



# Gooch & Housego

## Fused Pump Signal WDM 1480nm



The G&H Fused Pump Signal WDM, 1480nm multiplexes signal and pump power in 1480nm-pumped erbium doped fibre amplifiers. G&H proprietary manufacturing technology provides uniquely low excess loss, along with low polarisation and temperature dependence for all ports.

These high performance parts are available in many wavelength configurations, housing, fibre and connector options and can therefore be readily specified in a wide variety of applications, enabling rapid design cycles and new project builds. Wavelength configurations are 1480-C band and 1480-L band.

### Key Features:

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

### Applications:

- C or L-band pump/signal multiplexing
- 1480nm pump rejection
- Fibre lasers

As part of our policy of continuous product improvement we reserve the right to change specifications at any time  
PEC 0103 Issue 3



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<http://www.optoscience.com>

東京本社 〒160-0014 東京都新宿区内藤町1番地 内藤町ビルディング  
TEL:03(3356)1064 FAX:03(3356)3466 E-mail:info@optoscience.com  
大阪支店 〒532-0011 大阪市淀川区西中島7-7-2 新大阪ビル西館  
TEL:06(6305)2064 FAX:06(6305)1030 E-mail:osk@optoscience.com  
名古屋営業所 〒450-0002 名古屋市中村区名駅2-37-21 東海ソフトビル  
TEL:052(569)6064 FAX:052(569)8064 E-mail:ngo@optoscience.com

### Optical Specifications

| Wavelength  | Grade         | Available Housing | Insertion Loss <sub>1</sub> (dB) | WDL <sub>2</sub> (dB) | PDL <sub>3</sub> (dB) | TDL <sub>4</sub> (dB) | Isolation (dB) |    |
|-------------|---------------|-------------------|----------------------------------|-----------------------|-----------------------|-----------------------|----------------|----|
| <b>Pump</b> | <b>Signal</b> |                   | Max                              | Max                   | Max                   | Max                   | Min            |    |
| 1480nm      | C band        | P                 | 3,4,5,6                          | 0.30                  | 0.20                  | 0.10                  | 0.10           | 14 |
|             | L band        |                   |                                  |                       |                       |                       |                |    |
| 1480nm      | C band        | A                 | 3,4,5,6                          | 0.50                  | 0.30                  | 0.15                  | 0.10           | 12 |
|             | L band        |                   |                                  |                       |                       |                       |                |    |

1. Insertion loss over operating wavelength range (not including PDL, TDL or connector losses)
2. Change in insertion loss over the operating wavelength range
3. Change in insertion loss over all input polarisation states in signal wavelength range.
4. Change in insertion loss from -5 to 75°C

| Parameter                             | Specification           | Unit      |
|---------------------------------------|-------------------------|-----------|
| Operating Wavelength Range            | 1480nm band             | 1475-1485 |
|                                       | C band                  | 1545-1555 |
|                                       | L band                  | 1580-1590 |
| Return Loss/Directivity <sub>1</sub>  | 55                      | dB        |
| Pigtail Tensile Load                  | 5                       | N         |
| Optical Power Handling                | 4                       | W         |
| Operating / Storage Temperature Range | -40 to +75 / -40 to +85 | °C        |

1. Measured reference port P3 input for signal wavelength, P2 input for pump wavelength and P1 input for signal and pump wavelengths.
2. For connectorised component, operating temperature range is -5 to +75°C.

### Housing Option

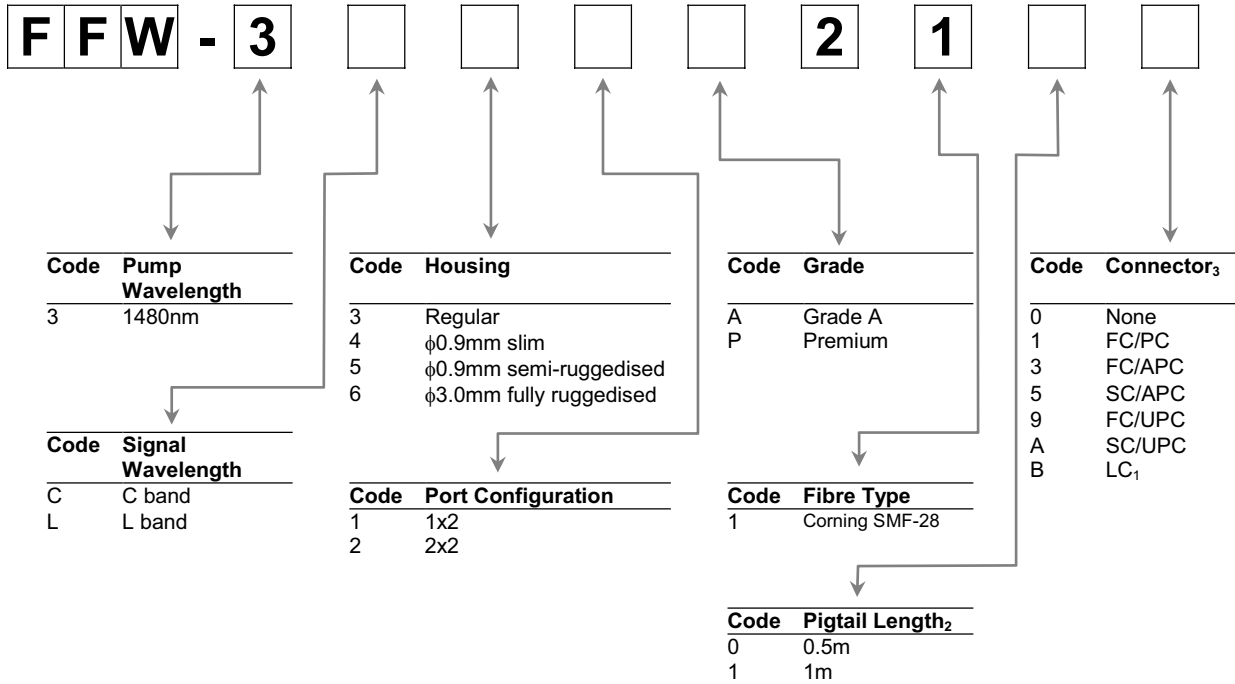
| Housing Code | Description               | Dimensions (mm)         | Pigtail                   |
|--------------|---------------------------|-------------------------|---------------------------|
| 3            | Regular                   | 3.0 (Ø) x 55 (L)        | Primary-coated fibre      |
| 4            | Ø 0.9 mm slim             | 3.0 (Ø) x 70 (L)        | Ø 0.9 mm loose-tube       |
| 5            | Ø 0.9 mm semi-ruggedised  | 5.0 (Ø) x 80 (L)        | Ø 0.9 mm loose-tube       |
| 6            | Ø 3.0 mm fully-ruggedised | 80 (L) x 10 (W) x 8 (H) | Ø 3.0 mm fan-out sleeving |

### Configuration



### Ordering Code Information

**Sample: FFW-3C31P2110** (Fused Fibre WDM, 1480nm pump, C band signal, regular housing, 1x2, Premium grade, Corning SMF-28 fibre, 1m pigtail, no connector)



1. Not available for housing option 6.
2. Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
3. Insertion loss in specification table does not include connector losses.
4. Connectors may be fitted to housing types 4,5 and 6. For connectorisation of housing type 3 please contact the sales office.

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