



## 3x1, 4x1, 7x1, 19x1 and 31x1 High Power Pump Combiners

For Co-Pumped Laser Designs and Direct Diode Applications

ITF Technologies' High Power Multimode Pump Combiners feature exceptional optical performance. These devices can be used to combine the power from several multimode laser diodes into a single clad or double clad fiber (DCF). These combiners are designed to address industrial, research and medical markets. They can meet a wide range of power handling configurations and a large selection of input/output fiber types.

ITF Technologies also offer "all glass" High Power Multimode Combiners for direct pumping with a maximum conservation of brightness for high power applications like direct diode material processing and "combiner tree" fiber laser designs.

### KEY FEATURES

High Power Transfer Efficiency

Wavelength Insensitive

Custom Configurations Available

ROHS Compliant

### APPLICATIONS

Fiber Lasers

Laser Diode Combining

kW Class Fiber Lasers

Industrial & Research



### FOR MORE INFO

Website: [www.itftechnologies.com](http://www.itftechnologies.com)

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## 3x1, 4x1, 7x1, 19x1 and 31x1 High Power Pump Combiners

## FOR CO-PUMPED LASER DESIGNS AND DIRECT DIODE APPLICATIONS

### Double Clad Fiber Output

| CONFIGURATION      | PUMP POWER HANDLING  | OUTPUT DIAMETER | NOTES                               |
|--------------------|----------------------|-----------------|-------------------------------------|
| 3x1                | Up to 100 W/port     | 125 um DCF      | Operating wavelength : 790- 1000 nm |
| 4x1                | Up to 100 W/port     | 125 um DCF      |                                     |
| 7x1                | Up to 150 W/port     | 250 um DCF      |                                     |
|                    | Up to 400 W/port     | 400 um DCF      |                                     |
| 19x1               | Up to 60 W/port      | 250 um DCF      |                                     |
|                    | Up to 140 W/port     | 400 um DCF      |                                     |
| PACKAGE DIMENSIONS | 60.0 x 12.0 x 6.5 mm |                 | DCF - Double-clad fiber             |

### Direct Pumping Combiners - High Brightness Output

| CONFIGURATION      | PUMP POWER HANDLING  | OUTPUT DIAMETER | NOTES                               |                               |
|--------------------|----------------------|-----------------|-------------------------------------|-------------------------------|
| 3x1                | Up to 100 W/port     | 220 um          | Operating wavelength : 790- 1000 nm |                               |
| 4x1                | Up to 100 W/port     | 220 um          |                                     |                               |
| 7x1                | Up to 50 W/port      | 220 um          |                                     |                               |
|                    | Up to 100 W/port     | 440 um          |                                     |                               |
|                    | Up to 400 W/port     | 660 um          |                                     |                               |
| 31x1               | Up to 140 W/port     | 660 um          |                                     |                               |
| PACKAGE DIMENSIONS | 60.0 x 12.0 x 6.5 mm |                 |                                     | Typical output fiber NA: 0.22 |

### ADDITIONAL INFORMATION

Compatible with most standard fibers.  
Power handling is provided for general reference only.  
Custom designs and prototypes also available on demand.  
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### ORDERING INFO

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