Distribution Tight Buffer Optical Cable（GJFJV）

Specification

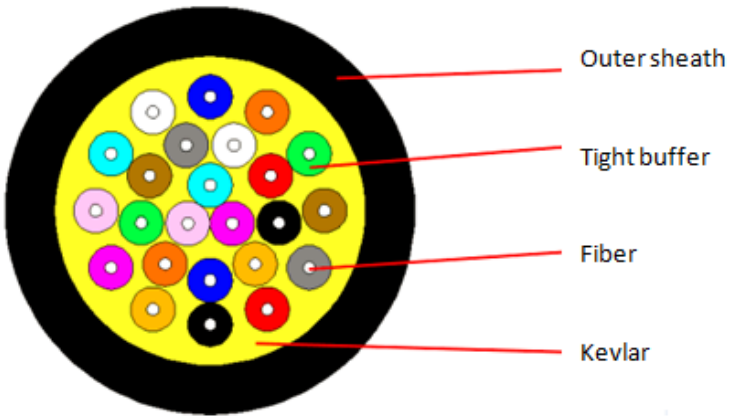
1. *Cable Description*

Distribution Tight Buffer Optical Cable use 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 cabling, especially used as distribution cabl

4. ***Characteristics :***

- ❖ Good mechanical and environmental characteristics
- ❖ Flame retardant characteristics meet the requirements of relevant standards
- ❖ The mechanical characteristics of jacketd 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	Minimum allowable Tensile Strength (N)		minimum allowable Crush Load (N/100mm)		Minimum Bending Radius (MM)		Storage temperature
	(MM)	(MM)	(KG)	short term	long term	short term	long term	short term	long term	(°C)
24	8.3	0.9	55.00	1000	500	1000	200	20D	10D	-40+70

6. ***Standard color of tight buffe***

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

Color 13~24 will be marked with a black tracer. For black color no need marked

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	≧160
	1300nm	MHZ. KM	.....	≧800	≧500
Zero dispersion wavelength		nm	≧1302, ≤1322	.....	.....
Zero dispersion slope		nm	≤0.091	.....	.....
PMD Maximum Individual Fiber			≤0.2	.....	.....
PMD Design Link Value		Ps(nm2*km)	≤0.08	.....	.....
Fiber cutoff wavelength λc		nm	≧1180,≤1330	.....	.....
Cable cutoff wavelength λcc		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 concentrically 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

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.