

# WhiteLase SC400 & SC450

## High-Power Supercontinuum

ULTRA BROADBAND  
WHITE-LIGHT SOURCE



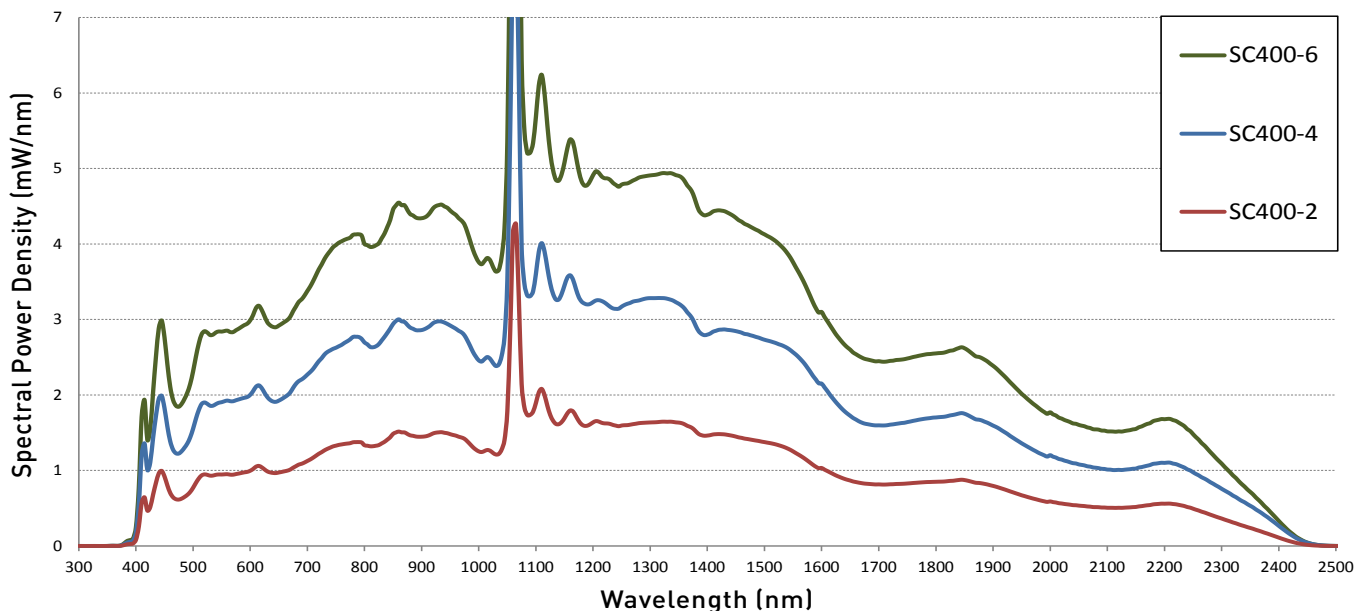
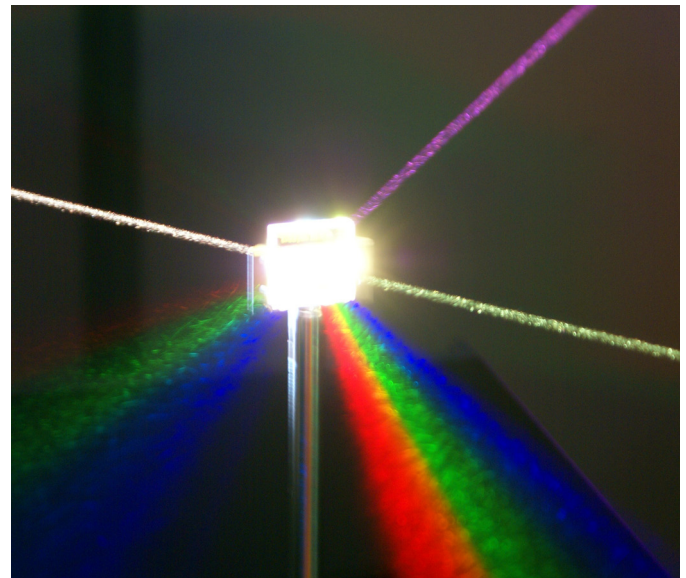
### KEY FEATURES

- Spectrum from **400nm** to **2400nm**
- Fixed frequency or variable repetition rate\*
- Highest available output power to **>8W**
- Ultimate visible brightness (400-750nm)
- Touchscreen control with intuitive operation
- Single spatial mode across the output spectrum
- Advanced triggering options
- Modular and upgradable design
- High reliability and low cost of ownership
- Wide range of Plug-and-Play filter options

The **WhiteLase™ SC400** & **SC450** systems are high-power fiber lasers generating ultrafast broadband supercontinuum radiation. Operating in the MHz repetition rate range, with picosecond pulses, the systems can be utilised effectively for both steady-state and lifetime measurement. The inherently robust all-fiber design provides unsurpassed performance combined with high reliability and ease-of use. The touchscreen interface enables one-touch access to all laser settings, presets, diagnostics and live system status.

The standard high power **WhiteLase™ SC450** system offers the highest available output power of >8W giving an average spectral power density of >4mW/nm. The blue-enhanced **WhiteLase™ SC400** system offers the shortest possible cut-in wavelength with high brightness from approximately 400nm.

All systems are compatible with Fianium **AOTF** and **SuperChrome™** Plug-and-Play filters, providing tunability across the entire wavelength range.



## STANDARD SPECIFICATIONS

	WhiteLase High Power Supercontinuum			
Model	SC450-8	SC400-6 SC450-6	SC400-4 SC450-4	SC400-2 SC450-2
Minimum Wavelength	<460nm	SC400: <420nm SC450: <460nm		
Maximum Wavelength	>2200nm			
Total Power (full spectrum)	>8W	>6W	>4W	>2W
Visible Power (400-750nm)	>1200mW	>900mW	>600mW	>300mW
Average Spectral Power Density	>4mW/nm	>3mW/nm	>2mW/nm	>1mW/nm
Fundamental Repetition Rate	80MHz	60MHz	40MHz	20MHz
User Selectable Repetition Rate (with optional pulse picker)	100kHz - 80MHz	100kHz - 60MHz	100kHz - 40MHz	100kHz - 20MHz
Spectral Flatness	<6dB			
Power Stability	<±1%			
Fundamental Pulsewidth	≈6ps			
Output Optic	φ16 x 50mm Collimator			
Beam Diameter	≈1.5mm @ 530nm ≈2mm @ 633nm ≈3mm @ 1100nm			
Armoured Fiber length	1.5m			
State of polarisation	Unpolarised			
User Interface	1. Integrated touchscreen graphical user interface 2. PC via USB interface			
Sync (trigger) Outputs	1. NIM Compatible trigger with adjustable delay (SMA) 2. Oscillator monitor photodiode (SMA)			
NIM Trigger Specifications	>10ns adjustable delay in 10ps steps <10ps timing jitter			
Cooling	Integrated air cooling			
Power Requirements	100-240V, 50/60Hz			
Dimensions (mm)	450 x 390 x 180 (19" benchtop chassis, 4U height)			
Weight	<20kg			

## CUSTOM OPTIONS

- Custom repetition rates **20-120MHz**
- Total output power up to **12W**
- Divergent output optic
- Near infra-red enhanced output spectrum
- Cut-off wavelength up to **2500nm**
- UV supercontinuum - cut-in wavelength **<390nm**
- Visible power **>2000mW**
- **19"** rackmount chassis kit
- **TTL** or **optical** trigger output

## APPLICATIONS

- Fluorescence excitation
- Broadband spectroscopy
- Fluorescence lifetime measurement
- Optical Coherence Tomography (OCT)
- Nanophotonics
- Flow cytometry
- Industrial inspection
- Time Correlated Single Photon Counting (TCSPC)

**FIANIUM UK LTD.**
**Tel:** +44 2380 458776

**Email:** [info@fianium.com](mailto:info@fianium.com)
**FIANIUM US INC.**
**Tel:** 1 541 343 6767

**Email:** [sales@fianium.com](mailto:sales@fianium.com)
**FIANIUM ASIA LTD.**
**Tel:** +852 2607 4236

**Email:** [asia@fianium.com](mailto:asia@fianium.com)

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