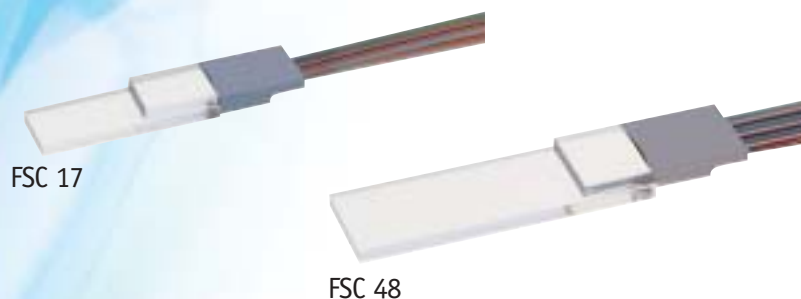


Fiber Spacing Concentrators

Our **Fiber Spacing Concentrator (FSC)** components are designed to transform the standard 250 μm pitch of the single-mode fiber ribbons to the pitch of your laser array, fiber or waveguide array or other optical components such as Mux/DeMux or crossconnect.

Our **FSCs** exhibit very low insertion loss and very low PDL at both 1.3 μm and 1.55 μm wavelengths.

All our **FSCs** are made using Teem's proprietary planar platform technology.



Key Strengths

- Flat top option available (FT design)
- Very low PDL
- Low insertion
- Very high uniformity
- High channel number (up to 100)
- Compatible with polarization maintaining applications

FSC FT (flat top) design performances

	Port number < 30	30 < Port number < 60
Max. Insertion loss ⁽¹⁾ (dB)	≤ 1.0	≤ 1.6
Uniformity ⁽²⁾ (dB)	≤ 0.5	≤ 1
Max. PDL (dB)	≤ 0.2	≤ 0.2
Bandwidth ⁽³⁾ @ -1 (dB)	$\geq 35\%$ of channel spacing	
Max. adj. crosstalk ⁽⁴⁾ (dB)	< -25	< -25
Return loss (dB)	> 55	> 55
Positioning accuracy (μm)	± 0.1	± 0.1

(1) Without connectors

(2) Loss difference between maximum and minimum output ports, irrespective of the wavelength

(3) Applied to mux-demux applications

(4) Measured as adjacent coupling between waveguides, for a spacing between waveguides larger than 25 μm

FSC G (gaussian) design performances

	Port number ≤ 30	30 < Port number < 60
Max. Insertion loss ⁽¹⁾ (dB)	≤ 1.0	≤ 1.6
Uniformity ⁽²⁾ (dB)	≤ 0.5	≤ 1
Max. PDL (dB)	≤ 0.2	≤ 0.2
Bandwidth ⁽³⁾ @ -1 (dB)	≥ 20% of channel spacing	
Max. adj. crosstalk ⁽³⁾ (dB)	< - 25	< - 25
Return loss (dB)	> 55	> 55
Positioning accuracy (μm)	+/- 0.1	+/- 0.1

(1) Without connectors

(2) Loss difference between maximum and minimum output ports, irrespective of the wavelength

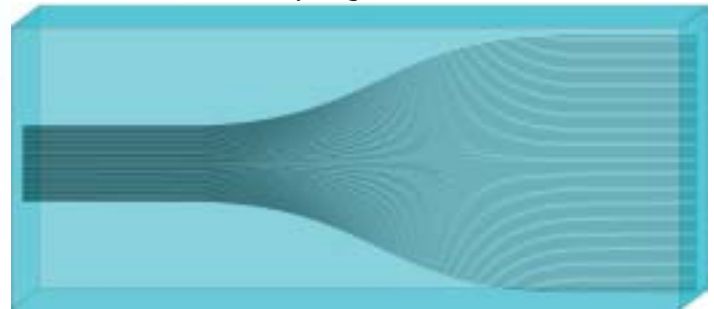
(3) Applied to mux-demux applications

(4) Measured as adjacent coupling between waveguides, for a spacing between waveguides larger than 25 μm

Environmental Testing

Our FSCs are designed to fulfill Telcordia GR-1209 and GR-1221 requirements.

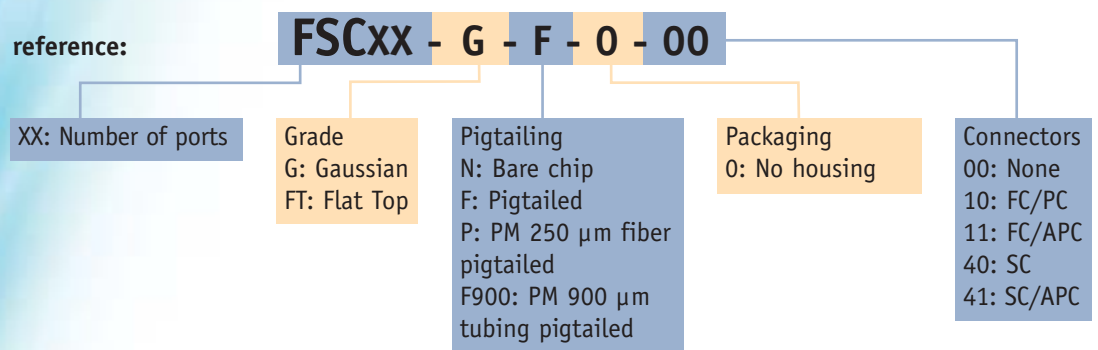
Fiber Spacing Concentrator



Custom Design

FSCs offer the possibility of flattening the channel pass band. They can also be integrated with any of TEEM's other components to fulfill your requirements. FSCs are available as bare chips.

Order Code



Ordering

To place an order or obtain additional information, please contact a sales representative:

North & South America	Europe, Middle-East, Asia
tel: +1 646 824 5507	tel: +33 (0)476 04 03 43
fax: +1 212 856 4408	fax: +33 (0)476 04 07 04

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