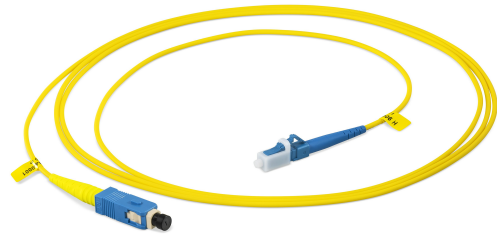


PRODUCTPROFILE

Catalogue number: 087A2414

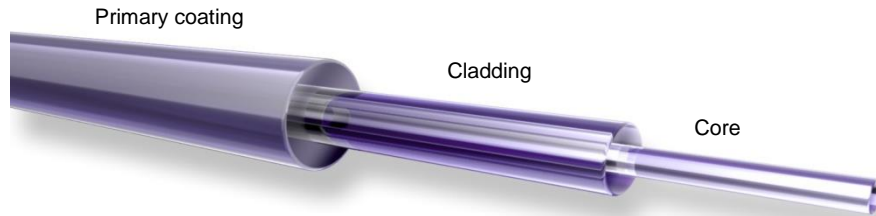
Partnumber: 717549

Fiber optic simplex patchcord
Connector side A: LC-Simplex
Connector side B: SC-Simplex
9/125µm, 2.0mm, yellow
Cable I-V(ZN)H1x2,0E9/125µm,G657A1



Related documents:

DS_FASER G657A1_OE	Fiber Data Sheet
DS_LC_SIMPLEXDUPLEX_STECKER_OI	Steckerdatenblatt
DS_RFC-B001-576_REV100	Kabeldatenblatt
DS_SC_STECKER_OE	Steckerdatenblatt



Standards

Stepped index fiber 9/125µm according to
 -ISO/IEC 11801 und EN 50173-1 OS2
 -IEC 60793-2-50 type B1.3
 -ITU G.657.A1 und G.652.D

Structure

Silica fiber with two layer acrylate primary coating

Geometrical properties

Modefield diameter @1310 nm	9.2 µm +/- 0.4 µm
Modefield diameter @1550 nm	10.4 µm +/- 0.5 µm
Cladding diameter	125 µm +/- 0.07 µm
Cladding non-circularity	≤ 0.7 %
Core-Cladding concentricity	≤ 0.5 µm
Primary coating diameter	242 µm +/- 5 µm
Coating-Cladding concentricity	< 12 µm

Mechanical properties

Break strength SCREEN-Test 1 % strain for 1 s @100 kpsi

Thermal properties

Operating temperature range -60 to +85°C

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Transmission characteristics

Attenuation:

Cabled fiber tight buffered: @ 1310 nm max. 0.38 dB/km
@ 1550 nm max. 0.28 dB/km

Cabled fiber loose tube: @ 1310 nm max. 0.36 dB/km
@ 1550 nm max. 0.22 dB/km

Uncabled fiber: @ 1310 nm max. 0.32 dB/km
@ 1383 nm max. 0.32 dB/km
@ 1490 nm max. 0.21 dB/km
@ 1550 nm max. 0.18 dB/km
@ 1625 nm max. 0.20 dB/km

Macrobending, induced attenuation, uncabled fiber:

Radius 10 mm, 1 turn, @ 1550 nm ≤ 0.50 dB
Radius 10 mm, 1 turn, @ 1625 nm ≤ 1.50 dB
Radius 15 mm, 10 turns, @ 1550 nm . 0.05 dB
Radius 15 mm, 10 turns, @ 1625 nm ≤ 0.30 dB
Radius 25 mm, 100 turns, @ 1310, 1550 und 1625 nm ≤ 0.01 dB

Dispersion:

@ 1285 - 1330 nm ≤ 3.0 ps/(nm*km)
@ 1550 nm ≤ 18.0 ps/(nm*km)
@ 1625 nm ≤ 22.0 ps/(nm*km)

Polarization Mode Dispersion (PMD):

PMD Link Design Value ≤ 0.04 ps/√km
Maximum individual fiber PMD ≤ 0.1 ps/√km

Cut-off-Wavelength: ≤ 1260 nm

Effective group index of refraction:

@ 1310 nm 1.4676
@ 1550 nm 1.4682

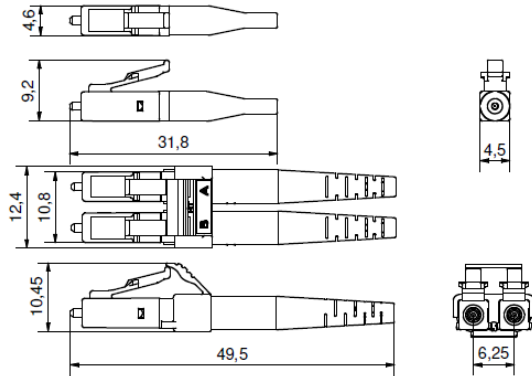
Backscatter attenuation @ 1ns pulse width:

@ 1310 nm -77 dB
@ 1550 nm -82 dB
@ 1625 nm -83 dB

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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
H. Jungbäck	12-04-15	P. Maier	12-04-15	001	without	H. Jungbäck	12-04-15

LC-Simplex/Duplex connector



Properties and applications

- LC-Simplex/Duplex connectors for fiber optic cabling in broadband networks (telecom, MAN, WAN, CATV, GPON, FTTA, FTTx), building cabling (LAN, campus), data center, industry, laboratory and medical technology
- for cables with single core elements 600/900µm (e.g. buffered fiber for pigtails, breakout, mini breakout, figure "0" and figure "8" cables)
- A/B polarity of duplex connectors easily changeable without tools
- Translucence protection cap, fast and secure to handle and permeable for the light of laser pointers (visual fault locators)

Standards

LC-Simplex/Duplex connector according to IEC/DINEN 61754-20 and EIA/TIA 604-10

Material

- Ferrule: Zirconia ceramic, Ø 1.25 mm
- Body: PEI, flammability UL94-V0
- Boot: TPE, flammability UL94-V0
- Protection cap: POM, flammability UL94-HB

Optical properties

The quality feature of the connector at your product is identified by the part number:

- BASIC: Part numbers like XXXAXXXX
- PURE: Part numbers with "P" at their end, XXXAXXXXP

Details about PURE see Produktinfo_Qualitätsmerkmal-PURE_od

Insertion Loss IL acc. to IEC61300-3-4, Method B, against reference, maximum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm		0,30	0,20
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm		0,15	0,15

Insertion Loss IL „random mated“ acc. to IEC61300-3-34, Method 2, [dB]:

Qualitätsmerkmal BASIC	Mittelwert	Maximum
- Singlemode SM, 9/125µm	0,13	0,50
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm	0,03	0,27

Insertion Loss IL quality feature PURE "random mated" application limit value, maximum [dB]:

- Singlemode SM, 9/125µm	97%	0,25
- Multimode low IL OM2, OM3, OM4, OM5, 50/125µm	100%	0,40

GHMT PVP certificate
No.: c5711X-XX
No.: c5937X-XX



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LC-Simplex/Duplex connector

Optical properties

Return Loss RL acc. to IEC61300-3-6, Method 1, against reference, minimum [dB]:

	Quality feature	BASIC	PURE
- Singlemode SM, 9/125µm, PC 0°		45	45
- Singlemode SM, 9/125µm, UPC 0°		55	55
- Singlemode SM, 9/125µm, APC 8°		65	70
- Multimode all 50µ OM classes		35	40

Mechanical properties

- Mating cycles min. 1000, IL increase < 0.2 dB
- Strain relief max. 100 N, dependent on cable type

Thermal properties

- Operation temperature range -40°C to +85°C, dependent on cable type
- Storage temperature range -40°C to +85°C

Cable diameters

- Round cable types Ø 0,9 bis 3.0 mm
- Hotmelt Duplex Ø 4,8 ~ 7.0mm

Colors

Connector body / boot:

- Singlemode SM, 9/125µm, PC and UPC 0° blue / blue
- Singlemode SM, 9/125µm, APC 8° green / green
- Multimode OM2, OM3, OM4, OM5, 50/125µm black / black

Polarity change

Step 1: Remove duplex clip

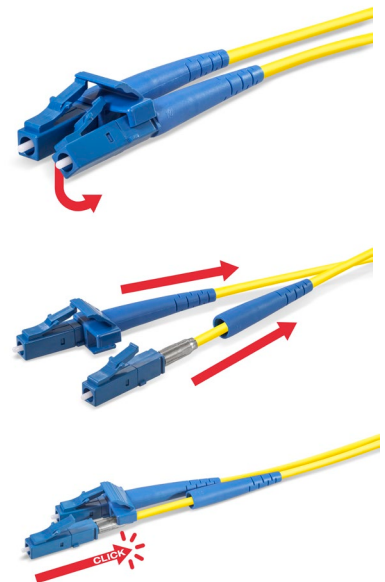
- When changing polarity, the release levers should be facing up as shown in the picture.
- Remove one of two simplex connectors from the duplex clip by pressing down and out, supported by a slight tilt movement.
- Then release the second simplex connector from the duplex clip in a similar manner.

Step 2: Reattach duplex clip

- Push back the boot of both simplex connectors
- Reattach the duplex clip over the simplex connectors that have been changed in position and insert the simplex connectors (a click is noticeable).

Step 3: Final assembly duplex connector

- Slide the boot of both simplex connectors to their original position.



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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
S. Wiener	16.03.2021	H. Jungbäck	2021-03-16	003		H. Jungbäck	2022-10-07

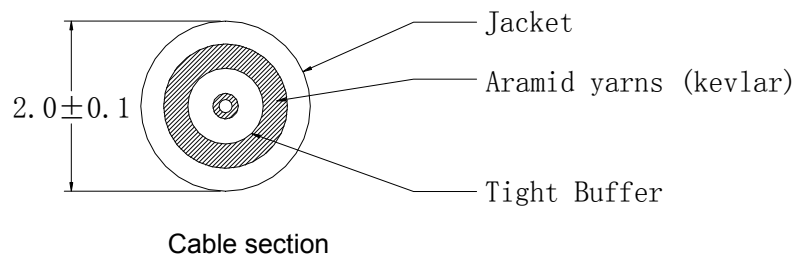
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Technical Data Sheet

Rosenberger

FOC,G657A1,Simplex,2.0mm,Yellow,LSZH

RFC-B001-576



Note: All dimensions are in mm;

Description

Rosenberger 2.0mm cable have good optical、mechanical and environment performance. This full-spectrum fiber has bend performance that exceeds the ITU-TG657.A1 standard and coming SMF-28 Ultra optical fiber is an ITU-TG.G652.D compliant optical fiber with Corning's enhanced low loss and bend fiber technologies.Flame resistant performance follow the IEC standards.

Available Variants

Type	Fiber Type	Weight (KG/KM)
RFC-B001-576	Corning SMF-28 Ultra	4

Length (m)	Tolerance(m)
L	± 0.1%L

Parts

Fiber	9/125 μm single mode optical fiber according to G.657A1
Buffer	0.9mm Tight buffer ,LSZH ,Nature
Strength Member	Aramid yarns
Jacket	Min. thickness 0.3mm yellow LSZH jacket

Optical Data

Cable	
Fiber	9/125um optical fiber according to TIU-T G.657A
Fiber count	1 fiber
Cable Attenuation	≤0.4dB/km @ 1310nm ≤0.3dB/km @ 1550nm

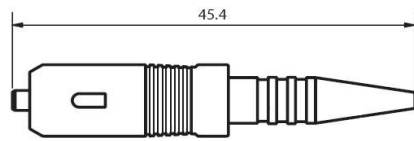
Cable Construction

Cable	
Out jacket diameter,	2.0±0.1mm
Out jacket color	Yellow
Strength member	Aramid yarns
Tight buffer	0.9±0.05mm

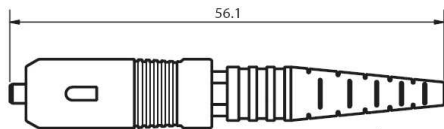
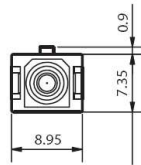
Mechanical Data

Cable	
Minimum bending radius	Dynamic: 30mm

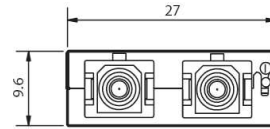
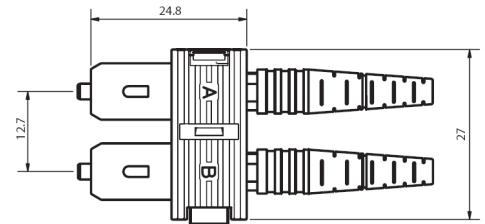
Technical Data Sheet					Rosenberger					
FOC,G657A1,Simplex,2.0mm,Yellow,LSZH					RFC-B001-576					
Tensile Strength (according to IEC 60794-1-2 E1) Crush (According to IEC 60794-1-2 E3)					Static:15mm Long term tensile force: 60N, Short term tensile force:100N, Long term Crush force: 100N/100mm, Short term Crush force: 300N/100mm					
Environmental Data										
Temperature range operation					-20 °C to +80 °C					
Temperature range storage					-20 °C to +80 °C					
Temperature range installation					-0 °C to +55 °C					
2002/95/EC (RoHS)					Compliant					
Packing										
Standard					1km on wooden drum					
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Draft	Date	Check	Approve	Date	Rev.	ECN	Name	Date		
Sean	2016-06-16	Joy	Lihai	2016-06-16	B00	16-109	Sean	2016-06-16		
Rosenberger Hochfrequenztechnik GmbH & Co. KG P.O. Box 1260 D-84526 Tittmoning Germany Tel. , +49 8684 18-0 Fax. , +49 8684 18-499 Email , info@rosenberger.de Web , www.rosenbergerap.com					Rosenberger (Shanghai) Technology Co., Ltd. B2, No.303, Xin Ke Road, Shanghai, China 201707 Tel, +86 - 21 - 6921 3699 Fax, +86 - 21- 6921 2923 Email , info@rosenbergerap.com Web , www.rosenbergerap.com					Page 2 / 2



SC-simplex, buffered fiber



SC-simplex, cable



SC-duplex

All dimensions are in mm; tolerances acc. ISO 2768 m-H

Properties

Standard SC connectors for applications in telecommunications, data center, cabling and LAN, connections to active components.

Interface

SC, acc. to IEC 61754-4

Material for connectors

Ferrule : Zirconia ceramic, Ø 2.5 mm
 Body : Plastics
 Boot : Plastics

Optical data

Insertion Loss :	S/M	Typical	max.
	M/M	0.20 dB	0.40 dB
Return Loss :	S/M	0.20 dB	0.40 dB
	M/M	≥45 dB(PC), ≥55 dB(UPC), ≥65 dB(APC)	
		≥30 dB	

Mechanical data

Mating cycle ≥ 1000
 Strain relief 100 N(dependent on the cable type)

Environmental data

Operation temperature range -40°C to +85°C
 Storage temperature range -40°C to +85°C

Suitable cables

Cable Types : Ø 0.9 ~ 3.5 mm

Packaging

Standard Packaging.

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Connector Part	Part No
Connector Body	
Singlemode, PC, blue	98 SCS 120-101
Singlemode, APC, green	98 SCS 110-101
Multimode, 50 µm, black	98 SCS 130-101
Multimode, 62.5 µm, beige	98 SCS 130-102
Duplex clip, black	98 ZD 02-0BK
Crimp sleeve	
for Ø 2.1	98 ZC 05-000
for Ø 2.8-3.5	98 ZC 04-000
Boot, Ø 0.9 mm buffered fiber	
blue	98 ZB 06-0BU
green	98 ZB 06-0GN
black	98 ZB 06-0BK
yellow	98 ZB 06-0YE
red	98 ZB 06-0RD
Boot, Ø 2.1 mm cable	
blue	98 ZB 05-0BU
green	98 ZB 05-0GN
black	98 ZB 05-0BK
yellow	98 ZB 05-0YE
red	98 ZB 05-0RD
Boot, Ø 2.8-3.5 mm cable	
blue	98 ZB 04-0BU
green	98 ZB 04-0GN
black	98 ZB 04-0BK
yellow	98 ZB 04-0YE
red	98 ZB 04-0RD



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Y.Zhang	29.03.2017	H.Jungbäck	29.03.2017	002	---	Y.Zhang	29.03.2017