

2x1 Multimode Pump Combiner

Key Features

- High Transfer Efficiency
- Wavelength Insensitive
- Custom Configurations Available
- High Power Handling
- ROHS Compliant

Applications

- Fiber Lasers
- Fiber Laser Combination
- kW Class Fiber Lasers
- Industrial & Research

DK Photonics' 2 x1 multimode pump combiner combines 19 multimode lasers power to create a high power output with consigned fibers. It features exceptional optical characteristics. The output fiber can be transmitting energy fiber as the energy synthesis, it also can be no core fiber or LMA double clad fiber, which people can splice with match doped LMA double cladding fiber. DK Photonics' Multimode Pump Combiners offer efficient power transfer for high power applications like direct diode materials processing and pump cascading with a maximum conservation of brightness. The Multimode Combiners can be designed to meet a wide range of power handling configurations, number of input fibers and adaptation to different fiber types. We can produce the Nx1 pump combiner including 2x1,3x1,4x1,7x1,19x1,37x1 pump combiner and so on. Pump fiber, output fiber type and the configuration (Nx1) can be customized, with power handling per multimode port of, 10W, 25W, 50W, 100W(200W or higher can be customized).



Performance Specifications

Parameters	Values
Pump Operating Wavelengths	800-1000nm
Number of Multimode Inputs	2
Number of Output Ports	1
Pump Input Fiber	
Output Fiber	Refer to the General Configuration for 2 x1 combiner
Multimode Power Transfer	
Power per Multimode Input	
Return Loss - Pumps	35dB
Operating Temperature	0~75°C
Storage Temperature	-40~85°C

Remark:

Above specification may change without notice. Other configuration and higher power handling can be customized.

All combiners default with bare fiber, 0.8m length of pigtail, please contacts us for special request.

For more Info

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2x1 Multimode Pump Combiner

General Configuration:

Configuration	Working Wavelength (nm)	Pump fiber	Output fiber	Min. Pump Effi.	Max. Power Handling
2x1	800-1000	105/125 0.12	105/125 0.22	93%	25W/leg
2x1	800-1000	105/125 0.12	200/220 0.22	96%	50W/leg
2x1	800-1000	105/125 0.12	X/125 DC	95%	50W/leg
2x1	800-1000	105/125 0.15	105/125 0.22	90%	50W/leg
2x1	800-1000	105/125 0.15	200/220 0.22	95%	50W/leg
2x1	800-1000	105/125 0.15	X/125 DC	95%	50W/leg
2x1	800-1000	105/125 0.22	200/220 0.22	95%	50W/leg
2x1	800-1000	105/125 0.22	X/125 DC	95%	50W/leg
2x1	800-1000	200/220 0.22	X/125 DC	95%	50W/leg

Remark:

Other configuration and higher power handling can be customized.

All combiners default with bare fiber, 0.8m length of pigtail, please contacts us for special request.

Package Information:

Package Type	P2	P3	P4
Dimensions (mm)	65x12x7	80x12x8	100x15x10

*Due to ongoing design improvements, the package size is subject to change. According to the different configuration, power handling, and fiber core diameter, we will choose the appropriate package size. Please contact DK Photonics for confirmation.

*High power device package must be mounted onto heat sink (active cooling is suggested) with thermal paste.

Order information P/N: MPC-A-B-C-D-E

When you inquire, please provide the correct P/N number according to our ordering information, and attach the appropriate description would be better. If need any connector, we do not recommend choosing a 250μm bare fiber pigtail.

A	B	C	D	E
Port	Power per Multimode Input	Input Pump Fiber Type	Output Fiber Type	Fiber length
2: 2x1	05:5W 10:10W 25:25W 40:40W 50:50W XX: Other	XXX (fiber code)	XXX (fiber code)	08:0.8m(default) 10:1.0m 20:2.0m

Part Number Example: MPC-2-20-105/125/22-25/250/06D-10

Description: 2 x 1 Multimode Pump Combiner, 20W per pump power, 105/125μm, 0.22NA input pump fiber, 25/250μm, 0.06/046NA output fiber, 1.0m fiber length

Ordering Information for Custom Parts

If you need to customize other specifications, please provide detailed description for your requirement.