itf Technologies
Member of O-Net Group

One Name in Beam Quality

MULTIMODE
COMPONENTS

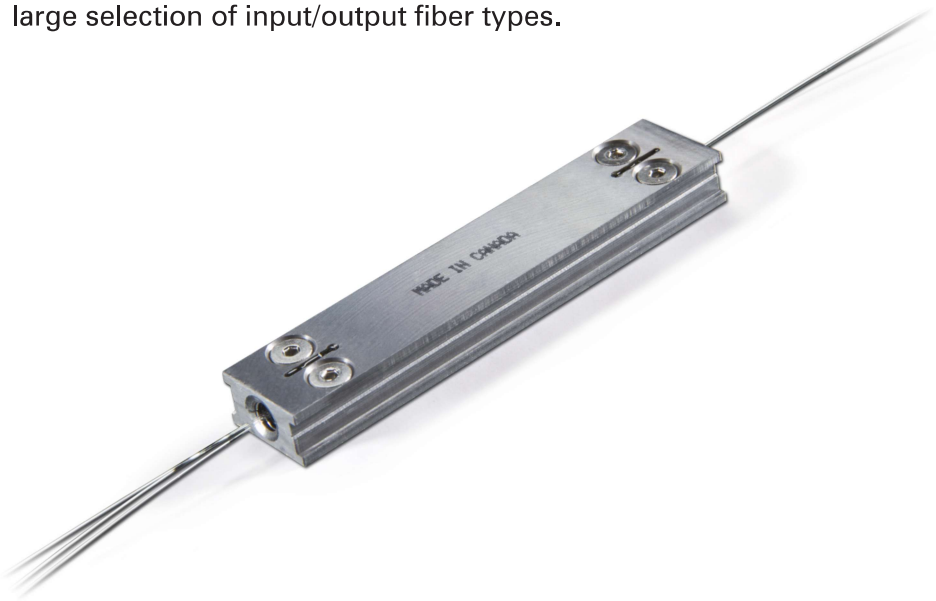
(6+1)x1, (18+1)x1 and (24+1)x1

High Power Pump and Signal Combiners

For Co-Pumped Laser and Amplifier Designs

ITF Technologies' High Power Multimode Pump and Signal Combiners feature exceptional optical performance. These devices can be used to combine the power from several multimode laser diodes with a signal feed into a double clad fiber (DCF) or triple clad fiber (TCF). These combiners are designed to address industrial and research applications.

ITF Technologies' High Power Multimode Pump and Signal Combiners also offer extremely efficient pump power transmission for applications such as fiber lasers and fiber amplifiers, with optimal signal transmission quality when necessary or in lower cost solutions when the signal port is used for a visible tracker or monitoring. They are designed to meet a wide range of power handling needs and a large selection of input/output fiber types.



KEY FEATURES

- High Power Transfer Efficiency
- Preservation of Modal Content
- Wavelength Insensitive
- Custom Configurations Available
- ROHS Compliant

APPLICATIONS

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- kW Class Fiber Lasers
- Industrial & Research

FOR MORE INFO

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(6+1)x1, (18+1)x1 and (24+1)x1 High Power Pump and Signal Combiners

FOR CO-PUMPED LASER AND AMPLIFIER DESIGNS

(6+1)x1 - Standard signal operating wavelength range: 1040-1080 nm

PUMP FIBER	SIGNAL FIBER	OUTPUT FIBER	POWER HANDLING (PUMPS)	PRODUCT CODE
105/125 0.22	10/125 um NA=0.08/0.46	25/250 um NA=0.06/0.46	100 W/port	MMC06112CH1
105/125 0.22	PM 10/125 um NA=0.08/0.46	PM 25/250 um NA=0.06/0.46	100 W/port	PMC06112A51
105/125 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	up to 200 W/port	MMC06112821
105/125 0.22	PM 10/125 um NA=0.08/0.46	PM 20/400 um NA=0.06/0.46	up to 200 W/port	PMC06112A21
200/220 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	up to 400 W/port	MMC0611C10198
200/220 0.22	PM 10/125 um NA=0.08/0.46	PM 20/400 um NA=0.06/0.46	up to 400 W/port	PMC0611C12057
220/242 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	up to 400 W/port	MMC0611C9270
220/242 0.22	PM 10/125 um NA=0.08/0.46	PM 20/400 um NA=0.06/0.46	up to 400 W/port	PMC0611C9844
105/125 0.22	20/400 um NA=0.06/0.46	20/400 um NA=0.06/0.46	up to 200 W/port	MMC06112621
200/220 0.22	20/400 um NA=0.06/0.46	20/400 um NA=0.06/0.46	up to 400 W/port	MMC0611C9827
220/242 0.22	20/400 um NA=0.06/0.46	20/400 um NA=0.06/0.46	up to 400 W/port	MMC0611C9875

(6+1)x1 - Standard signal operating wavelength range: 1530-1570 nm

PUMP FIBER	SIGNAL FIBER	OUTPUT FIBER	POWER HANDLING (PUMPS)	PRODUCT CODE
105/125 0.22	SMF28	25/300 um NA=0.09/0.46	100 W/port	MMC0611C4044
105/125 0.22	PM 1500	PM 25/300 um NA=0.09/0.46	100 W/port	PMC0611C3360

(6+1)x1 - Standard signal operating wavelength range: 1980-2020 nm

PUMP FIBER	SIGNAL FIBER	OUTPUT FIBER	POWER HANDLING (PUMPS)	PRODUCT CODE
105/125 0.22	10/125 um NA=0.15/0.46	25/250 um NA=0.11/0.46	100 W/port	MMC0611C4058
105/125 0.22	10/125 um NA=0.15/0.46	25/400 um NA=0.11/0.46	100 W/port	MMC0611C5652
105/125 0.22	PM 10/130 um NA=0.15/0.46	PM 25/400 um NA=0.11/0.46	100 W/port	PMC0611C6088

(18+1)x1 - Standard signal operating wavelength range: 1040-1080 nm

PUMP FIBER	SIGNAL FIBER	OUTPUT FIBER	POWER HANDLING (PUMPS)	PRODUCT CODE
106.5/125 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	140 W/port	MMC1811C9262
106.5/125 0.22	10/125 um NA=0.08/0.46	25/400 um NA=0.06/0.46	140 W/port	MMC1811C10263
106.5/125 0.22	20/400 um NA=0.06/0.46	20/400 um NA=0.06/0.46	140 W/port	MMC1811C9751
135/155 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	200 W/port	MMC1811C10242

(24+1)x1 - Standard signal operating wavelength range: 1040-1080 nm

PUMP FIBER	SIGNAL FIBER	OUTPUT FIBER	POWER HANDLING (PUMPS)	PRODUCT CODE
106.5/125 0.22	10/125 um NA=0.08/0.46	20/400 um NA=0.06/0.46	140 W/port	MMC2411C10016
106.5/125 0.22	10/125 um NA=0.08/0.46	25/400 um NA=0.06/0.46	140 W/port	MMC2411C10258
135/155 0.22	14/250 um NA=0.07/0.46	34/460/530 um NA=0.10/0.22/0.46	270 W/port	MMC2411C12126

√: Product available - product code not yet defined

PACKAGE DIMENSIONS
High Power: 60.0 x 12.0 x 6.5 mm

When needed, signal optimized for fundamental mode transmission:
Typical <0.5 dB fundamental mode loss

Cost effective total core loss solutions also available

PER value of PM components: >15 dB

Typical power handling presented
Custom designs and prototypes also available;
including 135/155um pump fibers and other output diameters

ORDERING INFO

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O-Net Communications