

## PRODUCTPROFILE

### Catalogue number: 087A6956G657A1

Partnumber: 20102325

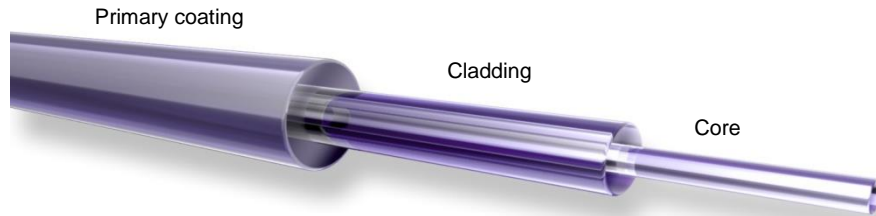
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Fiber optic duplex patchcord  
Connector side A: LC-Compact SM  
Connector side B: LC-Compact SM  
9/125µm, 4.0mm, yellow  
Polarity: crossed A to B  
Cable I-V(ZN)H(ZN)H2E9/125µmG657A1



#### **Related documents:**

DS_FASER G657A1_OE	Fiber Data Sheet
DS_I-VZNHZNH2_4_2X600_L_OE	Kabeldatenblatt
DS_LC_COMPACT_STECKER_SHORT_C	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:**

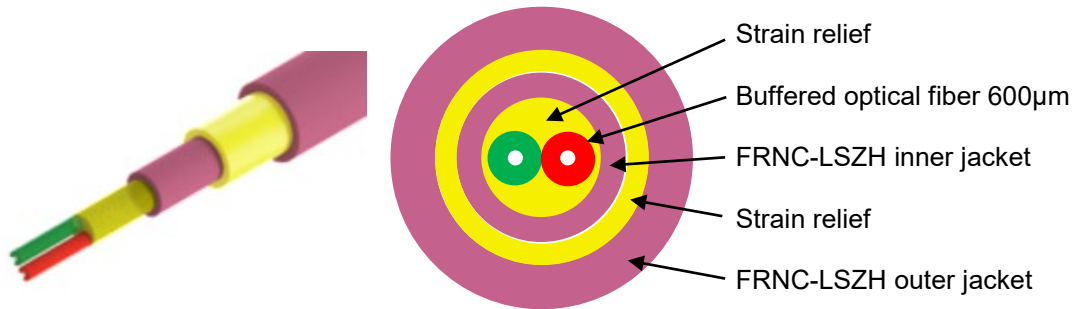
@ 1310 nm 1.4676  
@ 1550 nm 1.4682

**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



**Standards**

IEC 60794-2

**Structure**

**Cable:**

- Double jacket cable
- 2 buffered optical fibers 600µm within the inner cable jacket filled with Aramid strain relief elements
- Aramid strain relief elements between inner and outer cable jacket
- Buffered fiber color code: One buffered fiber red, the other buffered fiber at singlemode yellow, at 50µm multimode green

**Inner and outer jacket:**

- FRNC-LSZH flame-retardant and halogen-free material
- Standard jacket colors:
  - Singlemode: yellow
  - Multimode OM2: orange or green
  - Multimode OM3: aqua (turquoise)
  - Multimode OM4: violet
  - Multimode OM5: fibrous green
- Wall thickness see geometrical properties
- Inkjet marking black acc. to separate drawing

**Geometrical properties**

Number of fibers	Diameter [mm]		Jacket wall thickness [mm]		Weight [kg/km]	Fire load [MJ/m]
	Inner	Outer	Inner	Outer		
2	2.0	4.0	0.3	0.7	20	0.40

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Fiber Optic Cable  
I-V(ZN)H(ZN)H 2.0/4.0mm 2x600

032AXXXX

**Mechanical properties**

- Min. bending radius fixed (static) = 60 mm
- Min. bending radius during installation (dynamic) = 80 mm
- Max. tensile force short term = 600 N
- Max. crush resistance long term = 300 N/dm
- Kink resistance: Equivalent loop diameter = t.b.t.

**Thermal properties**

- Transport and storage - 25°C to + 70°C
- Installation - 5°C to + 50°C
- In use - 10°C to + 70°C

**Chemical properties**

No resistance to oil, petrol, acid, leach and water

**Fire performance**

- Flame-retardant acc. to IEC 60332-1-2
- Smoke density acc. to IEC 61034
- Halogen-free acc. to IEC 60754-1
- Acidity of the combustion gases acc. to IEC 60754-2

**Transmission characteristics**

See fiber data sheets

**Applications**

Indoor cable particularly appropriate for long LC-Compact, MU-Compact, MDC and SN patchcords

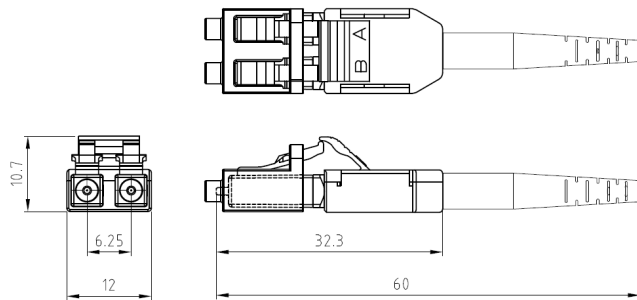
**Deliveryform**

On one-way drums

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H. Jungbäck	2022-11-24	R. Mees	2022-11-24	001	without	---	---

LC-COMPACT Shortboot connector



**Properties and applications**

- LC-Duplex connector with compact and rugged backshell with short central strain relief and boot for round cable (Uniboot)
- A/B polarity can be easily tool-less changed
- The short boot enables the use of the connector in applications with low depth, like ODF Optical Distribution Frames
- Translucence duplex protection cap, fast and secure to handle and permeable for the light of laser pointers (visual fault locators)

**Standards**

LC-Duplex acc. 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 OM1, 62.5/125µm		0.30	---
- 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]:

Quality feature	BASIC	mean value	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.: c6997X-XX**  
**No.: c6998X-XX**



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LC-COMPACT Shortboot 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 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 2.0 to 3.0 mm

**Colors**

Connector body / boot:

- Singlemode SM, 9/125µm, PC and UPC 0° blue / blue
- Singlemode SM, 9/125µm, APC 8° green / green
- Multimode OM1, 62.5/125µm beige / white
- Multimode OM2, OM3, OM4, OM5, 50/125µm black / black

**Polarity change**

1) Remove the connector top cover by inserting a fingernail or a small lever into the crack that separates the two halves.

2) Carefully swap position of the connectors by lifting them up and out of the bottom housing.

3) Reposition the top cover and snap into place.



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H. Jungbäck	2018-12-13	A. Burggraf	2018-12-13	009	----	H. Jungbäck	2022-10-07