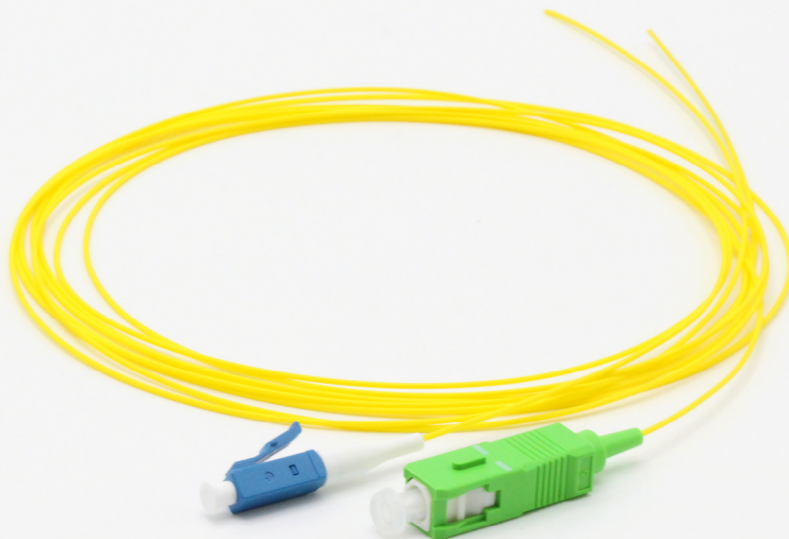
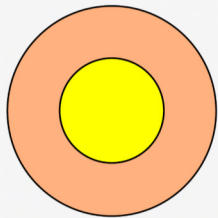


DATASHEET

IEC Grade B Quality level 900um Fiber Pigtail

Premium Low IL for High Speed Data Transmission Connections.



IL<0.12dB(Mean) 0.25dB Max
Color coded fiber
Easy to strip Cable



RoHS



OMC INDUSTRY CO.LIMITED

2018|En version1.0



IEC Grade B 900um Fiber Pigtail

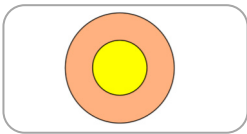
Description

The fiber optic pigtail is normally a tight/Tight buffered fiber cable with a connector pre terminated on one end and exposed fiber on the other. The end is stripped and fusion spliced to a single or multi-fiber trunk. When utilized properly, the fiber optic pigtail allows light signal transmission with minimal return loss and low attenuation. Make sure your network is reinforced with OMC's fiber pigtails, as ours are manufactured of superior quality materials.

The Pigtail are available in both single and multimode versions with either APC or UPC polish types. Our fiber pigtails come with a partial outer jacket protecting the Tight/Loose buffers from damage. If installed in a high density application, the outer jacket can be easily removed to accommodate a tighter bend radius for the pigtails.

We offer Individual single pigtails, Discounted 6 packs, or 12 Packs. Also 12 fiber or 6 fiber jacketed pigtails .

Products Materials



G652D,G657A1,G657A2/B2,G657B3,OM1,OM2, OM3, OM4, OM5 Fibers

900um, 1.2mm,1.6mm,1.7mm,1.8mm,2.0mm,2.4mm,2.6mm,2.8mm OD cable

PVC (Riser/OFNR), LSZH, Plenum (OFNP) Jacket materials



High quality SM Ceramic ferrule, Good concentricity<0.5um

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

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

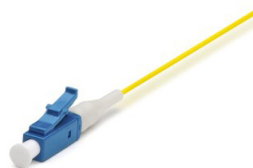
- Data Center
- Enterprise
- Fiber to the X (FTTX)
- LAN and WAN
- CATV Network
- Telecommunications Network

Connector Type

LC

Standard boot . Short boot

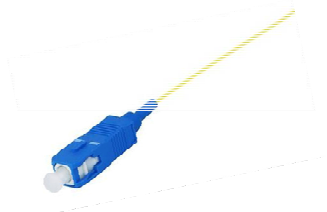
Typical Applications : High-density connections, SFP and SFP+ transceivers, XFP transceivers.



SC

Standard boot , Short boot

Typical Applications : Telecom; GPON; EPON; GBIC.



FC

Standard boot

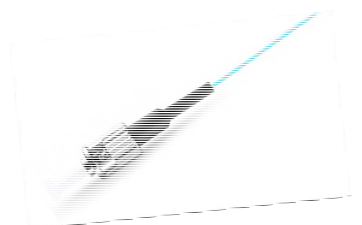
Typical Applications : Datacom, Telecom, measurement equipment, single-mode lasers



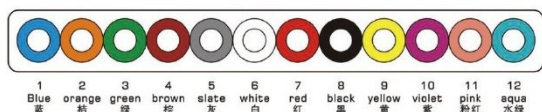
ST

Standard boot

Typical Applications : Datacom



Available for 12 colors, The 900um buffer and fiber same color coded



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.

E2000: IEC61754-15

Optical Specifications

Insertion loss	$\leq 0.12\text{dB}$ mean, $\leq 0.25\text{dB}$ max. for >97% of sample	Interchangeability	$\leq 0.2\text{dB}$
Return loss	SM UPC $\geq 50\text{dB}$ SM APC $\geq 60\text{dB}$ MM PC $\geq 35\text{dB}$	Vibration	$\leq 0.2\text{dB}$
Operating temperature	-40~75°C	Maximum pulling force	6N(900um cable) 70N(2.0mm cable)

Random Mating IL Performance Grades

	Connector Grade	Master Cord 1	Random Mating Average	Random Mating for 97%
Grade According to IEC 61753-1	Grade A	Not Defined Yet	Not Defined Yet	Not Defined Yet
	Grade B	$\leq 0.2\text{dB}$	$\leq 0.12\text{dB}$	$\leq 0.25\text{dB}$
	Grade C	$\leq 0.3\text{dB}$	$\leq 0.25\text{dB}$	$\leq 0.5\text{dB}$
	Grade D	$\leq 0.3\text{dB}$	$\leq 0.5\text{dB}$	$\leq 1.0\text{dB}$

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	

Polishing Method

UPC(Ultra-Polished connector)



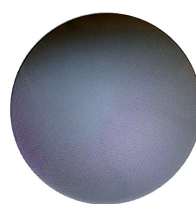
APC(8 Angled Polished connector)



Polishing End-face



SM UPC



SM APC



MM PC

End-face Quality (SM)

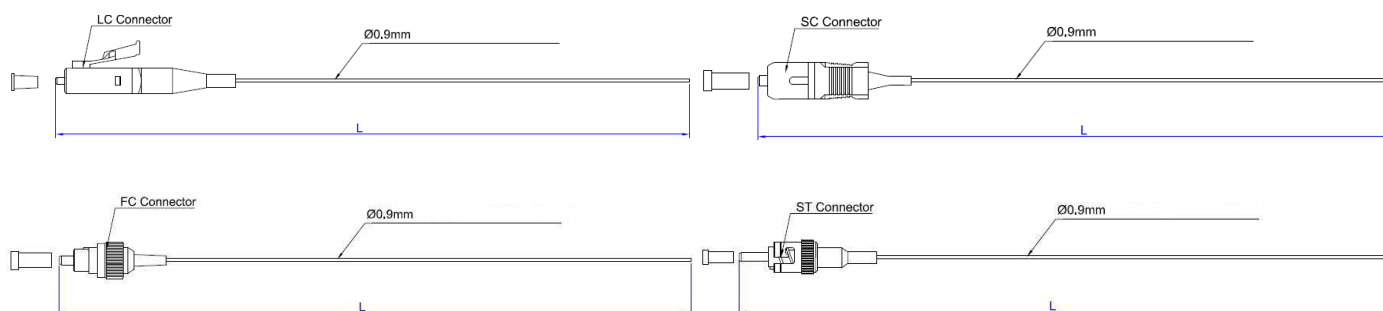
Zone	Range (μm)	Scratches	Defects	Reference
A: Core	0 to 25	None	None	IEC 61300-3-35:2015
B: Cladding	25 to 115	None	None	
C: Adhesive	115 to 135	None	None	
D: Contact	135 to 250	None	None	
E: Rest of ferrule		None	None	

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

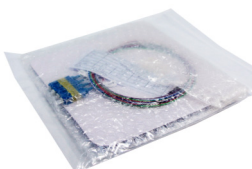


Packaging

This easily taken and well-protected fiber optical cable package has been labelled and marked by OMC as default .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 + Bubble Bag



2, Paperboard+bubble bag



3, Blister box



4, Paper Carton



5,fumig-free freight tray

OME Service

Cable color, material of cable jacket, connector's color

OEM Label&Box, Identify ring, cable's label, box, shipping marks

Different quality Level.

Order Instruction

Pigtail	Fiber count	Fiber Grade	Connector	Cable OD	Out jacket	Buffer	Fiber color	Cable Color	length
E	S3 - Simplex IEC Grade B, No Geometric request	1 - G652D	A LC UPC	1 - 0.6mm	H- LSZH	1-Tight	1-colored	A Blue	1=1m
		2 - G657A1	B SC UPC	2 - 0.9mm	C - PVC	2-Loose	2-transparent	B Orange	...
		3 - G657A2/B2	C FC UPC	3 - 1.2mm	R - OFNR	3-Simi-tight		C Green	
		4 - G657B3	D ST UPC	4 - 1.6mm	P - OFNP			D Brown	
			E LC APC	5 - 1.7mm				E Grey	
			F SC APC	6 - 2.0mm				F White	
			G FC APC	7 - 2.4mm				G Red	
			H ST APC	8 - 2.6mm				H Black	
	S4 - Simplex IEC Grade B,Geometric passed request			9 - 2.8(3.0)mm				I Yellow	
								J Purple	
								K Pink	
								L aqua	
								M Magenta	
								X- other	

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

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 supported	Not supported
OM2	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	82 Meters	Not supported	Not supported
OM3(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	300 Meters	100 Meters(SR4)	100 Meters (SR4)
OM4(Laser Optimized)	50/125	Multi-mode	2000 Meters	550 Meters	550 Meters	400 Meters	150 Meters(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 VCSEL 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.