

OPTICAL AMPLIFICATION **WAVELENGTH PUMP MULTIPLEXERS** EDFA AND RAMAN APPLICATIONS

ITF Wavelength Pump Multiplexers, based on ITF All-Fiber® technology, are designed to meet the requirements of the new generation of EDFA and Raman amplifiers. They are used to increase the power of optical amplifiers by combining multiple pump laser sources into a single fiber. Because of their very low insertion loss, typically less than 0.15 dB per coupler, almost all of the pump laser power is used efficiently.

ITF Wavelength Pump Multiplexers can be customized to accommodate complex multi-stage 980 nm and 1480 nm EDFA configurations as well as multi-pump Raman amplifier configurations. In fact, ITF Wavelength Pump Multiplexers can address almost any optical amplifier wavelengths and channel spacings.

ITF Wavelength Pump Multiplexers are characterized by very low insertion loss and are able to sustain considerable continuous optical power without degradation, adapting to operating conditions demanding a level of reliability that is more critical than ever.

ITF Wavelength Pump Multiplexers exceed Telcordia GR-1221 requirements down to 2 nm channel spacing

ITF's All-Fiber® technology allows for fast turn-around design and prototyping cycles thus enabling amplifier manufacturers to accelerate their product development.

EXCEED TELCORDIA GR-1221 REQUIREMENTS ~

VERY LOW INSERTION LOSS ~

HIGH OPTICAL POWER HANDLING ~

HIGHLY CUSTOMIZABLE: ~

2 to 8 channels, 2 to 50 nm spacing .

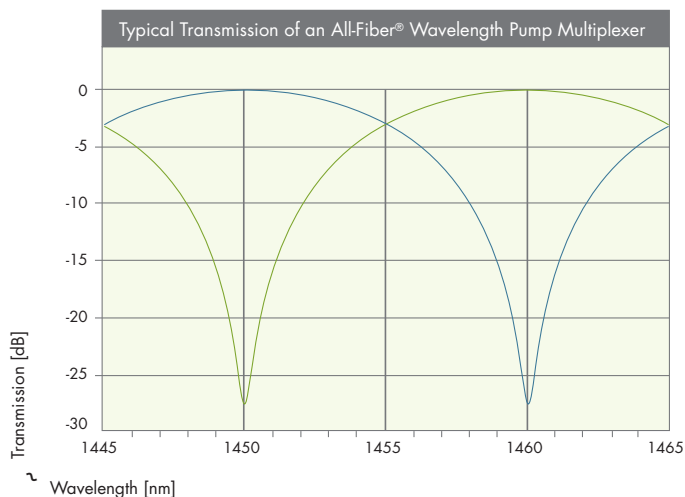
2 x 2 or 1 x 2 devices .

TECHNICAL DATA

ALL-FIBER® WAVELENGTH PUMP MULTIPLEXER SPECIFICATIONS

Parameter	Typical Value	
Operating Wavelength Range	970 to 990 nm	1420 to 1510 nm
Channel Number	2 to 4	2 to 8
Channel Spacing	2 to 10 nm	5 to 50 nm
Insertion Loss ¹	< 0.15 dB	
PDL ¹	< 0.1 dB	
Isolation ¹	> 15 dB	
Optical Return Loss	> 60 dB	
Directivity	> 65 dB	
Thermal Stability	0 or 10 pm/°C	
Operating Temperature	-5 to 70°C	
Storage Temperature	-40 to 85°C	
Overall Length	70 to 90 mm	
Diameter	4.6 mm	

[1] At target wavelength, for a 2-channel device



To find out how ITF Optical Technologies can help meet your need of increased optical amplification power and efficiency in high capacity transmission systems, contact us now for additional information on our Wavelength Pump Multiplexers.

ITF OPTICAL TECHNOLOGIES

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All-Fiber®