

## Beam Combiners

Compact, rugged and highly efficient opto-mechanical unit for combining fiber-coupled radiation



### FEATURES

#### Fiber-Coupled Beam Combiners

- Configuration  $2 \rightarrow 1$  and  $2 \rightarrow 2$
- Highly efficient coupling into polarization-maintaining fiber cables
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducibility

## DESCRIPTION

These fiber-coupled Beam Combiners are compact opto-mechanical units that combine the radiation of two fiber-coupled sources into one or two output fiber cable with high efficiency.

### Fiber Couplers

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

## ORDER OPTIONS

Order Code	Configuration	Wavelengths	Transmission	Polarization Extinction	Principle
48-MCS-xxx	2 → 1	400 - 1700 nm, monochromatic or bandwidth up to 500 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Beam splitting cube
<a href="#">48-MCS-016</a>	2 → 1, dichroic	400 - 1700 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Dichroic mirror
<a href="#">48-MCS-043</a>	2 → 1, dichroic, PM	400 - 1700 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Dichroic mirror
<a href="#">48-MCS-028</a>	2 → 1, dichroic	400 - 1700 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Dichroic wave plate
<a href="#">48-MCS-008</a>	2 → 1, polarization maintaining	400 - 1700 nm, monochromatic or bandwidth up to 500 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Polarization beam splitting cube
<a href="#">48-MCS-026</a>	2 → 2, polarizing	400 - 1700 nm, monochromatic or bandwidth up to 500 nm	≥ 75 % @ 780 nm	≥ 23 dB @ 780 nm	Polarization beam splitting cube

## RELATED PRODUCTS

### BEAM SPLITTERS

Compact, rugged and highly efficient opto-mechanical unit for splitting fiber-coupled radiation

### FIBER PORT CLUSTER

This is a printout of the page <https://sukhamburg.com/products/fiberoptics/multicube/systems/beamcombiner.html> from 5/3/2024

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