



Distribution Tight Buffer Optical Cable

Specification

1. Cable Description

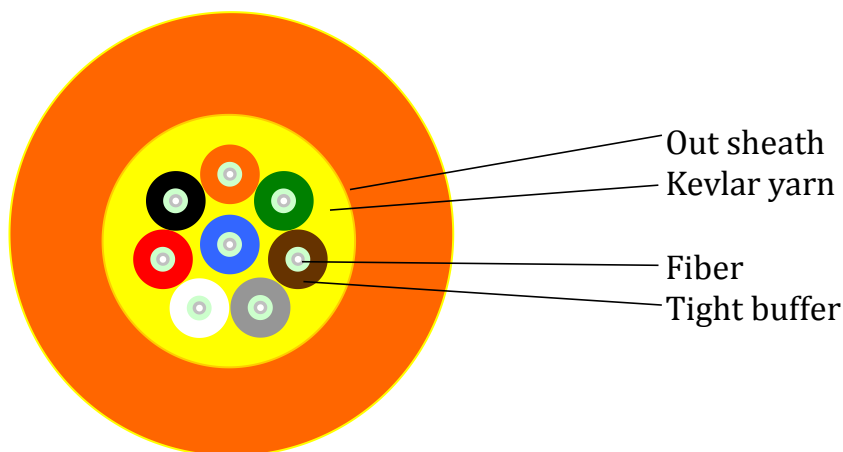
Distribution Tight Buffer Optical Cable use 2~24 core 900µm tight buffer fiber as optical communication medium.

The tight buffer fiber wrapped with a layer of aramid yarn as strength member ,then completed with a layer of LSZH material as out jacket.

2. Cable Drawing



<Cross-sectional Drawing of Cable>



Note : Structure drawing just for reference, please check the following details.

3. Application

- ❖ Used in pigtails and patch cords
- ❖ Used as interconnect lines of equipments, and used in optical connections in optical communication rooms and optical distribution frames
- ❖ Used in indoor and outdoor cabling, especially used as distribution cable



4. **Characteristics :**

- ❖ Good mechanical and environmental characteristics
- ❖ Flame retardant characteristics meet the requirements of relevant standards
- ❖ The mechanical characteristics of jacked meet the requirements of relevant standards
- ❖ Soft,flexible,easy to lay and splice,and with big capacity data transmission
- ❖ Meet various requirements of market and clients.

5. **Cable construction details :**

Technical 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 (°C)
	(MM)	(MM)		short term	long term	short term	long term	short term	long term	
02	3.0	0.9	15.00	600	200	1000	200	20D	10D	-40+60
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

6. **Standard color of tight buffer**

The color of the tight buffer, shall be in accordance with the table as below:

Standard Colour Identification						
No.	1	2	3	4	5	6
Color	Blue	Orange	Green	Brown	Slate	White
No.	7	8	9	10	11	12
Color	Red	Black	Yellow	Violet	Pink	Aqua

7. **Cable Mechanical characteristic**



Fiber style	Unit	SM G652D	MM 50/125	MM 62.5/125
condition	nm	1310/1550	850/1300	850/1300
attenuation	dB/km	≤0.36/0.23	≤3.0/1.0	≤3.0/1.0
Dispersion	1310nm	Ps/(nm*km)	≤18	.....
	1550nm	Ps/(nm*km)	≤22	.....
Bandwidth	850nm	MHZ. KM	.....	≥400
	1300nm	MHZ. KM	.....	≥800
Zero dispersion wavelength	nm	≥1302, ≤1322	.....	.....
Zero dispersion slope	nm	≤0.091	.....	.....
PMD Maximum Individual Fiber		≤0.2	.....	.....
PMD Design Link Value	Ps(nm ² *km)	≤0.08	.....	.....
Fiber cutoff wavelength λ _c	nm	≥1180,≤1330	.....	.....
Cable cutoff wavelength λ _{cc}	nm	≤1260	.....	.....
MFD	1310nm	um	9.2±0.4	.....
	1550nm	um	10.4±0.8	.....
Numerical Aperture(NA)		.....	0.200±0.015	0.275±0.015
Step(mean of bidirectional measurement)	dB	≤0.05	≤0.10	≤0.10
Irregularities over fiber length and point discontinuity	dB	≤0.05	≤0.10	≤0.10
Difference backscatter coefficient	dB/km	≤0.03	≤0.08	≤0.10
Attenuation uniformity	dB/km	≤0.01	.....	.....
Core diameter	um	.....	50±1.0	62.5±2.5
Cladding diameter	um	125.0±0.1	125.0±0.1	125.0±0.1
Cladding non-circularity	%	≤1.0	≤1.0	≤1.0
Coating diameter	um	242±7	242±7	242±7
Coating/chaffinch concentricity error	um	≤12.0	≤12.0	≤12.0
Coating non circularity	%	≤6.0	≤6.0	≤6.0
Core/cladding concentricity error	um	≤0.6	≤1.5	≤1.5
Curl(radius)	um	≤4	.....	.....

8. Requirement for Order:

- 1.Fiber sort: Single mode G652,G655,G657, Multi mode 50/125,62.5/125,OM3,OM4.
- 2.Fiber brand: YOFC, Corning, Fiberhome Fujikura, OFS etc.



- 3. Sheath material: PE,LSZH, PVC(can be required).
- 4. Sheath color: Orange, can be required.
- 5. The fiber and tube color: according to stranded color, can be required.
- 6. The cable Size: shall be in accordance with the table, can be required.
- 7. Length of cable: generally is 2KM, can be required.
- 8. Other requirement: can be negotiated.

9. Cable marking

The cable sheath shall be marked with white characters at intervals of one meter with following information:

- 1. Purchaser’s name
- 2. Fiber type and counts
- 3. Cable type
- 4. Name of manufacturer
- 5. Country of origin
- 6. Length marking

10. Packing Informations

- 1. Packing material: Wooden drum+ Carton box
- 2. Packing length: standard length of cable shall be 2 km. Other cable length is also available if required by customer

11. Our certificates :

- 1) ISO9002
- 2) SGS, ROHS
- 3) ULE329066
- 4) REACH

12. Testing Lab:

No	Device name	No	Device name
1	Optical time domain reflectometer (OTDR)	8	GNZV Cable Torsion Testing Machine
2	Fiber Polarization Mode Dispersion	9	GQNV Cable Flexing Testing Machine
3	Fiber Dispersion ,Strain Tester	10	GJRV Cable Winding Testing Machine
4	High Low Temperature Test Chamber	11	GZDV Cable Vibration Testing Machine



5	Cable Impact Testing Machine	12	Cable Water Penetration Test
6	Cable Squash Tensile Testing Machine	13	Fusion Splicer
7	GWQV Cable Bending Tester	14	Cable Water Penetration Test Rig

Fiber Optic Cable Mechanical Performance Testing Laboratory

1. Main Testing Type: Precision Test and Mechanical Test.
2. Precision Testing Machine: EXFO OTDR, EG&G PMD-440,CD-400.
3. Mechanical Performance Testing : Temperature, Impact, Tensile, Bending, Torsion, Flexing, Winding, Vibration, Water Penetration, Fusion Splicer, Water Penetration.

13. Our advantages:

1. Professional cable manufacturer.
2. About 10 years experiences in cable industry.
3. MOQ just 1Km.
4. ISO, UL , ROHS,REACH...certifications.
5. Can be customized production of fiber optic cable.
6. Independent Lab with full set of testing machines.
7. OEM for 3M , TYCO more than 5 years.
8. Supply to Thai telecom, Doha airport, Doha telecom, Dubai telecom, Dubai telecom ,Slovenia telecom and Yemen telecom and other big projects.

No of Part:

ERO-BK-DIS-XX-XX-LSZH-Number of Meters (500m, 1Km, 1.5Km or 2km)

XX-No of Fiber (06, 12, 24)

XX- Type of Fiber (OM1-OM2-OM3-OM4-SM-SMA1-SMA2)