



High-Energy MPC Pulse Compressor STHY-G Series



2023 V1

For customized projects please Contact us:

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In the STHY-G series, a pulse compressor based on nonlinear techniques, the pulse width of input laser pulses can be further compressed by spectral broadening. The STHY-G compressor features an advanced cavity design and utilizes high-quality femtosecond optical components to minimize transmission efficiency losses. It incorporates an advanced automatic monitoring system that can real-time monitor the beam quality of laser pulses in the near and far fields, ensuring the stability of the output laser pulses' quality.

In addition, this series of pulse compressors also exhibit excellent interference resistance and long lifespan, meeting the demands of customers for long-term use. The device can provide a 5-10 times pulse compression effect, making STHY-G highly suitable for pulse compression in Yb ultrafast laser systems with high single-pulse energy.

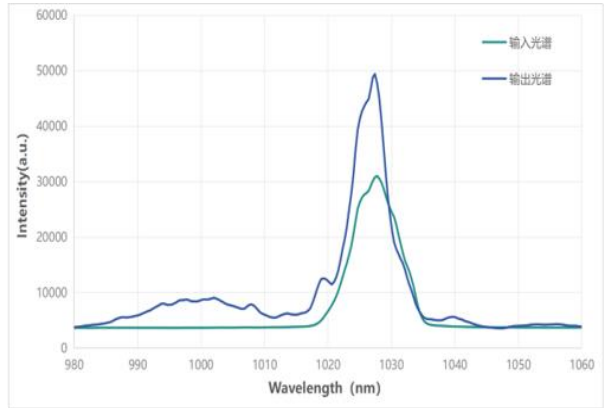
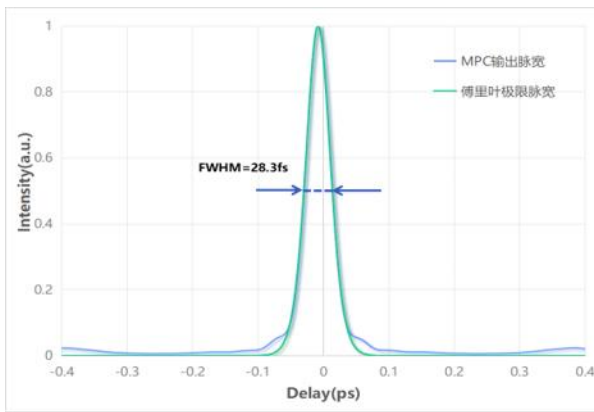
Special customization based on customer requirements for parameters such as wavelength and pulse width could be customized.



Specifications

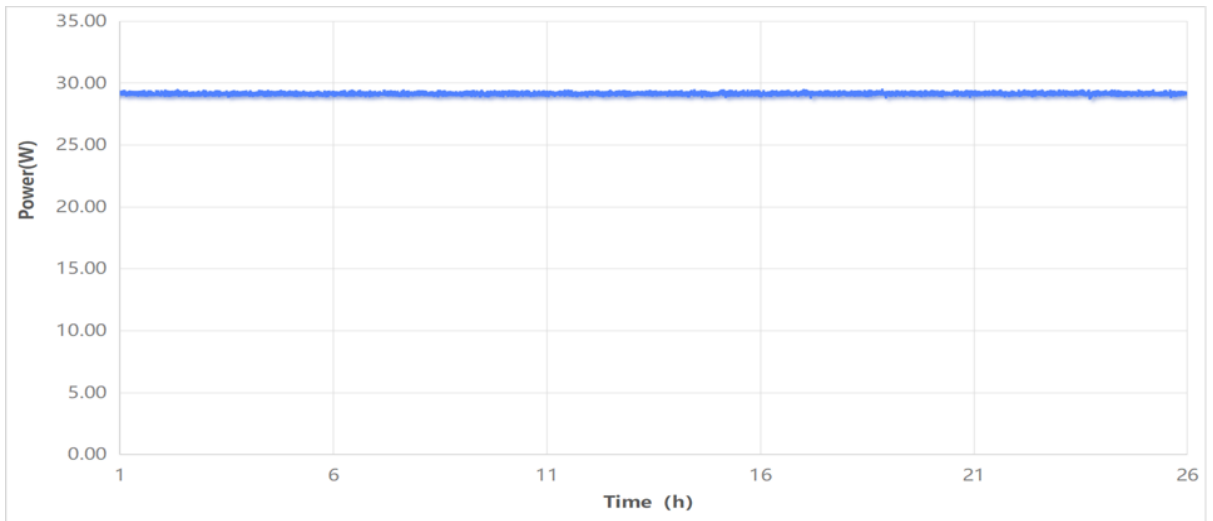
	STHY-GLE	STHY-GHE
Incident Pulse Width	150fs-1ps	
Incident Pulse Energy	5-50μJ	100-2000μJ
Incident Laser Center Wavelength	1030±10nm	
Maximum Compatible Power	80W	
Typical Compression Factor	5-10	
Compressor Efficiency	>90%	
Typical Output Pulse Width	<50fs	
Compatibility	It can be cascaded to output few-cycle pulses	
Dimensions	501 x 350 x 150 mm	

Output Parameter Curve Of MPC



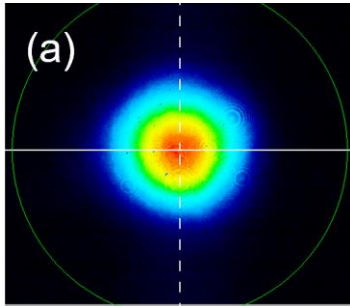
The typical pulse width of the output after compression by STHY-G is FWHM=28.3fs

Typical input/output spectra of STHY-G

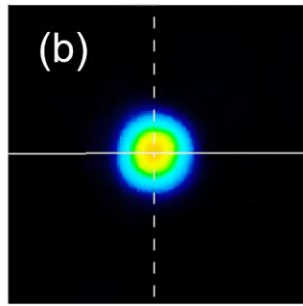


Output energy stability of MPC, RMS=0.38%@26h

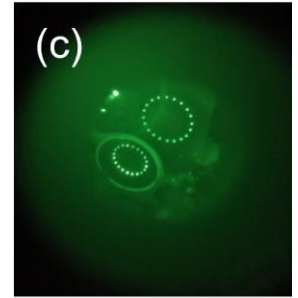
Input and Output Beam Profiles



(a): Beam profile at the entrance of STHY-G



(b): Beam profile at the exit of MPC



(c): Beam profile distribution on the MPC cavity mirrors

Mechanical Drawings

