

## 1.5 $\mu$ m MFA and CPS Hybrid Combination

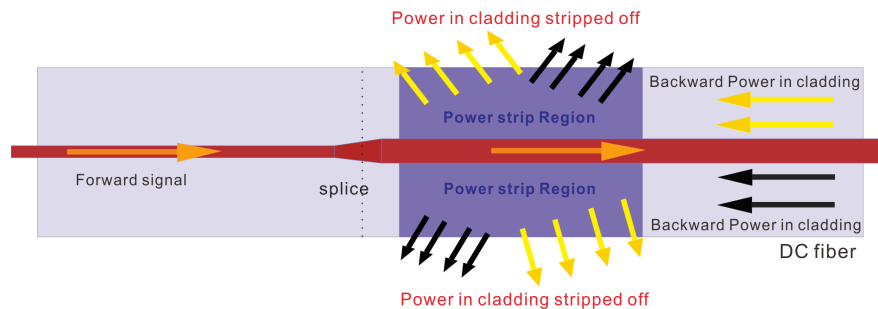
### Key Features

- 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	1550
Operating Wavelength-Pumps	nm	800~1000
Cladding attenuation (Min.)	dB	18~20
Type. Insertion Loss (at 25 $^{\circ}$ C)	dB	0.2
Max. Insertion Loss (at 25 $^{\circ}$ 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	$^{\circ}$ C	0 ~ +50
Storage Temperature Range	$^{\circ}$ C	-20 ~ +75

## For more Info

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## 1.5μm MFA and CPS Hybrid Combination

### General Configuration

Working Wave-length(nm)	Signal Input Fiber	Signal Output Fiber	Signal IL /PER(dB)	Min. Stripping Efficiency	Max. Stripping Cladding Power	Max. Signal Power Handling
1530~1570	SMF-28	SM-GDF-1550	≤0.5	20dB	20W	50W
1530~1570	SM-GDF-1550	12/130μm,NA0.20/0.46	≤0.5	20dB	30W	50W
1530~1570	12/130μm,NA0.20/0.46	25/300μm,NA0.09/0.46	≤0.5	18dB	100W	500W
1530~1570	PM1550 Panda	PM-GDF-1550	IL≤0.5,ER≥20	20dB	20W	50W
1530~1570	PM-GDF-1550	PM 12/130μm,NA0.20/0.46	IL≤0.5,ER≥20	20dB	30W	50W
1530~1570	PM12/130μm,NA0.2/0.46	PM25/300μm,NA0.09/0.46	IL≤0.5,ER≥18	18dB	100W	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:MFA& CPS (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
15:1550nm	10:10W 25:25W 50:50W 100:100W XX: Other	20:20W 50:50W 100:100W 500:500W XX: Other	XXX (fiber code)	XXX (fiber code)	08:0.8m (default) 10:1.0m 20:2.0m

**Part Number Example:** PMMFA&CPS-15-20-50-P15X-P15D-10

**Description:** PM MFA & CPS Hybrid Combination, 1550nm signal wavelength, 20W cladding power stripping, 50W signal power pass, PM1550-XP input signal fiber, PM-GDF-1550 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.