2H (515 nm) 4H (258 nm)	2H (515 nm) 3H (343 nm)	2H (515 nm) 3H (343 nm) 4H (258 nm)	any combination and white light continuum	
Conversion efficiency of 2H ³⁾	> 50%			> 50% ⁴⁾		H (V ⁵⁾)
Conversion efficiency of 3H ³⁾		n/a		> 25%		V (H ⁵⁾)
Conversion efficiency of 4H ³⁾		> 10%		> 10% ^{4) 6)}		V (H ⁵⁾)

PHYSICAL DIMENSIONS

Housing (L × W × H)	455 × 160 × 85 mm
Recommended area for fixing (L × W)	425 × 255 mm
Beam steering/intercepting (L × W × H)	150 × 55 × 75 mm

¹⁾ Depends on pump laser model.

²⁾ Residual fundamental radiation available on request.

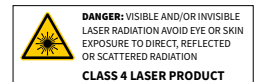
³⁾ Percentage of the input pump power/energy when the repetition rate is up to 200 kHz.

⁴⁾ When the third harmonic is not in use.

⁵⁾ Optional, available on request.

⁶⁾ Maximum output power of 1 W.

HIRO pumped with ps pulses available on request.

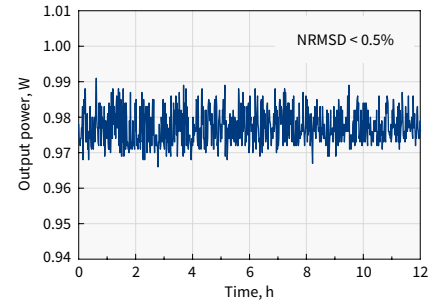
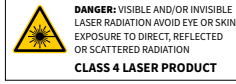


SPECIFICATIONS (pumped by FLINT oscillators)

Generated harmonics	2H	3H	4H
Output wavelength	≈ 517 nm	≈ 345 nm	≈ 258 nm
Conversion efficiency	> 35%	> 5%	> 1%

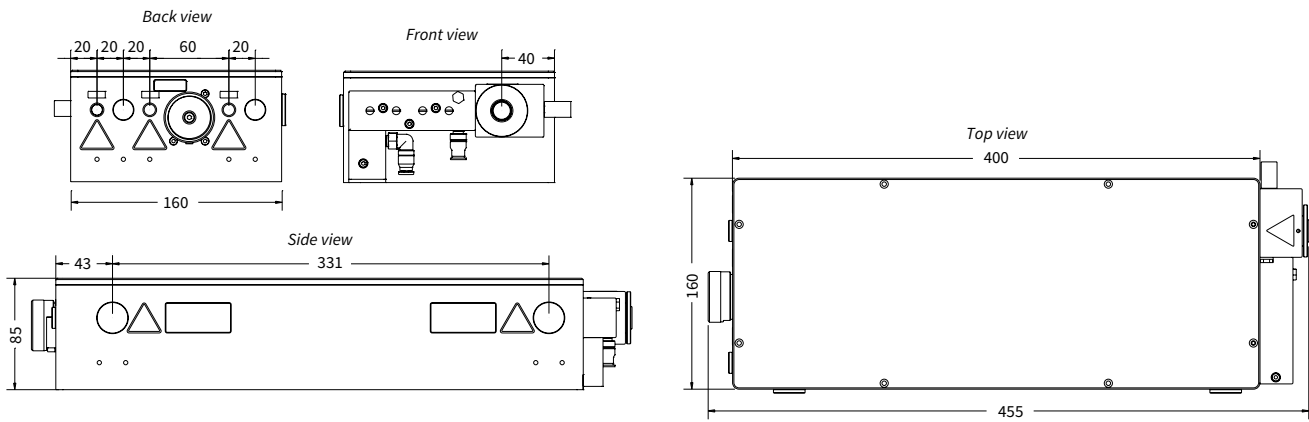
PHYSICAL DIMENSIONS

Housing (L × W × H)	455 × 160 × 85 mm
Recommended area for fixing (L × W)	425 × 255 mm
Beam steering/intercepting (L × W × H)	150 × 55 × 75 mm



4H output power stability

DRAWINGS



Drawings of HIRO with water-cooling

**PHOTO
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