



## **(2+1)x1 and (1+1)x1 Pump and Signal Combiners**

For Fiber Lasers and Amplifiers

ITF Technologies' Multimode Pump and Signal Combiners feature exceptional optical performance. These devices can be used to combine the power from one or two laser diodes with a signal feed into a double clad fiber (DCF). These combiners are designed to address the industrial, medical and telecommunications markets.

ITF Technologies' Multimode Pump and Signal Combiners offers very efficient pump power transmission in applications such as fiber lasers and fiber amplifiers, with the best signal quality transmission. They are designed to meet a wide range of power handling configurations and a large selection of input/output fiber types.



### **KEY FEATURES**

- High Power Transfer Efficiency
- Preservation of Modal Content
- Wavelength Insensitive
- Custom Configurations Available
- Multiple power handling available
- ROHS Compliant
- Suitable for co- and counter-pump applications

### **APPLICATIONS**

- Fiber Lasers
- Fiber Laser Seed Amplifiers
- Fiber Laser Power Amplifiers
- CATV Amplifiers
- Industrial, Telecom & Research

### **FOR MORE INFO**

Website: [www.itftechnologies.com](http://www.itftechnologies.com)  
Email: [info@itftechnologies.com](mailto:info@itftechnologies.com)

**(2+1)x1 and (1+1)x1 Pump  
and Signal Combiners**

**FOR FIBER LASERS AND AMPLIFIERS  
CONFIGURATION / PACKAGE**

PACKAGE	PUMP POWER HANDLING	DIMENSIONS (mm)	NOTES
(2+1)x1 - High Power (HP)	50 W/port	60.0 x 12.0 x 6.5	Standard operating bands: 1.0 um, 1.5 um and 2.0 um.
(2+1)x1 - Medium Power (MP)	25 W/port	60.0 x 5.0 x 5.0	Signal optimized for fundamental mode transmission.
(2+1)x1 - Value Line (VL)	7 W/port	65.0 x 3.5 (D)	Maximum pump insertion loss: 0.5 dB (typical). Pump Optical Return Loss: > 35 dB.
(1+1)x1 - Injector (INJ)	15 W/port	40.0 x 3.0 (D)	PER value of PM components: >20 dB. Standard pump fiber: 105/125 um NA=0.22.

**ADDITIONAL INFORMATION**

Compatible with most standard optical fibers.  
Power handling is provided for general reference only.  
Polarization-maintaining versions (PM) available on demand.  
Custom designs and prototypes also available on demand.

Last revised: January 2023

**ORDERING INFO**

**ITF Technologies inc.**  
400 Montpellier Blvd., Montreal, QC H4N 2G7  
Tel: +1 514 748 4848  
Fax: +1 514 744 2080  
Toll Free: +1 888 922 1044  
www.itftechnologies.com  
info@itftechnologies.com