

Supercontinuum **SC400** and **SC400-PP**

High-power, Blue-enhanced white-light laser systems

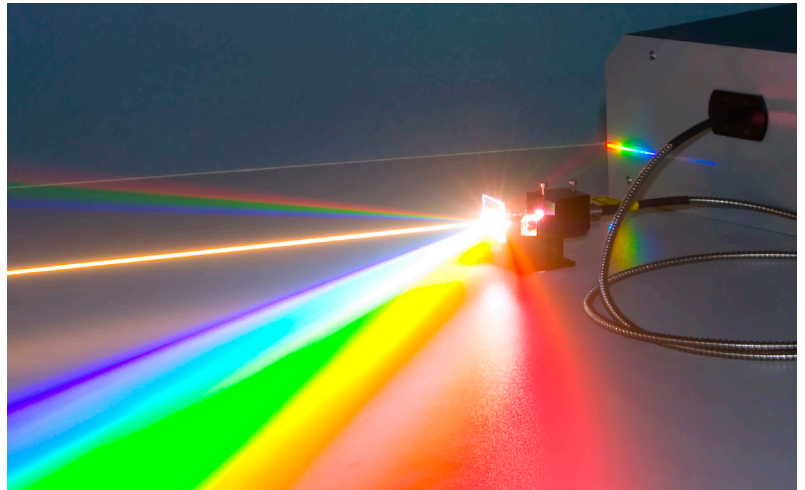


Key Features

- Spectrum from <420nm to beyond 2200nm
- Fixed or variable repetition rate
- Output power up to 6W
- Improved visible brightness (400-750nm)
- Single spatial mode at all wavelengths
- MHz repetition rates with ps pulse widths
- Modular and upgradable OEM-ready

Applications

- Fluorescence Microscopy
- Broadband Spectroscopy
- Fluorescence Lifetime Imaging (FLIM)
- Optical Coherence Tomography (OCT)
- Nanophotonics
- Flow Cytometry
- Industrial Inspection



Short-wavelength Supercontinuum

The **SC400** systems are high-power fiber lasers generating ultra-broadband supercontinuum radiation. The unique design offers a wavelength length range extending further in to the blue region compared with standard systems. Typical cut-in wavelengths of 400nm are achieved while maintaining a very high brightness across the entire wavelength spectrum.

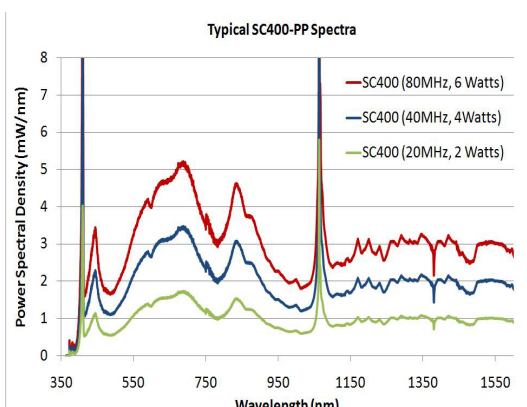
Flexible

The laser-like beam quality allows for easy collimation, beam steering and focussing to a diffraction limited spot. Combined with a tunable filter, such as the optional Acousto-Optic Tunable Filter (AOTF) system, the **SC400** operates exactly like a widely tunable laser source.

Both time-resolved and steady state (CW) measurements are possible and Fianium supercontinuum systems have proven compatibility with a range of detectors, including streak cameras and Time-Correlated Single Photon Counting (TCSPC) equipment.

Reliable

The lasers utilise an inherently robust all-fiber design allowing for unprecedented levels of reliability from an ultrafast laser. In addition, the systems are easy to use, maintenance-free, air-cooled and require no alignment.



Standard Specifications

	Blue-enhanced Fixed Repetition Rate Supercontinuum Systems			Blue-Enhanced Variable Repetition Rate Supercontinuum Systems		
Model	SC400-6	SC400-4	SC400-2	SC400-6-PP	SC400-4-PP	SC400-2-PP
Total Power (full spectrum)	>6W	>4W	>2W	>6W, 80MHz >4W, 40MHz >2W, 20MHz >1W, 10MHz >0.5W, 5MHz >0.2W, 2MHz >0.1W, 1MHz	>4W, 40MHz >2W, 20MHz >1W, 10MHz >0.5W, 5MHz >0.2W, 2MHz >0.1W, 1MHz	>2W, 20MHz >1W, 10MHz >0.5W, 5MHz >0.2W, 2MHz >0.1W, 1MHz
Visible Power (400-750nm)	>900mW	>600mW	>300mW	>900mW	>600mW	>300mW
Average Spectral Power Density	>3mW/nm	>2mW/nm	>1mW/nm	>3mW/nm	>2mW/nm	>1mW/nm
Spectral Flatness	<6dB			<6dB		
Power Stability	<±1%			<±1%		
Repetition rate ¹	Fixed 60MHz (optional: 80MHz)	Fixed 40MHz	Fixed 20MHz	Selectable 100kHz-80MHz	Selectable 100kHz-40MHz	Selectable 100kHz-20MHz
Minimum Wavelength	<420nm			<420nm		
Maximum Wavelength	>2200nm			>2200nm		
Fundamental Pulsewidth	≈6ps			≈6ps		
Output Optic	Free space, Collimated			Free space, Collimated		
Beam Diameter	≈2mm @ 633nm			≈2mm @ 633nm		
Armoured Fibre length	1.5m			1.5m		
State of polarisation	Unpolarized			Unpolarized		
Computer Interface	USB			USB		
Sync (trigger) Output	SMA			SMA		
Cooling	Integrated Air Cooling			Integrated Air Cooling		
Power Requirements	100-240V, 50/60Hz			100-240V, 50/60Hz		
Dimensions (WxLxH mm)	19" rackmount, 4U	250 x 300 x 120		19" rackmount, 4U		
Weight	<15kg	<10kg		<15kg		

¹ Repetition rate accuracy ±5%

Custom Options:

- Visible power **>1500mW**
- Total Output Power **>8W**
- Cut in wavelength down to **400nm**
- Cut-off wavelength up to **2500nm**
- Divergent output
- Repetition rates **<100kHz**



**VISIBLE AND INVISIBLE
LASER RADIATION
AVOID EYE OR SKIN EXPOSURE TO
DIRECT OR SCATTERED RADIATION
CLASS 4 LASER PRODUCT**

CAUTION: THIS IS A CLASS 4 LASER PRODUCT AND USE OF CONTROLS AND ADJUSTMENTS OTHER THAN THOSE SPECIFIED IN THE PRODUCT MANUAL MAY RESULT IN HAZARDOUS LASER RADIATION EXPOSURE

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