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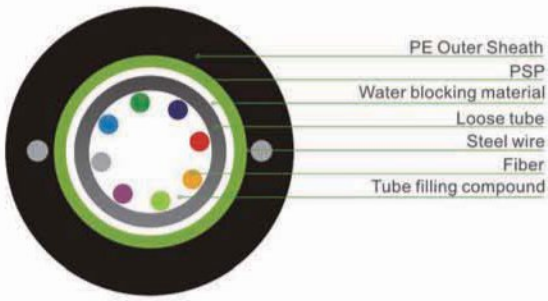
STRUCTURE CABLING
OPTICAL FIBER

Center Bundle light Armored Optical Fiber Cable (GYXTW)

D173/D174

Introduction

The fibers are placed in a loose tube made of PBT. The tube is filled with a water-resistant filling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape. The cable is completed with a PE sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	—	—	—	—

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	8
2	No. of fibers per tube(max)	count	8
3	No. of elements	count	1
4	Tube diameter	mm	2.0
5	Outer sheath wall thickness	mm	2.3
6	Cable diameter	mm	8.2
7	Cable weight	kg/km	68
8	Short term tension	N	1500
9	Short term crush	N/100mm	1000
Note: Mechanical sizes are nominal values.			

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40˚C~+60˚C
	Installation	-10˚C~+60˚C
	Storage/transportation	-40˚C~+60˚C
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D173	2-12 cores	Single Mode
D174	2-12 cores	Multimode

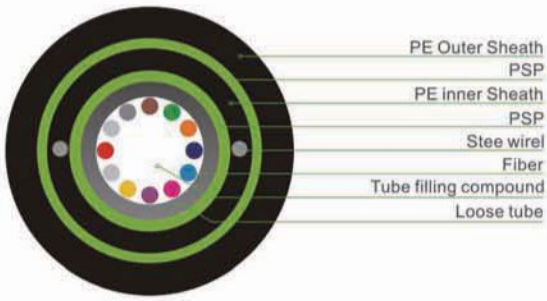
STRUCTURE CABLING
OPTICAL FIBER

Center Bundle heavy Armored Optical Fiber Cable (GYXTW53)

D173S/D174S

Introduction

The fibers are placed in a loose tube made of PBT. The tube is filled with a water-resistant filling compound. The tube is wrapped with a layer of PSP longitudinally. Between the PSP and the loose tube water-blocking material is applied to keep the cable compact and watertight. Two parallel steel wires are placed at the two sides of the steel tape, over which a thin PE inner sheath is applied. After the PSP is longitudinally applied over the inner sheath, the cable is completed with a PE outer sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	—	—	—	—	—	—	—	—

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	4
2	No. of fibers per tube(max)	count	4
3	No. of elements	count	1
4	Tube diameter	mm	2
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	12.4
7	Cable weight	kg/km	150
8	Short term tension	N	3000
9	Short term crush	N/100mm	3000
Note: Mechanical sizes are nominal values.			

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D173S	2-12 cores	Single Mode
D174S	2-12 cores	Multimode

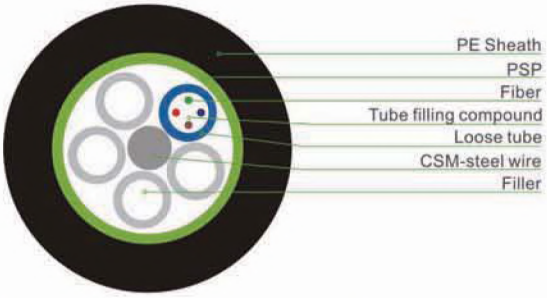
STRUCTURE CABLING
OPTICAL FIBER

The Level Twists Steel Tape Light Armored Optical Fiber Cable (GYTS)

D177/D179

Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. A steel wire sometimes sheathed with PE for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. An steel tape is applied around the cable core, which is filled with the filling compound to protect it from water ingress. Then, the cable is completed with a PE sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	—	—	—	—	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	—	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	4
2	No. of fibers per tube(max)	count	4
3	No. of elements	count	1
4	Tube diameter	mm	1.7
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	9.3
7	Cable weight	kg/km	105
8	Short term tension	N	1500
9	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40˚C~+60˚C
	Installation	-10˚C~+60˚C
	Storage/transportation	-40˚C~+60˚C
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D177	2-144 cores	Single Mode
D179	2-144 cores	Multimode

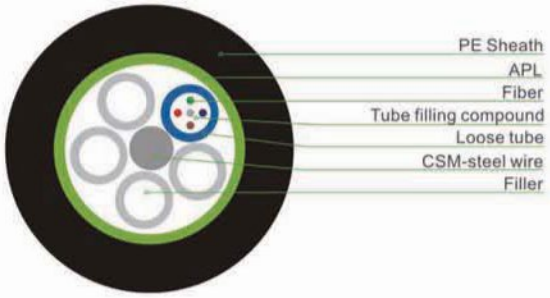
STRUCTURE CABLING
OPTICAL FIBER

The Level Twists Aluminium Tape Light Armored Optical Fiber Cable (GYTA)

D176/D178

Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. A steel wire sometimes sheathed with PE for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. An Aluminum Polyethylene Laminate is applied around the cable core, which is filled with the filling compound to protect it from water ingress. Then, the cable is completed with a PE sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	—	—	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	—	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	6
2	No. of fibers per tube(max)	count	6
3	No. of elements	count	1
4	Tube diameter	mm	1.7
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	9.3
7	Cable weight	kg/km	90
8	Short term tension	N	1500
9	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D176	2-144 cores	Single Mode
D178	2-144 cores	Multimode

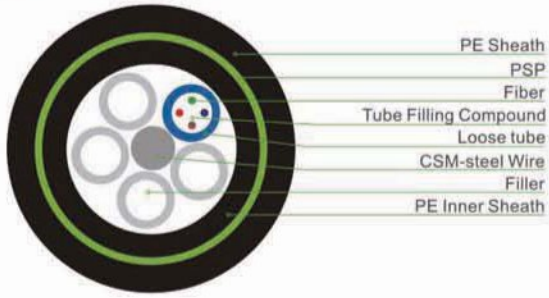
STRUCTURE CABLING
OPTICAL FIBER

Layer-stranded single Armored and Double Sheathed Optical Cable(GYTY53)

D177S/D179S

Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. A steel wire sometimes sheathed with PE for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. The cable core is filled with the filling compound to protect it from water ingress, over which a thin PE inner sheath is applied. After the PSP is longitudinally applied over the inner sheath, the cable is completed with a PE outer sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	—	—	—	—	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	—	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	4
2	No. of fibers per tube(max)	count	4
3	No. of elements	count	1
4	Tube diameter	mm	1.7
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	11.2
7	Cable weight	kg/km	140
8	Short term tension	N	3000
9	Short term crush	N/100mm	3000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D177S	2-144 cores	Single Mode
D179S	2-144 cores	Multimode

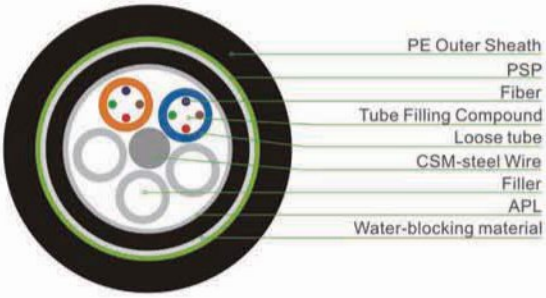
STRUCTURE CABLING
OPTICAL FIBER

Layer--stranded Reinforced Armored and Double Sheathed Optical Cable(GYTA53)

D176S/D178S

Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. A steel wire sometimes sheathed with PE for cable with high fiber count, locates in the center of core as a metallic strength member. Tubes (and fillers) are stranded around the strength member into a compact and circular cable core. An Aluminum Polyethylene Laminate is applied around the cable core, which is filled with the filling compound to protect it from water ingress. Then the cable core is covered with a thin PE inner sheath. After the PSP is longitudinally applied over the inner sheath, the cable is completed with a PE out sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	—	—	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	8
2	No. of fibers per tube(max)	count	4
3	No. of elements	count	2
4	Tube diameter	mm	1.7
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	12.4
7	Cable weight	kg/km	210
8	Short term tension	N	3000
9	Short term crush	N/100mm	3000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40°C~+60°C
	Installation	-10°C~+60°C
	Storage/transportation	-40°C~+60°C
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D176S	2-144 cores	Single Mode
D178S	2-144 cores	Multimode

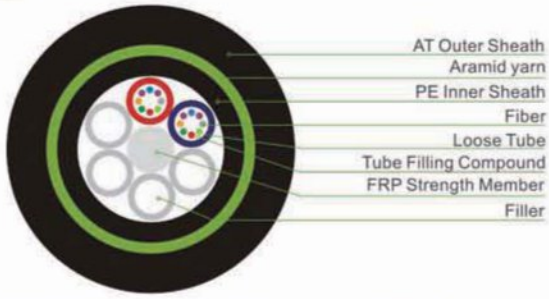
STRUCTURE CABLING
OPTICAL FIBER

All Dielectric Self-supporting Aerial Cable (ADSS) (D201/D202)

D201/D202

Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. elements (tubes and filler rods) laid up around no-metallic central strength member, filling compound filled in the apertures of the cable core, PE inner sheath, aramid yarn as the supporting member and PE(or ATPE) outer sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	16
2	No. of fibers per tube(max)	count	8
3	No. of elements	count	2
4	Tube diameter	mm	2.15
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	12
7	Cable weight	kg/km	120
8	Short term tension	N	8000
9	Short term crush	N/100mm	2200

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

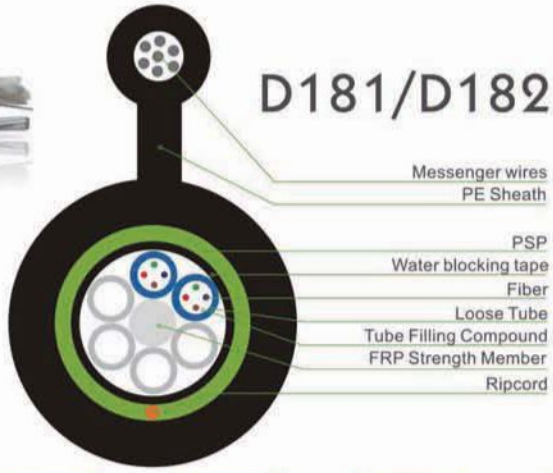
- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D201	2-144 cores	Single Mode

STRUCTURE CABLING
OPTICAL FIBER

Figure-8 stranded loose tube cable with steel tape (GYFTC8S)



Introduction

The fibers are placed in a loose tube made of PBT. The tubes are filled with a water-resistant filling compound. A steel wire locates in the center of core as a metallic strength member. The tubes (and fillers) are stranded around the strength member into a compact and circular cable core. After PSP is applied around the cable core , this part of cable accompanied with the stranded wires as the supporting part are completed with a PE sheath to be figure 8 structure. This kind of cable is specifically applied for self-supporting aerial installation.

Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	—	—	—	—	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	—	—	—	—	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	8
2	No. of fibers per tube(max)	count	4
3	No. of elements	count	2
4	Tube diameter	mm	1.8
5	Outer sheath wall thickness	mm	2
6	Cable diameter	mm	19.5*10.8
7	Cable weight	kg/km	220
8	Short term tension	N	8000
9	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

Order Information

Item	Specification	Description
D181	2-96 cores	Single Mode
D182	2-96 cores	Multimode

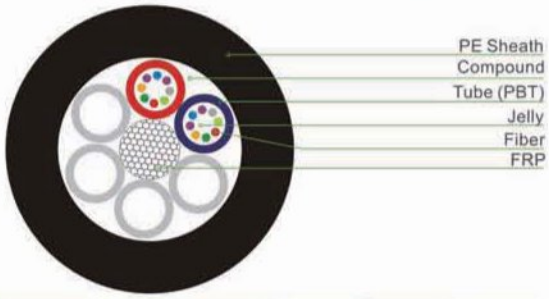
STRUCTURE CABLING
OPTICAL FIBER

Stranded loose tube cable with non-metallic central strength member (GYFTY)

D191/D192

Introduction

The fibres are placed in a loose tube made of high modulus plastic. The tubes are filled with a water-resistant filling compound. A piece of Fibre Reinforced Plastic(FRP) locates in the center of core as a non-metallic strength member. The tubes and fillers are stranded around the strength member into a compact and circular cable core. The cable is completed with a polyethylene (PE) sheath.



Fiber color code

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	Red	Black	—	—	—	—

Fiber color in each tube starts from No. 1 Blue.

Color codes for loose tube & filler rod

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Gray	White	—	—	—	—	—	—

Tube color in each layer starts from No. 1 Blue. If there are fillers, the color is nature.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	48（G652D）
2	No. of fibers per tube(max)	count	8
3	No. of elements	count	6
4	Tube diameter	mm	2.2
5	Outer sheath wall thickness	mm	1.8
6	Cable diameter	mm	10.5
7	Cable weight	kg/km	98
8	Short term tension	N	1500
9	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-40℃~+60℃
	Installation	-10℃~+60℃
	Storage/transportation	-40℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D191	2-144 cores	Single Mode
D192	2-144 cores	Multimode

STRUCTURE CABLING
OPTICAL FIBER

Single Core Tight Wrapped Indoor Optical Cable(GJFJH 1 x n)

D215/D216

Introduction

One 900μm Buffered Fibers are surrounded by aramid yarn strength members and a flame-retardant jacket.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	1
2	Tight buffer material		LSZH
3	Tight buffer Color		Yellow
4	Strength member		Aramid yarns
5	Tight buffer diameter	mm	0.9±0.05
6	Jacket thickness	mm	0.5
7	Cable diameter	mm	3
8	Cable weight	kg/km	7
9	Short term tension	N	150
10	Short term crush	N/100mm	500

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 794-1-E1	
Crush	conform to IEC 794-1-E3	
Impact	conform to IEC 794-1-E4	
Repeated bending	conform to IEC 794-1-E6	
Torsion	conform to IEC 794-1-E7	
Flexing	conform to IEC 794-1-E8	
Cable bend	conform to IEC 794-1-E11	
Water penetration	conform to IEC 794-1-F5B	
Temperature requirement	Operation	-20℃~+85℃
	Installation	-10℃~+70℃
	Storage/transportation	-40℃~+85℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps/(nm2·km).

Order Information

Item	Specification	Description
D215	Single cores	Single Mode
D216	Single cores	Multimode

STRUCTURE CABLING
OPTICAL FIBER

Flat Twin Duplex For Distribution (GJFJBV)

D217/D218

Introduction

Two 900μm fibers placed side by side . And aramid yarn as the support number , with the LSZH jacket by itself .

Order Information

Item	Specification	Description
D217	Tow cores	Single Mode
D218	Tow cores	Multimode

Characteristic of Optical Cable

Mechanical characteristic and test method	
Item	Technology parameter
Cable type	GJFJBV-2A1a/b
Product specification	2.0×4.1mm
Tight buffer color	White, Yellow
Tight buffer material	PVC
Tight buffer diameter mm	0.90±0.05
Fiber type	50/125 62.5/125
Strength member	Aramid yarns
Jacket thickness mm	0.3±0.08
Jacket color	Orange
Jacket material	LSZH
Cable diameter mm	1.85(±0.1)×3.8(±0.2)
Cable weight Kg/km	8.0
Min. bending radius mm	30
Attenuation dB/km	≤1.5 at 1300nm ≤ 3.5 at 850nm
Short tension N	120
Short crush N/100mm	500
Operation temperature ℃	-20~70

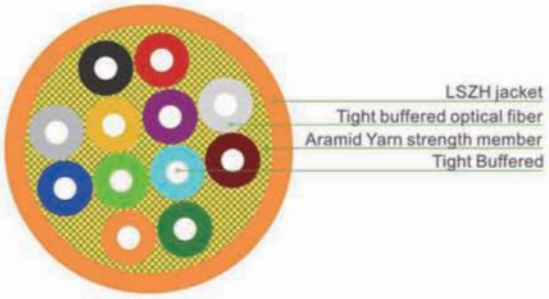
STRUCTURE CABLING
OPTICAL FIBER

Indoor Soft Optical Fiber Cable(GJFJH)

D171/D172

Introduction

Two 900μm Buffered Fibers are surrounded by aramid yarn strength members and a flame-retardant jacket.



Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	12
2	Tight buffer material		LSZH
3	Tight buffer Color		Blue, Orange, Green, Brown, Gray, White, Red, Black, Yellow, Purple, Pink, Aqua
4	Strength member		Aramid yarns
5	Tight buffer diameter	mm	0.9±0.05
6	Jacket thickness	mm	0.75
7	Cable diameter	mm	5.6
8	Cable weight	kg/km	28
9	Short term tension	N	660
10	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

G652D fiber information

- Mode field diameter (1310nm):9.2μm±0.4μm.
- Mode field diameter (1550nm):10.4μm±0.8μm.
- Cladding diameter:125μm±1.0μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps /(nm2· km).

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 60794-1-2-E1A	
Crush	conform to IEC 60794-1-2-E3	
Impact	conform to IEC 60794-1-2-E4	
Repeated bending	conform to IEC 60794-1-2-E6	
Torsion	conform to IEC 60794-1-2-E7	
Flexing	conform to IEC 60794-1-2-E8	
Cable bend	conform to IEC 60794-1-2-E11	
Water penetration	conform to IEC 60794-1-2-F5B	
Temperature requirement	Operation	-20℃~+85℃
	Installation	-10℃~+70℃
	Storage/transportation	-40℃~+85℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	10 times of outer diameter
	loaded	20 times of outer diameter

Order Information

Item	Specification	Description
D171	2-12 cores	Single Mode
D172	2-12 cores	Multimode

STRUCTURE CABLING
OPTICAL FIBER

FTTH Drop Cable(GJXFH-2)

SW905

Introduction

This flat drop cable, which consists of 1, 2, or 4 color coded optical fibers, offers an ideal solution for the smaller fiber counts that are needed in the final sections of an optical network. Two parallel FRP strength members protect the optical fibers. The cable is completed with a LSOH jacket.

Cable structure and parameter

SN	Item	Unit	Value
1	No. of fibers	count	2
2	sheath material/color		LSZH/ Black
3	Fibers Color		Blue, Orange
4	Strength member		FRP strength member
5	Cable diameter	mm	3*2
6	Cable weight	kg/km	9
7	Short term tension	N	80
8	Short term crush	N/100mm	1000

Note: Mechanical sizes are nominal values.

Characteristic of Optical Cable

Mechanical characteristic and test method		
Tensile strength	conform to IEC 60794-1-2-E1A	
Crush	conform to IEC 60794-1-2-E3	
Impact	conform to IEC 60794-1-2-E4	
Repeated bending	conform to IEC 60794-1-2-E6	
Torsion	conform to IEC 60794-1-2-E7	
Flexing	conform to IEC 60794-1-2-E8	
Cable bend	conform to IEC 60794-1-2-E11	
Water penetration	conform to IEC 60794-1-2-F5B	
Temperature requirement	Operation	-20℃~+60℃
	Installation	-20℃~+60℃
	Storage/transportation	-20℃~+60℃
Temperature cycling test	conform to IEC 794-1-F1	
Bending Radius	Unloaded	30 times of outer diameter
	loaded	60 times of outer diameter

G657 fiber information

- Mode field diameter (1310nm):8.6μm±9.5μm.
- Cladding diameter:125μm±0.7μm.
- Coating diameter:245μm±7μm.
- Cut off wavelength of cabled fiber (λcc):≤1260μm.
- Attenuation at 1310nm:≤0.35dB/km.
- Attenuation at 1550nm:≤0.21dB/km.
- Bending loss at 1550nm (100 turns, 30mm radius):≤0.05dB.
- Dispersion in the range 1288 to 1339nm:≤3.5ps/(nm·km).
- Dispersion at 1550nm:≤18ps/(nm·km).
- Dispersion slope at zero dispersion wavelength:≤0.092ps /(nm2·km).

Order Information

Item	Specification	Description
D171	2-12 cores	Single Mode
D172	2-12 cores	Multimode

STRUCTURE CABLING
OPTIC FIBER PATCH CORDS

Patch Cords

- Fiber patch cords provide connections from the work area to the wall outlet or from active equipment to the patch panel.
- Cords are available as duplex or simplex 62.5/125,50/125, MM or SM fibers. we offer ST,SC,FC or LC connectors.
- All patch cords are factory polished and 100% optically tested for superior performance.

Introduction

- Insertion loss:≤0.3dB
- Return loss: Pc≥40dB APC≥60dB
- Repeatability: ≤0.3dB
- Compatibility: ≤0.3dB
- Insertion times:>1000
- Working temperature: -25°C~70°C.

Patch Cords

A/C + B/D – E – F – G – H

AB: LC.FC. ST.SC.MTRJ.E2000.MPO/MTP.
CD: PC.UPC. APC.
E: SM.OM1. OM2.OM3.OM4.
F: S(single),D(Duplex),N(N cores).
G: A_2=OD0.9mm.B_2=OD2.0mm.C_2=OD3.0mm.
H: 1,2,3,4..... m.

Pigtail

A/C – E – F – G – H

AC: LC.FC. ST.SC.MTRJ.E2000.MPO/MTP.
C: PC.UPC. APC.
E: SM.OM1. OM2.OM3.OM4.
F: S(single),D(Duplex),N(N cores).
G: A_2=OD0.9mm.B_2=OD2.0mm.C_2=OD3.0mm.
H: 1,2,3,4..... m.

STRUCTURE CABLING
OPTICAL CONNECTOR

SC SERIE

SC SM 0.9mm

SC APC 0.9mm

SC MM 0.9mm

SC OM3 0.9mm

SC OM4 0.9mm

SC SM 2.0 3.0mm

SC APC 2.0 3.0mm

SC MM 2.0 3.0mm

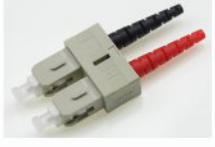
SC OM3 2.0 3.0mm

SC OM4 2.0 3.0mm

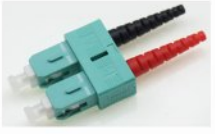
SC SM DX

SC APC DX

SC MM DX



SC OM3 DX



SC OM4 DX

SC SM blue Fast

SC APC Green Fast

Parameter	Unit	LC, SC, FC, ST, MTRJ, MPO			
		SM			MM
		PC	UPC	APC	PC
Insertion Loss (Typical)	dB	≤0.2	≤0.2	≤0.2	≤0.2
Return Loss	dB	≥45	≥50	≥60	≥30
Exchangeability	dB	≤0.2			
Repeatability	dB	≤0.2			
Durability	Time	>1000			
Operating Temperature	℃	-40~75			
Storage Temperature	℃	-40~85			

STRUCTURE CABLING
OPTICAL CONNECTOR

LC SERIE

LC SM SX 3.0

LC APC SX 3.0

LC MM SX 3.0

LC OM3 SX 3.0

LC OM4 SX 3.0

LC SM SX 2.0

LC APC SX 2.0

LC MM SX 2.0

LC OM3 SX 2.0

LC OM4 SX 2.0

LC SM SX 0.9

LC APC SX 0.9

LC MM OM3 SX 0.9

LC MM OM4 SX 0.9

LC 2.0-3.0 Boot 12mm

LC 2.0-3.0 Boot 15mm

LC Transparent Clip

LC Extraposition Cap

STRUCTURE CABLING

OPTICAL CONNECTOR

LC SERIE

LC SM 2.0/3.0
Boot 19.3mm

LC APC 2.0/3.0
Boot 19.3mm

LC MM 2.0/3.0
Boot 19.3mm

LC W 2.0/3.0
Boot 28.5mm

LC B 2.0/3.0
Boot 28.5mm

LC APC 2.0/3.0
Boot 28.5mm

LC MM 2.0/3.0
Boot 28.5mm

LC B
0.9 Boot

LC OM3
0.9 Boot

LC OM4
0.9 Boot

LC SM DX
2.0/3.0mm

LC APC DX
2.0/3.0mm

LC MM DX
2.0/3.0mm

LC OM3 DX
2.0/3.0mm

LC OM4 DX
2.0/3.0mm

MTRJ SERIE

MTRJ Black

MU PC 2.0mm

MU PC 0.9mm

STRUCTURE CABLING
OPTICAL CONNECTOR

FC SERIE

FC PC/UPC
0.9mm

FC APC
0.9mm

FC APC fast
Green

FC UPC fast
White

FC PC
2.0-3.0mm

FC APC
2.0-3.0mm

FC Black
2.0-3.0mm

FC Red
2.0-3.0mm

FC APC SX
2.0-3.0mm

FC Black SX
2.0-3.0mm

ST SERIE

ST SM
0.9mm

ST APC
0.9mm

ST PC
0.9mm

ST OM4
0.9mm

ST SM
2.0-3.0mm

ST Black
2.0-3.0mm

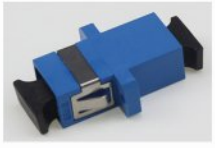
ST Yellow
2.0-3.0mm

ST Red
2.0-3.0mm

STRUCTURE CABLING
OPTICAL ADAPTER

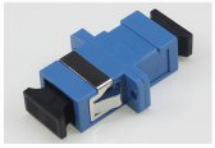
SC SX SERIE

SC SM SX Uniboot



SC APC SX Uniboot

SC SM SX Ear Welding



SC APC SX Ear Welding

SC MM SX Ear Welding

SC OM3 SX Ear Welding

SC OM4 SX Ear Welding

SC SM SX No Ear Welding

SC APC SX No Ear Welding

SC MM SX No Ear Welding

SC SM SX Metal

SC APC SX Metal

SC MM SX Metal

SC SM SX Avoid Laser

SC APC SX Avoid Laser

SC DX SERIE

SC SM DX Ear Welding

SC APC DX Ear Welding

SC MM DX Ear Welding

SC OM3 DX Ear Welding

SC OM4 DX Ear Welding

STRUCTURE CABLING
OPTICAL ADAPTER

SC DX SERIE

SC SM DX
No Ear Welding

SC APC DX
No Ear Welding

SC MM DX
No Ear Welding

SC OM3 DX
Metal Adapter

SC OM4 DX
Metal Adapter

LC SX SERIE

LC SM SX

LC APC SX

LC MM SX

LC OM3 SX

LC OM4 SX

LC SX SERIE

LC MM DX
Ear Symmetry

LC OM3 DX
Ear Symmetry

LC APC DX
Ear Symmetry

LC OM4 DX
Ear Symmetry

LC SM DX
Ear Symmetry

LC APC DX No
Ear Symmetry

LC MM DX No
Ear Symmetry

LC OM3 DX No
Ear Symmetry

LC OM4 DX No
Ear Symmetry

LC DX
Metal Adapter

STRUCTURE CABLING
OPTICAL ADAPTER

LC DX SERIE

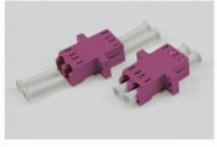
LC SM DX
SC Ear

LC APC DX
SC Ear

LC MM DX
SC Ear

LC OM3 DX
SC Ear

LC OM4 DX
SC Ear



LC APC DX
SC No Ear

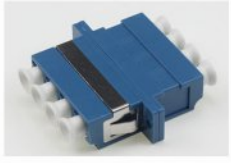
LC MM DX
SC No Ear

LC OM4 DX
SC No Ear

Parameter	Unit	LC, SC, FC, ST, MTRJ, MPO			
		SM			MM
		PC	UPC	APC	PC
Insertion loss	dB	≤0.2	≤0.2	≤0.2	≤0.2
Return loss	dB	≥45	≥50	≥60	≥30
Exchangeability	dB	≤0.2			
Repeatability	dB	≤0.2			
Durability	Cycle	>1000			
Operating temperature	℃	-40~+75			
Storage temperature	℃	-40~+85			

LC 4C SERIE

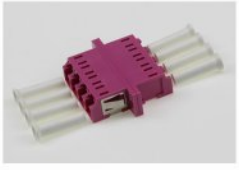
LC SM 4C
Symmetry Ear



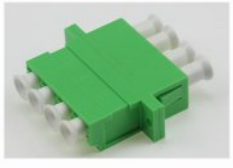
LC APC 4C
Symmetry Ear

LC MM 4C
Symmetry Ear

LC OM4 4C
Symmetry Ear



LC APC 4C
SC Ear



LC MM 4C
SC Ear

LC SM 4C
SC No Ear

LC OM3 4C
SC No Ear

STRUCTURE CABLING
OPTICAL ADAPTER

FC SX SERIE

FC APC SX
Square

FC SM SX
Square

FC SM SX
Rectangle

FC SM SX
Big D

FC SM SX
Small D

ST SX SERIE

ST SM SX
Metal

ST MM SX
Metal

ST DX SERIE

ST MM DX
Metal

ST SM DX
Metal

HYBRID ADAPTER

SC-ST SM SX
Metal

SC-FC SM SX
Metall

SC-ST SM DX
Metal

FC-ST SM SX
Metal

STRUCTURE CABLING
OPTICAL CONNECTOR

SC SERIE

SC SM 0.9mm

SC APC 0.9mm

SC MM 0.9mm

SC OM3 0.9mm

SC OM4 0.9mm

SC SM 2.0 3.0mm

SC APC 2.0 3.0mm

SC MM 2.0 3.0mm

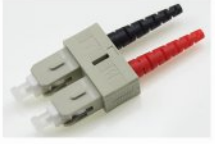
SC OM3 2.0 3.0mm

SC OM4 2.0 3.0mm

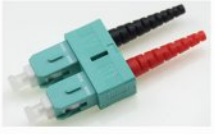
SC SM DX

SC APC DX

SC MM DX



SC OM3 DX



SC OM4 DX

SC SM blue Fast

SC APC Green Fast

Parameter	Unit	LC, SC, FC, ST, MTRJ, MPO			
		SM			MM
		PC	UPC	APC	PC
Insertion Loss (Typical)	dB	≤0.2	≤0.2	≤0.2	≤0.2
Return Loss	dB	≥45	≥50	≥60	≥30
Exchangeability	dB	≤0.2			
Repeatability	dB	≤0.2			
Durability	Time	>1000			
Operating Temperature	℃	-40~75			
Storage Temperature	℃	-40~85			

STRUCTURE CABLING
OPTICAL PATCH CORD

0.9mm Patch cord

SC SM SX 0.9

SC OM2 SX 0.9

LC OM3 SX 0.9

LC OM4 SX 0.9

FC SM SX 0.9

FC OM2 SX 0.9

ST OM3 SX 0.9

ST OM4 SX 0.9

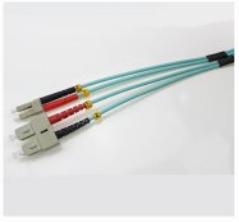
2.0/3.0mm Patch cord

SC OM4 SX 2.0/3.0

SC OM3 SX 2.0/3.0

SC SM DX 2.0/3.0

SC OM3 DX 2.0/3.0



LC SM SX 2.0/3.0

LC OM1 SX 2.0/3.0

LC OM3 DX 2.0/3.0

LC OM4 DX 2.0/3.0

STRUCTURE CABLING
OPTICAL PATCH CORD

2.0/3.0mm Patch Cord

FC OM3 SX 2.0/3.0

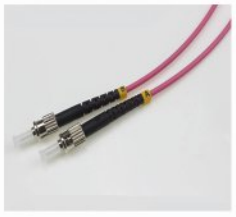
FC OM4 SX 2.0/3.0

FC SM DX 2.0/3.0

MU-MU SM DX

ST OM3 SX 2.0/3.0

ST OM4 SX 2.0/3.0



ST SM DX 2.0/3.0

LC OM3 DX
Uniboot with Rod

MTRJ SM DX 2.0/3.0

MPO OM3 2.0/3.0

LC SM DX 2.0/3.0

LC APC DX Uniboot

Parameter	unit	FC, SC, LC/Fiber Optic Patch Cord				ST, MU/Fiber Optic Patch Cord			MT-RJ, MPO/Fiber Optich Cord			E2000/Fiber Optic Patch Cord	
		SM			MM	SM		MM	SM		MM	SM	
		PC	UPC	APC	PC	PC	UPC	PC	PC	UPC	PC	PC	APC
Insertion loss	dB	≤0.3	≤0.2	≤0.3	≤0.2	≤0.2	≤0.2	≤0.2	≤0.3	≤0.2	≤0.2	≤0.3	≤0.3
Return loss	dB	≥45	≥50	≥60	≥30	≥45	≥50	≥30	≥45	≥50	≥35	55	75
Operating wavelength	nm	1310,1550				1310,1550			1310,1550			1310,1550	
Exchangeability	dB	≤0.2				≤0.2			≤0.2			≤0.2	
Vibration	dB	≤0.2				≤0.2			≤0.2			≤0.2	
Operating temperature	℃	-40~+75				-40~+75			-40~+75			-40~+75	
Storage temperature	℃	-40~+85				-40~+85			-40~+85			-40+85	
Cable diameter	mm	Φ3.0,Φ2.0,Φ0.9				Φ3.0,Φ2.0,Φ0.9			Φ3.0,Φ2.0,Φ0.9			Φ3.0,Φ2.0,Φ0.9	