



# Gooch & Housego



## PM Low Ratio Tap Coupler

The G&H Fused PM LRT, taps off low power from a signal path whilst maintaining polarisation through the component. G&H proprietary PM manufacturing technology provides tap ratios as low as 0.01% with ultra low loss and high polarisation extinction ratio. The all fibre construction and excellent loss characteristics provide exceptional reliability at high powers. PM LRT's also exhibit improved tap ratio stability when input polarisation extinction ratio levels are low or fluctuating.

These high performance parts are available at a range of wavelengths with different fibre options. PM LRTs can therefore be readily specified in a wide variety of applications, enabling rapid design cycles and new project builds.

Standard parts are available at wavelengths from 900 – 1600nm. For other wavelengths or coupling ratios please contact the sales office.

### Key Features:

- Low Loss
- High PER
- High power handling
- PM PANDA Fibre on all ports

### Applications:

- Fibre lasers
- Instrumentation



光技術をサポートする

株式会社オプトサイエンス

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## Optical Specifications

Parameter	Specification <sub>3</sub>					Unit
<b>Coupling Ratio</b>	0.01	0.1	1	5	10	%
<b>Tap Insertion Loss<sub>1</sub></b>	36 -44	27-33	18.2 - 23	11.9 – 14.9	8.86 – 11.85	dB
<b>Signal Insertion Loss<sub>1</sub></b>	0.3 (Typ <0.1)	0.3 (Typ <0.1)	0.37	0.6	0.9	dB
<b>1300 – 1600 Signal PER<sub>2</sub></b>	>20					dB
<b>900 – 1100 Signal PER<sub>2</sub></b>	>20					dB
<b>Return Loss</b>	>55					dB
<b>Operating Wavelength<sub>4</sub></b>	Any Wavelength from 900-1100nm and 1300-1600nm					nm
<b>Optical Power Handling<sub>5, 6</sub></b>	4					W
<b>Fibre Type</b>	PM PANDA Fibre					

1. Insertion Loss at operating wavelength. Not including TDL.
2. Devices manufactured to operate in fast axis as standard. For use in a slow-axis system a 90° PM splice is required.
3. Specifications shown are for operation at room temperature.
4. The centre wavelength may be selected from within the available wavelength range supplied.
5. For operation at powers of greater than 4W the component housing and fibre 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.
6. The performance and reliability of optical connectors is not guaranteed for optical powers of greater than 1W.
7. For connectorised component, operating temperature range is -5 to +75°C.

## Housing Options

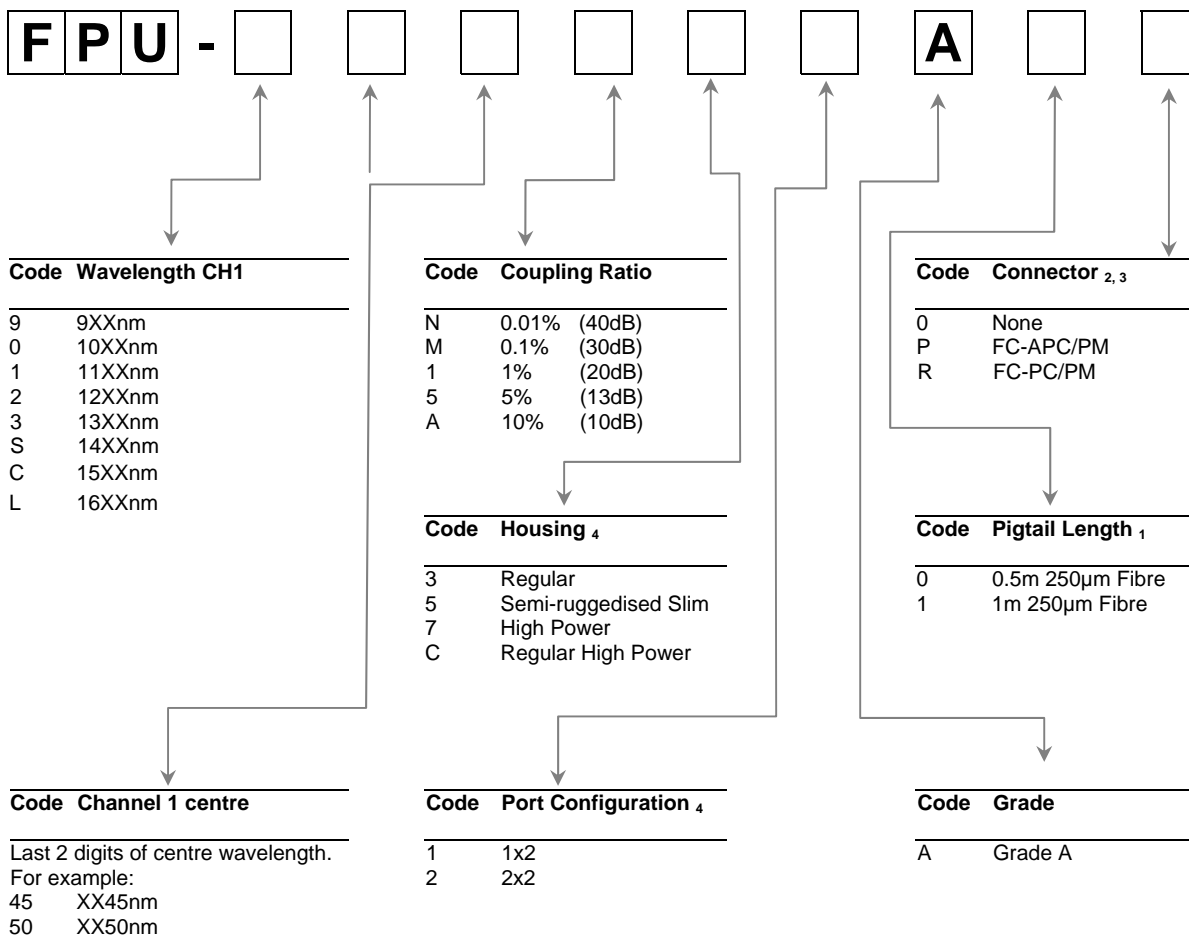
Housing Code	Description	Dimensions (mm)	Pigtail
3	Regular	3.0 (∅) x 60 (L max)	Primary-coated fibre
5	Semi-ruggedised Slim	3.0 (∅) x 75 (L max)	∅ 0.9 mm loose-tube
7	High Power	5 (W) x 5 (H) x 85 (L max)	Primary-coated fibre
C	Regular High Power	3.0 (∅) x 60 (L max)	Primary-coated fibre

## Configuration



## Ordering Code Information

**Sample: FPU-060N31A10** (Fused Fibre LRT, 1060nm, 0.01% tap, Regular housing, 1x2, Grade A, 1m pigtails, No connectors)



1. Minimum pigtail length. Further pigtail lengths available on request. Where connectorised, pigtail length is to connector end face.
2. Insertion loss values in specification table do not include connector loss.
3. Connectors may be fitted to housing type 5. For connectorisation of other housing types please contact the Sales Office.
4. 7 & C not available as 1x2 Port Configuration.

PM Products are manufactured using 250µm PANDA PM fibre. 400µm PANDA PM fibre is available at wavelengths higher than 1400nm.