



OZ Optics

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MODE FIELD ADAPTERS

Features:

- High power handling capability
- Spanning a wide optical spectral range
- Adapts and conserves modal content
- Custom design flexibility

Applications:

- High power fiber lasers
- High power pigtailed isolators
- High Power fiber optic component manufacturing
- Research and design

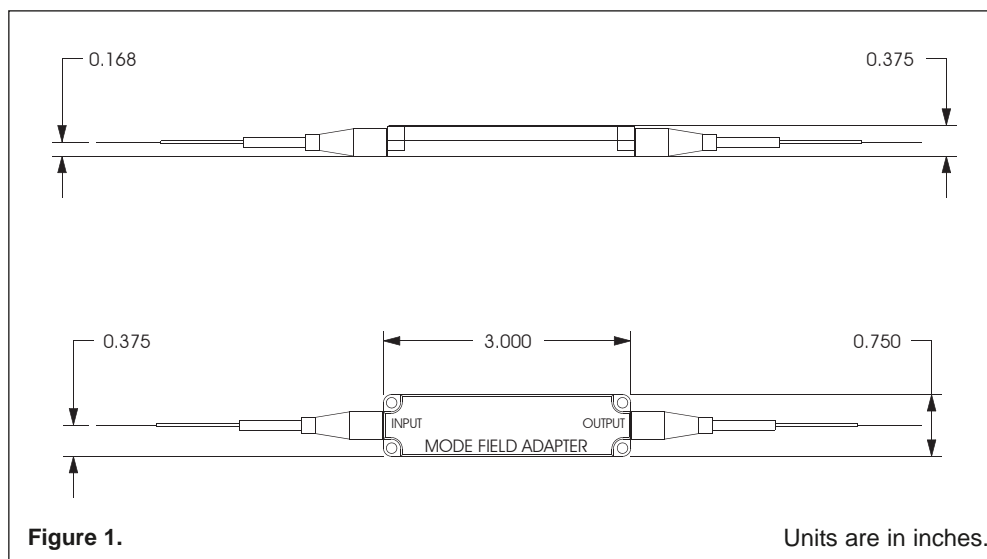


Mode Field Adapter

Product Description:

A mode field adapter is an essential device to efficiently transfer light for a standard singlemode fiber to the LP01 mode of large mode area (LMA) and low order mode multimode fibers. The performance is greatly superior to using a regular splice, as an ordinary splice will produce in a degraded quality output beam, with a poor M^2 factor.

Mode field adapters also generate lower losses than ordinary splices, thus ensuring higher power transmission compared to regular splicing.



Ordering Information for Standard Parts:

For Standard Parts, please see our Online Catalog <http://shop.ozoptics.com/>

Barcode	Part number	Description
43939	MFA-980/1064-6/125-10/125-0.11-0.08-S-LMA-XX-1-1	Mode field adapter from a 6/125 μ m (NA=0.11) singlemode input fiber for 980/1064, to a 10/125 μ m LMA fiber with an NA of 0.08. The device is pigtailed with 1m long, 900 μ m OD loose tube jacketed fibers with no connectors on either end. Max. I.L.<0.5
39991	MFA-980/1064-6/125-20/125-0.11-0.08-S-LMA-XX-1-1	Mode field adapter from a 6/125 μ m (NA=0.11) singlemode input fiber for 980/1064, to a 20/125 μ m LMA fiber with an NA of 0.08. The device is pigtailed with 1m long 900 μ m OD loose tube jacketed fibers with no connectors on either end. Max. I.L.<0.5
43641	MFA-980/1064-6/125-25/125-0.11-0.10-S-LMA-XX-1-1	Mode field adapter from a 6/125 μ m (NA=0.11) singlemode input fiber for 980/1064, to a 25/125 μ m LMA fiber with an NA of 0.10. The device is pigtailed with 1m long, 900 μ m OD loose tube jacketed fibers with no connectors on either end. Max. I.L.<0.5
42618	MFA-980/1064-6/125-20/125-0.11-0.08-P-LMA-XX-1-1	Mode field adapter from a 6/125 μ m (NA=0.11) polarization maintaining input fiber for 980/1064, (Corning PM-98 U25) to a 20/125 μ m polarization maintaining LMA fiber with an NA of 0.08 (Liekki Passive 20/125). The device is pigtailed with 1m long, 900 μ m OD loose tube jacketed fibers with no connectors on either end. Max. I.L.<0.5

Standard Product Specifications:

Parameters	Unit	Value			
Wavelength	nm	980–1080			
Input fiber (Core/Clad)	um/um	6/125			
Output fiber (Core/Clad)	um/um	10/125	20/125	25/125	25/250
NA core (Output Fiber)		0.08	0.08	0.1	0.06
Max power transmitted	W	> 50			
Max Insertion loss	dB	< 0.5			
Dimensions (L x W x H)	(mm x mm x mm)	76 x 19 x 10			

Custom Ordering Information:

OZ Optics welcomes the opportunity to provide custom designed products to meet your application needs. As with most manufacturers, customized products do take additional effort so please expect some differences in the pricing compared to our standard parts list. In particular, we will need additional time to prepare a comprehensive quotation, and lead times will be longer than normal. In certain cases non-recurring engineering (NRE) charges, lot charges, and/or a minimum order will be necessary. These points will be carefully explained in your quotation, so your decision will be as well informed as possible.

Description:

Mode Field Adapter: MFA-w1/w2-a1/b1-a2/b2-NA1-NA2-f1-f2-XY-JD-L

w1/w2 = Wavelength:
980/1064 nm standard.

a1/b1 = Core/Clad Input:

Core/Cladding sizes, in microns 6/125 for 1060 nm SM fiber. See the OZ *Standard Tables* data sheet for other standard fiber sizes.
http://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

a2/b2 = Core/Clad Output:

Core/Cladding sizes, in microns. See the OZ *Standard Tables* data sheet for other standard fiber sizes.
http://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

NA1 = Numerical Aperture of Input:

See the OZ *Standard Tables* data sheet for NA values.
http://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

NA2 = Numerical Aperture of Output:

See the OZ *Standard Tables* data sheet for NA values.
http://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

f1 = Fiber Type of Input:

S = Singlemode
P = Polarization maintaining
LMA = Large mode area
PLMA = Polarization maintaining large mode area

L = Fiber length in meters, on each side of the device.

If they are different lengths, specify the input and output lengths separated by a comma.
Example: To order 1 meter of the fiber at the input and 7 meters at the output, replace the L with 1, 7. The total fiber length is equal to input fiber length plus the output fiber length.

JD = Jacket Dimension

XY = Input and Output Connector codes:

X = Ne connector
3S = Super NTT-FC/PC
3U = Ultra NTT-FC/PC
3A = Angled NTT-FC/PC
8 = AT & T-ST
SC = SC
SCA = Angled SC
LC = LC/PC
LCA = Angled LC

See table 6 of the OZ *Standard Tables* data sheet for other connectors.
http://www.ozoptics.com/ALLNEW_PDF/DTS0079.pdf

f2 = Fiber Type of Output:

S = Singlemode
P = Polarization maintaining
LMA = Large mode area
PLMA = Polarization maintaining large mode area