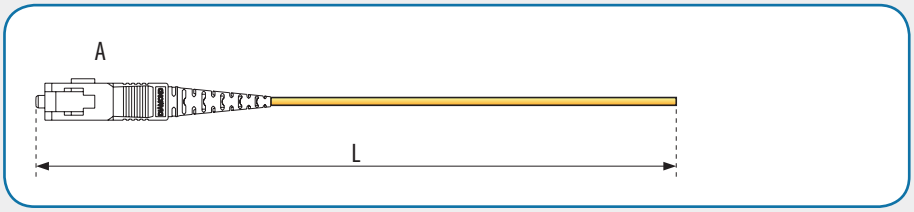
PIGTAILS I PATCHCORDS

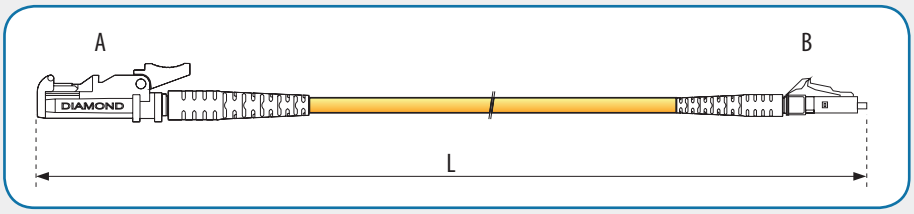
PIGTAIL

one end terminated cable



PATCHCORD

both ends terminated cable



CONNECTOR A	CONNECTOR B	THE LENGTH OF CABLE [M]	THE CABLE DIAMETER [mm]	CONFIGURATION	TYPE OF CABLE
E28 – E-2000/APC DIAMOND	E28 – E-2000/APC DIAMOND	Customer Specification e.g.:	0,9	SX – Simplex	SMG.652D (SM1)
E20 – E-2000/PC DIAMOND	E20 – E-2000/PC DIAMOND	0,5	2,0	DX - Duplex	SMG.655
E28R – E-2000/APC 0,1 dB DIMAOND	E28R- E-2000/APC 0,1 dB DIMAOND	1,0	2,4**		SMG.657 A1
E2PS – E-2000 High Power	E2PS – E-2000 High Power	2,0	2,8***		SMG.657 A2
F3P – F-3000/APC DIAMOND	F3P – F-3000/APC DIAMOND	3,0	4,0****		MMG.651 62,5 (OM1)
F3A – F-3000/PC DIAMOND	F3A – F-3000/PC DIAMOND	5,0			MMG.651 50 (OM2)
F3AR- F-3000/APC 0,1 dB DIMAOND	F3AR- F-3000/APC 0,1 dB DIMAOND	10,0			MMG.651 50 (OM3)
SCA – SC/APC	SCA – SC/APC	etc.			MMG.651 50 (OM4)
SCP – SC/PC	SCP – SC/PC				LFH
SC8 – SC/APC DIAMOND	SC8 – SC/APC DIAMOND				
SC0 – SC/PC DIAMOND	SC0 – SC/PC DIAMOND				
SC – SC MM	SC – SC MM				
FC8 – FC/APC DIAMOND	FC8 – FC/APC DIAMOND				
FC0 – FC/PC DIAMOND	FC0 – FC/PC DIAMOND				
FCP – FC/PC	FCP – FC/PC				
FCA – FC/APC	FCA – FC/APC				
STP – ST/PC	STP – ST/PC				
ST0 – ST/PC DIAMOND	ST0 – ST/PC DIAMOND				
LCP – LC/PC*	LCP – LC/PC*				
LCA – LC/APC*	LCA – LC/APC*				
MUP – MU/PC	MUP – MU/PC				
	X – no connector				
E28	SCA	5,0	2,0	DX	SMG.652D

Ordering pigtails: no connector on side B. Ordering patchcords: connectors on sides A and B.
PLEASE NOTE: before choosing the type of boot, please check if it is available for required type of connector.

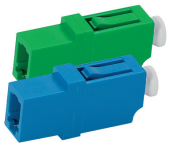
* For LC connectors boots are also available in 45* and 90* version.
** For multimode cables.
*** For LFH coloured cables are also available.
**** For LFH only white colour is available.

LC CONNECTORS AND ADAPTERS

FEATURES:

- small-form-factor construction, ferrule 1.25 mm
- comply with the standards: IEC 61754-20, PN-EN50377-7-4, ZN-13/TP S.A.-044
- available in PC and APC versions, and in duplex construction

TELECOM ACCESS CATV MAN WAN LAN FTTx PON xWDM



LC Connectors and Adapters

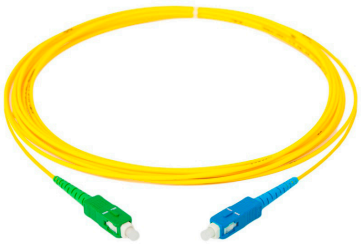
SC CONNECTORS AND ADAPTERS

FEATURES:

- monoblock connector with zirconia ceramic ferrule
- comply with the standards: IEC-61754-4, PN-EN186260:2000, ZN-13/TP S.A.-044
- available in MM, SM, PC and APC versions, and in duplex construction
- SC/APC adapters are also available with translucent protective caps - the fastest and the cheapest method for optical fibre tracing

TELECOM ACCESS CATV MAN WAN LAN FTTx PON xWDM

SC MM Pigtail



SC APC - SC PC Patchcord

SC/APC Adapter with translucent protective cap

ST CONNECTORS AND ADAPTERS

ST Connectors and Adapters

FEATURES:

- monoblock connector with zirconia ceramic ferrule
- comply with the standards: IEC 61754-2, ZN-13/TP S.A.-044
- available in MM and SM PC versions

LAN FTTx PON

SINGLE MODE PATCHCORD TECHNICAL SPECIFICATIONS:

Optical parameters:	**Value:**
Parameter (fiber):	
Attenuation at 1310 nm (dB/km)	≤ 0,35 dB
Attenuation at 1383 + 3 nm (dB/km)	≤0.35dB/KM
Attenuation at 1490 nm (dB/km)	≤0.2dB/KM
Attenuation at 1550 nm (dB/km)	≤0.21dB/KM
Attenuation at 1625 nm (dB/km)	≤0.23dB/KM
Attenuation change over the range 1285-1330 nm (ref. 1310 nm) (dB/km)	≤0.03dB/KM
Attenuation change over the range 1525-1575 nm (ref. 1550 nm) (dB/km)	≤0.02dB/KM
Attenuation change over the range 1490-1625 nm (ref. 1550 nm) (dB/km)	≤0.04dB/KM
Zero Dispersion Wavelength (nm)	1300nm-1324nm
Zero Dispersion Slope (ps/nm^2.km)	≤0.091ps/(nm^2.km)
Mode Field Diameter at 1310 nm (μm)	(804-8.8)±0.4um
Cable Cut-off Wavelength (nm)	≤1260nm
Macrobending loss, 100 turns on mandrel diameter of 30 mm at 1625 nm (dB)	0.05dB/km
Polarization Mode Dispersion (ps/√km)	≤0.08
Parameter (connector):	
Insertion Loss (dB)	≤0.30dB
Return Loss (dB)	≥55dB

Geometrical parameters:	**Value:**
Parameter (fiber):	
Cladding Diameter (μm)	124.8±0.7um
Cladding non Circularity (%)	≤0.07%
Core concentricity error (μm)	≤0.5um
Primary coating-cladding concentricity error (μm)	≤12.0um

Mechanical parameters:	**Value:**
Parameter (fiber):	
Proof stress level (GPa)	0.69Gpa
Coating strip force (average) (N)	1.7N
Coating strip force (peak) (N)	1.3-8.9 (N)
Stress corrosion susceptibility parameter, nd	≥20nd
Tensile strength (median) for 0,5m specimen length (GPa)	≥2.76Gpa
Parameter (connector):	
Number of mating cycles without degradation of performance	≥90%
Parameter (cable):	
Minimum bend radius without tension (mm)	5mm
Minimum bend radius with tension (mm)	7.5nm
Maximum pulling force (IEC 60794-1-21-E1) (N)	1000N
Crush resistance (IEC 60794-1-21-E3) (N)	Long term 100N/100nm, short term 500N/100nm
Impact resistance (IEC 60794-1-21-E4) (N.m)	4

Environmental parameters:	**Value:**
Parameter (fiber):	
Operating Temperature range (IEC-60794-1-F1)	(-10°C) ~ (+50°C)
Storage Temperature range	(-25°C) ~ (+80°C)
Temperature cycling; –60°C to +85°C (dB/km)*	≤0.05dB/KM
Water immersion; 30 days at 25°C (dB/km)*	≤0.05dB/KM
Dry heat; 30 days at 85°C (dB/km)*	≤0.05dB/KM
Damp heat; 30 days at 85°C – 85 % RH (dB/km)*	≤0.05dB/KM

* Change in attenuation at 1550 and 1625 nm from the initial value due to tests

SINGLE MODE PIGTAIL TECHNICAL SPECIFICATIONS:

Optical parameters:	**Value:**
Parameter (fiber):	
Attenuation at 1310 nm (dB/km)	≤ 0,35 dB
Attenuation at 1383 + 3 nm (dB/km)	≤0.35dB/KM
Attenuation at 1490 nm (dB/km)	≤0.2dB/KM
Attenuation at 1550 nm (dB/km)	≤0.21dB/KM
Attenuation at 1625 nm (dB/km)	≤0.23dB/KM
Attenuation change over the range 1285-1330 nm (ref. 1310 nm) (dB/km)	≤0.03dB/KM
Attenuation change over the range 1525-1575 nm (ref. 1550 nm) (dB/km)	≤0.02dB/KM
Attenuation change over the range 1490-1625 nm (ref. 1550 nm) (dB/km)	≤0.04dB/KM
Zero Dispersion Wavelength (nm)	1300nm-1324nm
Zero Dispersion Slope (ps/nm^2.km)	≤0.091ps/(nm^2.km)
Mode Field Diameter at 1310 nm (μm)	(804-8.8)±0.4um
Cable Cut-off Wavelength (nm)	≤1260nm
Macrobending loss, 100 turns on mandrel diameter of 30 mm at 1625 nm (dB)	0.05dB/km
Polarization Mode Dispersion (ps/√km)	≤0.08
Parameter (connector):	
Insertion Loss (dB)	≤0.30dB
Return Loss (dB)	≥55dB

Geometrical parameters:	**Value:**
Parameter (fiber):	
Cladding Diameter (μm)	124.8±0.7um
Cladding non Circularity (%)	≤0.07%
Core concentricity error (μm)	≤0.5um
Primary coating-cladding concentricity error (μm)	≤12.0um

Mechanical parameters:	**Value:**
Parameter (fiber):	
Proof stress level (GPa)	0.69Gpa
Coating strip force (average) (N)	1.7N
Coating strip force (peak) (N)	1.3-8.9 (N)
Stress corrosion susceptibility parameter, nd	≥20nd
Tensile strength (median) for 0,5m specimen length (GPa)	≥2.76Gpa
Parameter (connector):	
Number of mating cycles without degradation of performance	≥90%
Parameter (cable):	
Minimum bend radius without tension (mm)	5mm
Minimum bend radius with tension (mm)	7.5nm
Maximum pulling force (IEC 60794-1-21-E1) (N)	1000N
Crush resistance (IEC 60794-1-21-E3) (N)	Long term 100N/100nm, short term 500N/100nm
Impact resistance (IEC 60794-1-21-E4) (N.m)	4

Environmental parameters:	**Value:**
Parameter (fiber):	
Operating Temperature range (IEC-60794-1-F1)	(-10℃) ~ (+50℃)
Storage Temperature range	(-25℃) ~ (+80℃)
Temperature cycling; –60°C to +85°C (dB/km)*	≤0.05dB/KM
Water immersion; 30 days at 25°C (dB/km)*	≤0.05dB/KM
Dry heat; 30 days at 85°C (dB/km)*	≤0.05dB/KM
Damp heat; 30 days at 85°C – 85 % RH (dB/km)*	≤0.05dB/KM

* Change in attenuation at 1550 and 1625 nm from the initial value due to tests

MULTI MODE PATCHCORD TECHNICAL SPECIFICATIONS:

Optical parameters:	**Value:**
Parameter (fiber):	
Attenuation at 850 nm (dB/km)	≤2.3dB/KM
Attenuation at 1300 nm (dB/km)	≤0.6dB/KM
Zero Dispersion Wavelength (nm)	1295nm-1320nm
Zero Dispersion Slope (ps/nm^2.km)	≤0.11[PS/nm^2.km]
Effective modal Bandwidth at 850 nm (MHz.km)	≥950/≥2000≥470(MHz.km)
Minimum Overfilled Modal Bandwidth at 850 nm (MHz.km)	≥700/≥1500≥3500(MHz.km)
Minimum Overfilled Modal Bandwidth at 1300 nm (MHz.km)	≥500/≥500≥500(MHz.km)
Macrobending loss, 100 turns on mandrel diameter of 75 mm at 850 and 1300 nm (dB)	≤0.5dB
Numerical Aperture	±0.015
Parameter (connector):	
Insertion Loss (dB)	≤0.3dB
Return Loss (dB)	≥20dB

Geometrical parameters:	**Value:**
Parameter (fiber):	
Cladding Diameter (µm)	124.8±0.7um
Cladding non Circularity (%)	≤1.0%
Core diameter (µm)	50±2.5um
Core-cladding concentricity error (µm)	≤1.0um
Core non-circularity (%)	≤1.0%
Primary coating-cladding concentricity error (µm)	≤12.0um

Mechanical parameters:	**Value:**
Parameter (fiber):	
Proof stress level (GPa)	0.69Gpa
Coating strip force (average) (N)	1.5N
Coating strip force (peak) (N)	≥1.3N ≤8.9N
Stress corrosion susceptibility parameter, nd	≥20nd
Tensile strength (median) for 0,5m specimen length (GPa)	≥2.76Gpa
Parameter (connector):	
Number of mating cycles without degradation of performance	≥90%
Parameter (cable):	
Minimum bend radius without tension (mm)	5mm
Minimum bend radius with tension (mm)	7.5mm
Maximum pulling force (IEC 60794-1-21-E1) (N)	1000N
Crush resistance (IEC 60794-1-21-E3) (N)	Long term 100N/100nm, short term 500N/100nm
Impact resistance (IEC 60794-1-21-E4) (N.m)	20

Environmental parameters:	**Value:**
Parameter (fiber):	
Operating Temperature range (IEC-60794-1-F1)	(-10°C) ~ (+50°C)
Storage Temperature range	(-25°C) ~ (+80°C)
Temperature cycling; –60°C to +85°C (dB/km)*	≤0.1dB
Water immersion; 30 days at 25°C (dB/km)*	≤0.1dB
Dry heat; 30 days at 85°C (dB/km)*	≤0.1dB
Damp heat; 30 days at 85°C – 85 % RH (dB/km)*	≤0.1dB

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Damp heat; 30 days at 85°C – 85 % RH (dB/km)*	≤0.1dB

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