



# DUPLEXING WDM 1310/1550 NM AND 1625 NM

## Fused Fiber WDM

### DATASHEET

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The Duplexing WDM enables the low loss combining or splitting of a pair of wavelengths.

1310 nm/C band or 1310 nm/L band components are used to double network bandwidth whilst the 1310/1625 nm component is used to add or drop a supervisory wavelength from a system.

Gooch & Housego proprietary manufacturing technology provides uniquely low excess loss and wavelength dependence along with low polarization and temperature dependence for all ports.

In addition to the standard wavelengths shown, other combinations such as 1550/1625 nm are available. Please contact us with your specific requirements.



#### Key Features

- Ultra-low typically < 0.05 dB excess loss
- Wide range of regular parts available
- High power handling

#### Applications

- Optical networking
- Two-channel WDM
- Supervisory wavelength

#### Applications

- Telcordia GR-1221

## Optical Specifications

Device Type	Grade	Available Housing	Insertion Loss <sup>1</sup> (dB)	WDL <sup>2</sup> (dB)	PDL <sup>3</sup> (dB)	TDL <sup>4</sup> (dB)	Isolation (dB)
1310/C Band	P	2,3,4,5,6	0.30	0.20	0.10	0.10	15
	A	2,3,4,5,6	0.50	0.30	0.10	0.10	14
1310/L Band	P	3,4,5,6	0.30	0.20	0.10	0.10	15
	A	2,3,4,5,6	0.50	0.30	0.10	0.10	15
1310/1625 nm	P	3,4,5,6	0.30	0.20	0.10	0.10	15
	A	2,3,4,5,6	0.50	0.30	0.10	0.10	15

<sup>1</sup> Insertion loss over operating wavelength range (not including PDL, TDL or connector losses).

<sup>2</sup> Change in insertion loss over the operating wavelength range.

<sup>3</sup> Change in insertion loss over all input polarization states in signal wavelength range.

<sup>4</sup> Change in insertion loss from -5 - +75°C.

Parameter	Specification	
Operating wavelength range	1310 nm	1290-1330 nm
	C band	1528-1563 nm
	L band	1570-1605 nm
	1625 nm	1610-1640 nm
Return loss/directivity <sup>1</sup>	55 dB	
Pigtail tensile load	5 N	
Optical power handling	4 W	
Operating/storage temperature range <sup>2</sup>	-40 - +75°C/-40 - +85°C	
Environmental qualification	Telcordia GR-1221	

<sup>1</sup> Measured reference port P3 input for longer wavelength, P2 input for shorter wavelength and P1 input for both wavelengths.

<sup>2</sup> For connectorized component, operating temperature range is -5 - +75°C.

## Housing Option

Housing Code	Description	Dimensions (mm)	Pigtail
2	Miniature	Ø3.0 x 50 (L)	Primary-coated fiber
3	Regular	Ø3.0 x 55 (L)	Primary-coated fiber
4	Ø0.9 mm slim	Ø3.0 x 70 (L)	Ø0.9 mm loose-tube
5	Ø0.9 mm semi-ruggedized	Ø5.0 x 80 (L)	Ø0.9 mm loose-tube
6	Ø3.0 mm fully-ruggedized	80 (L) x 10 (W) x 8 (H)	Ø3.0 mm fan-out sleeving

## Configuration



## Order code

Order codes are comprised of a standard device prefix (e.g. FFW) followed by code letters or numbers, which correspond to available options.

**Sample:** FFW-3L32P1110 (Fused Fiber WDM, 1310 nm/Lband wavelengths, regular housing, 2x2 port configuration, P grade, Coming SMF-28, 1 m pigtail length, no connectors).


Order code				①	②	③	④	⑤	⑥	⑦	⑧	⑨
F	F	W	-	4					1	1		
①	Pump wavelength			1310 nm								
	Code			3								
②	Signal wavelength			C band			L band			1625 nm		
	Code			C			L			7		
③	Housing			Miniature	Regular	Semi-ruggedized slim	Semi-ruggedized	Fully-ruggedized				
	Code			2	3	4	5	6				
④	Port configuration <sup>5</sup>			1x2			2x2					
	Code			1			2					
⑤	Grade			Grade P				Grade A				
	Code			P				A				
⑦	Fiber type			Coming SMF-28								
	Code			1								
⑧	Pigtail length <sup>2</sup>			0.5 m				1 m				
	Code			0				1				
⑨	Connector <sup>3</sup>			None	FC/PC	FC/APC	SC/APC	FC/UPC	SC/UPC	LC <sup>1</sup>		
	Code			0	1	3	5	9	A	B		

1 Not available for housing option 6.

2 Minimum pigtail length. Further pigtail lengths available on request. Where connectorized, pigtail length is to connector end face.

3 Connectors may be fitted to housing types 4, 5 and 6. For connectorization of housing type 3 please contact the sales office.

**Ordering Information:**



800 Village Walk #316  
 Guilford, CT 06437  
 Ph: 203-401-8093

Email orders to: [sales@xsoptix.com](mailto:sales@xsoptix.com)  
 Fax orders to: 800-878-7282

## For further information

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