

# SuperChrome

Tunable wavelength and bandpass transmission filter

## Key Features

- Single channel transmission
- Out of band suppression better than  $10^{-4}$
- Transmission of 80% over the spectral range
- Maximum transmission for bandwidths of 8-50nm
- Virtually no impact on laser beam quality
- "Plug and Play" operation

## Applications

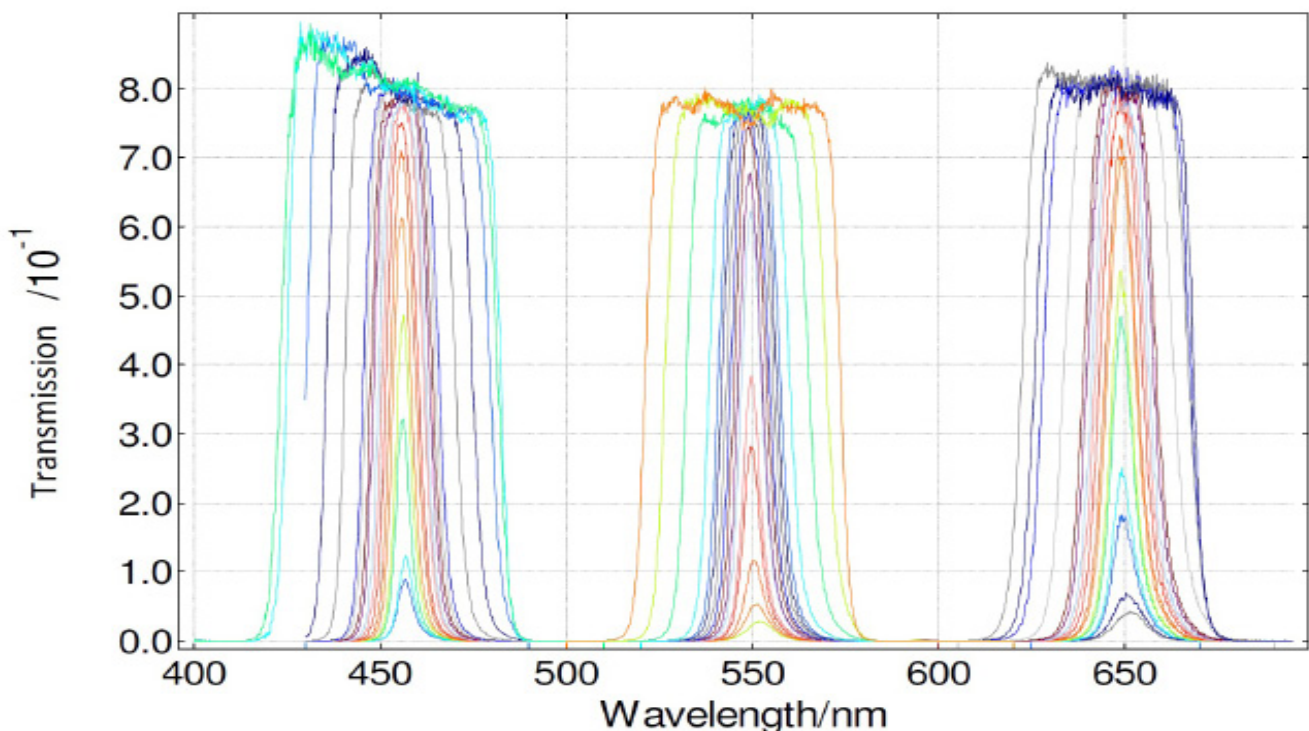
- Fluorescence excitation
- Broadband spectroscopy
- Fluorescence lifetime measurement
- Super resolution techniques
- Nanophotonics
- Flow Cytometry

## High power transmission filter

**SuperChrome™** is a removable unit which enables both wavelength and bandpass tunability from the supercontinuum output of an **SC400** and **SC450**. It is a single channel transmission filter over the visible spectrum from below 400nm to greater than 850nm typically offering greater than 80% transmission. The maximum performance is achieved for filter bandwidths from 8nm to more than 50nm. As the filter bandwidth is reduced below 5nm, transmission is reduced to approximately 50%.

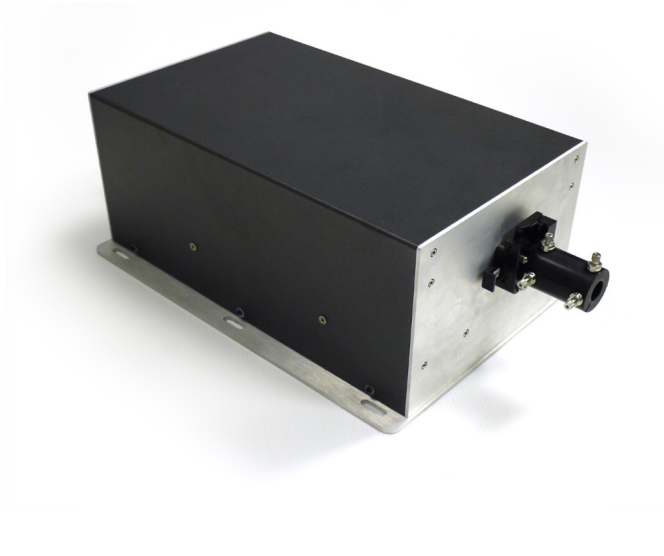
**SuperChrome™** has no measurable impact on the laser M-squared value, with the filtered free-space output maintaining the high spatial beam quality of the source. The output can be supplied with a removable fibre delivery system (FDS) with singlemode or multimode fiber.

The unit is plug-and-play and requires no-user alignment and is operated with an easy to use Graphical User Interface.



## Standard Specifications

	SuperChrome™ VIS
Tunable wavelength range	<400nm to 850nm White-light option
Number of Channels	1
Channel Spectral Bandwidth	~5nm to >50nm
Wavelength Accuracy	<3nm
Wavelength Calibration	Automatic self calibration
Wavelength repeatability	<0.5nm
Transmission Efficiency	>80% with bandwidth >8nm >50% with bandwidth >5nm
Out of Band suppression	>40dB
Tuning speed	>100nm/s
Beam Quality	Single spatial mode at all wavelengths
Input	Plug & Play to any Fianium supercontinuum source
Output	Free-space collimated or fiber delivery
Fiber Coupling Efficiency Max	>65%
Fiber Coupling Efficiency Min	>45%
Polarisation	Random state of polarisation
Interlock	Integrated
Dimensions (W x L x H mm)	200 x 370 x 120



**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)