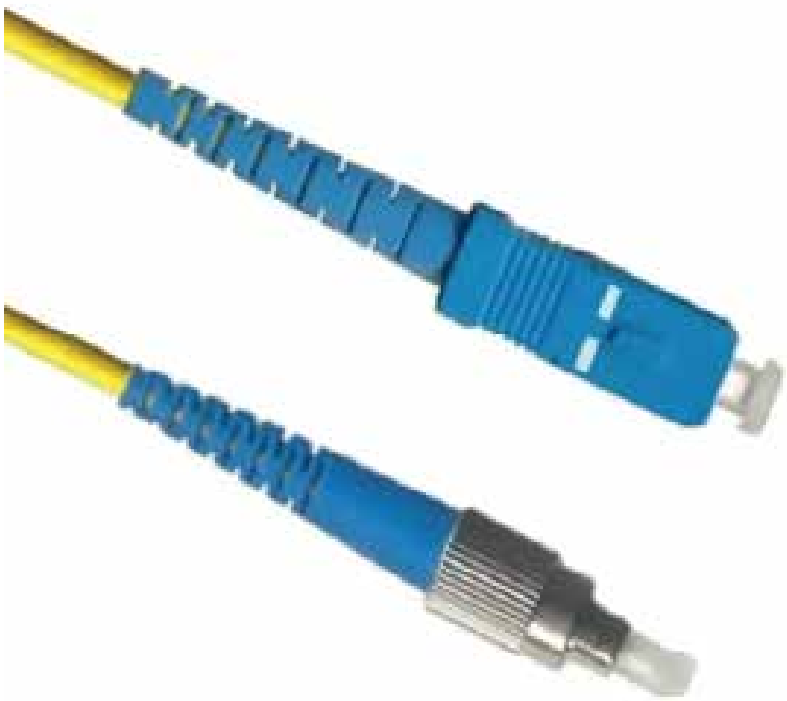
Fiber Optic Patch cords, Simplex/Duplex, Single mode, LSZH/PVC

PN: TN7201PCSDLS



Product Description

The Fiber used in TEXA Network's Fiber Optic Patch cord, is made of pure silica and germanium doped silica. A UV curable acrylate material is applied over the Fiber Cladding as primary protective coating. TEXA Network quality personals ensures product reliability through rigorous qualification testing to assure cable performance and durability in adverse field environments. Excellent quality control is achieved through intense in-house quality check and stringent audit acceptance by ISO 9001. The FO Simplex/Duplex Patch cord with APC connector at both ends have end faces with curve but are angled at an industry standard 8°. This maintains a tight connection, and it reduces back reflection to about -70 dB.

Features & Benefits

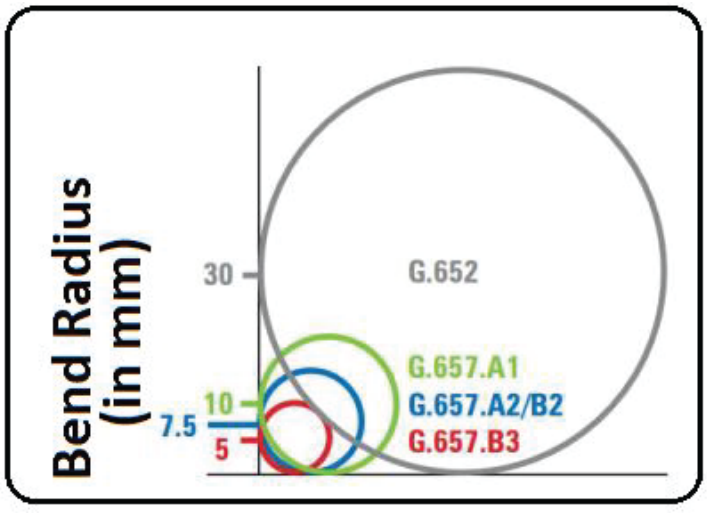
- APC type connector back reflection does not degrade with repeated mating.
- Outer Sheath is Low Smoke Zero Halogen or PVC
- G.652D, G.657A1, G.657A2
- Connectors Type – SC, LC, FC (UPC/ APC Type)
- 25 Years System Warranty
- Length of Patch cords: 0.5m, 1m, 1.5m, 2m, 3m, 5m, 10m, 15m, 20m, 30m
- FO patch cord comes in Cable Diameter with either 1.5mm or 2.0mm or 3.0mm

The Fiber within FO Patch cord are designed, Manufactured and tested according to below standards:

- IEC 60793-1: Optical Fiber Part 1: Generic Specification
- IEC 60793-2: Optical Fiber Part 2: Product Specification
- IEC 60794-2: Optical Fiber Cables Part 2 Indoor cables- Sectional Specification
- ITU-T G652: Characteristics of a Single-mode optical fiber and cable
- ITU-T G.655: Characteristics of a non-zero dispersion-shifted single-mode optical fiber and cable

The connector within FO Patch cord are designed, Manufactured and tested according to below standards:

- IEC 61300-1: Basic Test and Measurement procedures – Visual Examination
- IEC 61754: Fiber Optic Connector Interfaces – SC, LC and FC
- IEC 61300-3-6: Basic Test and Measurement procedures - Examinations and Measurements - Return loss
- IEC 61300-3-34: Basic Test and Measurement procedures - Examinations and Measurements - Attenuation of random mated connectors



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Technical Characteristics of Connectors

Fiber Type	Single mode	Single mode	Single mode	Single mode	Single mode	Single mode
Connector Type	SC	LC	FC	SC	LC	FC
Connector Surface	APC	APC	APC	UPC	UPC	UPC
Insertion Loss (dB)	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3	≤ 0.3
Return Loss (dB)	≥ 65	≥ 65	≥ 65	≥ 55	≥ 55	≥ 55
Operating Temperature Range	-40°C to +85°C					
Durability	> 1000 times	> 1000 times	> 1000 times	> 1000 times	> 1000 times	> 1000 times
Standard	IEC 601754-4	IEC 601754-20	IEC 61754-13	IEC 601754-04	IEC 601754-20	IEC 61754-13

Optical Fiber G.652D Specification

Category	Description	Values	
		Before Cabling	After Cabling
Optical Specifications	Attenuation @1310 nm	≤0.34 dB/km	≤0.40dB/km
	Attenuation @1550 nm	≤0.20dB/km	≤0.22dB/km
	Fiber irregularities point and whole length @1310 &1550nm	≤0.05dB	
	Attenuation inhomogeneity @1310 nm & 1550 nm	≤0.05dB	
	Zero Dispersion Slope	≤0.092 ps/nm²·km	
	PMD Link value (M=20cables Q=0.01%)	0.2ps/√km	
	Cable Cutoff Wavelength (λcc)	≤1260 nm	
	Mode Field Diameter @1310 nm	9.2 ± 0.4μm	
Dimensional Specifications	Cladding Diameter	125 ±1μm	
	Cladding non circularity	≤1.0%	
	Core/clad concentricity error	≤0.6μm	
Mechanical Specifications	Proof stress	≥0.69Gpa	

Optical Fiber G.657A1 Specification

Category	Description	Values	
		Before Cabling	After Cabling
Optical Specifications	Attenuation @1310 nm	≤0.34 dB/km	≤0.40 dB/km
	Attenuation @1550 nm	≤0.20 dB/km	≤0.30 dB/km
	Zero Dispersion Slope	≤0.092ps/nm²·km	
	Zero Dispersion Wavelength	1300–1324 nm	
	Cable Cutoff Wavelength (λcc)	≤1260 nm	
	Macro bending Loss (10 turns; Φ30 mm) @1550 nm (10 turns; Φ30 mm) @1625 nm (1 turns; Φ20 mm) @1550 nm (1 turns; Φ20 mm) @1625 nm	 ≤ 0.25 dB ≤ 1.0 dB ≤ 0.75 dB ≤ 1.5 dB	
	Mode Field Diameter @1310 nm	9.0± 0.4μm	
Dimensional Specifications	Cladding Diameter	125±1μm	
	Cladding non circularity	≤1.0%	
	Coating diameter	245± 7μm	
	Coating non circularity	≤ 6%	
	Cladding / coating concentricity error	≤ 6μm	
	Core/clad concentricity error	≤0.6μm	

Optical Fiber G.657A2 Specification

Category	Description	Values	
		Before Cable	After Cable
Optical Specifications	Attenuation @1310 nm	≤0.35 dB/km	≤0.40dB/km
	Attenuation @1550 nm	≤0.21 dB/km	≤0.30dB/km
	Zero Dispersion Slope	≤0.092 ps /nm²·km	
	PMD Link value (M=20cables Q=0.01%)	0.1ps/√km	
	Cable Cutoff Wavelength (λcc)	≤1260 nm	
	Macro bending Loss (10 turns; Φ30 mm) @1550 nm (10 turns; Φ30 mm) @1625 nm (1 turns; Φ20 mm) @1550 nm (1 turns; Φ20 mm) @1625 nm (1 turns; Φ15 mm) @1550 nm (1 turns; Φ15 mm) @1625 nm	 ≤ 0.03 dB ≤ 0.10 dB ≤ 0.10 dB ≤ 0.20 dB ≤ 0.50 dB ≤ 1.00 dB	
	Mode Field Diameter @1310 nm	8.6± 0.4μm	
Dimensional Specifications	Cladding Diameter	125±1μm	
	Cladding non circularity	≤1.0%	
	Coating diameter	245± 7μm	
	Coating non circularity	≤ 6%	
	Cladding / coating concentricity error	≤12μm	
	Core/clad concentricity error	≤0.5μm	
	Fiber curl radius	≥4m	

Factory Tests

Tests	Criteria Data
Appearance	Connector surface is smooth, no burr, no scratch, color uniformity.
Insertion Loss	≤ 0.3dB
Return Loss	≥65dB for APC
Mechanical Durability	Plug and pull out for 1000 times, No scratch and meet optical performance
Temperature Cycling	-40℃~85℃ 21 cycle 168 Hours ; ΔIL≤0.2dB,ΔRL＜5dB,

Tests done with reference to below standards

- IEC 61754-4: Fiber Optic interconnecting devices and passive components – Fiber Optic Connector Interfaces – Part 4-1: Type SC connector family
- IEC 61754-13: Fiber Optic interconnecting devices and passive components – Fiber Optic Connector Interfaces – Part 13: Type FC connector family
- IEC 61754-20: Fiber Optic interconnecting devices and passive components – Fiber Optic Connector Interfaces – Part 20: Type LC connector family
- IEC 61300-3-1: Fiber Optic interconnecting devices and passive components – Basic Test and Measurement procedures – Visual Examination
- IEC 61300-3-6: Basic Test and Measurement procedures - Examinations and Measurements - Return loss
- IEC 61300-3-34: Basic Test and Measurement procedures - Examinations and Measurements - Attenuation of random mated connectors
- IEC 61300-2-22: Fiber Optic interconnecting devices and passive components – Basic Test and Measurement procedures – Examinations and Measurements – Change of Temperature.