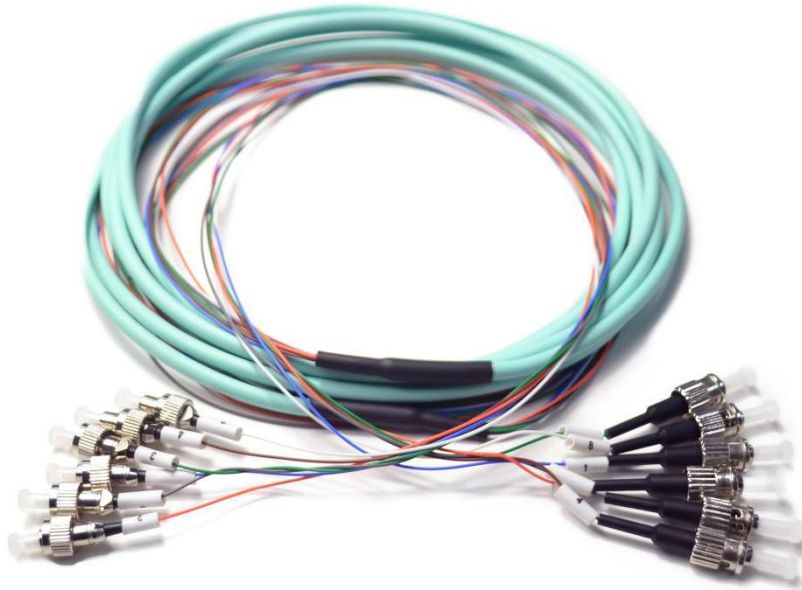


## FC --- ST Pre-terminated Cable



### Application

- 1.Optical fiber communication systems engineering
- 2.Fiber optic data communication network
- 3.Connected with trunk cables on one end, equipment port on the other end.
- 4.Connected with transfer modules on one end, equipment port on the other end.

### Features

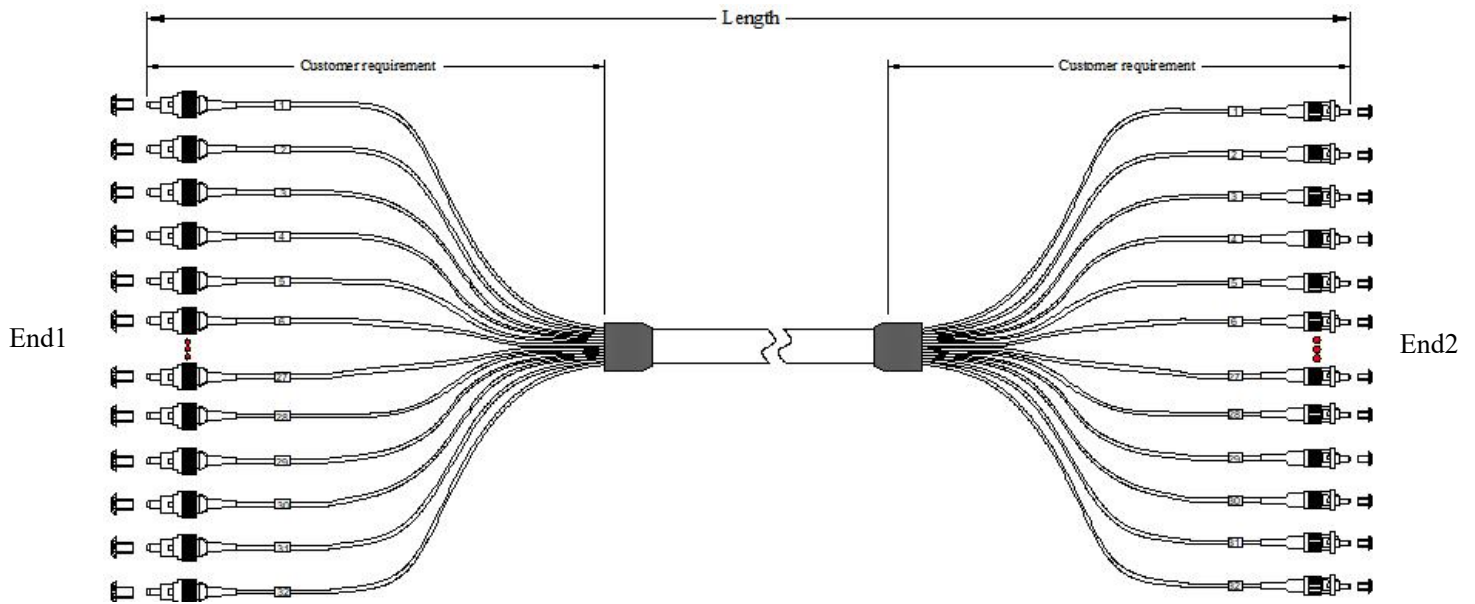
- 1.100% pre-terminated and tested in factory to ensure transfer performance.
- 2.Rapid configuration and networking, reduce installation time.
- 3.Supports 40G and 100G network applications.
- 4.Low insertion loss and added loss.
- 5.Supports up to 12F, 24F, 48F, 72F, 96F, 144F, customized products are available.
- 6.High back loss, small volume, light weight.
- 7.End-face geometry and quality superior than IEC and Telcordia standards.
- 8.LSZH, OFNP, OFNR cable jacket.
- 9.Mechanical performance: IEC 61754-13&IEC 61754-2 standard.
- 10.RoHS and REACH materials compliant.

### Connector Types

Type	Reference	Note	
FC	IEC 61754-13	Single mode simplex	APC: Green boots UPC: Black boots
		Multimode simplex	UPC: Black boots
ST	IEC 61754-2	Single mode simplex	UPC: Black boots
		Multimode simplex	UPC: Black boots

## Dimensional Diagrams

### 1.FC --- ST Pre-terminated Cable



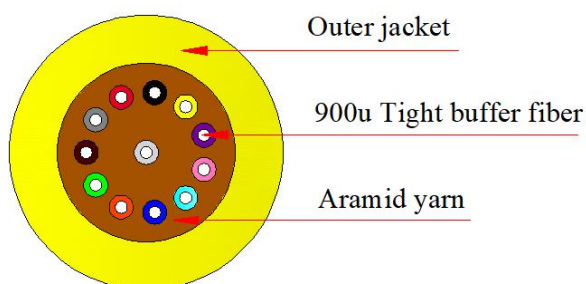
### Patch cord versions

Jumper tolerance requirement	
Overall length (L) (M)	length of tolerance (CM)
$0 < L \leq 20$	+10/-0
$20 < L \leq 40$	+15/-0
$L > 40$	+0.5%L/-0

### Optical Characteristics

Item	Parameter		Reference
	Single mode	Multimode	
Insertion loss	Typical value $\leq 0.15\text{dB}$ ; Maximum $\leq 0.30$	Typical value $\leq 0.15\text{dB}$ ; Maximum $\leq 0.30$	IEC 61300-3-34
Return loss	$\geq 60\text{dB}$ (APC); $\geq 50\text{dB}$ (UPC)	$\geq 30\text{dB}$ (UPC)	IEC 61300-3-6

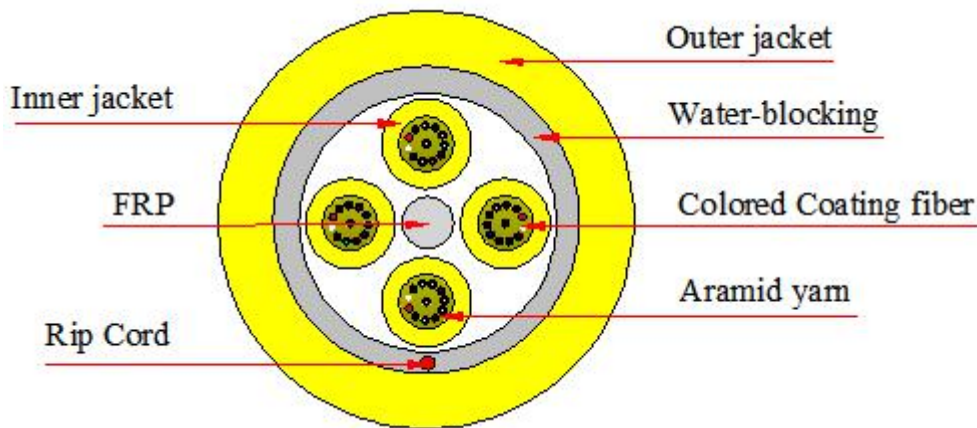
### Cable Structure



## Cable Parameters

Cable Count	Outside Diameter	Tight buffer Diameter	Weight (KG)	Minimum allowable Tensile Strength (N)		Minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage temperature
	(MM)	(MM)		Short term	Long term	Short term	Long term	Short term	Long term	(°C)
04	5.0	0.9	22.00	600	200	1000	200	20D	10D	-40+60
06	5.0	0.9	23.00	600	200	1000	200	20D	10D	-40+60
08	5.5	0.9	28.00	600	200	1000	200	20D	10D	-40+60
12	6.0	0.9	38.00	600	200	1000	200	20D	10D	-40+60
16	7.2	0.9	42.00	600	200	1000	200	20D	10D	-40+60
24	8.3	0.9	58.00	600	200	1000	200	20D	10D	-40+60
48	10.0	0.9	96.00	600	200	1000	200	20D	10D	-40+60

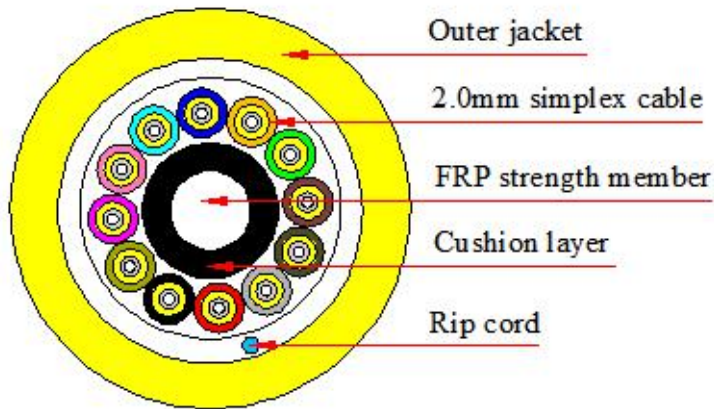
## Cable Structure



## Cable Parameters

Fiber account	OD(mm)	Nominal Weight (kg/km)	Max.tensile Strength (N)		Max.Crush Resistance (N/100mm)		Min.BendingRadius (mm)	
			Short-term	Long-term	Short-term	Long-term	Dynamic	Static
12	3.0±0.5	7.8	150	80	500	150	20D	10D
24	9.0±0.5	76	300	160	1000	300	20D	10D
36	9.0±0.5	78	500	180	1000	300	20D	10D
48	9.0±0.5	79	500	180	1000	300	20D	10D
72	11.2±0.5	126	600	200	1000	300	20D	10D
96	13.5±0.5	178	1000	300	1000	300	20D	10D
144	17.5±0.5	285	1000	300	1000	300	20D	10D
288	22.5±0.5	450	1000	300	1000	300	20D	10D

## Cable Structure



## Cable Parameters

Fiber account	OD(mm)	Nominal Weight (kg/km)	Max.tensile Strength(N)		Max.Crush Resistance (N/100mm)		Min.Bending Radius(mm)		Storage temperature
			Short-term	Long-term	Short-term	Long-term	Dynamic	Static	-20+60 (°C)
4	7.5±0.5	51	270	90	1000	300	20D	10D	-20+60 (°C)
6	9.0±0.5	68	330	110	1000	300	20D	10D	-20+60 (°C)
8	10.5±0.5	88	330	110	1000	300	20D	10D	-20+60 (°C)
12	12.5±0.5	128	430	140	1000	300	20D	10D	-20+60 (°C)
24	15.5±0.5	198	660	220	1000	300	20D	10D	-20+60 (°C)
48	20.5±0.5	246	660	220	1000	300	20D	10D	-20+60 (°C)

## End-Face Geometry

Item	UPC (Ref: IEC 61755-3-1)	APC (Ref: IEC 61755-3-2)
Radius of curvature (mm)	10 to 25	5 to 12
Fiber height (nm)	-100 to 100	-100 to 100
Apex offset (μm)	0 to 50	0 to 50
APC angle (°)	/	8° ±0.2°
Key error (°)	/	0.2° max

## End-Face Quality (SM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## End-Face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

## Mechanical Characteristics

Test	Conditions	Reference
Endurance	500 matings	IEC 61300-2-2
Vibration	Frequency: 10 to 55Hz, Amplitude: 0.75mm	IEC 61300-2-1
Cable retention	100N (patch cable); 5N (pigtail)	IEC 61300-2-4
Strength of coupling mechanism	80N for 2 to 3mm cable	IEC 61300-2-6
Cable torsion	15N for 2 to 3mm cable	IEC 61300-2-5
Fall	10 drops, 1m drop height	IEC 61300-2-12
Static lateral load	1N for 1h (patch cable); 0.2N for 5min (pigtail)	IEC 61300-2-42
Cold	-25°C, 96h duration	IEC 61300-2-17
Dry heat	+70°C, 96h duration	IEC 61300-2-18
Change of temperature	-25°C to +70°C, 12 cycles	IEC 61300-2-22
Humidity	+40°C at 93%, 96h duration	IEC 61300-2-19