

Supercontinuum **SC400-PP** and **SC450-PP**

Variable repetition rate, high-power, ultra-broadband, white-light laser systems

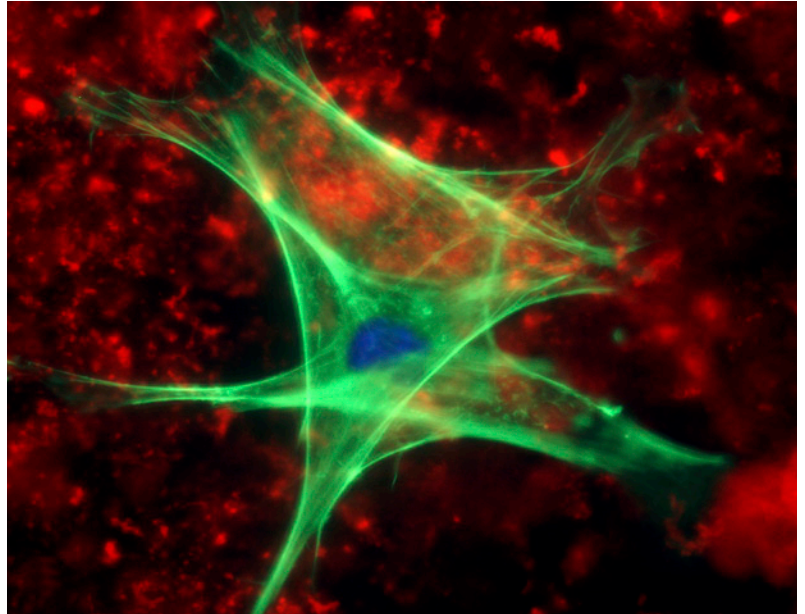


Key Features

- Variable repetition rates from 100kHz to 80MHz
- Pulse-to-pulse spacing from μs to ns
- Spectrum from 400nm to beyond $2\mu\text{m}$
- Output power up to 6W
- Variable output power with full supercontinuum spectrum
- Single spatial mode at all wavelengths

Applications

- Fluorescence Lifetime Imaging (FLIM)
- Nanophotonics
- Time-resolved and lifetime measurements
- Confocal Fluorescence Microscopy
- Total Internal Reflection Fluorescence (TIRF) Microscopy
- Single Molecule Imaging
- Broadband Spectroscopy



Advanced Supercontinuum Systems

SC400-PP and **SC450-PP** are ultra-broadband supercontinuum radiation sources with a built in pulse-picker to control repetition rate. These systems are ideal for time-resolved measurements where the pulse-to-pulse spacing can be optimised for specific applications. They maintain the very high spectral brightness and excellent beam quality common to all Fianium Supercontinuum Systems.

Flexible

Now available with repetition rates up to 80MHz, the **SC400-PP** and **SC450-PP** are very versatile high-power systems suitable for the widest range of uses including both time-resolved and steady-state (CW) measurements. Fianium supercontinuum systems also 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 Supercontinuum Systems			Standard High-Power Supercontinuum Systems		
Model	SC400-2-PP	SC400-4-PP NEW	SC400-6-PP NEW	SC450-2-PP	SC450-4-PP NEW	SC450-6-PP NEW
Wavelength Range	<420nm to >2µm	<420nm to >2µm	<420nm to >2µm	<460nm to >2µm	<460nm to >2µm	<460nm to >2µm
Total Output Power	>2W	>4W	>6W	>2W	>4W	>6W
Spectral Power Density (at max. repetition rate)	>1mW/nm	>2mW/nm	>3mW/nm	>1mW/nm	>2mW/nm	>3mW/nm
Repetition Rate (user-selectable)	20, 10, 5, 2, & 1MHz	40, 20, 10, 5, 2, & 1MHz	80, 40, 20, 10, 5, 2 & 1MHz	20, 10, 5, 2, & 1MHz	40, 20, 10, 5, 2, & 1MHz	80, 40, 20, 10, 5, 2 & 1MHz
Oscillator Pulsewidth	≈5ps	≈5ps	≈5ps	≈5ps	≈5ps	≈5ps
Spectral Flatness	<6dB	<6dB	<6dB	<6dB	<6dB	<6dB
Power Stability	<±1.5%	<±1.5%	<±1.5%	<±1.5%	<±1.5%	<±1.5%
M-squared	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
Output Optic	Fiber + collimator	Fiber + collimator	Fiber + collimator	Fiber + collimator	Fiber + collimator	Fiber + collimator
Output Polarization	Unpolarized	Unpolarized	Unpolarized	Unpolarized	Unpolarized	Unpolarized
Beam Diameter	≈2.5mm @633nm	≈2.5mm @633nm	≈2.5mm @633nm	≈2.5mm @633nm	≈2.5mm @633nm	≈2.5mm @633nm
Cooling	Air-cooled	Air-cooled	Air-cooled	Air-cooled	Air-cooled	Air-cooled
Power consumption (max)	<150W	<200W	<250W	<150W	<200W	<250W
Dimensions (mm)	300 x 250 x 120	19" rack-mount	19" rack-mount	300 x 250 x 120	19" rack-mount	19" rack-mount
Weight	<15kg	<20kg	<20kg	<15kg	<20kg	<20kg

Custom Options:

- Fixed repetition rates from **20** to **100MHz**
- Variable repetition rate **0.1** to **80MHz** (PP-series)
- Divergent output optic or custom beam diameter
- Output power up to **8W**, visible power **>1W**
- Visible or IR optimised systems
- Custom cut-in wavelengths down to **400nm**
- Custom cut-off wavelengths up to **2.5µm**
- Femtosecond supercontinuum systems
- Single-shot supercontinuum systems

Accessories:

- **AOTF** - Integrated Acousto-Optic Tunable Filter system enabling wavelength tunable output
- **AOTF-DUAL** - Provides two independently tunable outputs from a single supercontinuum source
- **SPLITTER** - Splits the full supercontinuum spectrum into separate VIS and IR outputs.
- **IR-FILTER** - Removes infrared radiation from output
- **FDS** - Fiber Delivery System to couple output of AOTF, SPLITTER or IR-FILTER to single-mode fiber



**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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