

CABLE SPECIFICATION

GYXTW 04-24 CORE – OM4-50/125 - with Armord

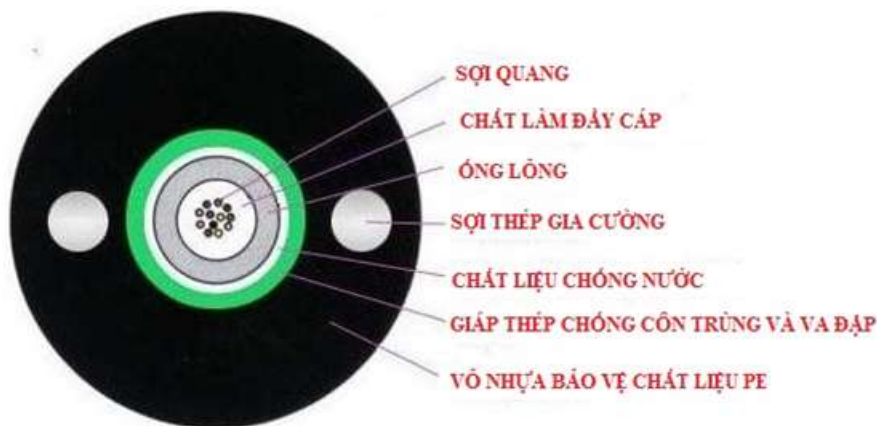
Cable construction:



Temperature Range
 Operating -40°C to
 +70°C Storage -50°C to
 +70°C Installation -
 30°C to +70°C Bending
 Radius:
 Static 10D
 Dynamic 20D

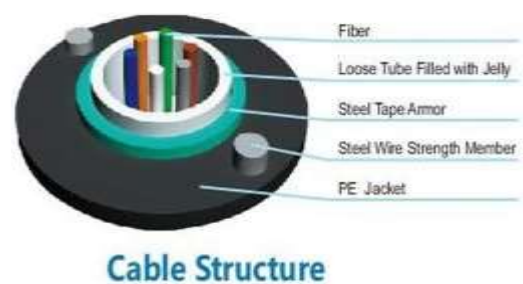
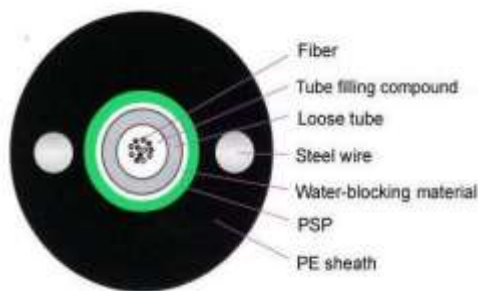
Features

04 to 24 fibers
 Extremely refined refractive index profile
 Low differential mode delay (DMD)
 Low attenuation
 Uni tube gel-filled construction for
 superior fiber protection
 Corrugated steel tape armor to protect
 cable from mechanical damage
 Superior geometry, uniformity
 Two parallel steel wire or Non-metallic
 FRP wire to enhance tensile resistant
 UV and moisture-resistant designs.



Benefits and Applications

- Data centers
- Storage Area networks
- High performance computing centers
- Central offices
- Local Area Network
- Optimized performance in tight-buffer cable applications
- High resistance to micro-bending
- Stable performance over a wide range of environmental conditions.

**Information:**

ITEMS		DESCRIPTION
Fiber count		04-24FO
Loose tube	OD(mm)	($\geq 2.2\text{mm}$)
	Materia	PBT
Water Block material		Water bloking compound
Armored		Corrugation Steel tape
Strength Number (steel)		$0.8\text{mm} \pm 2$
Sheath	Thichness:	2.2mm
	Materil:	MDPE
ODF of cabre (mm)		$\geq 7.0\text{mm}$

Description:

The fibers 50/125, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water- resistant afilling 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 polyethylene (PE) sheath. Armored Uni – Tube Single Jacket/Single Armored cable is designed with the filexbility and versatility required for today’s most demanding installations including direct baried. The metallic armor is used when mechanica protection is desired.

Test Requirement	OM1 – 62.5 μm	OM2 – 50 μm	OM3 – 50 μm	OM4 – 50 μm
OFL Bandwidth @ 850/1300 nm	200/500 MHz•km	500/500 MHz•km	1500/500 MHz•km	3500/500 MHz•km
EMB @ 850 nm	No requirement	No requirement	2000 MHz•km	4700 MHz•km
Maximum reach @ 1 Gb/s	275/550m* (850/1300nm)	550/550m* (850/1300nm)	800/550m* (850/1300nm)	1100/550m* (850/1300nm)
Maximum reach @ 10 Gb/s	33m*	82m*	300m* (850nm)	550m* (850nm)
Maximum reach @ 40 & 100 Gb/s	No requirement	No requirement	100m* (850nm)	125m* (850nm)

Cable Spec

ITEMS		UNITS	SPECIFICATION
			OM4-50/125
Fiber core Diameter		μm	50.0±2.5
Fiber core Non -circularity		%	≤6.0
Cladding Diameter		μm	125±1.0
Cladding Non-circularity		%	≤2.0
Coating Diameter		μm	245±10
Coat-Clad Conecncricity		μm	≤12.0
Coating Non-circularity		%	≤8.0
Core-Clad Concentricity		μm	≤1.5
Attenuation	850nm	dB/km	3.0
	1300nm	dB/km	1.5
OFL	850nm	Mhz.km	≥200
	1300nm	Mhz.km	≥400
The biggest theory numerical aperture		\	0.200±0.015

Construction

- 1.1 jacket
- 1.2 Parallel steel strengthmember
- 1.3 Corrugated steel tapsarmored (PSP)
- 1.4 Water blocking tapsPBT LooseTube
- 1.5 Jelly corefibers

Fiber colorcode

The fiber in the loose tube is colored according to the following color code. Each color is distinguishable from the other under normal light conditions

No	1	2	3	4	5	6	7	8	9	10	11	12
Color	1	2	3	4	5	6	7	8	9	10	11	12
No	13	14	15	16	17	18	19	20	21	22	23	24
Color	1	2	3	4	5	6	7	8	9	10	11	12

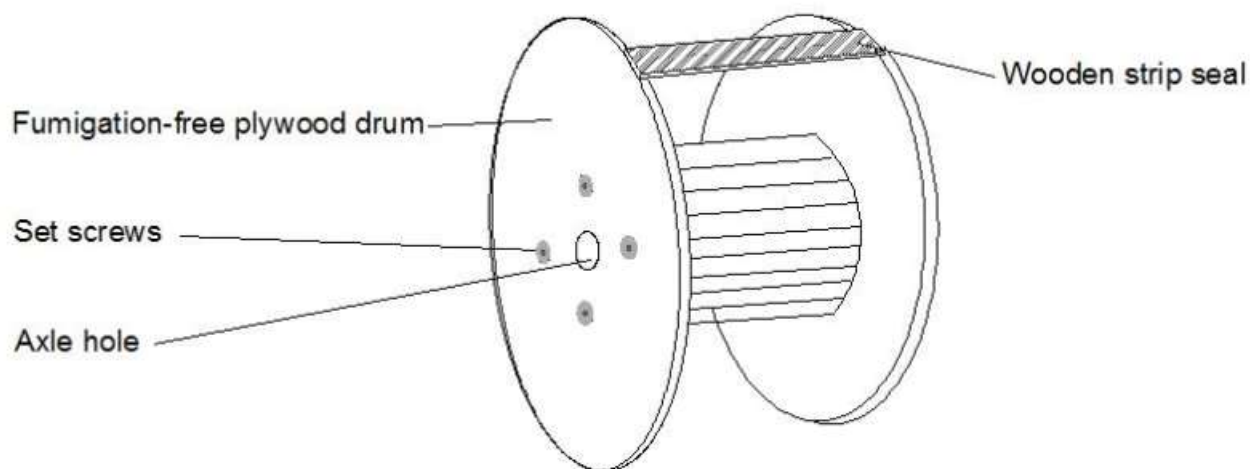
Testing Cable:

No	ITEMS	TEST METHOD	ACCEPTANCE CRITERIA
1	Tendile Loading Test	#test method: IEC 60797-1-E1 - Long-tensile load: 600N - Short-tensile load: 1500N -Cable lenth: $\geq 50\text{m}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
2	Crush Resistance Test	#Test method: IEC 60794-1-E4 - Long load: 300N/100mm - Short Load: 1000N/100mm - Load time: 1 minutes	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
3	Impact Resistance Test	#Test method: IEC 60794-1-E4 - Impact height: 1m - Impact weigh: 450g - Impact point: ≥ 5 - Impact frequency: $\geq 3/\text{point}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
4	Repeated Bending	#Test method: IEC 60794-1-E6 - Mandre diameter: 20D (D=cable diameter) - Subject weight: 15kg - Bending frequency: 30 times - Bending speed: 2s/time	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
5	Torsion Test	#Test method: IEC 60794-1-E7 - Length: 1m - Subject weight: 25kg - AngleL ± 180 degree - Frequeny: $\geq 10/\text{point}$	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
6	Water Penetration Test	#Test method: IEC 60794-1-F5B - Height of pressure head: 1m - Length of specmen: 3m - Test time: 24 hours	- no leakage through the open cable end
7	Tempearture Cycling Test	#Test method: IEC 60794-1-F1 - Temperature steps: $+20^{\circ}\text{C}$ to 40°C , $+70^{\circ}\text{C}$, $+20^{\circ}\text{C}$ - Testing time 24 hours/ step - Cycle index: 2	- Attenuation incermant@1550nm $\leq 0.1\text{dB}$ - No jacket cracking and fiber brackage
8	Drop performance	#Test method: IEC 60794-1-E14 - Testing length: 30cm - Temperature range: $70\pm 2^{\circ}\text{C}$ - Testinng time: 24 hours	- No filling compound drop out
9	Temperature	Operating: -40°C to $+60^{\circ}\text{C}$	

		Store/ Transport: -50°C to +70°C Installation : -20°C to +60°C
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Packing and Drum

- Each single length of cable shall be reeled on Drum suitable for long-distance Shipment.
- Cables should be protected from moisture; kept away from high temperature and fire sparks; protected from over bending and crushing; protected from mechanical stress and damage



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