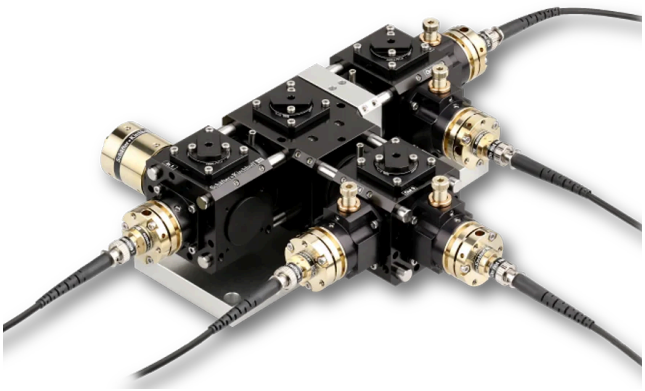
48-FPC-1-4-xxx-AT

Fiber Port Cluster 1 ⇾ 4 with attenuators



FEATURES

Fiber Port Cluster for one input source

- Configuration 1 ⇾ 4
- Attenuators at the four output ports
- Highly efficient coupling into polarization-maintaining fiber cables
- Adjustable splitting ratio
- Compact, rugged, transportable and sealed opto-mechanical units
- Fully fiber-coupled
- Very high long-term stability, efficiency and reproducibility

DESCRIPTION

This Fiber Port Clusters 1 ⇾ 4 AT is a compact opto-mechanical unit that splits a fiber-coupled source into 4 output fiber cables with high efficiency and variable splitting ratio. Using the attenuators at the four output ports, the output power can be reduced individually at each output port.

Optical Setup

The input port is fiber-coupled to a PM fiber cable. A polarizer defines the input polarization which is necessary for a long term stable splitting ratio.
A photo diode right after the input port allows for a continuous monitoring of the radiation. Subsequently, the radiation splitting is achieved by using a cascade of rotary half-wave plates in combination with polarization beam splitters. By use of the rotary half-wave plates, almost any desired splitting ratio can be achieved.
At the output ports further polarizers are placed in order to define the polarization at output of the system.

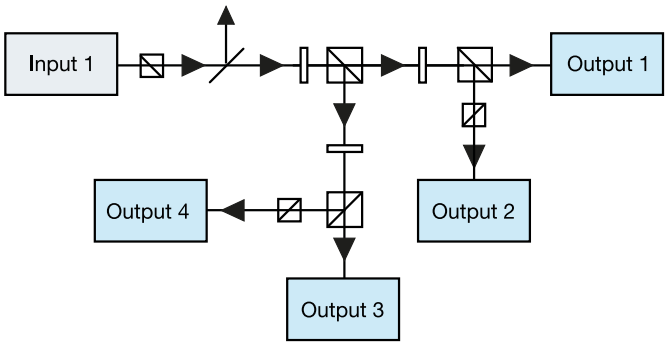
Fiber Couplers

A fundamental component of a Fiber Port Cluster 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 Fiber Port Cluster is determined by the stability of the of the laser beam coupler.

How to order

For a detailed quotation please additionally specify

- Wavelength
- Cable lengths
- Connector types



TECHNICAL DATA

48-FPC-1-4-xxx-AT

Order code	48-FPC-1-4-xxx-AT
Configuration	1 ⇾ 4
Wavelengths*	461, 532, 689, 767, 780, 852 nm
Fiber type	polarization-maintaining
Connector type	FC APC (standard)
Cable lengths	Customer-specific
Wave plate type	low-order
Power monitor	BPX-61 (SMA)
Transmission	≥ 75 % @ 780 nm
Polarization Extinction Ratio	≥ 23 dB @ 780 nm
Balancing	better 3 %
	* Different wavelength combinations on request

TECHNOTES

- Article - Fiber Port Cluster
  Rugged, modular and fiber coupled beam splitting and combining units
- Connecting multicube assemblies to a base plate
  How to connect the self-supporting multicube system

DOWNLOADS

980129090609.pdf (Dimensional drawing)

Article_Cluster.pdf (Technote)

RELATED PRODUCTS

FIBER COLLIMATOR 60FC-Q	Fiber Collimator for collimating large beam diameters and with integrated quarter-wave plate
POLARIZATION ANALYZER SK010PA	Measurement tool for coupling into polarization-maintaining fiber cables
FIBER COLLIMATOR SERIES 60FC-SF	Fiber Collimator/Fiber Coupler with super-fine thread
48-FPC-1-4-XXX	Fiber Port Cluster 1 ⇾ 4

This is a printout of the page https://sukhamburg.com/products/details/48-FPC-1-4-xxx-AT from 5/3/2024

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