

1.0μm MFA and CPS Hybrid Combination

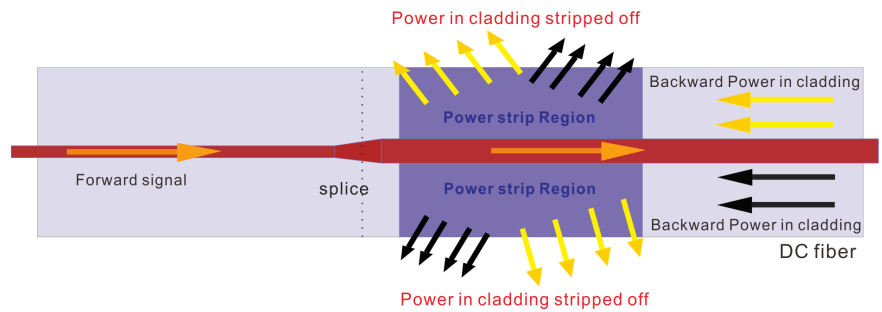
Key Features

- Low Insertion Loss
- High Power Handling
- High Power Absorption
- PM and Non-PM are available
- Fiber can be customized
- High Reliability
- Excellent Temperature Stability

Applications

- Fiber amplifier and laser systems
- Cladding-mode-free high power beam delivery
- ASE stripping
- Industrial, Biomedical, Telecom, Metrology
- Life Science, Imaging, Quantum optics

MFA & CPS Hybrid Combination is a combination of a MFA and a Cladding Power Stripper in a compact package. Cladding Power Stripper is used in high-power fiber lasers and amplifiers need to be able to handle substantial optical powers. It needs to be ensured that these powers are absorbed in a sufficiently widespread region, and that the generated heat can be removed safely, without damaging the mode stripper or any surrounding parts. Mode Field Adaptors is designed to make two fiber to keep mode field diameter matched with low fundamental mode signal loss and minimal degradation of beam quality (M2). MFA & CPS Hybrid Combination offers integrated solution to fiber laser application by combining more functions into a very compact package. It widely used in high-power reverse pumped lasers.



Performance Specifications

Parameters	Unit	Values
Center Signal Wavelength	nm	1030,1064,1080
Operating Wavelength-Pumps	nm	800~1000
Cladding attenuation (Min.)	dB	18~20
Type. Insertion Loss (at 25°C)	dB	0.2
Max. Insertion Loss (at 25°C)	dB	0.50
Min. Polarization Extinction Ratio	dB	18
Cladding Power Handling(Stripping Power)	W	10, 20, 30...
Fiber Type In/Out	/	Refer to below table
Pigtail Length	m	0.8 or other
Operation Temperature	°C	0 ~ +50
Storage Temperature Range	°C	-20 ~ +75

For more Info

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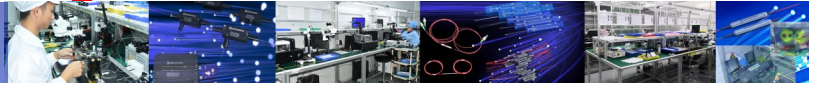
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General Configuration for PM MFA & CPS Hybrid Combination

Working Wave-length(nm)	Signal In-put Fiber	Signal Output Fiber	Signal IL (dB)	Min. Stripping Efficiency	Max. Stripping Cladding Power	Max. Signal Power Handling
1020~1080	HI1060 or 6/125 DC	10/125 DC	≤0.3	20dB	50W	30W
1020~1080		15/130 DC	≤0.3	20dB	50W	30W
1020~1080		20/125 DC	≤0.3	20dB	50W	30W
1020~1080		25/250 DC	≤0.5	18dB	100W	30W
1020~1080		30/250 DC	≤0.5	18dB	100W	30W
1020~1080		20/400 DC	≤0.5	18dB	500W	500W
1020~1080	10/125 DC or SC	15/130 DC	≤0.5	20dB	50W	30W
1020~1080		20/125 DC	≤0.5	20dB	50W	30W
1020~1080		25/250 DC	≤0.5	18dB	100W	500W
1020~1080		30/250 DC	≤0.5	18dB	100W	500W
1020~1080		20/400 DC	≤0.5	18dB	500W	500W

General Configuration for SM MFA & CPS Hybrid Combination

Working Wave-length(nm)	Signal In-put Fiber	Signal Output Fiber	Signal IL /PER (dB)	Min. Stripping Efficiency	Max. Stripping Cladding Power	Max. Signal Power Handling
1020~1080	PM980-XP	10/125 PM DC	IL≤0.5,ER≥20	20dB	50W	50W
1020~1080		15/130 PM DC	IL≤0.5,ER≥20	20dB	50W	50W
1020~1080		20/125 PM DC	IL≤0.5,ER≥20	20dB	50W	50W
1020~1080		25/250 PM DC	IL≤0.5,ER≥18	18dB	100W	500W
1020~1080		30/250 PM DC	IL≤0.5,ER≥17	18dB	100W	500W
1020~1080		20/400 PM DC	IL≤0.5,ER≥17	18dB	500W	500W
1020~1080	10/125 PM DC or PM1060L	15/130 PM DC	IL≤0.5,ER≥20	20dB	50W	50W
1020~1080		20/125 PM DC	IL≤0.5,ER≥20	20dB	50W	50W
1020~1080		25/250 PM DC	IL≤0.5,ER≥18	18dB	100W	500W
1020~1080		30/250 PM DC	IL≤0.5,ER≥17	18dB	100W	500W
1020~1080		20/400 PM DC	IL≤0.5,ER≥17	18dB	500W	500W

Remark:

* Other configuration can be customized. CPS build on double clad fiber only.

* For stripping power≥100W and some small core fiber CPS, will need water cooling.

* All CPS default with DK Logo, bare fiber, 0.8m length of pigtail, please contact us for special request.

Package Information

Package Type(Total strip power)	P3(<40W)	P4(<70W)	P5(<150W)	P6(<800W)
Dimensions (mm)	80x12x8	100x15x10	120x30x20	120x42x30 (Water cooling)

* Due to ongoing design improvements, the package size is subject to change. We will choose the appropriate package size according to different stripping power and fiber cladding. Please contact DK Photonics for confirmation.

Order information P/N: PMMFA&CPS-①-②-③-④-⑤-⑥

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.

①	②	③	④	⑤	⑥
Signal Wavelength	Cladding Power Stripping	Signal Power Handling	Input Fiber Type	Output Fiber Type	Fiber length
30:1030nm	10:10W	20:20W	XXX(fiber name)	XXX(fiber name)	08:0.8m
64:1064nm	25:25W	50:50W			(default)
80:1080nm	50:50W	100:100W			10:1.0m
	100:100W	500:500W			20:2.0m
	XX: Other	XX: Other			

Part Number Example: PMMFA&CPS-64-200-500-P06L-P20/400/06D-10

Description: PM MFA & CPS Hybrid Combination, 1064nm signal wavelength, 200W cladding power stripping, 500W signal power pass, PM1060L input signal fiber, PM 20/400μm, 0.06/046NA output fiber, with 1.0m length bare fiber pigtails.

Ordering Information for Custom Parts

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