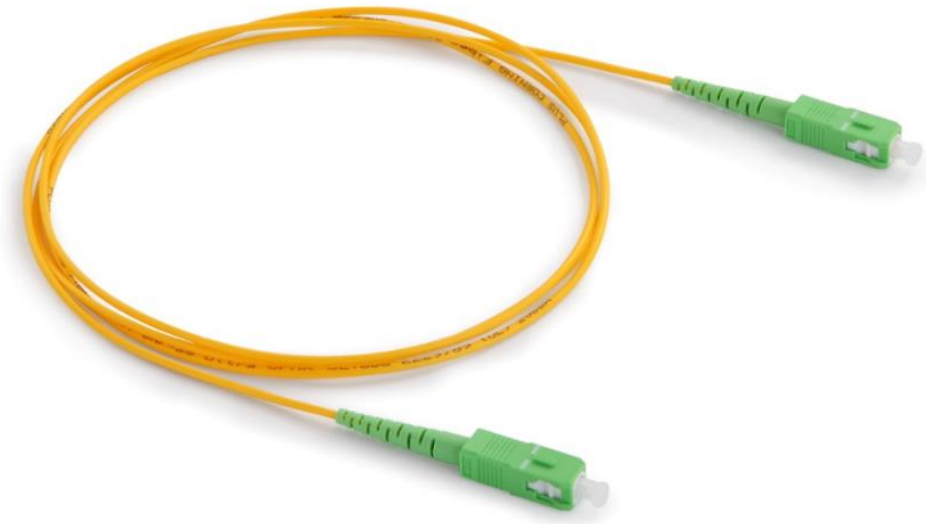
Grade B Patch Cord



Introduction

With the advances in fiber optic technology and transmission systems, reliable cabling systems are becoming even more important. Active optical equipment, which is often worth hundreds of thousands of dollars, is all connected into the network via the humble fiber optic patch cord or patch lead. The risk of network downtime due to unreliable cabling is one that should be avoided. Therefore, these types of networks, along with many other Data Center and high-speed Commercial networks require reliable cabling infrastructure in order to maximize performance and to ensure long term reliability.

Optical Fiber Connector Grades

IEC standards dictate the connector performance for each grade of fiber-optic patch cord connector based on IEC 61753-1. As it defined, there are four grades for insertion loss from A (best) to D (worst). For conventional patch cord, mated performance is over 0.5dB, even to 1.0dB. This may cause the whole high speed optical connection system unreliable and transmission unstable. Therefore, grade B is stable with excellent optical performance of maximum 0.25dB while mated each other which is a guarantee for hundreds of gigabit data exchange with connections.

Grade	Average of Random Mating	97% of Random Mating
A*	Not Defined	Not Defined
B	≤0.12 dB	≤0.25 dB
C	≤0.25 dB	≤0.50 dB
D	≤0.50 dB	≤1.0 dB

Remark: Grade A is not determined yet according IEC 61753-1

8 Jinxiu Middle Road, Pingshan, Shenzhen, Guangdong, 518118, P. R. China
+86 755 32983688 |info@china-tscom.com | www.china-tscom.com

Features

- IEC 61753-1 random mating grade B
- Precision zirconia ferrules
- LC, MU, SC, FC, ST, all single fiber connector
- Usually available on single mode connector
- Excellent geometry and end face appearance
- Good repeatability and interchangeability
- Flame retardant optical fiber cable

Standard Compliance

- Connector compliant to IEC 61754
- Optical fiber cable compliant to IEC 60793
- ITU G.657
- Qualified to Telcordia GR-326-Core
- Reach, RoHS and SvHC compliant

Technical Specification

Items	Description
Connector Type	LC/MU/SC/FC/ST*/Others
Polishing Type	UPC/APC 8°/APC 9°
Insertion Loss (dB)	≤0.20
Random mating loss (dB)	Max. 0.12dB mean, Max 0.25dB for 97% of samples
Return Loss (dB)	UPC ≥ 50, APC ≥ 65
Wavelength (nm)	1310/1550
Installation Temperature (°C)	-20 ~ +70
Storage Temperature (°C)	-40 ~ +85

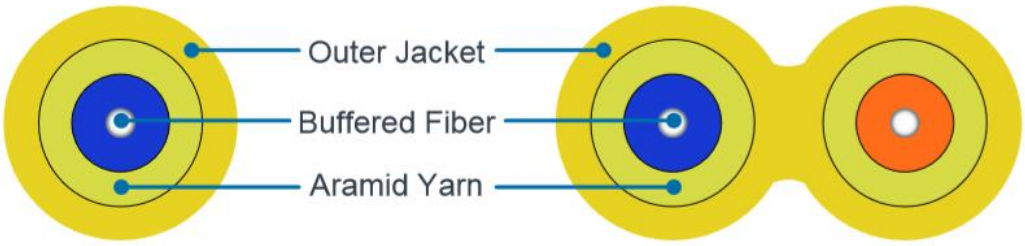
*APC end-face is not available on ST Connector

Fiber Optic Cable Specification

Items	Description
Fiber Brand	Corning ClearCurve or customized
Bend Radius	10mm / 7.5mm / 5mm
Fiber Attenuation	0.35dB at 1310nm, 0.2dB at 1550nm
Fiber Count	Simplex, Duplex
Cable OD (mm)	0.9 / 2.0 /3.0, or customized
Cable Jacket	Riser, Plenum, LSZH or customized
Jacket Color	Yellow, Blue, White or customized
Strength Member	Aramid Yarn

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Cable Mechanical Data



Fiber Count	OD (mm)	Nominal	Max. Tension (N)		Max. Crushing Resistance (N/100mm)	
		Weight (kg/km)	Short Term	Long Term	Short Term	Long Term
Simplex 1.6	1.6±0.2	2.6	80	40	500	100
Simplex 2.0	1.9±0.2	4.5	100	60	500	100
Simplex 3.0	2.8±0.2	7.5	100	60	500	100
Duplex 1.6	3.4±0.2 x 1.6±0.2	5.3	80	40	500	100
Duplex 2.0	4.0±0.2 x 1.9±0.2	8.7	200	100	500	100
Duplex 3.0	5.8±0.3 x 2.8±0.3	14.8	200	100	500	100

Remark: More cables of other structures and types are available upon request

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