Round-to-Linear Fiber Bundles

Circular-to-Linear Fiber Mapping for Spectroscopy and Slit Coupling



Custom round-to-linear fiber bundles designed for precise fiber mapping and efficient light delivery from a circular to a linear arrangement. We develop and manufacture customer-specific solutions, including fiber type, geometry, ferrule design, protection, and end-face coatings.

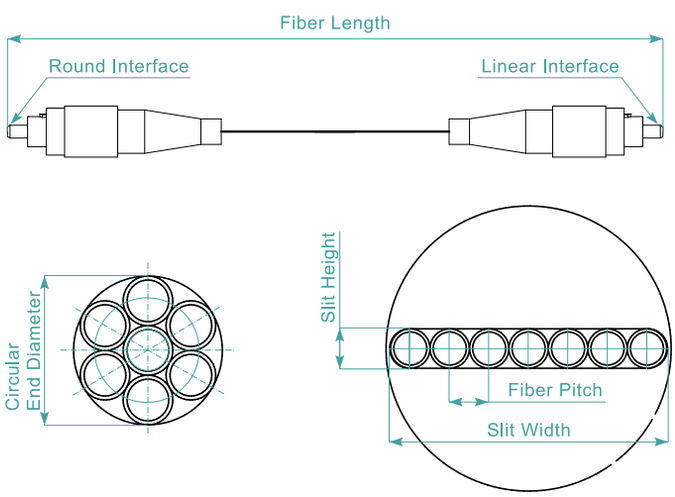
Applications

- Spectroscopy & Spectrograph Coupling
- Slit Coupling & Beam Reshaping
- Beam Homogenization

Parameter	Specification
Fiber Configuration	Round-to-Linear
Fiber Type	Multimode SI: Low OH, High OH, Solarization-Resistant; MM GI
Core Diameter [um]	50 – 1500
Numerical Aperture (NA)	0.12, 0.22, 0.28, 0.37, 0.48
Round Interface	FC/PC, SMA905, ST/PC, custom connector, ferrule or probe
Circular End Diameter [mm]	≤ 1.9 (FC, ST/PC)
	≤ 2.6 (SMA905)
	Larger diameters available with custom connectors or ferrules
Linear Interface	FC/PC, SMA905, ST/PC, custom connector or ferrule, V-groove fiber array, MT ferrule
Slit Width [mm]	≤ 0.9 (FC, ST/PC)
	≤ 1.6 (SMA905)
	Larger slit widths available with custom connectors or ferrules
Fiber Arrangement	Single Row; Single Row with Inter-Group Spacing; Multiple Rows
Fiber Mapping	Guaranteed according to customer specification
Fiber Length	Customer specified
Fiber Termination	Bonding in cladding or, for polyimide-coated fibers, directly in the primary polyimide coating
Custom Ferrule / Connector Material	Stainless Steel, Glass, Ceramic, Aluminum
Mechanical Protection	Stainless Steel Tubing, PVC Jacket
End-Face Treatment	Standard, ARC Coating
Operating Environment	Standard, Vacuum, Extreme Temperature, Radiation

Fiber Core Diameter [um]	Fiber pitch [um]	FC/PC - Max. Slit Dimensions [um]	SMA 905 - Max. Slit Dimensions [um]
100	110	880 x 110 (up to 8 fibers)	1540 x 110 (up to 14 fibers)
50, 100 or 105	125	875 x 125 (up to 7 fibers)	1500 x 125 (up to 12 fibers)
200	220	880 x 220 (up to 4 fibers)	1540 x 220 (up to 7 fibers)
400	440	880 x 440 (up to 2 fibers)	1320 x 440 (up to 3 fibers)

Note: Slit dimensions are specified for a single row of fibers and are calculated for fiber termination in the cladding. Two-row configurations are also available. Contact us for custom designs and other fiber types.



Round-to-Linear Fiber Bundles - Custom Designs







SQS Vláknová optika a.s., Komenského 304, 509 01 Nová Paka, tel.: +420 493 765 111, fax: +420 493 721 017, email: sales@sqs-fiber.cz, www.sqs-fiber.cz
Bank: Raifeisenbank a.s., branch: V Kopečku 72, Hradec Králové, account: 556677885/5500, SWIFT: RZBCCZPP, IBAN: CZ05 5500 0000 0005 5667 7885
VAT No.: CZ60913037, Reg. No.: 60913037, registration: Krajský soud v Hradci Králové, file number: B 2285, EKO-KOM client number: EK-F00022487

REV. 0