ZION
communication

# OPTICAL FIBER PATCH CORD
OPTICAL FIBER PIGTAILS

INTRODUCTION OF
# ZION COMMUNICATIONS

HANGZHOU ZION COMMUNICATION CO., LTD is a manufacturer and supplier of Optical fiber cables and Fiber Patch Cords (SC, LC, FC, ST, etc.)

We keep on investing and building strong R&D capabilities for new technology and innovation. We have a strong R&D team and skilled workers, also with the advanced machines and modern factories which can provide our customers with outstanding quality, service.

Our experienced team of experts strives to service every inquiry, quote, and order quickly and efficiently, meeting and often exceeding customers' expectations.
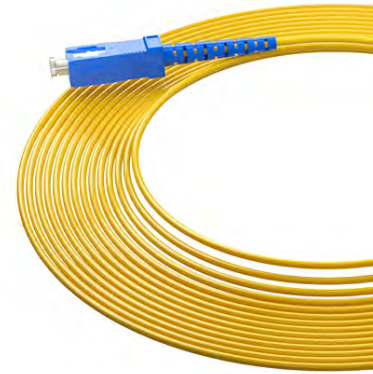
Fiber Cable Mode
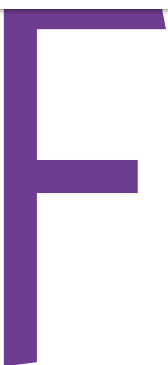
Single Mode or Multimode

Single mode fiber patch lead only allows one mode of light to pass along its length with a very thin diameter of 8-10 microns, thus it can carry signals at much higher speeds with lower attenuation. Single mode fiber has two varieties: OS1 and OS2, which are different in construction and application. In general, OS1 and OS2 are both applicable for long-haul transmission but OS2 is more suitable for long-haul transmission by offering better performance with fewer losses.

The core of the multimode fiber patch cord is bigger, typically 50 or 62.5 microns, which enables multiple light modes to be transmitted. It comes in five varieties supporting different transmission rates or distances: 62.5-micron OM1, 50-micron OM2, 50-micron OM3, 50-micron OM4, and 50-micron OM5, which can be differentiated by standard jacket colors. Since multiple light paths travel down the cable, the distance which multimode fiber jumpers can reach is usually short. For short-distance transmission within a building or campus, multimode fiber patch cords are the best-suited type.

Fiber patch cord is seeing broad adoption in applications spanning telecommunication and data communication. With numerous business and enterprise reaping great benefits from it, fiber patch cord represents by far the most sufficient and prevalent bandwidth feeder. As those gigabit-capable networks proliferate, the fueling capacity and speed quest further drive fiber patch cord deployment. When facing various fiber patch cord types on the market, how can we make a valid choice? Some basic understanding of the fiber patch cord would be helpful.
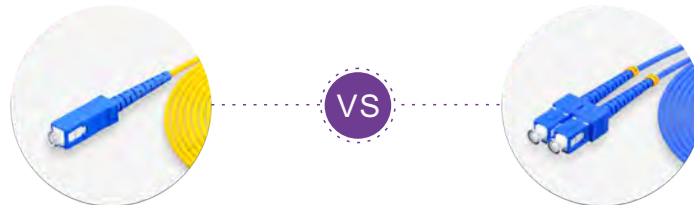
Singlemode Fiber

Multimode Fiber

Multimode Fiber
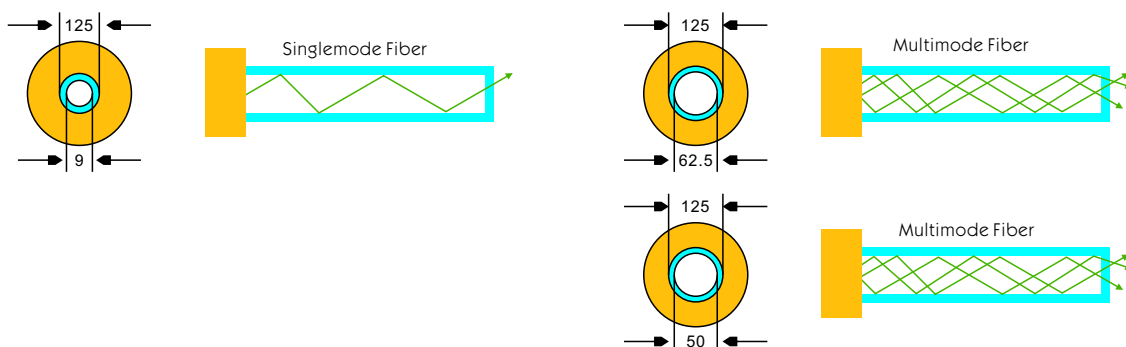
Number of Fiber Strands

Simplex or Duplex
According to the number of fiber strands, there are simplex and duplex fiber patch cord. As shown in Figure, simplex fiber patch cord contains one single strand of fiber with one simplex connector on each end. It can be linked with a pair of BiDi transceiver modules featuring with one port. Whereas duplex fiber patch cord consists of two strands of glass or plastic with one duplex connector (or considered as two simplex connectors). It is often linked with common transceivers or dual fiber BiDi transceivers.

VS

Polishing Type

PC, UPC or APC
Fiber optic connectors are designed and polished to different shapes to minimize back reflection, which is particularly important in single mode applications. According to this connector polish types, there are PC, UPC, and APC fiber patch cords. This post PC vs UPC vs APC Connector: Selecting the Right Fiber Connector Type presents the difference of PC, UPC, and APC. Nowadays PC polish type has been replaced by UPC type. Whether you choose UPC or APC depends on your actual application. Since APC provides less insertion loss than UPC, the APC fiber patch cables are more applicable for high bandwidth applications and long-distance links, such as FTTx, passive optical network (PON) and wavelength division multiplex (WDM). Whereas UPC fiber patch cords apply to optical systems that are less sensitive to insertion loss such as digital TV and telephony.

Jacket Type

PVC or LSZH
PVC and LSZH are used to describe the common jacket material of fiber patch cord. Fiber patch cables covered with PVC jacket are flexible at normal installation temperatures. Compared with PVC patch cords, LSZH patch cords are more rigid and less flexible but they contain the flame retardant compound that doesn't emit toxic fumes if it burns. PVC fiber optic patch cord is usually used for indoor applications such as horizontal runs from the wiring center. While LSZH cable is used in unventilated areas exposed to public, such as subways and tunnels and also used for rooms that are not easy to get out quickly.
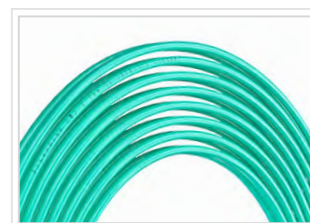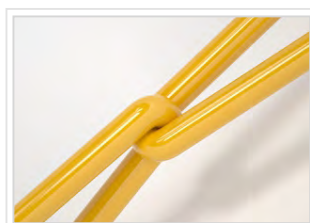
INTRODUCTION
FIBER PATCH CORD

Fiber patch cord, often called fiber patch cable, fiber jumper, or fiber patch lead is a length of fiber cable that terminated with fiber optic connectors (LC, SC, MTRJ, ST and etc.) at each end. The connectors allow the fiber optic patch cord to be rapidly connected to an optical switch or other telecommunications/computer device. Fiber jumper is a key player for indoor use, like in server rooms or in data centers. Featuring excellent reliability, superior adaptability, and improved security, the fiber patch cord has ranked the best choice for applications where conventional copper cables fail to reach.

SC Connector

The SC is a snap-in connector that also features a 2.5mm ferrule much like the ST connector and is known for its excellent performance. The connector is simple, rugged, and low cost. It's simple push on/pull off operations makes it a popular choice.

LC Connector

The LC connectors are highly popular within single-mode networks. It is known for its good performance and small size. LC connectors have a 1.25mm ferrule, approximately half the size of SC connectors. It's also commonly referred to as the "little connector".

FC Connector

The FC connector was widely popular within fiber optic networks however its use has been dwindling in recent times replaced with SC and LC. The connector uses a threaded container and aligned key. Once positioned it can remain in place with perfect precision.

ST Connector

The ST connector remains one of the most widely used connectors especially for multimode networks such as college campuses and most buildings. The connector is very easy to use due to its spring-loaded, keyed, and "push in and twist" mechanism within its design. The ST connector features a bayonet mount and a long cylindrical 2.5mm ceramic or polymer ferrule to hold the fiber.

D4 Connector

The D4 connectors used in our patch cords belong to an older generation of connectors that are keyed and spring-loaded. Thezirconia ferrules are 2mm in diameter and fully compatible with existing D4 hardware.

E2000 Connector

The E2000 connector is mainly used in modern telecommunication networks. The connector features a unique spring-loaded shutter that protects the ferrule from dirt, dust, and scratches. Since the connector uses a monobloc ceramic ferrule, problems related to different co-efficient of expansion are nonexistent. The E2000 utilizes a push-pull locking connector. The E2000's return loss is one of the lowest in the industry at just 0.1 dB.

MU Connector

MU connectors resemble a miniature version of SC with a 1.25mm ferrule. Its small size allows the MU connector to have a reduced footprint and are used in dense applications. The connector is square and uses a push-pull mechanism to lock. This type of connector is more popular in countries such as Japan.

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9/125 (**OS1-OS2**) Optical Fibre Patch Cords

OS 1/2 9/125 **OS 1/2** G.657.A1 **OS 1/2** G.657.A2

Singlemode patch cords are used for telcom networks and also used for high speedmetropolitan and access network. Our singlemode patch cords are manufactured using LSZH cables which conform to IEC, EIA TIA and Telecordia standards. OS1/OS2 patch cords are terminated with our standard connector which gives optimum optical performance.

Features

✓ SC, LC, ST, FC, MU and E2000 connectors
✓ Low smoke zero halogen (LSZH) jacket in yellow colour
✓ 900μm tight buffer
✓ OS1/OS2 fibre conforms to ITU-652.D, TIA/EIA 492 CAAA
✓ Simplex and duplex assemblies
✓ Duplex assemblies available with clips (SC and LC)
✓ Different connector performance range for specific application
✓ Armoured option also available

Applications

✓ CATV / VIDEO
✓ Passive Optical Network PON
✓ WDM / DWDM
✓ FTTH
✓ Data centres - Support high speed multi channel video, data and voice
✓ services in metropolitan and access networks
✓ ATM, SONET and WDM

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.18 dB	IEC 61300-3-4
Ave/Random	0.18 dB	IEC 61300-3-34
Return Loss UPC/APC	55/65 dB	IEC 61300-3-6

Fibre Specification

Characteristics	
Attenuation (dB) / km	0.38 @ 1310nm / 0.25 @ 1550nm
Chromatic Dispersion (ps/nm x km)	3.00 @ 1310nm / 18.0 @ 1550nm

Cable Specification

Characteristics	Simplex	Duplex
Cable Material	LSZH	LSZH
Strength Member	Aramid	Aramid
Crush (N)	1000	1000
Operating Temperature (°C)	≈20 to 60	≈20 to 60
Fire Specification	IEC 60332-1	

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62.5/125 (OM1)
Optical Fibre Patch Cords

OM1
62,5/125

Multimode patch cords are used to connect high speed and legacy networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode patch cords are manufactured using LSZH cables which conform to IEC, EIA TIA and Telecordia standards. OM1 patch cords are terminated with our standard connector which gives optimum optical performance.

Features

✔ SC, LC, ST, FC connectors
✔ Low smoke zero halogen (LSZH) cable in orange colour
✔ 900µm / 600µm tight buffer
✔ OM1 fibre conforms to TIA/EIA 492AAAA, IEC60793-2-10
✔ Simplex and duplex assemblies
✔ Duplex assemblies available with clips (SC and LC)
✔ Different connector performance range for specific application
✔ Armoured option also available

Applications

✔ Gigabit Ethernet in high speed LAN networks over an indicative 275 m link length at 850 nm (SX) wavelength
✔ Legacy networks including Ethernet, Fast Ethernet and FDDI
✔ Data centres
✔ Premises cabling in data networks including backbone, riser and horizontal
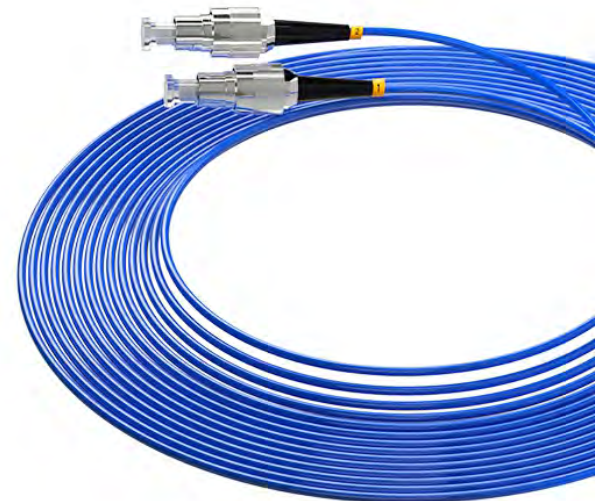✔ Supports video, data and voice services

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	3.00 @ 850nm / 0.80 @ 1300nm
Bandwidth OFL (MHz x km)	200 @ 850nm / 500 @ 1300nm

Cable Specification

Characteristics	Simplex	Duplex
Cable Material	LSZH	LSZH
Strength Member	Aramid	Aramid
Crush (N)	1000	1000
Operating Temperature (˚C)	≈20 to 60	≈20 to 60
Fire Specification	IEC 60332-1	

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50/125 (OM2)
Optical Fibre Patch Cords

OM 2 50/125

Multimode patch cords are used to connect high speed
and legacy networks like Gigabit Ethernet, Fast Ethernet and Ethernet.
Our multimode patch cords conform to IEC, EIA TIA and Telecordia standards.
OM2 patch cords are terminated with our standard connectors
giving optimum optical performance.

Features

✔ SC, LC, ST, FC connectors
✔ LSZH cable or PVC
✔ 900µm tight buffer
✔ OM2 fibre conforms to ITU-T G.651.1, TIA/EIA 492AAAB, IEC60793-2-10
✔ Simplex and duplex assemblies
✔ Duplex assemblies available with clips (SC and LC)
✔ Armoured option also available

Applications

✔ For use in 1 Gb/s high speed LAN networks over a 550 m indicative link
   length at 850 nm wavelength using a laser launch
✔ High speed and legacy networks including Gigabit Ethernet, Fast Ethernet
   and Ethernet
✔ Data centres
✔ Premises cabling in data networks including backbone, riser and
   horizontal
✔ Supports video, data and voice services

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1300nm
Bandwidth OFL (MHz x km)	500 @ 850nm / 500 @ 1300nm

Cable Specification

Characteristics	Simplex	Duplex
Cable Material	LSZH	LSZH
Strength Member	Aramid	Aramid
Crush (N)	1000	1000
Operating Temperature (°C)	≈20 to 60	≈20 to 60
Fire Specification	IEC 60332-1	

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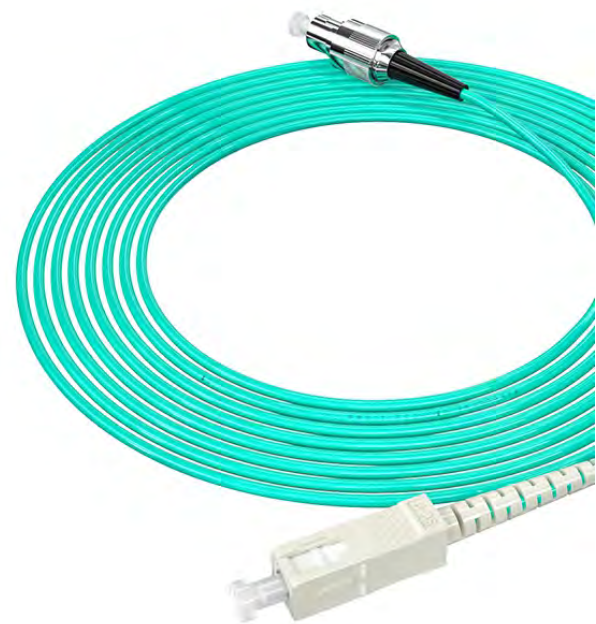
50/125 (OM3)
Optical Fibre Patch Cords

OM 3 50/125

Multimode patch cords are used to connect high speed and legacy networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode patch cords are manufactured using LSZH cables which conform to IEC, EIA TIA and Telecordia standards. The OM3 patch cords are terminated with our standard connector which gives optimum optical performance.

Features

✔ SC, LC, ST and FC connectors
✔ Low smoke zero halogen (LSZH) cable in aqua or purple colour
✔ 900μm tight buffer
✔ OM3 fibre conforms to ITU-T G.651.1, TIA/EIA 492AAAB, IEC60793-2-10
✔ Simplex and duplex assemblies
✔ Duplex assemblies available with clips (SC and LC)
✔ Different connector performance range for specific application
✔ Armoured option also available

Applications

✔ For use in 10 Gb/s high speed LAN networks over a 300 m indicative link length at 850 nm (SX) wavelength using a laser launch
✔ For use in 1 Gb/s high speed LAN networks over a 1000 m indicative link length at 850 nm (SX) wavelength using a laser launch
✔ High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
✔ Data centres
✔ Premises cabling in data networks including backbone, riser and horizontal
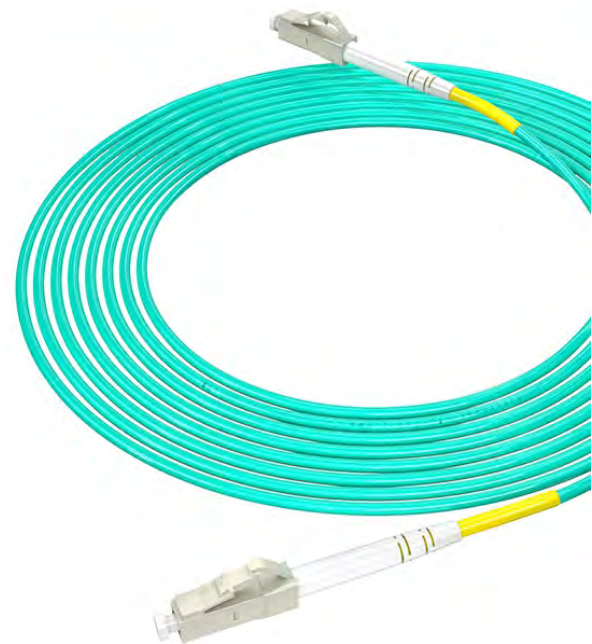✔ Supports video, data and voice services

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1310nm
Bandwidth OFL (MHz x km)	1500 @ 850nm / 500 @ 1310nm
Bandwidth LEMB (MHz x km)	2000 @ 850nm

Cable Specification

Characteristics	Simplex	Duplex
Cable Material	LSZH	LSZH
Strength Member	Aramid	Aramid
Crush (N)	1000	1000
Operating Temperature (°C)	≈20 to 60	≈20 to 60
Fire Specification	IEC 60332-1	

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OM 4 50/125

50/125 (OM4) Optical Fibre Patch Cords

Multimode patch cords are used to connect high speed and legacy networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode patch cords are manufactured using LSZH cables which conform to IEC, EIA TIA and Telecordia standards. The Om4 patch cords are terminated with our standard connector which gives optimum optical performance.

Features

✔ SC, LC, ST and FC connectors
✔ Low smoke zero halogen (LSZH) cable in aqua colour or erika violet
✔ 900μm tight buffer
✔ OM4 fibre conforms to ITU-T G.651.1, TIA/EIA 492AAAB, IEC60793-2-10
✔ Simplex and duplex assemblies
✔ Duplex assemblies available with clips (SC and LC)
✔ Different connector performance range for specific application

Applications

✔ For use in 10 Gb/s high speed LAN networks over a 400m indicative link length at 850 nm (SX) wavelength using a laser launch
✔ For use in 1 Gb/s high speed LAN networks over a 2000 m indicative link length at 850 nm (SX) wavelength using a laser launch
✔ High speed and legacy networks including Gigabit Ethernet, Fast Ethernet and Ethernet
✔ Data centres
✔ Premises cabling in data networks including backbone, riser and horizontal Supports video, data and voice services
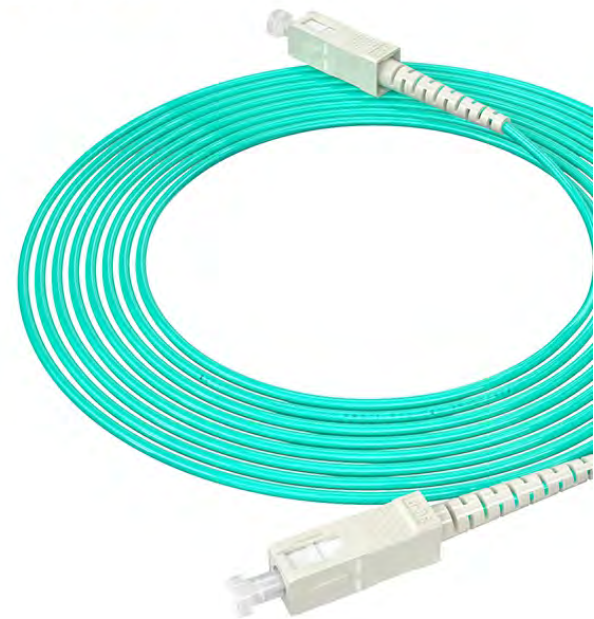
Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1310nm
Bandwidth OFL (MHz x km)	3500 @ 850nm / 500 @ 1310nm
Bandwidth LEMB (MHz x km)	4700 @ 850nm

Cable Specification

Characteristics	Simplex	Duplex
Cable Material	LSZH	LSZH
Strength Member	Aramid	Aramid
Crush (N)	1000	1000
Operating Temperature (°C)	≈20 to 60	≈20 to 60
Fire Specification	IEC 60332-1	

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FIBER PATCH CORD COMPOSITION DETAILS

Based on different specifications and standards, the common fiber patch cords can be categorified from the perspective of fiber cable mode, transmission mode, jacket type, connector type, and polishing type.

- Connector End A
- Connector End B
- Polish Type
- Cable Type
- Fiber Mode
- Cable Diameter
- Jacket Type
- Jacket Color
- Jacket Length

Part Number Generator

Connector End A	Connector End B	Polish Type	Cable Type	Mode	Cable Diameter	Jacket Type	Jacket Color	Length
SC	SC	UPC	SX=Simplex	OS1	1=0.9mm	1=PVC	YE=Yellow	0=0.5m
LC	LC	APC	DX=Duplex	OS2	2=2.0mm	2=LSZH	BL=Blue	1=1m
ST	ST		A=Armoured	OM1	3=3.0mm	3=OFNP	GN=Green	2=2m
FC	FC		W=Water-proff	OM2		4=OFNR	OR=Orange	3=3m
D4	D4		B=Break-out	OM3		5=PE	GY=Grey	....
E2000	E2000		R=Rbbon	OM4		6=TPU	PU=Purple	
MU	MU		B=Bundle	OM5			AQ=Aqua	

❶ ❷ ❸ ❹ ❺ ❻ ❼ ❽ ❾

FC FC UPC SX OS1 1 1 YE 0

Example Part Number
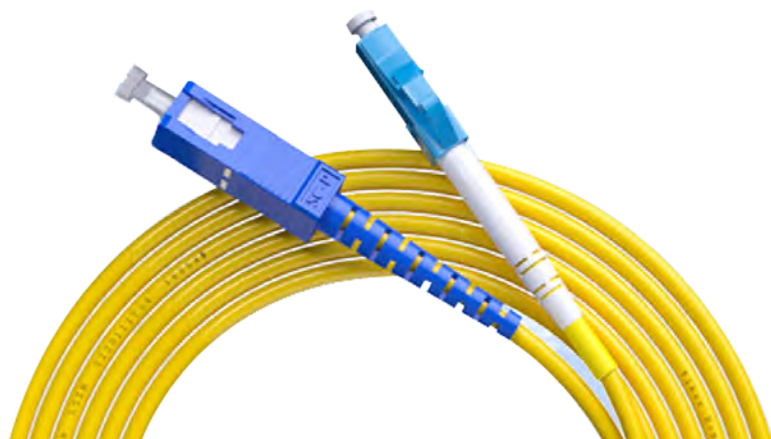
9/125 (Singlemode) Optical Fibre Pigtails

OS 1/2 9/125 **OS 1/2** G.657.A1 **OS 1/2** G.657.A2

Singlemode pigtails are used in Telcom, datacom networks, and also used for high-speed metropolitan and access network. Our single-mode pigtail buffer conforms to IEC, EIA TIA and Telecordia standards. They are terminated with our standard connector which gives optimum optical performance.

Features

SC, LC, ST, FC and E2000 connectors
UPC and APC interface
Low smoke zero halogen (LSZH) secondary buffer
900µm tight buffer or easy strip
ITU G.652.D, TIA/EIA 492CAAB
Bend insensitive ITU G.657.A1 or ITU G.657.A2
Different connector performance range for specific application
Available in standard white colour buffer and also in standard 12 colours as per IEC 60304
Available in standard and blister packing

Applications

✔ Telcom and datacom application
✔ Patch panels, wall boxes, ODFs and splice cassettes
✔ Easy strip pigtails for on-site installation
✔ Supports high-speed multi-channel video, data and voice services in metropolitan and access networks
✔ ATM, SONET and WDM

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.18 dB	IEC 61300-3-4
Ave/Random	0.18 dB	IEC 61300-3-34
Return Loss UPC/APC	50/60 dB	IEC 61300-3-6

Fibre Specification

Characteristics	
Attenuation (dB) / km	0.38 @ 1310nm / 0.25 @ 1550nm
Chromatic Dispersion (ps/nm x km)	3.00 @ 1310nm / 18.0 @ 1550nm
Polarization Mode Dispersion (ps/√km)	≤ 0.2

Cable Specification

Characteristics	Units	Simplex
Max Tensile Load	N	6
Nominal buffer Diameter	µm	900+50
Crush (N)	N/100mm	500
Operating Temperature (˚C)		-20 to 60

LC   SC   SC

ST   E2000

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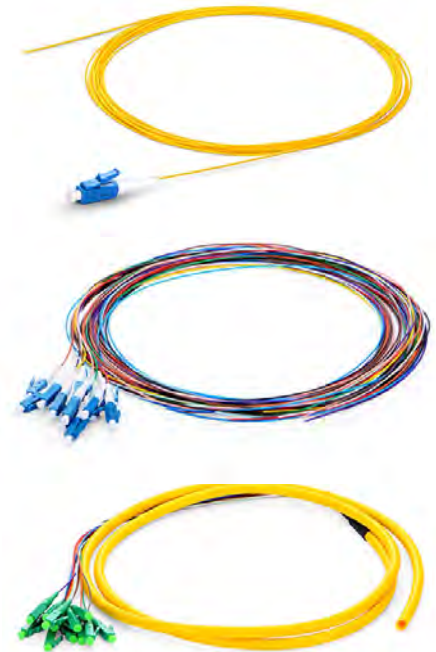
62.5/125 (OM1)
Optical Fibre Pigtails

OM 1
50/125

Multimode pigtails are used to connect high-speed networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode pigtail buffer conforms to IEC, EIA TIA andTelecordia standards. They are terminated with our standard connector which gives optimum optical performance.

Features

SC, LC, ST, FC connectors
Low smoke zero halogens (LSZH) buffer
900μm tight buffer or easy strip
OM1 pigtail is available in standard white colour
Multimode fibre conforms to TIA/EIA 492AAAA
The different connector performance range for a specific application
Available in standard 12 colours as per IEC 60304
Available in standard and blister packing

Applications

✔ Networks including Ethernet, Fast Ethernet and GBE
✔ Internal inter-connect
✔ Ideal for a wide range of telecom, datacom and process control applications where ruggedisation is required
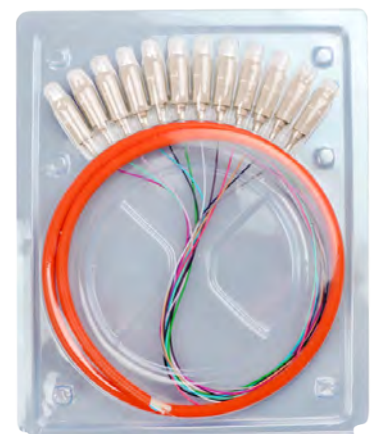✔ Suitable for repeated handling in patch panels and racks

LC   SC   SC

ST   E2000

Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	3.00 @ 850nm / 0.80 @ 1300nm
Bandwidth OFL (MHz x km)	200 @ 850nm / 500 @ 1300nm

Cable Specification

Characteristics	Units	Simplex
Max Tensile Load	N	6
Nominal buffer Diameter	μm	900+50
Crush (N)	N/100mm	500
Operating Temperature (°C)		-20 to 60

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50/125 (OM2)
Optical Fibre Pigtails

OM 2
50/125

Multimode pigtails are used to connect high-speed networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode pigtail buffer conforms to IEC, EIA TIA and Telecordia standards. They are terminated with our standard connector which gives optimum optical performance.

Features

SC, LC, ST, FC connectors
Low smoke zero halogen (LSZH) buffer
900µm tight buffer or easy strip
OM2 pigtail is available in standard white colour
Multimode fibre conforms to ITU-G651, TIA/EIA 492AAAA
Different connector performance range for specific application
Available in standard 12 colours as per IEC 60304
Available in standard and blister packing

Applications

✔ Networks including Ethernet, Fast Ethernet and GBE

✔ Internal inter-connect

✔ Ideal for a wide range of telecom, datacom and process control applications where ruggedisation is required

✔ Suitable for repeated handling in patch panels and racks
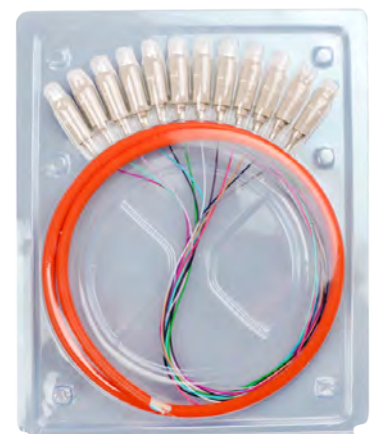
Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1300nm
Bandwidth OFL (MHz x km)	1500 @ 850nm / 500 @ 1300nm

Cable Specification

Characteristics	Units	Simplex
Max Tensile Load	N	6
Nominal buffer Diameter	µm	900+50
Crush (N)	N/100mm	500
Operating Temperature (°C)		-20 to 60

LC   SC   SC

ST   E2000

50/125 (OM3)
Optical Fibre Pigtails

OM 3 50/125

Multimode pigtails are used to connect high-speed networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode pigtail buffer conforms to IEC, EIA TIA and Telecordia standards. They are terminated with our standard connector which gives optimum optical performance.

Features

✔ SC, LC, ST, FC connectors
✔ Low smoke zero halogen (LSZH) buffer
✔ 900µm tight buffer or easy strip
✔ OM3 pigtail is available in standard purple or aqua colour
✔ Multimode fibre conforms to ITU-G651, TIA/EIA 492AAAA
✔ Different connector performance range for specific application
✔ Available in packs of 12 standard colours as per IEC 60304
✔ Available in standard and blister packing

Applications

✔ Networks including Ethernet, Fast Ethernet, and GBE
✔ Internal inter-connect
✔ Ideal for a wide range of telecom, datacom, and process control applications where ruggedization is required
✔ Suitable for repeated handling in patch panels and racks
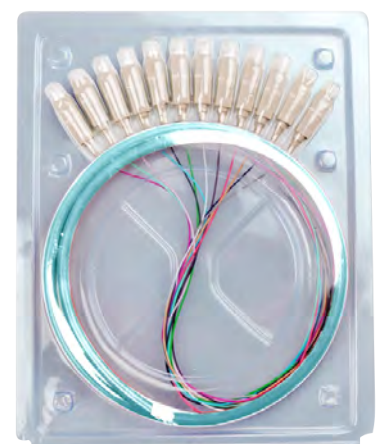
Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1310nm
Bandwidth OFL (MHz x km)	1500 @ 850nm / 500 @ 1310nm
Bandwidth LEMB (MHz x km)	2000 @ 850nm

Cable Specification

Characteristics	Units	Simplex
Max Tensile Load	N	6
Nominal buffer Diameter	µm	900+50
Crush (N)	N/100mm	500
Operating Temperature (°C)		-20 to 60

LC   SC   SC

ST   E2000

Zion communication

50/125 (OM4) Optical Fibre Pigtails

OM 4 50/125

Multimode pigtails are used to connect high-speed networks like Gigabit Ethernet, Fast Ethernet and Ethernet. Our multimode pigtail buffer conforms to IEC, EIA TIA and Telecordia standards. They are terminated with our standard connector which gives optimum optical performance.

Features

✔ SC, LC, ST, FC connectors
✔ Low smoke zero halogen (LSZH) buffer
✔ 900µm tight buffer or easy strip
✔ OM4 pigtail is available in standard aqua colour
✔ Multimode fibre conforms to ITU-G651, TIA/EIA 492AAAA
✔ Different connector performance range for specific application
✔ Available in standard 12 colours as per IEC 60304
✔ Available in standard and blister packing

Applications

✔ Networks including Ethernet, Fast Ethernet, and GBE
✔ Internal inter-connect
✔ Ideal for a wide range of telecom, datacom, and process control applications where ruggedization is required
✔ Suitable for repeated handling in patch panels and racks

LC   SC   SC

ST   E2000
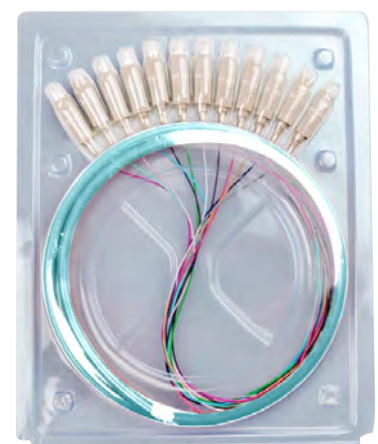
Connector Specification

Optical Performance	Singlemode	Conformance
IL Max/Master (Acceptance)	0.25 dB	IEC 61300-3-4
Ave/Master	0.15 dB	IEC 61300-3-4
Ave/Random	0.20 dB	IEC 61300-3-34

Fibre Specification

Characteristics	
Attenuation (dB) / km	2.80 @ 850nm / 0.80 @ 1310nm
Bandwidth OFL (MHz x km)	3500 @ 850nm / 500 @ 1310nm
Bandwidth LEMB (MHz x km)	4700 @ 850nm

Cable Specification

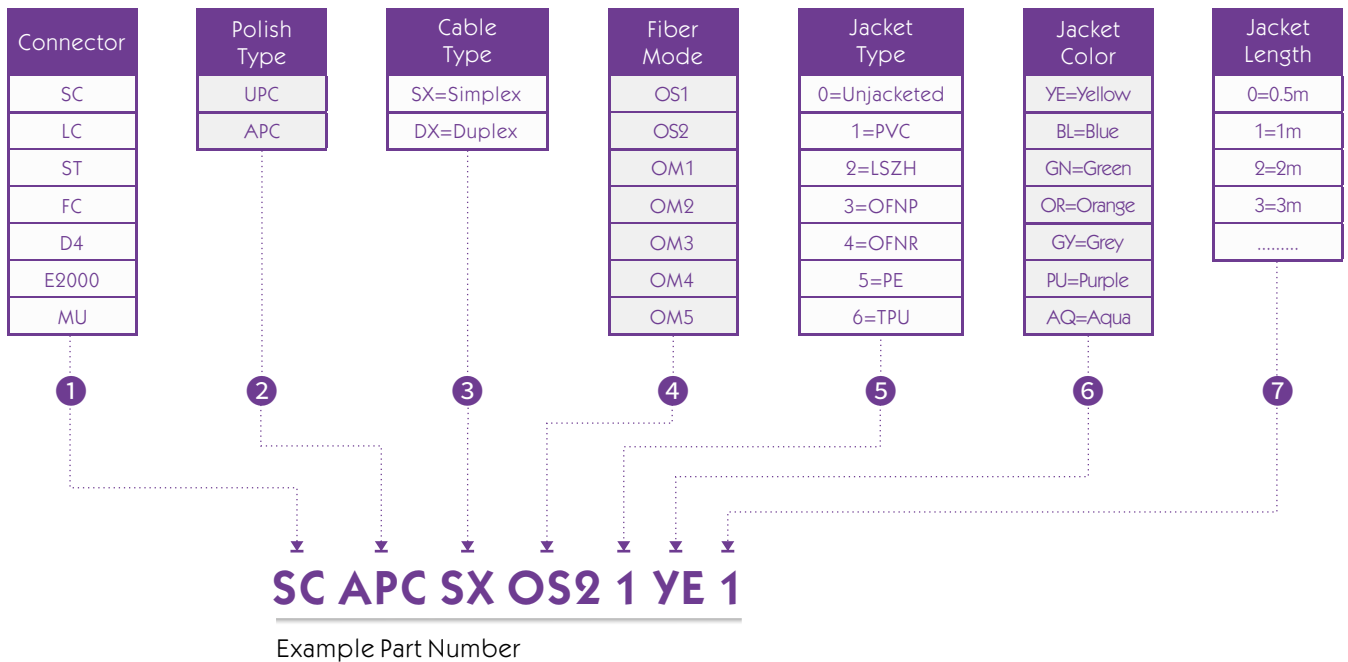| Characteristics	Units	Simplex
Max Tensile Load	N	6
Nominal buffer Diameter	µm	900+50
Crush (N)	N/100mm	500
Operating Temperature (°C)		-20 to 60

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OPTICAL FIBRE PIGTAILS COMPOSITION DETAILS

Based on different specifications and standards, the common optical fibre pigtails can be categorified from the perspective of fiber cable mode, transmission mode, jacket type, connector type, and polishing type.

- ● Connector
- ● Cable Type
- ● Jacket Type
- ● Jacket Length
- ● Polish Type
- ● Fiber Mode
- ● Jacket Color

Part Number Generator

Connector	Polish Type	Cable Type	Fiber Mode	Jacket Type	Jacket Color	Jacket Length
SC	UPC	SX=Simplex	OS1	0=Unjacketed	YE=Yellow	0=0.5m
LC	APC	DX=Duplex	OS2	1=PVC	BL=Blue	1=1m
ST			OM1	2=LSZH	GN=Green	2=2m
FC			OM2	3=OFNP	OR=Orange	3=3m
D4			OM3	4=OFNR	GY=Grey	....
E2000			OM4	5=PE	PU=Purple	
MU			OM5	6=TPU	AQ=Aqua	
❶	❷	❸	❹	❺	❻	❼

SC APC SX OS2 1 YE 1

Example Part Number

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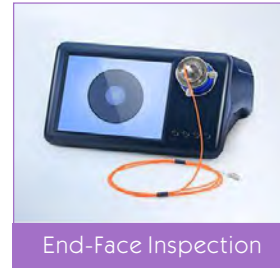
TEST CENTER
PROFESSIONAL TEST EQUIPMENT

A comprehensive performance testing system ensures a more secure operation and keeps a more stable and reliable data connection. The IL & RL of fiber optic patch cable is tested to ensure stable network performance. Clean optical connectors are paramount inproviding a reliable, high-performance fiber optic infrastructure.

Insertion Loss Testing	Return Loss Testing	End-Face Inspection

STANDARD
FIBER PATCH CORD

Fiber optic patch cables are ideal for supporting high speed telecommunication network fiber applications. They are manufactured and tested in compliance with TIA 604 (FOCIS), IEC 61754 and YD/T industry standards. OM1, OM2, OM3, OM4, OM5 or OS2 fiber types are available to meet the demand of Gigabit Ethernet, 10 Gigabit Ethernet and high speed Fiber Channel. Every termination is through rigorous parameter test to ensure the highest network performance.

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

Parameter	FC,SC,LC				ST,MU		MTRJ	
	SM		MM		SM	MM	SM	MM
	UPC	APC	UPC	APC	UPC	UPC	UPC	UPC
Operating Wavelength （nm）	1310-1550		850-1300		1310-1550	850-1300	1310-1550	850-1300
Insertion Loss （dB）	≤0.3	≤0.3	≤0.3		≤0.3	≤0.3	≤0.3	≤0.3
Return Loss （dB）	≥55	≥60	≥35		≥50	≥35	≥50	≥35
Repeatability （dB）	≤0.1							
Interchangeability （dB）	≤0.2							
Tensil Strength （N）	≥1000							
Operating Temperature （℃）	-20~+85							
Storage Temperature （℃）	-40~+85							

CABLE Packing Solution
CUSTOMIZED DESIGN, SAMPLE DESIGN

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