Harmonic Generator

Multi-wavelength conversion in a single compact module

Our Harmonic Generator is a compact multi-wavelength conversion module designed to extend the capabilities of ultrafast laser platforms. Compatible with **Satsuma X** and **AXIS 120**, it provides access to multiple wavelengths within a single module, enabling flexible process definition without multiplying laser sources.
With up to **3 Colors available at the same time**, users can select the optimal wavelength for each material or process while operating from a single laser source.

Automatic wavelength switching ensures seamless machine integration and straightforward operation.
Available multi-wavelength configurations:

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2-Color configurations
> IR + Green (SHG)
> IR + UV (THG)
3-Color configurations
> IR + Green (SHG) + UV (THG)
> IR + Green (SHG) + Deep UV (FHG)
> IR + UV (THG) + Deep UV (FHG)

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Its compact footprint, combined with smart, automated control, makes it particularly adapted for multipurpose and multi-material equipment.

Applications

Industry & Science:
> Micromachining
> Multi-material equipment
> Research centers

Features

> Multi-wavelength conversion in a single compact module
> IR, Green, UV and Deep UV compatibility
> Cost-effective solution for multi-material processing
> Easy integration

Amplitude

Specifications

	Harmonic Generator
Pulse Duration	< 500 fs
Adjustable pulse duration (fs)	No
Center wavelength	Fully automated computer controlled
Wavelength	1030 +/- 3 nm
Max energy (IR)	500 µJ
Max average power (IR)	120 W
Conversion efficiency	SHG to IR > 50 % THG to IR > 30 % FHG to IR > 10 %
Max output power (with AXIS 120)	SHG 60W THG 30W FHG 5W
Shift between wavelength	Automatic

Compatibility

Satsuma X

AXIS

DANGER
LASER
4
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION

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