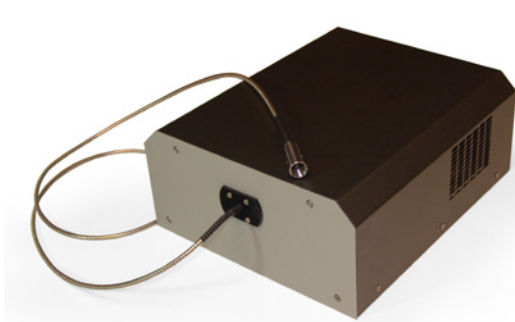


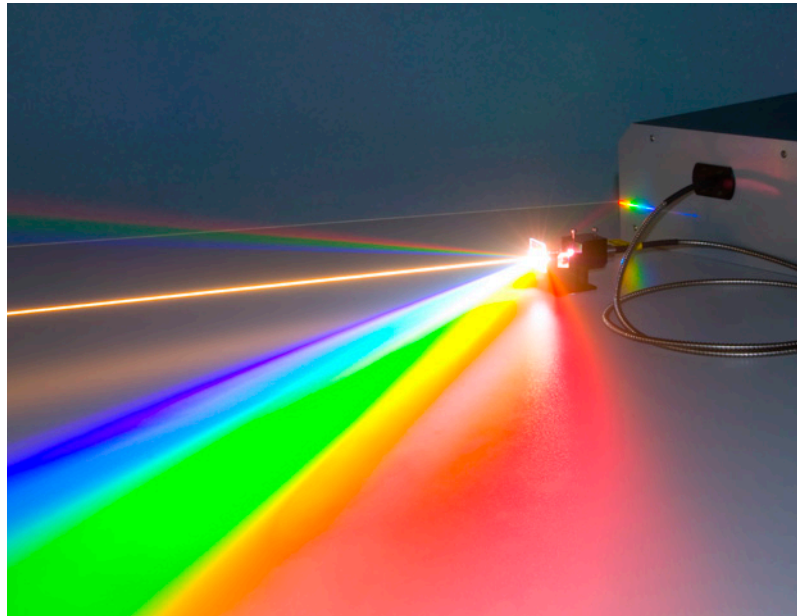
# Supercontinuum **SC400** and **SC450**

High-power, ultra-broadband white-light laser systems



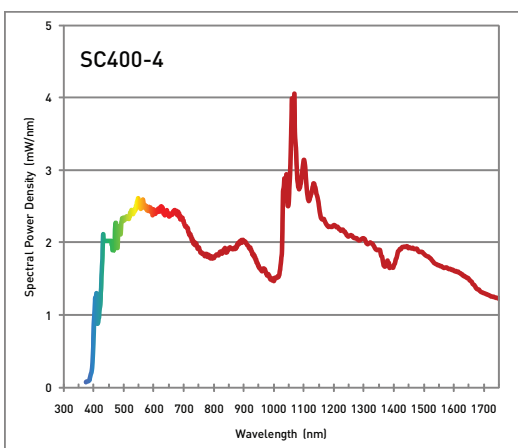
## Key Features

- Spectrum from 400nm to beyond 2 $\mu$ m
- Output power up to 6W
- Single spatial mode at all wavelengths
- MHz repetition rates with ps pulse widths
- Maintenance-free and air-cooled



## Applications

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



## Powerful Supercontinuum Sources

**SC400** and **SC450** are high-power fiber lasers generating ultra-broadband supercontinuum radiation. They offer the highest commercially available output power, and maintain a very high brightness across their entire wavelength spectrum, making them ideal for a range of demanding and varied applications.

### 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** and **SC450** operate 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 Supercontinuum Systems			Standard High-Power Supercontinuum Systems		
Model	SC400-2	SC400-4	SC400-6 <b>NEW</b>	SC450-2	SC450-4	SC450-6
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	>1mW/nm	>2mW/nm	>3mW/nm	>1mW/nm	>2mW/nm	>3mW/nm
Repetition Rate	20MHz	40MHz	60MHz or 80MHz	20MHz	40MHz	60MHz or 80MHz
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	300 x 250 x 120	400 x 250 x 120	300 x 250 x 120	300 x 250 x 120	400 x 250 x 120
Weight	<12kg	<12kg	<15kg	<12kg	<12kg	<15kg

### 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**

#### Fianium UK Ltd.

20 Compass Point, Ensign Way, Southampton, SO31 4RA, UK  
Tel: +44 2380 458776 Fax: +44 2380 458734 Email: [info@fianium.com](mailto:info@fianium.com)

#### Fianium US Inc.

858 West Park Street, Eugene, OR 97401, USA  
Tel: 1 541 343 6767 Fax: 1 541 343 1838 Email: [sales@fianium.com](mailto:sales@fianium.com)

#### Fianium Asia Ltd.

21/F, New World Tower One, 18 Queen's Road Central, Hong Kong  
Tel: +852 2607 4236 Fax: +852 3013 6883 Email: [asia@fianium.com](mailto:asia@fianium.com)