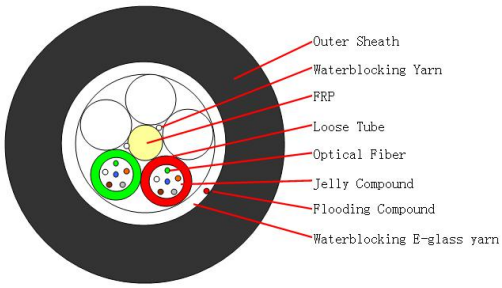
J/A-DQ(BN)H, G.652D/OM3/OM4,Loose Tube, WaterBlocking E-Glass Yarn, FR-LSZH，Anti-UV Cable

Cable Design



Technical data

No. of cable		24	48
Fiber Model		G.652D/OM3/OM4	
Central Strength Member	Material	FRP	
	Diameter（±0.1）mm	1.3	
Loose Tube	Material	PBT	
	Thickness（±0.05）mm	0.25	0.30
	Diameter（±0.005）mm	1.7	1.9
	The Max.Core NO./Tube	6	12
Strength Member	Material	Waterblocking E-Glass Yarn	
Waterblocking	Material	Waterblocking Yarn	
Outer Sheath	Material	FR-LSZH	
	Thickness（±0.1）mm	1.0	
	Color	Yellow/Aqua/Violet	
Ripcord	Material	Nylon	
	Color	Red	
	No.	1	
Cable Diameter（±0.4）mm		7.9	8.3
Cable Wetght（±5.0）kg/km		85	90

Fiber Color

No.	1	2	3	4	5	6
Color	Red	Green	Blue	Yellow	White	Grey
No.	7	8	9	10	11	12
Color	Brown	Violet	Turqoise	Black	Orange	Pink

Loose Tube Color

No.	1	2	3	4	5
Color	Red	Green	White	White	White

The properties of optical fiber (ITU-T G.652D)

Item	Specification
Fiber type	Single mode
Fiber material	Doped silica
Attenuation coefficient @ 1310 nm @ 1383 nm @ 1550 nm @ 1625 nm	 ≤ 0.35 dB/km ≤ 0.32 dB/km ≤ 0.21 dB/km ≤ 0.24 dB/km
Point discontinuity	≤ 0.05 dB
Cable cut-off wavelength	≤ 1260 nm
Zero-dispersion wavelength	1300 ~ 1324 nm
Zero-dispersion slope	≤ 0.092 ps/(nm^2.km)
PMD_Q (Quadrature average*)	≤0.2 ps/km$^{1/2}$
Mode field diameter @ 1310 nm	9.2±0.4 um
Core / Clad concentricity error	≤ 0.5 um
Cladding diameter	125.0 ± 0.7 um
Cladding non-circularity	≤1.0%
Primary coating diameter	245 ± 10 um
Proof test level	100 kpsi (=0.69 Gpa), 1%
Temperature dependence 0oC~ +70oC @ 1310 & 1550nm	≤ 0.1 dB/km

The properties of optical fiber(OM3)

Characteristic	Condition	Data	Unit
Optical properties			
Attenuation	850nm 1300nm	≤2.5 ≤0.7	dB/km dB/km
Overfilled bandwidth	850nm 1300nm	≥1500 ≥500	MHz.km MHz.km
Effective bandwidth	850nm	≥2000	MHz.km
10Gb / s Ethernet link length		300	m
Numerical aperture (NA)		0.185～0.215	
The differential modulus delay DMD		See FFOTOM3-300 within the template	
Backscatter characteristics **(1300nm)**			
Partly discontinuous point		≤0.1	dB
Fiber attenuation inhomogeneity		≤0.1	dB

Bidirectional backscattering coefficient difference		≤0.1	dB/km
Geometric characteristics			
Core diameter		50±2.5	μm
Cladding roundness		≤6.0	%
Coating diameter		125±2	μm
Cladding roundness		≤2.0	%
Coating / cladding concentricity error		≤1.5	μm
Coating diameter		245±10	μm
Core / package concentricity error		≤12.0	μm
Delivery length		1.1～8.8	km/reel
Environmental characteristics（850nm And 1300nm）			
Temperature additional attenuation	-60℃ ～+85℃	≤0.15	dB/km
Flooding additional attenuation	23℃±2℃ ， 30 days	≤0.20	dB/km
Hot and humid additional attenuation	85℃ and 85% Relative humidity, 30 days	≤0.20	dB/km
Dry heat aging	85℃±2℃	≤0.20	dB/km
Mechanical properties			
Screening tension		≥9.0	N
The macro bend Additional attenuation 100 laps Φ75mm	850nm&1300nm	≤0.5	dB
Coating peeling force	Typical average	1.5 ≥1.3 ≤8.9	N N
Dynamic fatigue parameters		≥20	

The properties of optical fiber(OM4)

Characteristic	Condition	Data	Unit
Optical properties			
Attenuation	850nm 1300nm	≤2.5 ≤0.7	dB/km dB/km
Overfilled bandwidth	850nm 1300nm	≥3500 ≥500	MHz.km MHz.km
Effective bandwidth	850nm	≥4700	MHz.km
10Gb / s Ethernet link length		550	m
Numerical aperture (NA)		0.185～0.215	
The differential modulus delay DMD		See FFOTOM3-550 within the template	
Backscatter characteristics **(1300nm)**			
Partly discontinuous point		≤0.1	dB
Fiber attenuation inhomogeneity		≤0.1	dB
Bidirectional backscattering coefficient difference		≤0.1	dB/km

Geometric characteristics			
Core diameter		50±2.5	μm
Cladding roundness		≤6.0	%
Coating diameter		125±2	μm
Cladding roundness		≤2.0	%
Coating / cladding concentricity error		≤1.5	μm
Coating diameter		245±10	μm
Core / package concentricity error		≤12.0	μm
Delivery length		1.1～8.8	km/reel
Environmental characteristics（850nm And 1300nm）			
Temperature additional attenuation	-60℃ ～+85℃	≤0.15	dB/km
Flooding additional attenuation	23℃±2℃ ，30days	≤0.20	dB/km
Hot and humid additional attenuation	85℃ and 85% Relative humidity, 30 days	≤0.20	dB/km
Dry heat aging	85℃±2℃	≤0.20	dB/km
Mechanical properties		≤0.20	dB/km
Screening tension			
The macro bend Additional attenuation 100 laps Φ75mm	850nm&1300nm	≥9.0	N
Coating peeling force	Typical average	≤0.5	dB
Dynamic fatigue parameters	-60℃ ～+85℃	1.5 ≥1.3 ≤8.9	N N
Backscatter characteristics **(1300nm)**		≥20	

Main mechanical & environmental performance test

DESCRIPTION	VALUES	REFERENCES
Tensile Strength	Load 1300N for 10 minutes .Variation of attenuation≤0.1dB .Fibers strain≤0.33%	IEC 60794-1-2-EIA IEC 60794-1-2-EIB IEC 60794-2-50
Crush Tset	Load 3000N/100mm for 3 minutes .Variation of attenuation≤0.1dB	IEC 60794-1-2-E3 IEC 60794-2-50
Inpact Test	Energy=20Nm on surface of 12.5mm radius,3 times .Variation of attenuation≤0.1dB	IEC 60794-1-2-E4 IEC 60794-2-50
Bending Test （No load）	Radius of curvature=15×O.D .Variation of attenuation≤0.1dB	IEC 60794-1-21-E11a Procedure no.2
Bending Test （load）	Radius of curvature=20×O.D .Variation of attenuation≤0.1dB	IEC 60794-1-21-E11a Procedure no.2
Tehrmal Cycles	Range -40℃/+70℃@1550nm .Variation of attenuation≤0.1dB	IEC 60794-1-2-F1 IEC 60794-2-20

Moisture resistance test	Pass	EN 609794-1-22-F5
Fire properties – Flammability	Pass	EN60332-3-22 (cat.A)
Fire properties – Acid gases	Pass	EN 60754-1 EN 60754-2
Fire properties – Smoke density	Pass	EN 61034-1 EN 61034-2

Sheath marking

The optical fiber drop cable shall have sequentially numbered length marking at intervals of approximately 1 meter. The starting number of ordering length for any coil shall begin whit zero meter. The accuracy of the measurement of lenth marking shall be held within the limits of ±1%.