TECHNICAL SPECIFICATION

Pigtail

Revision	Date	Prepared	Checked	Approved	Remarks
1	2016-08-26	Barry	Jane	Felix	
2	2016-11-02	Barry	Jane	Felix	

Jiangsu Zhongtian Technology Co., Ltd.
No.5 Zhongtian Road, NEATA, Nantong City, Jiangsu province, China Tel: +86-513-8919 1138 Fax: +86-513- 8539 9670

1. General

1.1 Scope

This specification describes the basic design of patch cord or pigtail with its main components: the fibers, the connectors. Furthermore this specification contains information concerning the quality assurance during manufacturing, the final acceptance tests, the packaging. Any technical data mentioned in this product specification serve for describing the product only and should not be understood as an assurance of properties.

1.2 Definition

Patch cord: cable with two connectors at both end.
Pigtail: cable with one connector at any end.
Type of cable and connector shall be assigned by purchaser.

1.3 Quality

Excellent quality control is achieved through intense in-house quality check and stringent audit acceptance by ISO 9001.

1.4 Reliability

ZTT ensures product reliability through rigorous qualification testing of each product family. Both initial and periodic qualification testing are performed to assure the cable's performance and durability in the field environments.

1.5 Reference

The cable which ZTT offered are designed, manufactured and tested according to international standards as follows:

IEC 60793-1	Optical fiber Part 1: Generic specifications
IEC 60793-2	Optical fiber Part 2: Product specifications
IEC 60794-2	Optical fiber cables-part 2 indoor cables- sectional specification
ITU-T G.651	Characteristics of multi-mode optical fiber
ITU-T G.652	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 standards for the connector as follows:

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

2. Tight Buffer Pigtail, SC/UPC, ϕ0.9±0.05mm, G657A1 fiber, length 1m, with PVC.

2.1 General properties:

SM, Simplex, SC/UPC Pigtail

Note: The picture provides a reference only.

2.2 Technical characteristics for connectors:

Technical data				
Fiber type	Single-Mode			Multi-Mode
Connector type	SC			SC
Grinding type	PC	UPC	APC	≤0.2
Insertion loss(dB)	≤0.2	≤0.2	≤0.2	
Return loss(dB)	≥45	≥50	≥55	/
Operation temperature(℃)	-25℃ to +70 ℃			
Storage temperature(℃)	-25℃ to +70 ℃			
Interchangeability (dB)	≤0.2			
Repeatability(dB)	≤0.1			
Durability	＞500 times			
Standard	IEC61754-4			

2.3 Cable information

The outer sheath of the cable is PVC material.

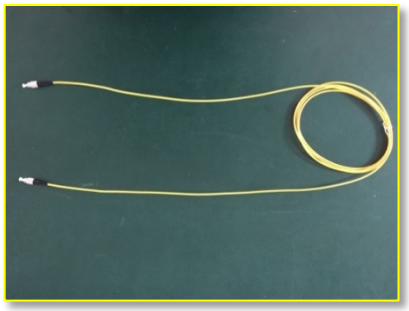
2.4 Optical fiber: G657A1

The optical fiber shall be made of high pure silica and germanium doped silica. UV curable acrylate material is applied over fiber cladding as optical fiber primary protective coating. The detail data of optical fiber performance are shown in the following table:

G657A1 fiber

Category	Description	Specifications	
		Before cable	After cable
Optical Specifications	Attenuation @1310 nm	≤0.35 dB/km	≤0.36 dB/km
	Attenuation @1383 nm(After aging hydrogenation)	≤0.34 dB/km	≤0.35 dB/km
	Attenuation @1550 nm	≤0.21 dB/km	≤0.22 dB/km
	Attenuation @1625 nm	≤0.23 dB/km	≤0.25 dB/km
	Fiber irregularities point and whole length @1310 nm & 1550 nm	≤0.05dB	
	Attenuation inhomogeneity @1310 nm & 1550 nm	≤0.05dB	
	Dispersion coefficient	@1288~1339nm ≤3.5ps/nm·km @1271~1360nm ≤5.3ps/nm·km @1550nm ≤18ps/nm·km @1625nm ≤22ps/nm·km	
	Zero Dispersion Wavelength	1300~1324 nm	
	Zero Dispersion Slope	≤ 0.092 ps/nm2·km	
	PMD Link value (M=20cables Q=0.01%)	0.1 ps/√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	 ≤ 0.2 dB ≤ 0.5 dB ≤ 0.3 dB ≤ 1.0 dB	
	Mode Field Diameter @1310 nm	8.8±0.4μm	
Dimensional Specifications	Cladding Diameter	125±0.7μm	
	Cladding non circularity	≤1.0%	
	Coating diameter	245±7μm	
	Coating non circularity	≤6%	
	Cladding / coating concentricity error	≤12μm	
	Core/clad concentricity error	≤0.5μm	
Mechanical Specifications	Proof stress	≥1.05%	
	Fatigue Resistance Parameter (Nd)	≥22	
	Peak Coating Strip Force	1.3~8.9N	

3. Package Information



Wind the cable

Bag the patch cord

Label the bag

Package

Box the bags

Seal up

Putting carton in wooden case

Note: The picture provides a reference only.. The dimensions are according to the products' or customers' requirements.