PRODUCT DATASHEET

AOTF and AOTF-DUAL systems

Acousto-Optic Tunable Filter systems for Fianium supercontinuum sources

Key Features

- Up to 8 simultaneous tuneable wavelength channels
- Plug-and-Play: no internal alignment required
- Optional single-mode fiber delivery
- Integrated 1" retractable filter holders
- Integrated laser safety interlock
- Easily controllable using a Graphical User Interface and USB connection
- Advanced features: wavelength scanning, channel stacking and fast switching

Applications

- Flow Cytometry
- Fluorescence excitation
- Nanophotonics
- Broadband spectroscopy
- Fluorescence lifetime measurement

AOTF system

The AOTF system is a removable module that enables up to 8 simultaneous tunable wavelength channels to be selected from any Fianium **WhiteLase™** supercontinuum. There is a choice of three AOTF crystals that cover the entire supercontinuum spectrum from 400nm to beyond 2000nm.

Output is a free-space, collimated beam or, optionally, coupled to single-mode polarisation maintaining fiber.

AOTF-DUAL system

The AOTF-DUAL system houses two AOTF crystals to provide an even wider tuning range from a single supercontinuum input. The system can be configured with any two of the AOTF crystals; VIS, NIR1 or NIR2.

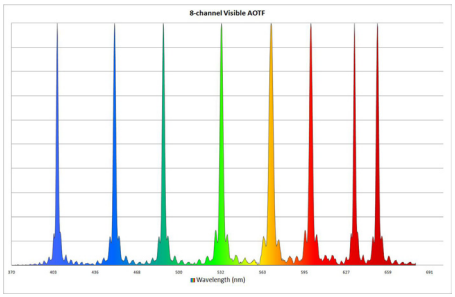
With the addition of a second AOTF controller, both outputs can also be controlled independently and simultaneously using the supplied software.

AOTF-HP High Power System

The new High Power version uses a unique design to avoid the traditional polarisation loss associated with AOTF systems used with supercontinuum lasers. Ideally suited to applications demanding the highest power throughput the AOTF-HP provides over 70% of the full supercontinuum spectral density.

Standard Specifications

	AOTF and AOTF-DUAL		
AOTF Crystal	**VIS**	**NIR1**	**NIR2**
Wavelength Range	400 to >650nm	650 to >1100nm	1100 to >2000nm
Channel Bandwidth	≈2-4nm	≈3-6nm	≈6-12nm
Diffraction efficiency	>90%		
Supercontinuum Optical Throughput: AOTF & AOTF-DUAL High-Power AOTF-HP	 >40% >70%		
Polarisation: AOTF & AOTF-DUAL High-Power AOTF-HP	 Linear Unpolarised		
Input	Plug & Play - Any Fianium Supercontinuum		
Output	Free-space collimated or fiber delivery		
Computer control interface	USB		



Other features

- Fast switching mode (<5µs rise-time)
- Integrated 1" filter holder
- Integrated laser safety interlock
- Graphical User Interface

SPLITTER module

Optional passive filter accessories for Fianium supercontinuum sources

Key Features

- Separates supercontinuum output in to two wavelength ranges
- Choice of transition wavelength: 750nm or 950nm
- High transmission for both visible and Infrared outputs
- Excellent out-of-band supression

Applications

- Flow Cytometry
- Fluorescence excitation
- Nanophotonics
- Broadband spectroscopy
- Fluorescence lifetime measurements

The optional SPLITTER filter is a removable module that splits the full supercontinuum spectrum, providing two separate outputs. The module is compact, plug-and-play and requires no user alignment.

Two different transition wavelengths between output channels are offered.

Standard Specifications

	SPLITTER-750	SPLITTER-950
Wavelength Range: Output 1 Output 2	 400-750nm 750-2000nm	 400-950nm 950-2000nm
SC Optical Throughput	>60%	>60%
Out-of-band suppression	>30dB	>30dB
Transition width	<50nm	<50nm
Polarisation	Unpolarised	Unpolarised
Output	Free-space or fiber	Free-space or 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

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

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