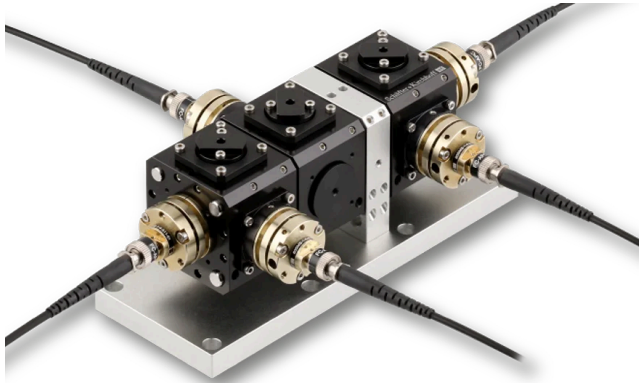


Dichroic RGB Beam Combiner

Compact, rugged and highly efficient opto-mechanical unit for combining several wavelengths

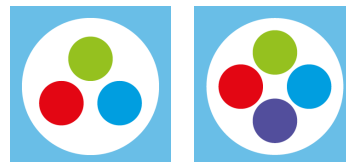


FEATURES

Dichroic RGB Beam Combiner

- Configuration with 2, 3 or 4 input ports
- Based on dichroic long-pass or short-pass mirrors
- Large variety of edge wavelengths
- Highly efficient coupling into polarization-maintaining or single-mode fiber cables
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducibility

- RGB fiber optic components
- RGBV fiber optic components



DESCRIPTION

These Dichroic RGB Beam Combiners are compact opto-mechanical units that combine several (up to 4) fiber-coupled sources with different wavelengths into a common output fiber cable with high efficiency.

Optical Setup

The input ports are fiber-coupled to [PM fiber cables](#) or to [SM fiber cables](#).

The different wavelengths are superimposed by means of dichroic mirrors. A summary of typical splitters can be found [here](#).

At the output port, optionally, a polarizer is placed in order to define the polarization at output of the system.

Fiber Couplers

A fundamental component of the fiber-coupled Beam Combiner is the [Laser Beam Coupler](#), which is the input into the opto-mechanical unit collimating the input radiation, respectively and, finally, couples the radiation back into the polarization-maintaining or single-mode fiber cable. The stability of the total fiber-coupled Beam Combiner is determined by the [stability](#) of the laser beam coupler.

ORDER OPTIONS

Order Code	Numb. Input Ports	Polarizer	Fiber Types	Comment
48-MCS-016	2	-	SM or PM	Long pass or short pass filter
48-MCS-043	2	x	PM	Long pass or short pass filter, polarizer
48-MCS-028	2	-	PM	Based on PBS and dichroic wave plate
48-RGB-001	3	-	SM or PM	Typical RGB wavelengths: 405 nm, 532 nm and 660 nm
48-RGB-003	3	x	PM	Typical RGB wavelengths: 405 nm, 532 nm and 660 nm
48-RGB-002	3	-	MM	Typical RGB wavelengths: 405 nm, 532 nm and 660 nm
48-RGBV-001	4	-	SM or PM	Typical RGBV wavelengths: 405 nm, 460 nm, 532 nm and 660 nm
48-RGBV-003	4	x	PM	Typical RGBV wavelengths: 405 nm, 460 nm, 532 nm and 660 nm
48-RGBV-002	4	-	MM	Typical RGBV wavelengths: 405 nm, 460 nm, 532 nm and 660 nm

RELATED PRODUCTS

POLARIZATION ANALYZER SK010PA

Measurement tool for coupling into polarization-maintaining fiber cables

MULTICUBE SYSTEMS

including fiber-to fiber couplers, beam splitters, beam combiners and Fiber Port Clusters.

ACHROMATIC COMPONENTS

Achromatic Fiber Couplers and Fiber Couplers.

This is a printout of the page <https://sukhamburg.com/products/fiberoptics/multicube/systems/rgb.html> from 5/5/2024

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