

# **FIBER OPTIC PIGTAIL, LC/UPC, SINGLE-MODE OS2, G.652D, 1M, LSZH**

(TN7302PTOS2LS)



## **Product Description**

The Fiber used in TEXA Network's Fiber Optic Pigtail, 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.

## Features & Benefits

- OuterSheath is Low Smoke Zero Halogen
- Available in G.652D
- 25YearsSystem Warranty
- Length ofPigtail is 1m
- Diameter for Fiber cable of Pigtail is  $\Phi 0.9 (\pm 0.05\text{mm})$

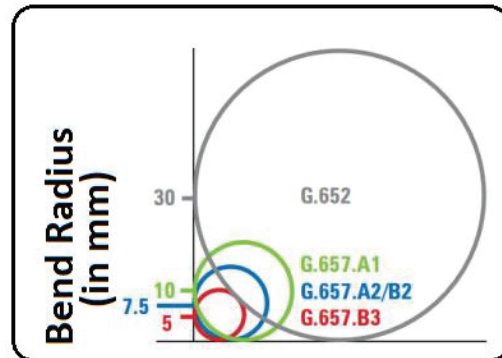
Fiber Type	Single mode
Connector Type	LC
Connector Surface	UPC
Insertion Loss (dB)	$\leq 0.3$
Return Loss (dB)	$\geq 50$
Opera ng Temperature Range	25°C to +70°C
Durability	> 500 times
Standard	IEC 601754-20

### **The Fiber within Pigtails 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
- ITU-T G.657: Characteristics of a bending-loss insensitive single-mode optical fiber

**The connector within Pigtails 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
- 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



**Optical Fiber G.652D Specification**

Optical Specifications	Attenuation @1310 nm	≤0.35 dB/km	≤0.36dB/km
	Attenuation @1383 nm (After aging hydrogenation)	≤0.34dB/km	≤0.35dB/km
	Attenuation @1550 nm	≤0.21 dB/km	≤0.22dB/km
	Attenuation @1625 nm	≤0.23 dB/km	≤0.25dB/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/nm <sup>2</sup> ·km	
	PMD Link value (M=20cables Q=0.01% )	0.2ps/√km	
	Cable Cutoff Wavelength (λ <sub>cc</sub> )	≤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	

### Tests done with reference to below standards

- IEC61754-20: Fiber Optic interconnecting devices and passive components – Fiber Optic Connector Interfaces – Part 20: Type LC connector family
- IEC61300-3-1: 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
- IEC61300-3-34: 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.

Test	Criteria Data
Appearance	Connector surface is smooth, no burr, no scratch, color uniformity.
Insertion Loss	≤ 0.3dB
Return Loss	≥ 60dB
Mechanical Durability	Plug and pull out for 500 times, No scratch and meet optical performance
Temperature Cycling	-10°C~60°C 5 cycle ; ΔIL ≤ 0.2dB, ΔRL < 5dB,