

Product Catalogue

Fiber Optic Assemblies & Adapters

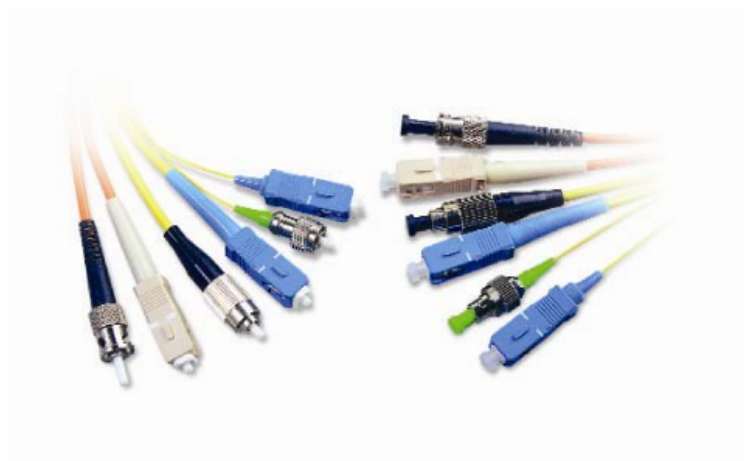
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1. General Description

Raycore provides first class fiber optic assemblies for all kind of fiber optic applications. By selecting a manufacturing partner that produce also the ceramic ferrule, the overall product quality can be fully secured, from component level all the way through the production level.

By selecting Raycore you are sure to receive highest quality assemblies with low insertion loss and precise deliveries to a competitive budget.



2. Connectors

2.1 SC/UPC



- SM & MM
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 55dB
- Housing colour: SM - blue and MM – beige
- Boot Colour: SM – Blue and MM – Beige (other colours on request)
- Materials: Ferrule – Zirconia ZrO₂ (ceramic), Housing – Plastic
- Fully compliant with IEC standard 60874-14-2
- Duplex clip available

2.2 SC/APC



- SM
- Angled polished ferrule, 8° or 9°
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 65dB
- Housing colour: Green
- Boot Colour: Green (other colours on request)
- Materials: Ferrule – Zirconia ZrO₂ (ceramic), Housing – Plastic
- Fully compliant with IEC standard 60874-14-2
- Duplex clip available

2.3 FC/UPC



- SM & MM
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 55dB
- Boot Colour: SM – Blue and MM – Beige (other colours on request)
- Materials: Ferrule – Zirconia ZrO₂ (ceramic), Housing – Metallic
- Fully compliant with IEC standard 60874-14-2

2.4 FC/APC



- SM
- Angled polished ferrule, 8°
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 65dB
- Boot Colour: Green (other colours on request)
- Materials: Ferrule – Zirconia ZrO₂(ceramic), Housing – Metallic
- Fully compliant with IEC standard 60874-14-2

2.5 ST/UPC



- SM & MM
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 55dB
- Boot Colour: SM –Blue and MM–Beige (other colours on request)
- Materials: Ferrule – Zirconia ZrO₂(ceramic), Housing – Metallic
- Fully compliant with IEC standard 60874-14-2

2.6 LC/UPC



- Small form factor, SMF, connector
- SM & MM
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 55dB
- Housing colour: SM - blue and MM – beige
- Boot Colour: SM – White and MM – White (other colours on request)
- Materials: Ferrule – Zirconia ZrO2 (ceramic), Housing – Plastic
- Fully compliant with IEC standard 60874-14-2
- Duplex clip available

2.7 LC/APC



- Small form factor, SMF, connector
- SM
- Angled polished ferrule, 8°
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 65dB
- Housing colour: Green
- Boot Colour: White (other colours on request)
- Materials: Ferrule – Zirconia ZrO2 (ceramic), Housing – Plastic
- Fully compliant with IEC standard 60874-14-2
- Duplex clip available

2.8 E2000/UPC



- SM
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 55dB
- Housing colour: Blue
- Boot Colour: Blue or Black
- Materials: Ferrule – Zirconia ZrO2 (ceramic), Housing – Plastic

2.9 E2000/APC



- SM
- Angled polished ferrule, 8°
- IL (Insertion Loss) <0,15dB typical, <0,3dB max
- RL (Return Loss) > 70dB
- Housing colour: Green
- Boot Colour: Green
- Materials: Ferrule – Zirconia ZrO2 (ceramic), Housing – Plastic

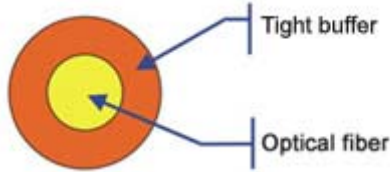
2.10 Other Connectors



- MT-RJ, MU and DIN available on request

3. Fiber Optic Access & Interconnect Cables for Assemblies

3.1 900µm cable, semi-tight buffer or loose tube



Characteristics:

- Soft & easy to strip
- Small bending radius & excellent mechanical and environmental performance.

Applications:

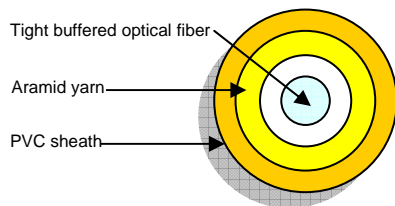
- Pigtails and Patch cords of communication equipment
- Component for various indoor optical fiber cables
- Interconnect - direct to standard connectors

Colour:

- SM: Yellow
- MM: Orange
- Colour coded - 12 colours, on request

Fiber Count	Outer Diam. (mm)	Nominal Weight (kg/km)	Min. Bending Radius (mm)		Max. Tension (N)	
			Installation	Static	Short-term	Long-term
1	0.9	0.9	5.0	3.0	6.0	3.0

3.2 1,6 – 3,0 mm Indoor Cable, Simplex



Characteristics:

- High strength aramide yarn strength member ensures tension-resistance and long term stability in transmission.
- Small outer diameter, light weight, flame-retardant, easy to strip, low attenuation and physically soft.

Applications:

- Building-to building interconnect, indoor distribution, cross-connect.

Colours:

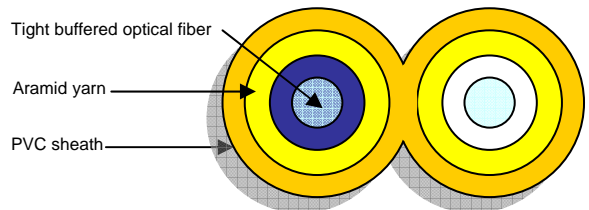
- SM: Yellow
- MM: Orange
- Other colours on request

Fiber Count	1				
Outer Diam. D (mm)	1.6	1.8	2.0	2.4	3.0
Nominal Weight (kg/km)	2.9	3.2	3.5	5.0	6.8
Max. Tension	Short-term				
	150				
Min. Bending radius (mm)	Long-term				
	80				
Min. Bending radius (mm)	Installation				
	20D				
Min. Bending radius (mm)	Static				
	10D				
Max. crush Resistance (N/100mm ²)	500				

Standard Outer Diameter

Available Outer Diameter on request

3.3 Duplex Indoor Zip-Cord Cable



Characteristics:

High strength aramid yarn strength member ensures tension-resistance and long term stable transmission for optical fibers.

Small outer diameter, light weight, flame-retardant, easy to strip, low attenuation and physically soft.

Applications:

Building-to building interconnect, indoor distribution, cross-connect.

Colours:

- SM: Yellow
- MM: Orange
- Other colours on request

Temperature Range:

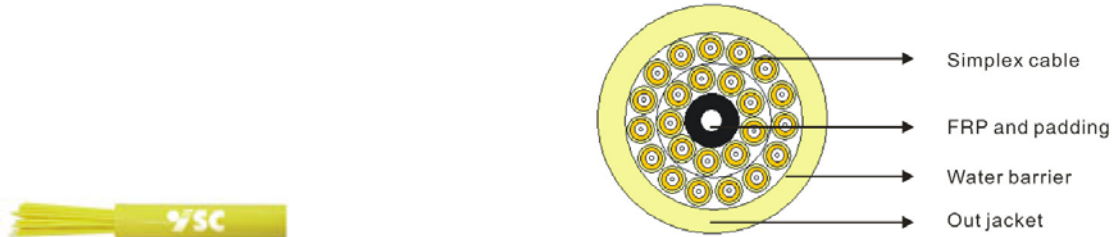
-20°C to +70°C

Fiber Count	2			
Outer Diam. D x H (m m)	1.6 x 3.3	1.8 x 4.1	2.0 x 4.1	2.8 x 5.7
Nominal Weight (kg/km)	5.7	6.7	8.2	13.2
Max. Tension	Short-term	300		
	Long-term	160		
Min. Bending radius (mm)	Installation	20H		
	Static	10H		
Max. crush Resistance (N/100mm ²)	1000			

Standard Outer Diameter

Available Outer Diameter on request

3.4 Break-out Cable



Description:

Composed of not more than 24 simplex cables, each simplex with its independent strength member and outer jacket. It is an SZ intertwisted cable without binding tape.

Characteristics:

- Each simplex cable contains Kevlar as strength aramid yarn, high strength, good bending performance, no gel, easy to be connected and operated.
- Each simplex cable with buffer design, independent strength member and sheath to prevent damage from environmental and mechanical stress.
- Outer jacket's colour varies according to the types of optical fibers (indoor use), black color is recommended for outdoor use, options for other colours available upon request.
- Number of optical fibers cores 2-24, other numbers available upon request.
- Options available for PVC, LSZH or PE outer jacket, which is ultra-violet radiation resistant, water-proof, mildew-proof, environmental stress durable and with no acidic gas released to corrode switch room equipment.

Other Cable Parameters:

OD of the Simplex Cable (mm)	2.0
Marking of Simplex Cable	According to request
Cable Diameter (mm)	16.0
Material of Outer Jacket	PVC, LSZH or PE
Temperature Range (°C)	-20°C to +60°C
Nominal Weight (g/m)	210
Max. Tension (N)	Short-term Long-term
	1300 400

4. Ordering Information

4.1 Ordering Information, Cable Assemblies (except Break-out)

OFCA – a – b – c / d – e / f – g – h

OFCA: Optical Fiber Cable Assembly

a. Fiber Type: **SM** (9/125µm), **MM5** (50/125µm), **MM6** – MM (62,5/125µm)

b. Configuration: **1** – Simplex, **2** – Duplex

c. Connector Type, side A: **1** – SC, **2** – FC, **3** – ST, **4** – LC, **5** – E2000

d. Polishing Grade, side A: **1** – UPC, **2** – APC

e. Connector Type, side B: **1** – SC, **2** – FC, **3** – ST, **4** – LC, **5** – E2000

f. Polishing Grade, side B: **1** – UPC, **2** – APC

g. Cable Diameter: **1** – 0.9mm, **2** – 1.6mm, **3** – 1.8mm, **4** – 2.0mm, **5** – 2.4mm, **6** – 3.0mm

h. Cable Length in Meter (m)

Example:

Fiber Optic Patchcord, SM, Simplex, FC/UPC – FC/UPC, 2.0mm, 2 meters:

OFCA-SM-1-2/1-2/1-4-2

4.2 Ordering Information, Break-out assemblies

OFBA – a – b – c / d – e / f – g

a. Fiber Type: **SM** (9/125µm), **MM5** (50/125µm), **MM6** – MM (62,5/125µm)

b. Number of Fiber Cores: **1** to **24**

c. Connector Type, side A: **1** – SC, **2** – FC, **3** – ST, **4** – LC, **5** – E2000

d. Polishing Grade, side A: **1** – UPC, **2** – APC

e. Connector Type, side B: **0** – Not connectorized, **1** – SC, **2** – FC, **3** – ST, **4** – LC, **5** – E2000

f. Polishing Grade, side B: **0** – Not connectorized, **1** – UPC, **2** – APC

g. Cable Length in Meter (m)

5. Fiber Optic Adaptors

5.1 General Description

All fiber optic adaptors from Raycore are of first class quality and RoHS compliant.

We provide any kind of adaptor for fiber optic applications.

Raycore co-operates with a few, carefully selected manufacturers.



5.2 Adaptor Types

Adaptor Type	Config.	Type	Sleeve Material	Colour	Material	MOQ
SC/UPC	Simplex	SM	Zirconia	Blue	Plastic	10
		MM	Phosphor Bronze	Beige	Plastic	10
SC/APC		SM	Zirconia	Green	Plastic	10
SC/UPC	Duplex	SM	Zirconia	Blue	Plastic	10
		MM	Phosphor Bronze	Beige	Plastic	10
SC/APC		SM	Zirconia	Green	Plastic	10
FC/UPC	Simplex	SM	Zirconia	N/A	Metal	10
		MM	Phosphor Bronze	N/A	Metal	10
FC/APC		SM	Zirconia	N/A	Metal	10
ST/UPC	Simplex	SM	Zirconia	N/A	Metal	10
		MM	Phosphor Bronze	N/A	Metal	10
LC/UPC	Simplex	SM	Zirconia	Blue	Plastic	10
		MM	Phosphor Bronze	Beige	Plastic	10
LC/APC		SM	Zirconia	Green	Plastic	10
LC/UPC	Duplex	SM	Zirconia	Blue	Plastic	10
		MM	Phosphor Bronze	Beige	Plastic	10
LC/APC		SM	Zirconia	Green	Plastic	10
E2000/UPC	Simplex	SM	Zirconia	Blue	Plastic	10
E2000/APC		SM	Zirconia	Green	Plastic	10

Other adaptor types and hybrid adaptors available on request.

5.3 Ordering Information

OFAD – a – b – c – d

OFAD:	Optical Fiber Adapter
a. Connector Type:	1 – SC, 2 – FC, 3 – ST, 4 – LC, 5 – E2000
b. Configuration Type:	1 – Simplex, 2 – Duplex
c. Sleeve:	1 – Zirconia, 2 – Bronze
d. Colour:	1 – Blue (UPC), 2 – Green (APC)