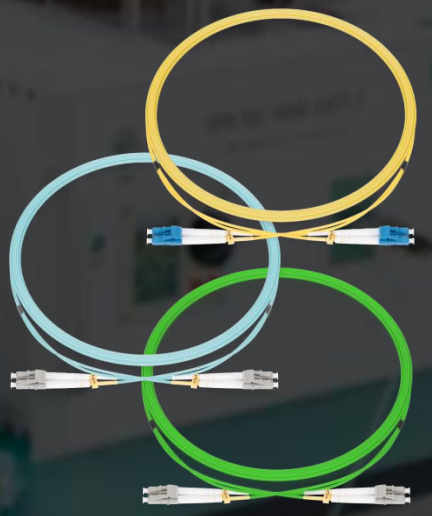
Product Specification

Standard Fiber Patch Cables

Widely Used For High-Speed Ethernet Connections



Features

- LC, SC, ST, FC, LSH, MTRJ, MU connectors are available
- OS2/OM5/OM4/OM3/OM2/OM1 are available
- Printing helps clarify and recognize different cables
- Low insertion loss, high return loss
- Good repeatability and interchangeability
- Factory terminated and tested
- High quality zirconia ferrules
- Flame-retardant, rugged and durable jacket

Compliance

- RoHS, ISO 9001, CE, REACH, WEEE Compliant
- TIA 604 (FOCIS)
- TIA/EIA 492AAAE
- IEC 61754
- IEC 60793-2-10
- IEC 61300-3-35
- YD/T1272.1-2003

Standard Fiber Patch Cables Description

Standard Fiber Patch Cables are high-performance connectivity solutions crafted by combining premium optical fiber cables with durable optical fiber connectors through advanced manufacturing processes. These cables are available with a variety of connector types, including LC, SC, FC, ST, MTRJ, MTP/MPO, and MU, ensuring compatibility with a wide range of network setups. Designed to support both single-mode and multi-mode transmission media, they are ideal for high-speed applications such as 1G, 10G, 40G, 100G, and beyond. Each fiber optic patch cable undergoes rigorous testing, including loss testing and environmental testing, to ensure compliance with industry standards such as TIA 604 (FOCIS), IEC 61754, and YD/T.

Widely utilized in communication equipment rooms, fiber-to-the-home (FTTH) installations, local area networks (LANs), fiber optic sensors, and fiber optic communication systems, Standard Fiber Patch Cables deliver reliable and efficient performance for seamless data transmission. Whether for high-speed data centers or complex network infrastructures, these cables provide the durability and precision needed to meet the demands of modern telecommunication and networking environments.

Technical Specification

1. Physical Characteristics

Parameter	Description
ConnectorTypes	LC/SC/ST/FC/LSH/MTRJ/MU with Standard Boots;
	LC12mm/18mm with Short Boots;
	SC 25mm with Short Boots
Polish Type	SMF:UPC-UPC;UPC-APC;APC-APC; MMF:UPC-UPC
Connector Ferrule	Zirconia Ceramic
Cable Outside Diameter	Duplex:1.6/2.0/3.0mm,Simplex:0.9/2.0/3.0mm
Interchangeability	≤0.2dB
Vibration	≤0.2dB

2. End face Geometry

Connector	Parameters	Limits	
		Minimum	Maximum
APC [LC/SC/FC]	ROC [mm]	5	12
	Fiber Height [nm]	-100	100
	Apex Offset [um]	0	70
	Angle [Deg]	7.7	8.3
	Key Error [Deg]	-0.3	0.3
UPC [LC/SC/FC/ST]	ROC [mm]	5	30
	Fiber Height [nm]	-100	100
	Apex Offset [um]	0	70

Note1: End face geometry iscontrolled base on SPC,the yield exceed 95%.

Note2: The minimum Fiber Height (minus maximum fiber undercut is calculated per below equation; B is the ROC,C is Apex Offset.

for 2.5mm ferrule:-[1988*B^[-0.795]-B*10^6+(V[B^2*10^6-C^2]]*10^3-60)

for 1.25mm ferrule:-[1798*B^[-0.795]-B*10^6+[V(B^2*10^6-C^2]]*10^3-60)

3. Mechanical Characteristics

Parameter	Description
Fiber Type	Standard Boots:OS2/OM5/OM4/OM3/OM2/OM1
	Short Boots:OS2/OM4/OM3

Fiber Count	Duplex/Simplex
Cable Jacket	PVC(Riser/OFNRJ/LSZH/Plenum [OFNP]
	SMF:G.657.A1/G.657.A2
Fiber Grade	OM5/OM4/OM3/OM2:Bend Insensitive
	OM1:G.651

4. Color Characteristics

Connector		Housing Color	Boot Color	Fiber Type	Jacket Color
LC	APC	Green	Green	SMF	Yellow
	UPC	Blue	White	SMF	Yellow
	UPC	Beige	White	OM1/OM2	Orange
	UPC	Aqua	White	OM3/OM4	Aqua
	UPC	Beige	White	OM5	Lime Green
SC	APC	Green	Green	SMF	Yellow
	UPC	Blue	Blue	SMF	Yellow
	UPC	Beige	Beige	OM1/OM2	Orange
	UPC	Aqua	Aqua	OM3/OM4	Aqua
FC	APC	Silver	Green	SMF	Yellow
	UPC	Silver	Blue	SMF	Yellow
	UPC	Silver	Black	OM1/OM2	Orange
	UPC	Silver	Aqua	OM3/OM4	Aqua
ST	UPC	Silver	Blue	G.652/G.657	Yellow
	UPC	Silver	Black	OM1/OM2	Orange
	UPC	Silver	Aqua	OM3/OM4	Aqua

5. Minimum Bend Radius

Parameter		SMF	MMF
Fiber Cable [Dynamic/Static]	D 2.0/3.0mm	10/5D	20/10D
	OD 1.6mm	10/5D	-
	OD 0.9mm	10mm	OM1:15mm
			Others:7.5mm
Fiber Core	OD0.9/2.0/3.0mm	G.657.A1:10mm	OM1:15mm
	OD 1.6mm	G.657.A2:7.5mm	Others:7.5mm

6. Tensile Strength(Long Term/Short Term)

Parameter	Duplex	Simplex
0D 3.0mm	120/225N	80/150N
OD 2.0mm	90/150N	60/100N
OD 1.6mm	90/150N	-
OD 0.9mm	-	3/6N

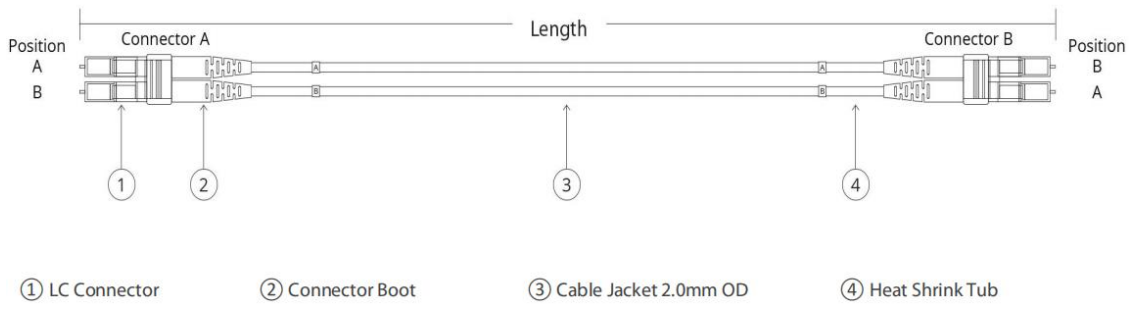
7. Optical Characteristics

Parameter	Description
Connector Insertion Loss	LC/SC/ST/FC/LSH/MU/MTRJ ≤ 0.3dB
Connector Return Loss	SMF:UPC>50,APC>60[LC/SC/ST/FC/MU/MTRJ],UPC>55,APC>75[LSH]
	MMF:UPC>30[LC/SC/ST/FC/LSH/MU],UPC>35[MTRJ]
Attenuation at 1310nm	G.657.A1:0.36dB/km G.657.A2:0.4dB/km
Attenuation at 1550nm	G.657.A1:0.22dB/km G.657.A2:0.25dB/km
Attenuation at 850nm	3.0dB/km
Attenuation at 1300nm	1.0dB/km

8. Environmental Characteristics

Parameter	Description
Operating Temperature	-20~70°C
Storage Temperature	-40~80°C

Technical Drawing



Note:

- L≤1m, tolerance ±0.05M; 1＜L<2.0M, tolerance ±0.1M; L≥2.0M, tolerance ±L*1%M.
- The total length of this cable is the distance from the connector ferrule at one end to the ferrule at the other end.

Fiber Optic Connectors Guidance

1.LC

Long Form

- Lucent Connector/Little Connector/Local Connector

Typical Applications

- SFP transceiver, high speed single mode transceiver

2.SC

Long Form

- Subscriber Connector/Square Connector/Standard Connector

Typical Applications

- Datacom and telecom; GPON; EPON; GBIC

3.FC

Long Form

- Ferrule Connector or Fiber Channel

Typical Applications

- Datacom, telecom, measurement equipment, single mode lasers

4.ST

Long Form

- Straight Tip

Typical Applications

- Datacom

5.LSH

Typical Applications

- Telecom, DWDM systems

6.MU

Long Form

- Miniature Unit

Typical Applications

- LANs and telecommunication networks

Production Center

Each fiber is fully verified and tested under the LSOLINK Assurance Program, which features the world's most advanced analytical equipment to ensure our transceivers comply with international common protocol standards while still operating flawlessly in your facility.

Accessories Installation

Optical Fiber Crimping

Tail Boot Installation

Housing Installation

Insertion/Return Loss Test

OQC Testing

End Face Inspection

Mechanical Winding

Order Information

Part Number	Description
OS2-D-LCU-LCU	LC UPC to LC UPC Duplex OS2 Single Mode PVC (OFNR) 2.OMm Fiber Optic Patch Cable
OS2-S-LCU-LCU	LC UPC to LC UPC Simplex OS2 Single Mode PVC (OFNR) 2.OMm Fiber Optic Patch Cable
OM5-D-LCU-LCU	LC UPC to LC UPC Duplex OM5 Multimode PVC (OFNR) 2.OMm Fiber Optic Patch Cable
OM4-D-LCU-LCU	LC UPC to LC UPC Duplex OM4 Multimode PVC (OFNR) 2.OMm Fiber Optic Patch Cable
OM3-D-LCU-LCU	LC UPC to LC UPC Duplex OM3 Multimode PVC (OFNR) 2.OMm Fiber Optic Patch Cable

Further Information

LSOLINK | Lighting the Path to Global Links

Web | www.lsolink.com

Email | For Sales@lsolink.com

Disclaimer

1. We are committed to continuous product improvement and feature upgrades, and the contents con t ained in this manual are subject to change without notice.
2. Nothing herein should be construed as constituting an additional warranty.
3. LSOLINK assumes no responsibility for the use or reliability of equipment or software not provided by LSOLINK. Copyright LSOLINK.COM All Rights