C-FLEX

Compact and Flexible | Laser combiner

- Choose from more than 17 different wavelengths
- Combine up to 6 wavelengths
- Control the lasers via a common USB port
- Take advantage of modulation capabilities
- Integrate optional AOM (acousto-optical modulators) for fast modulation
- Fiber coupled option available

Applications

Fluorescence microscopy
Flow cytometry
Optogenetics
Photochemistry
Raman Spectroscopy
Holography

As a highly-flexible and extremely compact laser combiner, C-FLEX lets you combine up to 6 wavelengths out of 17 available wavelengths.

The lasers can be controlled either separately or via common USB port. C-FLEX is field-upgradeable and ready to mount Diode Pumpes Lasers (DPLs) or Modulated Laser Diodes (MLDs) of the Cobolt 06-01 Series, the single frequency diode pumped lasers of the Cobolt 04-01 Series, and the narrow linewidth lasers of the Cobolt 08-01 Series. The flexible design enables integration of optional AOM modulators that allow fast modulation of DPSS lasers. Free space beam output or fiber coupling options are available.

C-FLEX features a common power supply and common interlock (key switch plus remote interlock) for all lasers. The compact and robust design of the C-FLEX provides excellent long-term stability and outstanding flexibility for your application. C-FLEX comprises countless options to make it your first choice in laser combiners.

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HÜBNER

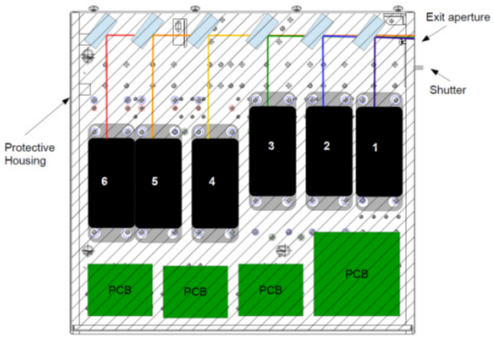
C-FLEX

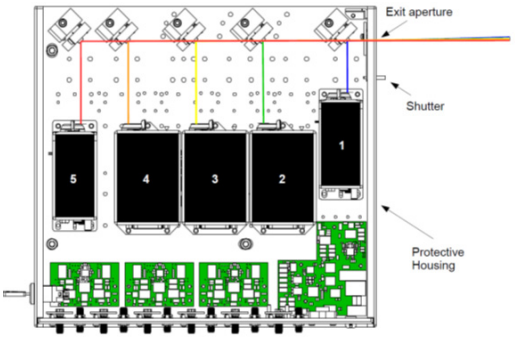
Available Wavelengths

405 nm	●
445 nm	●
457 nm	●
473 nm	●
488 nm	●
491 nm	●
515 nm	●
532 nm	●
553 nm	●
561 nm	●
594 nm	●
633 nm	●
638 nm	●
647 nm	●
660 nm	●
785 nm	●
1064 nm	●

Combiner Optical Specifications

Output power losses per beam diverter	< 10 %
Fiber coupled power stability	± 3 %
Expected fiber coupling efficiency	> 50 %
Ambient temperature & pointing : 10-40 °C	< 20 µrad / °C
Static beam pointing stability (±3°C, 8hrs)	< 50 µrad
Acheivable beam position overlap at exit	< 50 µm
Acheivable beam-to-beam angle deviation	< 150 µrad





Configuration

Maximum number of lasers	6
Maximum number of Cobolt 04-01 Lasers	3
Maximum number of AOMs	3
Minimum wavelength separation	15 nm

Compatible Laser Products

Cobolt 08-01 Series — Compact narrow linewidth lasers

Cobolt 04-01 Series — Powerful single frequency CW Diode pumped lasers

Cobolt 06-01 Series — Modulatable Diode Lasers and Diode pumped laser

Modulation Capabilities

	Cobolt 06-01		Cobolt 08-01	Cobolt 04-01
Integrated in laser head	08-MLD	06-DPL	--	
AOM available	--		473 - 660 nm	
Max. Modulation frequency	150 MHz	Up to 50 kHz	3 MHz	

Fiber coupling options

Wavelength Range	405 - 638 nm
Fiber Type	SM / PM
FIber Output	Collimated or FC / APC

This device is sensitive to Electrostatic Discharge (ESD). Always handle diode lasers with extreme care to prevent electrostatic discharge, the primary cause of unexpected diode failure.

WARNING LASER RADIATION
Avoid Exposure to beam

Class 3B Laser Product

Classified per IEC 60825-1:2014

WARNING LASER RADIATION
Avoid eye or skin exposure to direct or scattered radiation.

Class 4 Laser Product

Classified per IEC 60825-1:2014

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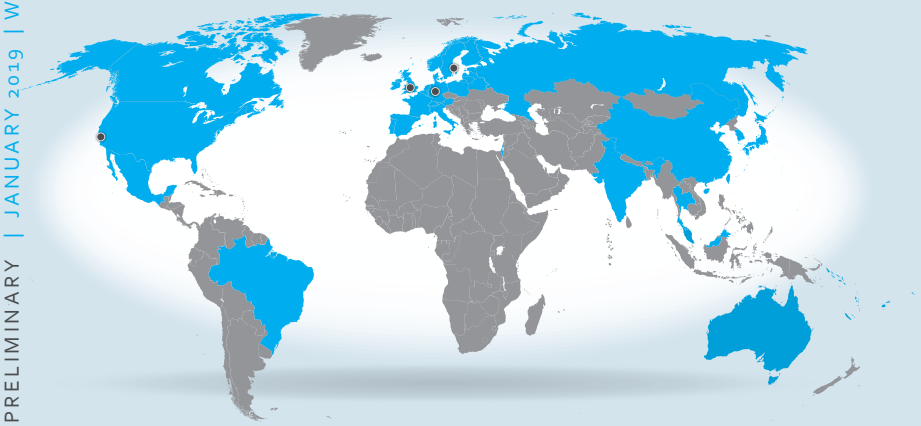

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