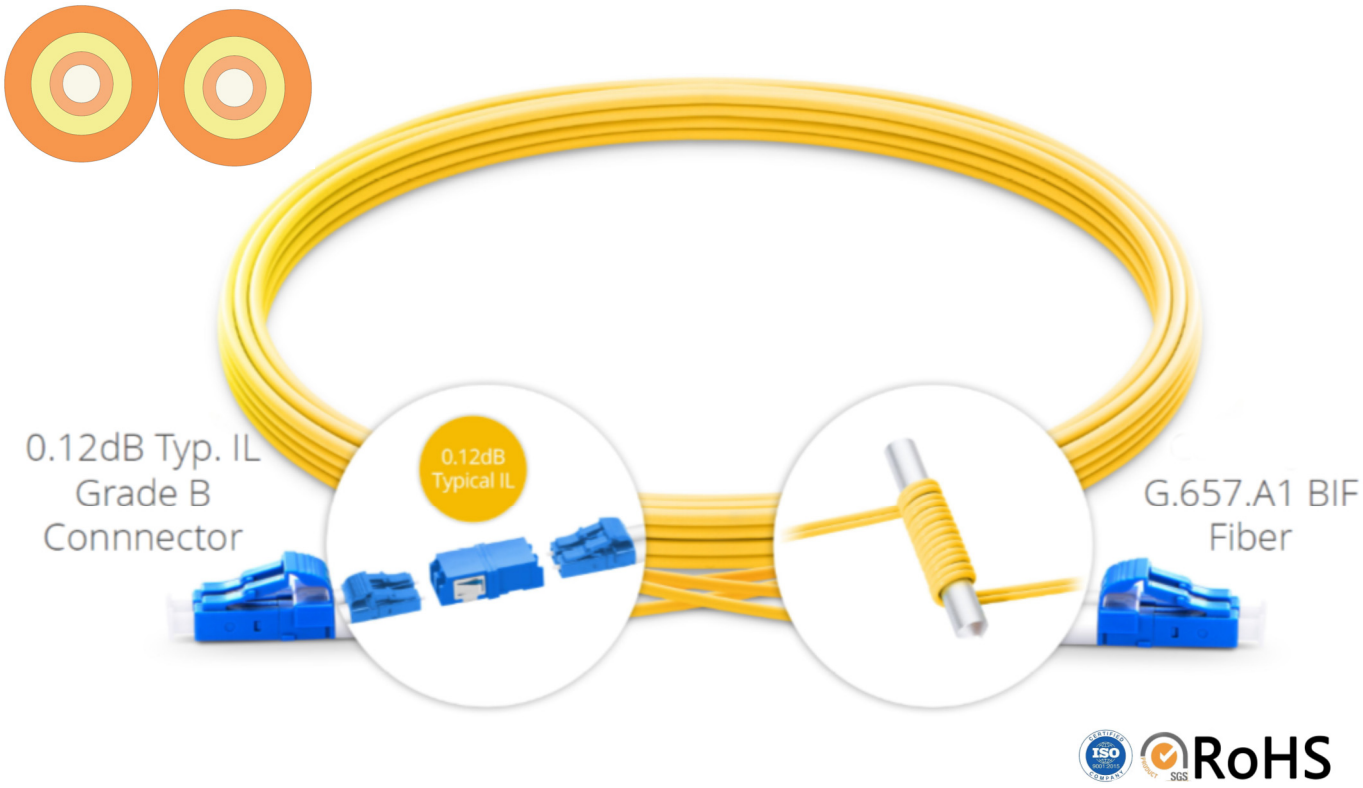
DATASHEET

Grade B BIF Zipcord Duplex Fiber Patch Cables

Premium Low IL for High Speed Data Transmission Connections.



OMC INDUSTRY CO.LIMTED

2018|En version1.0

www.omcftth.com sales@omcftth.com 0086-755-29163551

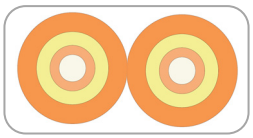
BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Description

IEC Grade B is based on IEC 61753-1, which is stable with excellent random mating performance between each grade B connector. Max. insertion loss of random mating of grade B patch cable is ≤0.25dB, however, random mating of standard patch cable will be over 0.5dB, even over 1.0dB especially for APC connector.

Bend insensitive fiber ensures less attenuation when bent or twisted compared with traditional fiber cables and this will make the installation and maintenance of the fiber optic cables more efficient. It also can save more space for high density cabling.

Products Materials



Bend Insensitive G652Dm G657A1,G657A2/B2,G657B3 Fibers
OD: 1.2x2.5mm,1.6x3.3mm,1.7x3.5mm,1.8x3.7mm,2.0x4.1mm,2.4x4.9mm,2.6x5.3mm,2.8x5.7mm
PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials

High quality SM Ceramic ferrule, Good concentricity<0.3um
High quality MM Ceramic ferrule, Good concentricity<4.0um

Standard connectors LC, SC, ST, FC, E2000, MU, D4, Din, LX.5, SMA are available
High precious connector guarantee Good Repeatability and Interchangeability
OEM Housing kits Color, OEM boot Colors
Customized Design for special demand

Standard Compliance

- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC61300-3-35
- YD/T1272.1-2003
- RoHS, ISO9001 Compliant

Features

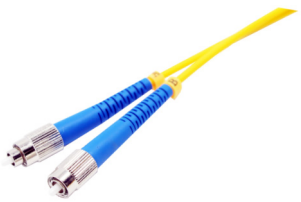
- High quality zirconia ferrules.
- Good repeatability and interchange.
- Flame-retardant, rugged and durable jacket.
- 100% optically tested for insertion loss to ensure high quality

Application

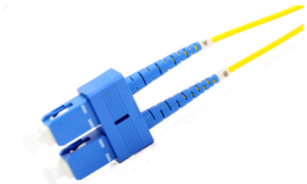
- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

Connector Type

LC
Standard ,Uniboot .
Typical Applications : High-density connections, SFP and SFP+ transceivers, XFP transceivers.



FC
Standard ,Short boot
Typical Applications : Datacom, Telecom, measurement equipment, single-mode lasers



SC
Standard boot , Short boot
Typical Applications : Telecom; GPON; EPON;

ST
Standard boot
Typical Applications : Datacom

BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Connector Standard

SC: TIA/EIA, FOCIS3, GR-326.NTT-SC IEC61754-4 and JIS C5973.
LC: TIA/EIA, FOCIS10, GR-326 EIA/TIA-604-10, IEC61754-20 and JIS C5973.
FC: EIA /TIA-604-04, FOCIS4, NTT-FC, GR-326. IEC61754-13 and JIS C5973
ST: TIA/EIA, FOCIS2, GR-326. IEC61754-2 and JIS C5973 Etc.
MU: TIA/EIA-604-3A, GR-326.NTT-MU, JIS and IEC.
MTRJ: TIA/EIA, FOCIS12, GR-326. IEC and JIS C5973.
DIN: IEC61754-3

Optical Specifications

Insertion loss	≤0.12dB mean, ≤0.25dB max. for >97% of sample	Interchangeability	≤0.2dB
Return loss	SM UPC≥50dB SM APC≥60dB MM PC≥35dB	Vibration	≤0.2dB
Operating temperature	-40~75°C	Maximum pulling force	70N(2.0mm cable) 100N(3.0mm cable)
Polarity	A(Tx) to B(Rx)		

Random Mating IL Performance Grades

	Connector Grade	Master Cord 1	Random Mating Average	Random Matingfor 97%
Grade According to IEC 61753-1	Grade A	Not DefinedYet	Not Defined Yet	Not Defined Yet
	Grade B	≤0.2dB	≤0.12dB	≤0.25dB
	Grade C	≤0.3dB	≤0.25dB	≤0.5dB
	Grade D	≤0.3dB	≤0.5dB	≤1.0dB

Notes:
1 A master cord is a perfect cord that has absolute low loss and is used as a base to measure and define the insertion loss of the tested cord.
2 For Maximum IL, 97% to meet the specification.
3 For Random mating Grade A, specification is not determined yet.

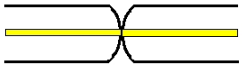
Geometric Specification(if Customer requested)

Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		±100	
Angle		± 0.5	8 ± 0.5

BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Polishing Method

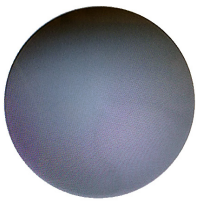
UPC(Ultra-Polished connector



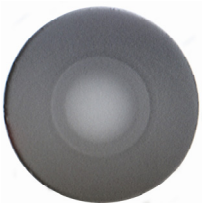
APC(8 Angled Polished connector

Polishing End-face

SM UPC



SM APC



MM PC

End-face Quality (SM)

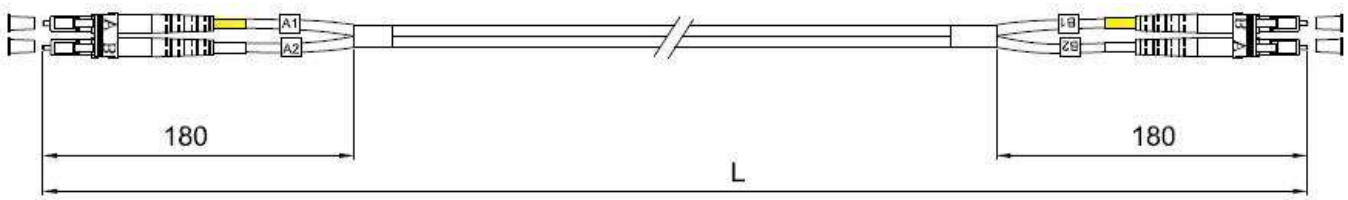
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

End-face Quality (MM)

Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 65	None	None	IEC 61300-3-35:2015
B: Cladding	65 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

Length Tolerance

Overall Length(L)(m)	length of tolerance(cm)
0<L<1	+5/-0
1<L<10	+10/-0
10<L<40	+15/-0
40<L	+0.5% x L/-0



BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Packaging

This easily taken and well-protected fiber patch cable package has been labelled and marked by OMC as de-fault .Standard carton size : 34*22*15 cm; 44*34*24 cm ; 54*39*34 cm . Which carton to be used depends on goods Qty . Packing can be customized.

1,Self-seal PE Bag

2 Bubble Bag

3, Paper Carton

4,fumig-free Pallet

OME service

1. Cable color, printing word, material of cable jacket, connector's color
2. OEM Label, Identify ring, cable's label, box, shipping marks
3. Different quality Level.

Order Instruction

Patch cord	Fiber count	Fiber Grade	Connector A	Connector B	Cable OD	Out jacket	Cable Color	-	length
A	D3 -Zip Duplex IEC Grade B, No Geometric request D4 -Zip Duplex IEC Grade B,Geometric passed request	1 - G652D 2 - G657A1 3 - G657A2/B2 4 - G657B3	A LC UPC B SC UPC C FC UPC D ST UPC E LC APC F SC APC G FC APC H ST APC	A LC UPC B SC UPC C FC UPC D ST UPC E LC APC F SC APC G FC APC H ST APC	3 - 1.2mm 4 - 1.6mm 5 - 1.7mm 6 - 2.0mm 7 - 2.4mm 8 - 2.6mm 9 - 2.8(3.0)mm	H- LSZH C - PVC R - OFNR P - OFNP	A Blue B Orange C Green D Brown E Grey F White G Red H Black I Yellow J Purple K Pink L aqua M Magenta X- other		1=1m ...

BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
1G	1000BASE-LX	OM5	850nm	550m
		OM4	1300nm	550m
		OM3	1300nm	550m
		OM2	1300nm	550m
		OM1	1300nm	550m
		SMF	1310nm	10km
	1000BASE-SX	OM4	850nm	550m
		OM3	850nm	550m
		OM2	850nm	550m
		OM1	850nm	275m
10G	10GBASE-SR	OM4	850nm	400m
		OM3	850nm	300m
		OM2	850nm	82m
		OM1	850nm	33m
	10GBASE-LRM	OM5	850nm	220m
		OM3	1300nm	220m
		OM2	1300nm	220m
		OM1	1300nm	220m
	10GBASE-LR	SMF	1310nm	10km
	10GBASE-ER	SMF	1550nm	30-40km
	10GBASE-ZR	SMF	1550nm	80-100km
40G	40G-BIDI	OM5	850nm	200m
		OM4	850nm	150m
		OM3	850nm	100m
	40GBASE-SR4	OM5	850nm	150m
		OM4	850nm	150m
		OM3	850nm	100m
	40G-SWDM4	OM5	850nm	440m
		OM4	850nm	350m
		OM3	850nm	240m
	40GBASE-LR4	SMF	1310nm	10km

BIF Zipcord Duplex IEC Grade B Fiber Patch Cables

Transmission Distance Comparison

Data Rate	Interface Type	Fiber Mode	Wavelength	Maximum Distance
100G	100GBASE-SR4	OM5	850nm	100m
		OM4	850nm	100m
		OM3	850nm	70m
	100G-SWDM4	OM5	850nm	150m
		OM4	850nm	100m
		OM3	850nm	75m
	100GBASE-SR10	OM4	850nm	125m
		OM3	850nm	100m
	100GBASE-LR4	SMF	1310nm	10km
	100GBASE-ER4	SMF	1310nm	40km

How to Choose The Right Fiber Optic Cable Type?

Designation	Fiber Dia. (μm)	Type	Fast Ethernet 100BASE-FX	1 Gigabit Ethernet 1000BASE-SX	1 Gigabit Ethernet 1000BASE-LX	10Gbps Ethernet 10GBASE	40Gbps Ethernet 40GBASE	100Gbps Ethernet 100GBASE
OM1	62.5/125	Multi-mode	2000 Meters	275 Meters	550 Meters	33 Meters	Not sup-ported	Not sup-ported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not sup-ported	Not sup-ported
OM3(Laser	50/125	Multi-	2000 Meters	550 Meters	550 Meters	300 Meters	100 Me-	100 Meters
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Me-ters(SR4)	150 Meters (SR4)
Singlemode	9/125	Single-mode	2000 Meters	5km at 1310nm	5km at 1310nm	10km at 1310nm	N/A	N/A

PS: The difference of OM4 and OM3 fiber mode as the following

1. OM4 was developed specifically for VSCEL laser transmission and allows 10 Gig / second link distances of up to 550 Meters (compared to 300M with OM3).

2. The effective modal bandwidth for OM4 is more than double that of OM3.