Ordering Information

Indicate your requirements by selecting one option from each configuration table. Please print the corresponding codes in the available boxes to form your part number. For more information on this or other products and their availability, please contact your local JDS FITEL sales representative or JDS FITEL directly at (613)727-1303, by fax at (613)727-8284, or via e-mail at sales@jdsfitel.com.

Sample: WDISBP2+1SM1.0NC

WDISBP2+1 □ □ □ . □ □ □

Code	Grade
S	Standard
P	Premium

1. Standard

Code	Wavelengths
L	1550/980 nm
M	1550/1480 nm

Code	Typical Fiber Length (all ports)
0.5	0.5 meter
1.0	1.0 meter[1]
1.5	1.5 meters
2.0	2.0 meters

Code	Connector Type (all ports)
NC	No connector[1]
FP	FC/PC
FA	FC/APC
SP	ST/PC
SC	SC/PC
SU	SC/APC

MKT-DS-0097 Rev. C 04/99 Printed in Canada

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WDISBP2 Series Integrated WDMs/ Two-Stage Isolators/ Bandpass Filters

Description

The WDISBP2 Series hybrid components are high-performance optical assemblies that combine the functions of a backward pump WDM, a polarization-insensitive two-stage isolator, and a bandpass filter into a single compact package.

The overall insertion loss is reduced by eliminating unnecessary splicing and coupling to the fibers. The high-performance characteristics make the components highly suitable for laboratory and field applications.

Units are available for both 980 and 1480 nm pump bands of erbium doped fiber amplifiers (EDFAs). Versions with single-stage isolators or forward pump WDMs are also available.

These components are configured with Corning SMF-28 fibers on all ports of 1480 nm units and with Corning Flexcor 1060 fibers on the pump and signal input ports of 980 nm units.

L-band hybrid components are also available.

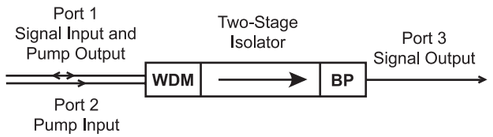
Key Features

- Integrated design for backward pumped 980/1480 nm pumped EDFAs
- Miniature package
- Low wavelength ripple, polarization dependent loss (PDL), and polarization mode dispersion (PMD)
- Typical losses of 1.0 dB (signal) and 0.25 dB (pump)
- Designed for stable and highly reliable performance

Applications

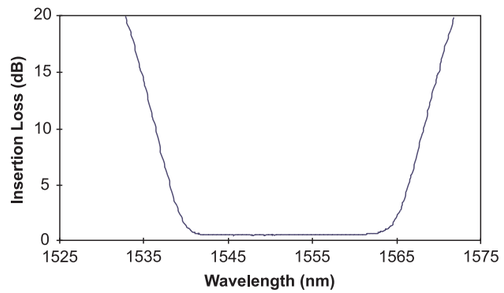
- Compact EDFA modules
- Backward pump design with 1532 nm rejector

Configuration



Ports 1, 2: Corning Flexcor 1060 (980 nm version)
Corning SMF-28 (1480 nm version)
Port 3: Corning SMF-28

Transmission Spectrum



Qualification and Reliability Tests

Type of Test	Conditions	Duration
Damp heat	85 °C and 85% RH	2500 hours
High temperature storage	85 °C	2500 hours
Low temperature storage	-40 °C	2500 hours
Temperature cycling	-40 to 75 °C	500 cycles
Temperature humidity cycling	-40 to 75 °C, 90% RH	5 cycles
Water immersion	43 °C	340 hours
Vibration	10-2000-10 Hz	12 cycles x 3 axis
Impact	500 G, 8 impacts x 3 axis	5 cycles
Cable retention	0.5 kg for 1 minute	3 pulls/fiber

Specifications

Parameter			Premium Grade	Standard Grade
Model			WDISBP2+1P	WDISBP2+1S
Pump wavelength	λ1		980 ±15 nm or 1470 ±25 nm	
Signal wavelength	λ2		1542 to 1560 nm	
Filter rejection	at 1532 nm	typical	25 dB	25 dB
		minimum	20 dB	20 dB
Insertion loss[1]	1→3 over λ2	typical	0.9 dB	1.1 dB
		maximum	1.3 dB	1.5 dB
	2→1 over λ1	typical	0.25 dB	0.35 dB
		maximum	0.5 dB	0.6 dB
Isolation	3→1 over λ2 at 23 °C	typical	50 dB	45 dB
		minimum	45 dB	40 dB
	1→2 over λ2	minimum	20 dB for 980 nm pump	20 dB for 980 nm pump
		minimum	15 dB for 1480 nm pump	15 dB for 1480 nm pump
Directivity	2→3 over λ1	minimum	60 dB	60 dB
Return loss	all ports	minimum	50 dB	50 dB
PDL	1→3 over λ2	typical	0.07 dB	0.09 dB
		maximum	0.15 dB	0.2 dB
	2→1 over λ1	maximum	0.05 dB	0.05 dB
PMD	1→3 over λ2	maximum	0.05 ps	0.05 ps
Maximum optical power			300 mW	
Fiber type	all ports		125/250 µm	
Dimensions (cylindrical DxL)			5.5 x 47 mm	
Operating temperature			0 to 60 °C	
Storage temperature			-40 to 85 °C	

1. Measured without connectors

Note: These specifications are applicable over the operating temperature range unless otherwise specified.