

# Harmonic Generator System (HGS)

## Second-, Third-, and Fourth-Harmonic Accessory for Ti:Sapphire Amplifiers

The HGS accessory provides convenient second-, third- or fourth-harmonic output for kHz Astrella, Legend Elite-HE+ Ti:Sapphire amplifiers. Second- (HGS-D) and third- (HGS-T) harmonic outputs are accessible from a single compact unit. A second enclosure is added for fourth harmonic (HGS-F) generation.

The HGS employs collinear mixing in high-damage-threshold BBO crystals for high efficiency and ease of use. Crystal rotation and optical delay stages are manually adjustable, and all crystals, focusing optics, dichroic wavelength separation mirrors, etc., are included. The near-diffraction limited beam quality and demonstrated stability of both pulse width and beam pointing from Coherent amplifiers ensure optimum performance at the harmonic wavelengths.

### FEATURES & BENEFITS

- Extend tuning range of Ti:Sapphire kHz amplifiers
- SHG, THG and FHG options
- Compatible with Femto, USX, USP, and Pico pulse-widths
- High conversion efficiencies

### APPLICATIONS

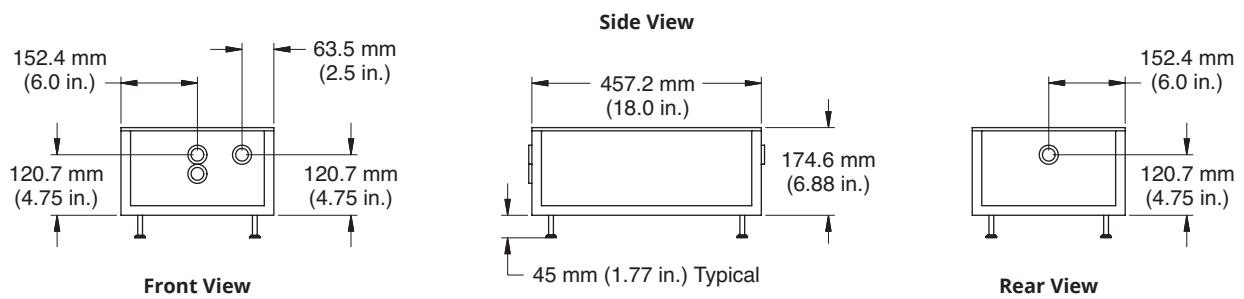
- Time-resolved Spectroscopy
- Material Processing



SPECIFICATIONS	HGS-D	HGS-T	HGS-F
Conversion Efficiency (% from 800 pump, fsec)	35	15	1
Power Stability (% rms)	1.5	2.5	3.5

## MECHANICAL SPECIFICATIONS

### Harmonic Generator System



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all Harmonic Generator Systems. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative. MC-023-120-0M1020Rev.A Copyright ©2020 Coherent, Inc.