Distribution Tight Buffer IN/OUT Optical Cable (FTMSU)
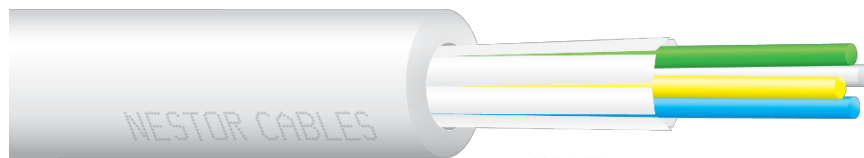# Specification

1. *Cable Description*
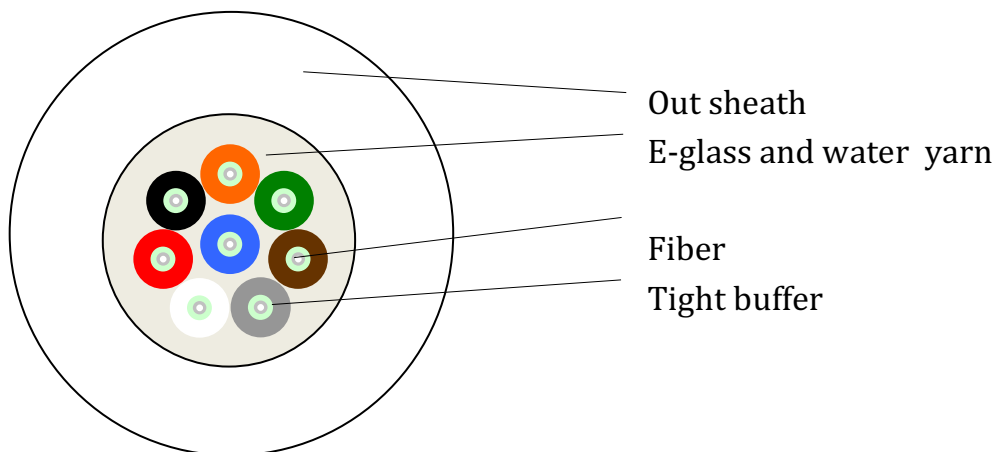
Distribution Tight Buffer Optical Cable use 4~12 core 900μm tight buffer fiber as optical communication medium.

The tight buf**nestor** cables l with E-glass member and water yarn as strength member, then completed with a layer of LSZH material as out jacket.

2. *Cable Drawing*

<Cross-sectional Drawing of Cable>

Out sheath

es   2. Strength members   3. Outer sheath

E-glass and water yarn

Non-metallic tight-buffered optical fibre cable for indoor FTTX applications. (riser, distribution and drop cable)

Fiber

Tight buffer

Optical fibres	Single-mode fibres according to the ITU-T G.657.A1. Fibres meet also the requirements of ITU-T G.652.D.
Secondary coating	Tight buffer, outer diameter 900 μm.
Strength members	Glass yarns with water-blocking coating under the sheath.

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

Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is light grey RAL 7035. Nominal sheath thickness is 1,0 mm. Cable is flame retardant according to the IEC 60332-1-2 and IEC 60332-3.

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Sheath marking	Marking printed on the sheath at one meter interval. Nestor Cables - cable type - year of manufacture - length marking

Standard references		
	Cable properties	IEC 60794-2-21
	Test methods	IEC 60794-1-2x
	Flame retardant	IEC 60332-1-2, IEC 60332-3
	Low smoke	IEC 61034-2

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	Maximum allowable Tensile Strength (N)		Maximum allowable Crush Load (N/100mm)		Maximum Bending Radius (MM)		Storage temperature	Working temperature
	(MM)	(MM)	(KG)	short term	long term	short term	long term	short term	long term	(℃)	(℃)
04	5.7	0.9	22.00	600	200	1000	200	10D	20D	-40+60	-40+60
06	5.7	0.9	23.00	600	200	1000	200	10D	20D	-40+60	-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		Yellow	Violet	Pink	Aqua

7.

Cable Mechanical characteristic

Fiber style		Unit	SM G657.A1	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	.....	.....