



Gooch & Housego



Multimode Power Combiner with PM Signal Feedthrough

G&H's TFB series Power Combiners provide a high efficiency means of combining light from several multimode sources into one fibre.

G&H proprietary manufacturing techniques allow the precise fusion of input fibres around a central PM (polarisation maintaining) signal feedthrough fibre and a PM dual clad output fibre providing high coupling efficiency over a wide pump wavelength range.

Available in a standard (6+1)x1 configuration, the combiner can be fabricated from a range of industry standard fibres for ease of splicing to commercially available laser diodes and fibre applications.

Custom variants using non-standard fibres are available on request. Please contact the sales team for further information.

Key Features:

- 1.5 μ m & 1.0 μ m PM Signal fibres available
- All fibre construction
- High power design
- High Coupling Efficiency
- PM Axis maintained
- Custom configurations available

Applications:

- Cladding pumped fibre lasers
- Cladding pumped fibre amplifiers
- Telecoms
- Medical
- Industrial
- Defence

Contact: sales@goochandhousego.com

www.goochandhousego.com

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

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株式会社オプトサイエンス
<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

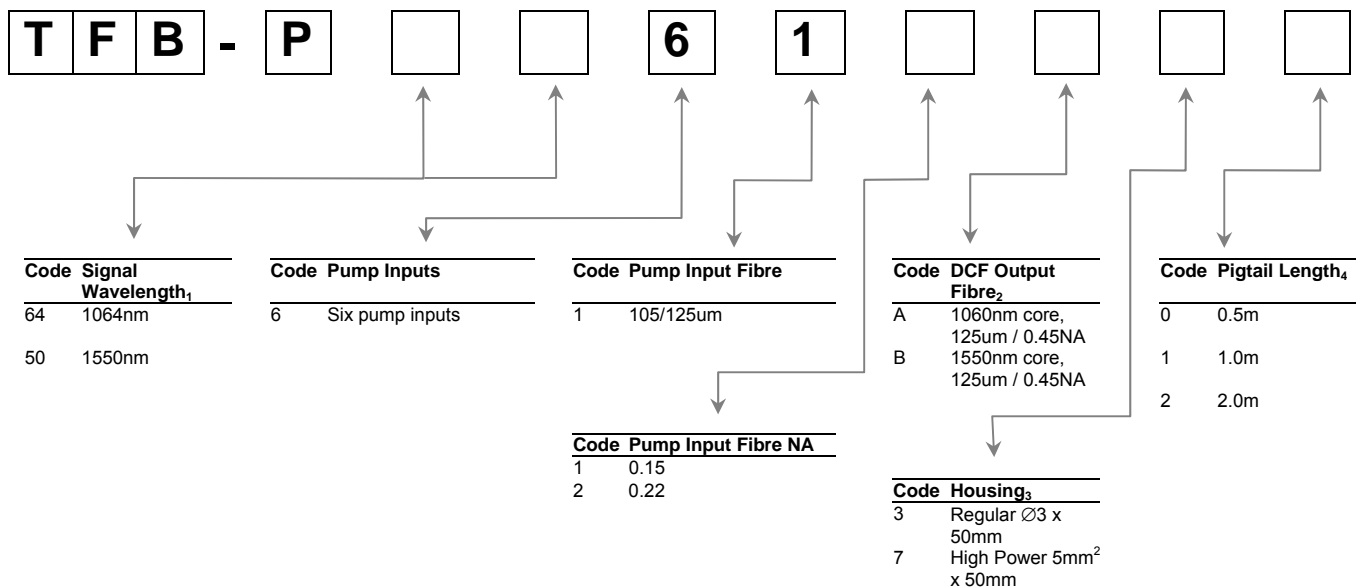
Optical Specifications₁

Parameter	Specification		Unit
Pump Input Fibre NA	0.15	0.22	-
Pump Input Wavelength	900 to 1000		nm
Signal Input Wavelength	1550 or 1064		nm
Pump (MM) Transmission Efficiency ₂	≥ 90 (Typ > 95)	≥ 90	%
Signal Transmission Efficiency ₃	≥ 80 (Typ > 85)		%
Signal PER (Polarisation Extinction Ratio)	>20		dB
Return Loss/Directivity	>40		dB
Operating Temperature	0 to +75		°C
Storage Temperature	-40 to +85		°C

- All specifications are for operation at room temperature.
- MM Transmission efficiencies based on typical system mode fill conditions and 0.5m pigtailed. Reported at 975nm as standard.
- Signal (feedthrough) transmission efficiency reported at centre wavelength; specification typical for centre wavelength ±15nm (minimum).

Ordering Code Information

Example: TFB-P50611B30 (6+1x1 Tapered Fibre Bundle with PM 1550nm Signal feedthrough, six 105/125um 0.15NA pump inputs, 1550nm core DCF Output in regular housing with 0.5m pigtailed).



- Signal wavelengths of 1064nm or 1550nm assume the use of Nufern PM-980-HP and PM-1550-HP (or equivalent) signal feedthrough fibres respectively.
- Typical mode field diameters are based on ~7.5um for 1064nm and ~10.5um for 1550nm. Fibres are passive.
- Maximum housing lengths shown. Adequate heat sinking is required for high power operation. For more information please contact the G&H sales team.
- Minimum pigtail lengths.