

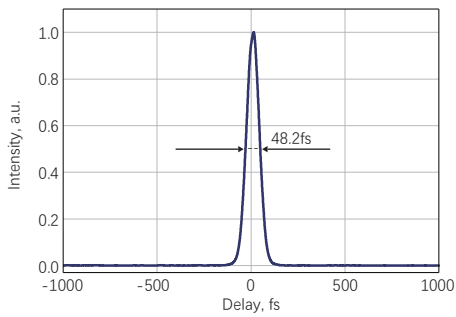
# AURORA-3P

## Three-Photon Imaging Source

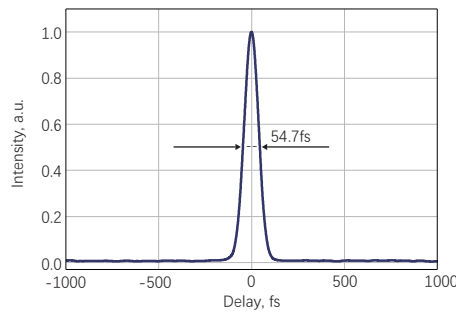


- Tuning range: 1250 - 1800nm
- Efficiency optimized at 1300nm and 1700nm
- Repetition rate up to 1MHz
- Output pulse width as low as 50fs
- Integrated automatic control of Group Delay Dispersion (GDD)
- Mechatronic design

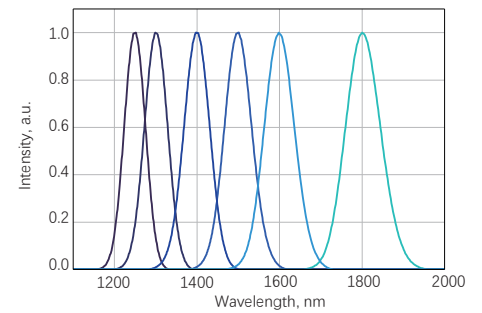
AURORA-3P Output Pulse Width@1300nm



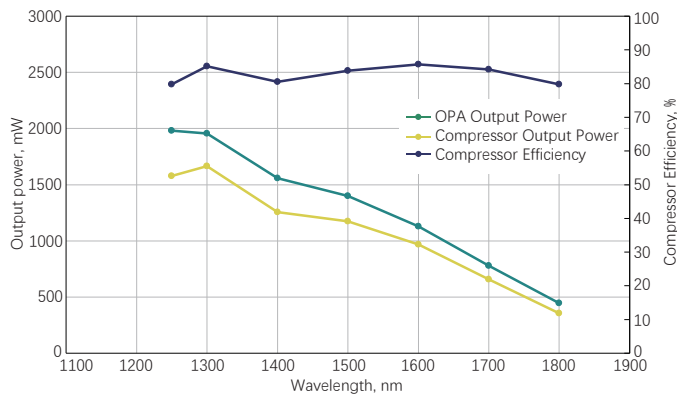
AURORA-3P Output Pulse Width@1700nm



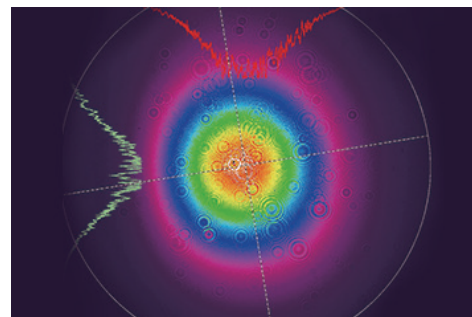
AURORA-3P Tuning Spectrum



Output Power Comparison of 3P System with Compressor

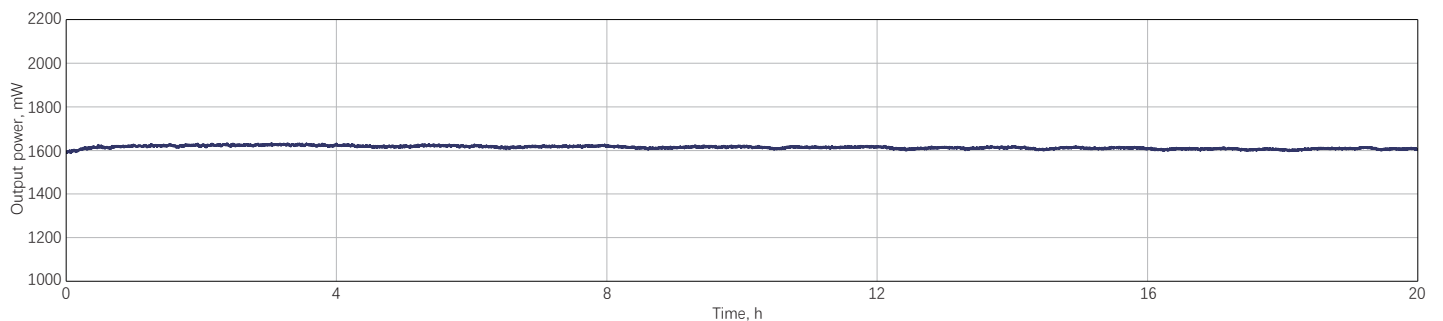


AURORA-3P Typical Output Beam Profile



### AURORA-3P

Power Stability: RMS=0.4389%@16h-1MHz/1.614μJ@HELIOS-40W-HP



Specifications

Parameter	AURORA-3P	
Tuning range	1250 - 1800nm	
Typical output wavelength (switchable output)	1300nm	1700nm
Pulse duration <sup>1)</sup>	< 55fs	< 65fs
Repetition rate <sup>2)</sup>	Single pulse - 1MHz	
GDD control range <sup>3)</sup>	-4000 ~ +9000fs <sup>2</sup>	-12000 ~ +3000fs <sup>2</sup>
Output power <sup>4)</sup>	> 1100mW @ 1MHz	> 600mW @ 1MHz
Beam quality M <sup>2</sup>	M <sup>2</sup> < 1.2	
Beam diameter <sup>5)</sup>	2 - 4mm	
Beam divergence angle	< 1mrad	
Beam ellipticity	> 0.8	
Pulse power stability <sup>6)</sup>	<1% RMS @ 24h	
Pulse energy stability <sup>6)</sup>	<1% RMS @ 1min	
Dimensions	790 × 545 × 240mm (L×W×H)	
Weight	85kg	

Expansion Options

Optional extended output	700 - 900nm
Remaining weight	24kg (Water-cooled machine)
Power supply requirements	500W
Power supply requirements for the water-cooled machine	Water cooler 1, 1260W; Water cooler 2, 1020W

- 1) FWHM.
- 2) Lower repetition rates and higher pulse energies available upon request.
- 3) Continuous dispersion control; compensation from -3000fs<sup>2</sup> to +3000fs<sup>2</sup> for microscopy.
- 4) Pump laser: 40W / 1036nm. Higher power options available upon request. Please consult us for details.
- 5) Measured at the compressor output, 1/e<sup>2</sup> definition.
- 6) Expressed as NRMSD (Normalized Root Mean Square Deviation).

Drawings

