

# FC FIBER OPTIC PATCH CORDS

## Description

The FC\* connectors used in our patch cords are designed to NTT-FC\* standards with high quality zirconia ferrules and non-optical disconnect performance. They are fully compatible with existing FC hardware.

In addition to basic testing, some mechanical and environmental tests per IEC or Telcordia are also performed periodically to guarantee the best quality. For standard patch cords, sampling check is performed on ferrule geometry to ensure high percentage of polished connectors meeting GR-326 requirements. For premium grade, ferrule geometry is tested on all patch cords to meet these GR-326 requirements.

Other than standard single mode and multimode fibers, G655, OM2, and OM3 fibers are also available upon request. Flame retardant grade cable sheathing options are offered. Riser rated cable will be provided as standard. LSZH and Plenum can be provided upon request.

\*NTT-FC is a trademark of NTT Advanced Technology Corp.



## Features

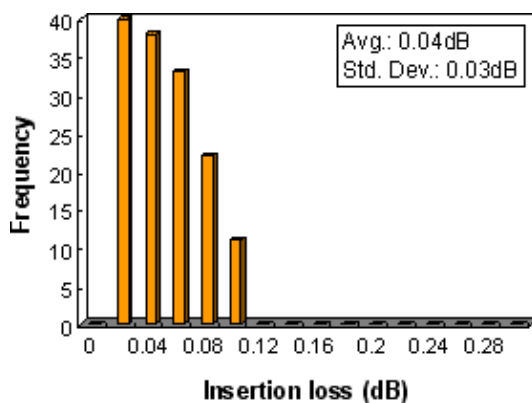
- Non-optical disconnect performance
- High quality zirconia ferrules
- Low insertion loss and high return loss
- Materials meet RoHS requirements
- Riser, Plenum, and LSZH cables available

## Applications

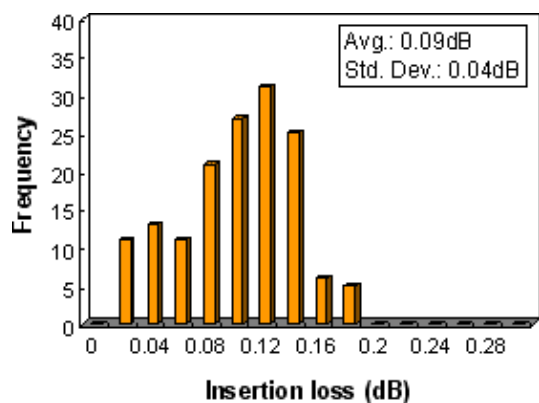
- Telecommunication
- Computer networks
- CATV networks
- Active device termination
- Instrumentation

## Optical Performance Distribution

Insertion Loss, MM 62.5/125um



Insertion Loss, SM 9/125um PC

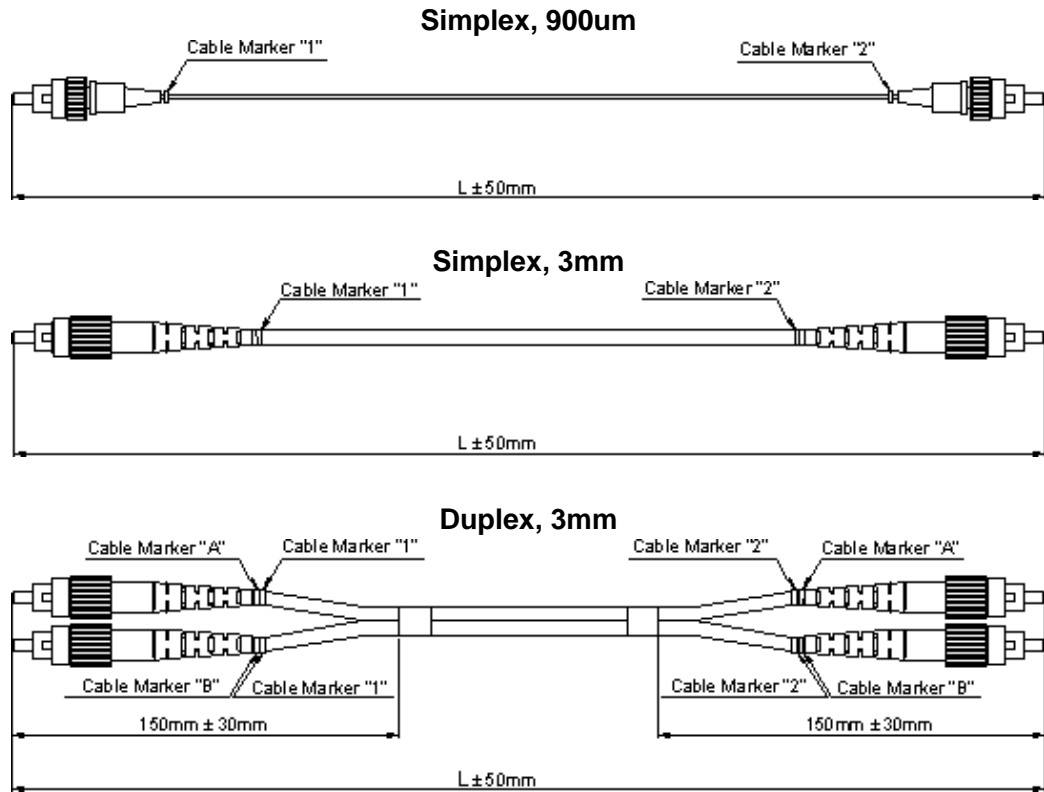


\* Typical performance charts and actual data may vary from lot to lot.

## Specifications

Characteristics	Unit	Value/Performance			Comments		
		SM		MM			
		PC	APC				
<b>Basic</b>							
Insertion Loss (IL)	dB	≤0.3			IEC 61300-3-4		
Return Loss (RL)	dB	SPC≥45 UPC≥50	≥60	≥23	IEC 61300-3-6		
Endurance	dB	ΔIL≤0.2			IEC 61300-2-2, coupling and uncoupling 500 cycles, clean every 25 cycles		
Operating Temperature	°C	-20 ~ +70					
Storage Temperature	°C	-40 ~ +70					
<b>Ferrule end-face geometry</b>							
Radius of Curvature (R)	mm	7-25	5-12	NA	Telcordia GR326(4.4.5)		
Apex Offset	um	≤50		NA	Telcordia GR325(4.4.5)		
Fiber Protrusion	nm	≤50	≤100	NA	Telcordia GR326(4.4.5)		
Fiber Under Cut	nm	≤125@ R=7-10	≤100	NA	Telcordia GR326(4.4.5). For PC, Under Cut ≤-0.02R <sup>3</sup> +1.3R <sup>2</sup> -31R+325 when R=10-25mm		
<b>Mechanical</b>							
Drop	dB	ΔIL≤0.2			IEC 61300-2-12, 1.5m, 5 drops, no damage		
Vibration	dB	ΔIL≤0.2			IEC 61300-2-1, 10-55Hz, 0.75mm amplitude, 0.5 hrs/axis		
Flex	dB	ΔIL≤0.2			Telcordia GR326(4.4.3.2), 0.9kg, ±90°, 100cycles, for 2mm or larger cable		
Twist	dB	ΔIL≤0.2			Telcordia GR326(4.4.3.3), 1.35kg load, ±2.5 turns, 10 cycles, for 2mm or larger cable		
Pull Proof	dB	ΔIL≤0.2			Telcordia GR326(4.4.3.4), 3.4kg at 90°, 6.8kg at 0°, for 2mm or larger cable		
Static Bending	dB	ΔIL≤0.2			IEC 794-1-2, 60mm diameter 10 turns		
Crushing	dB	ΔIL≤0.2			IEC 794-1-2, 102kg for 2mm or larger cable, 10.2kg for 900m cable		
<b>Environmental</b>							
Salt mist		No sign of corrosion			IEC 61300-2-26, 5% NaCl, 30°C, 7 days		
Cold	dB	ΔIL≤0.2			IEC 61300-2-17, -20°C, 96 hrs		
Dry Heat	dB	ΔIL≤0.2			IEC 61300-2-18, 70°C, 96 hrs		
Damp Heat	dB	ΔIL≤0.2			IEC 61300-2-19, 40°C, 95%RH, 96 hrs		
<b>Transmission</b>							
Characteristics	Unit	G652 SM	G655 SM	Std. 50um	62.5um	OM2	OM3
Max. Attenuation	dB/km (nm)	0.4/0.3 (1310/1550)	0.3 (1550)	2.8 (850)	3.0 (850)	2.8 (850)	2.8 (850)
Min. Bandwidth	MHz*km (nm)	-	-	500/500 (850/1300)	200/200 (850/1300)	750 (850)	2000 (850)
Dispersion Coefficient	ps/ nm <sup>2</sup> *km	≤3.0 (1310nm)	2.6-6.0 (1550nm)	-	-	-	-

### Dimensional Drawing



### Catalog Number

Part# = S — 2 — 7U — 8U — S — 3 — R

**CABLE TYPE**

S=Simplex 3.0mm  
 D=Duplex 3.0mm  
 B=Breakout  
 C=Distribution  
 N=900um Buffered Fiber  
 Y=Simplex 2.0mm  
 V=Duplex 2.0mm  
 A=Armored Cable

**CORE SIZE**

1=G652D  
 2=G657A1  
 3=G657A2  
 4=G657B3  
 5=50/125um  
 6=62.5/125um  
 7=OM3  
 8=OM4  
 O=Other

**CONNECTORS**

7=FC/PC  
 7U=FC/UPC  
 7A=FC/APC  
 8=ST/PC  
 8U=ST/UPC  
 L=LC/PC  
 LU=LC/UPC  
 LA=LC/APC  
 Y=SC/PC  
 YU=SC/UPC  
 YA=SC/APC

**MODE**

S=SM  
 M=MM  
 H=Hybrid

**LENGTH IN METERS**

**Multi-Fiber Count Only**

04=4 Fiber  
 06=6 Fiber  
 12=12 Fiber  
 24=24 Fiber  
 48=48 Fiber  
 72=72 Fiber  
 96=96 Fiber

**Cable Jacket**

P=PVC  
 L=LSZH