WDM FOR 2 µm OPERATION

Fused Fiber Coupler

DATASHEET

The G&H fused WDM, combines multiple wavelengths of light in SM Fiber whilst maintaining low loss.

G&H proprietary manufacturing technology provides low loss, with low polarization dependence (PDL). The all fiber construction offers excellent reliability and high power handling characteristics.

These high performance parts are available in many wavelength configurations, housing, fiber and connector options and can therefore be readily specified in a wide variety of applications, enabling rapid design cycles and new project builds.

Ordering Information:

XSoptix

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

Email orders to: sales@xsoptix.com
Fax orders to: 800-878-7282

Key Features

- Low loss
- Low PDL (by design)
- High power handling
- Custom wavelength capability
- Custom product

Applications

- Telecoms
- Instrumentation
- IR Imaging
- Biomedical
- Industrial
- Defense
- IR countermeasures

As part of our policy of continuous product improvement, we reserve the right to change specifications at any time.

Typical Optical Specifications[3,5]

Wavelength			Available Housing	Max. Insertion Loss[1]	Min. Isolation[1] (dB)
CH1	CH2	Spacing[4]			
1900-2100 nm	1900-2100 nm	>50 nm	3, 7 and C	0.50	12 (typ. >14)
<1900 nm[2]	1900-2100 nm	-	3, 7 and C	0.40	14 (typ. >20)

1 Insertion loss/isolation specified at center wavelength and room temperature.
2 <1900 nm wavelength range may be below the 2nd order mode cut-off for the fiber used to manufacture this product type. Performance specified for single-mode incident on this path.
3 Custom specifications available on request
4 For wavelength spacing <50 nm, please contact the sales office.
5 Stated value may not be guaranteed for some wavelength combinations.

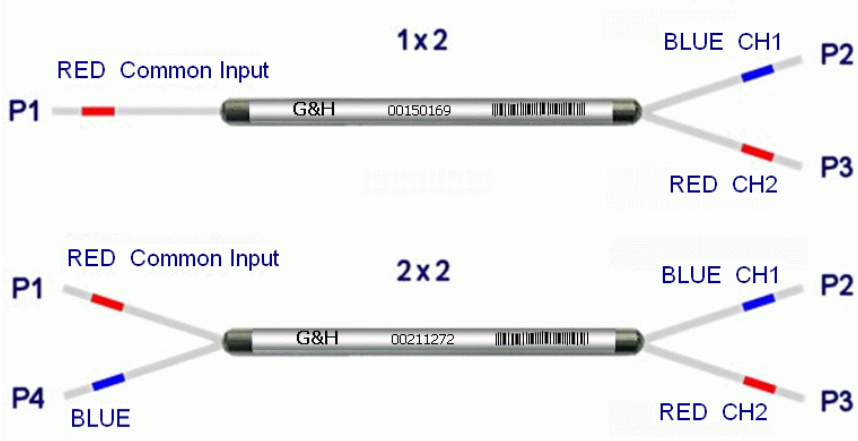
Parameter	Specification
Return loss/directivity[1]	55 dB
Pigtail tensile load	5 N
Optical power handling[2,3]	4 W
Operating/storage temperature range	-5 – +75°C -40 – +85°C
Fiber type[4]	SM fiber

1 Measured reference port P3 input for signal wavelength, P2 input for pump wavelength and P1 input for signal and pump wavelengths.
2 For operation at powers of greater than 4 W the component housing and fiber must be adequately heat-sunk (for additional information contact G&H Sales). Components intended for high power operation are only available in the 2x2 configuration. Component performance and reliability under high power must be determined within the customer system.
3 The performance and reliability of optical connectors is not guaranteed for optical powers of greater than 1 W.
4 Various fiber types available, please contact G&H Sales for additional information.

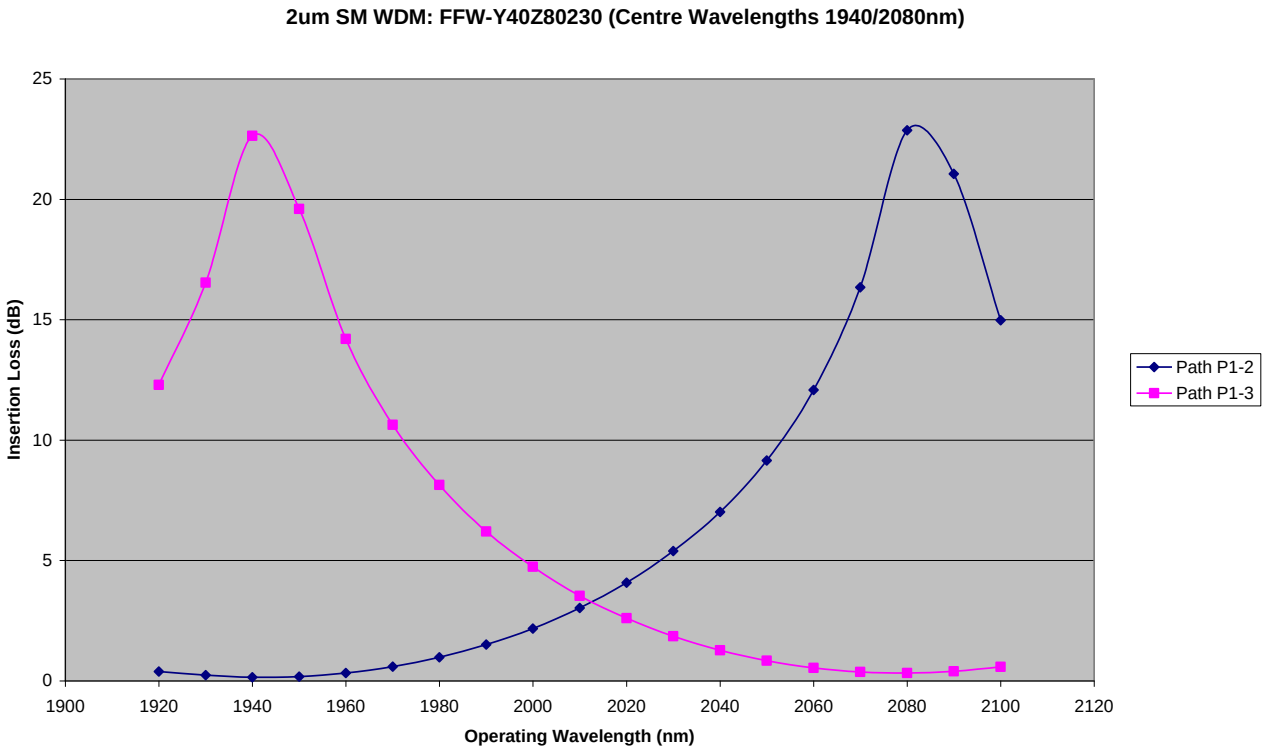
Housing Option

Housing Code	Description	Max Dimensions (mm)	Pigtail
3	Regular	3.0 (∅) x 85 (L max)	Primary-coated fiber
7	High power	5 (W) x 5 (H) x 85 (L max)	Primary-coated fiber
C	Regular high power	3.0 (Ø) x 85 (L max)	Primary-coated fiber

Configuration



Typical Optical Performance



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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-Y40Z80230 (Fused fiber WDM, 1940/2080 nm wavelengths, 2x2 port configuration regular housing, no connectors).

Order code	①	②	③	④	⑤	⑥	⑦	⑧	⑨
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①	**Wavelength channel 1**	7XX	8XX	9XX	10XX	11XX	12xx	13XX	14XX	15XX	16XX	17XX	18XX	19XX	20XX
	Code	7	8	9	0	1	2	3	S	C	L	W	X	Y	Z

② ③	**Last two digits of channel 1 center wavelength**	e.g. XX20	e.g. XX50	e.g. XX70	e.g. XX80
	Code	20	50	70	80

④	**Wavelength channel 2**	19XX	20XX
	Code	Y	Z

⑤ ⑥	**Last two digits of channel 2 center wavelength**	e.g. XX20	e.g. XX50	e.g. XX70	e.g. XX80
	Code	20	50	70	80

⑦	**Port configuration**[3]	1x2	2x2
	Code	1	2

⑧	**Housing**[3]	Regular housing	High Power	Regular high power
	Code	3	7	C

⑨	**Connector**[1,4]	None	FC/APC	FC/PC
	Code	0	P	R

1 Insertion loss in specification table does not include connector losses.
2 Pigtail length 1 m (minimum). Further pigtail lengths available on request. Where connectorized, pigtail length is to the connector face.
3 7 and C not available in 1x2 Port Configuration. For more information contact G&H Sales.
4 To request connectors please contact G&H sales.

Other products which may be of interest

- Fiber-Q™
- High power multimode combiners
- Combiners with all types of signal feedthrough fiber
- Ultra-low ratio tap couplers
- WDMs for combining signals with red pointer lasers
- OCT wideband couplers
- HI REL components

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