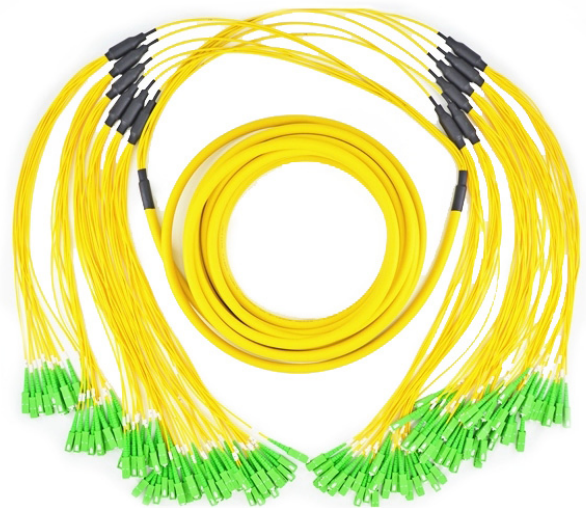
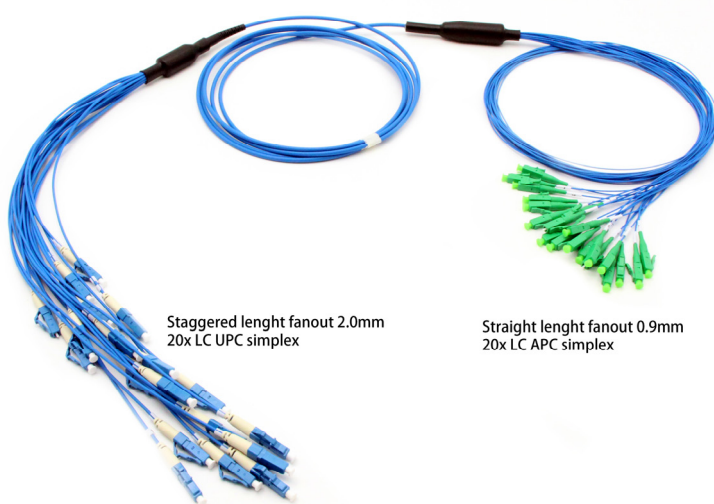


DATASHEET

3-144F Pre-terminated Micro-Fiber fanout Patch Cord

Ideal for Data Center High Density Cabling System



OMC INDUSTRY CO.LIMITED

2022|En version1.0

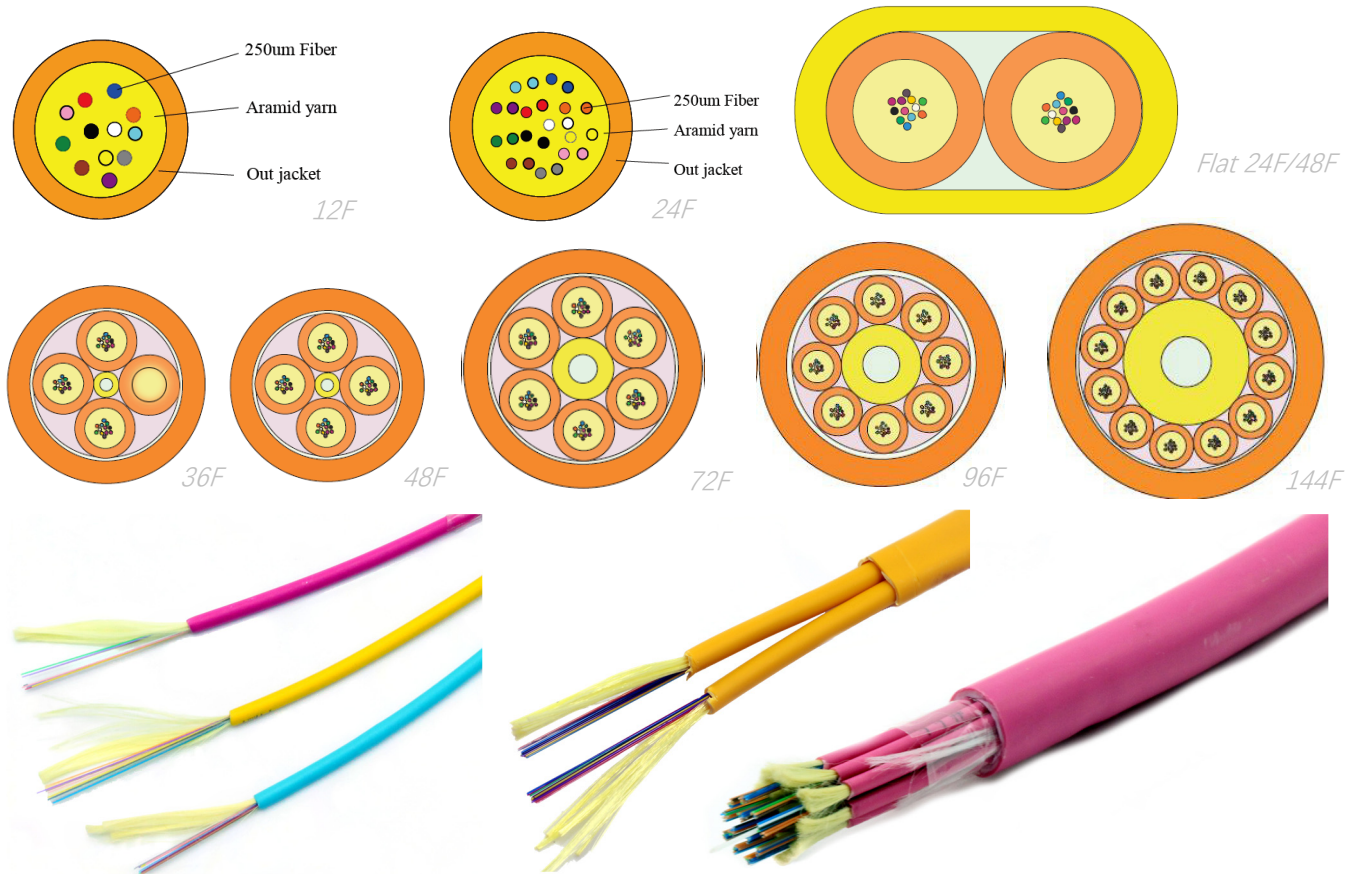


3-144F Pre-terminated Micro-Fiber fanout Patch Cord

Description

The 3-144F micro-fiber cable Patch cables is a pre-terminated with a OD of 2.0mm/3.0mm Unit micro-fiber cable. The fanout cable OD is available with 0.9mm/2.0mm. A fanout kits will be installed at the junction of main cable and fanout cable. This new design cable is with small OD but comes with 144F Max, Save your Optical Cabling space, Lower down cabling difficult, save time and cost. It's A good solution for HD Data center cabling assemblies.

Products details-Cable



Fiber number	12	24	Flat 24/48	36 & 48 & 72	72	96	144
Subunit diameter (mm)	/	/	2.9±0.1	2.9±0.1	2.9±0.1	2.9±0.1	2.9±0.1
Cable diameter(mm)	2.9±0.1	2.9±0.1	(4.2±0.3)×(7.6±0.4)	9.0±0.3	11.2±0.3	13.5±0.3	17.5±0.3
Appro Cable weight (kg/km)	(LSZH6.3) /(PVC 4.8)	(LSZH9.0) /(PVC 7.5)	(LSZH 52) /(PVC 44)	(LSZH 93) /(PVC 86)	(LSZH 106) /(PVC 96)	(LSZH 146) /(PVC 135)	(LSZH 260) /(PVC 224)
Temperature rating Operation&Storage	-20℃~+60℃						
Max. loading (IEC794-1)	100N/30N	100N/30N	200N/80N	1000N/300N			
Installation/Operation							

Products details-Connector



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





3-144F Pre-terminated Micro-Fiber fanout Patch Cord

Products details-Fanout Cable length



Type 1 :Straight fanout length

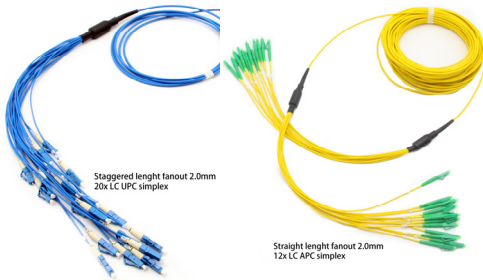
Fanout length: 0.5m or Customization
Max 1.5m



Type 2 :Staggered fanout length

Fanout length: 0.1m - 1.5m

Products details-Fanout Cable OD

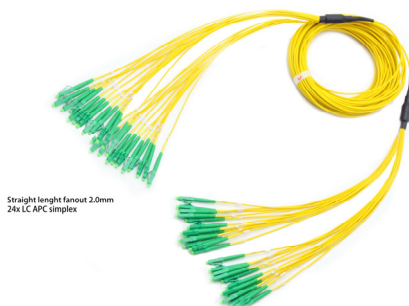


Type 1 : Fanout 2.0mm OD leg.

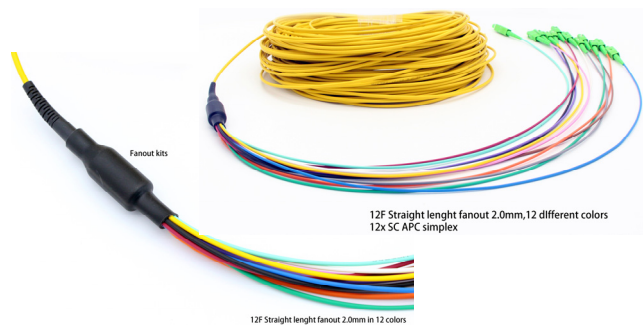


Type 2 : Fanout 0.9mm OD leg.

Products details-Fanout Cable Color



Type 1 : Fanout Same color as main cable



Type 2 : Fanout Different color cable

Products details-Fanout LC&SC connector



Type 1 : Fanout Simplex SC&LC



Type 2 : Fanout Duplex SC&LC



3-144F Pre-terminated Micro-Fiber fanout Patch Cord

Optical Specifications-Standard quality

Insertion loss	$\leq 0.3\text{dB}$ Mean (Standard)	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	$\leq 0.2\text{dB}$
Polarity	A(Tx) to B(Rx)	Maximum pulling force	100N

Optical Specifications-IEC Grade B quality

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	$\leq 0.2\text{dB}$
Polarity	A(Tx) to B(Rx)	Maximum pulling force	100N

Geometric Specification(only available after customer requested)

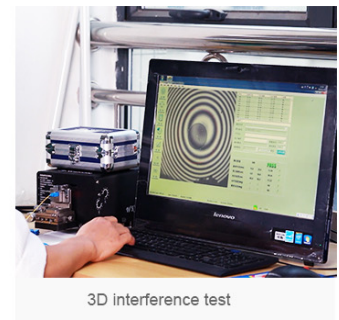
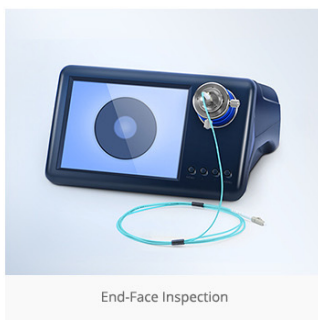
Items		Parameter	
Polishing		PC	APC
ROC	SC/FC/ST	10 ~ 25	5 ~ 12
	LC/MU	7~ 25	5 ~ 12
Apex Offset		≤ 50	
Fiber Spherical Height		± 100	
Angle		± 0.5	8 ± 0.5

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. Different fanout cable OD, color, length and connectors

High Quality Fiber Optic Cable Guarantee

Comprehensive performance testing makes sure the cable work more secure and data transmission more reliable and stable in your network.





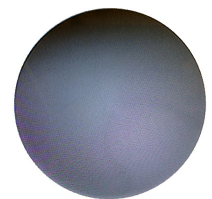
3-144F Pre-terminated Micro-Fiber fanout Patch Cord

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	



SM UPC



SM APC

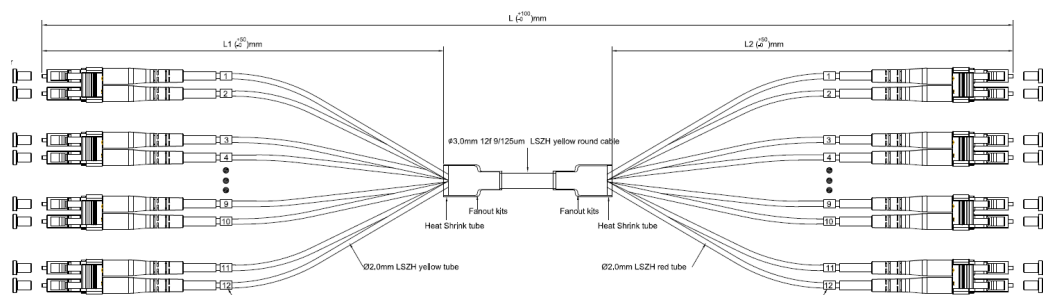
End-face Quality (MM)

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	



MM PC

Length Tolerance



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

Application

9/125 OS2 single mode fiber optic cable is ideal for connecting 1G/10G/40G/100G/400G Ethernet connections. It can transport data for up to 10km at 1310nm, or up to 40km at 1550nm.

62.5/125 OM1 multimode fiber optic cable is ideal for connecting 100/1000BASE-SX transceivers etc. for fast Ethernet, gigabit Ethernet and fiber channel applications.

50/125 OM2 multimode fiber optic cable is ideal for connecting 1000BASE-SX, SFP transceivers etc. for gigabit Ethernet and fiber channel applications.

50/125 OM3 multimode fiber optic cable is ideal for connecting 10G SR, 10G LRM, SFP+ transceivers etc. for 10G/40G/100G Ethernet connections and is the preferred fiber specification for 10G Ethernet connections.

50/125 OM4/OM5 multimode fiber optic cable is ideal for connecting 40G BIDI SR, 10G SR, QSFP+, SFP+ transceivers etc. for 10G/40G/100G Ethernet connections and is the preferred fiber specification for 40G/100G applications.



3-144F Pre-terminated Micro-Fiber fanout Patch Cord

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, PE Wrapped or PE Bag



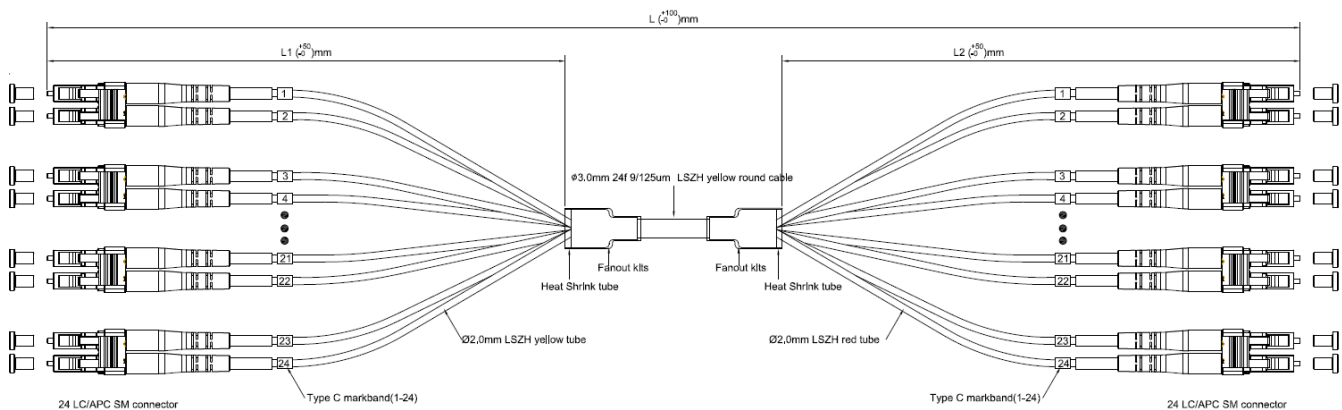
2, Paper Carton



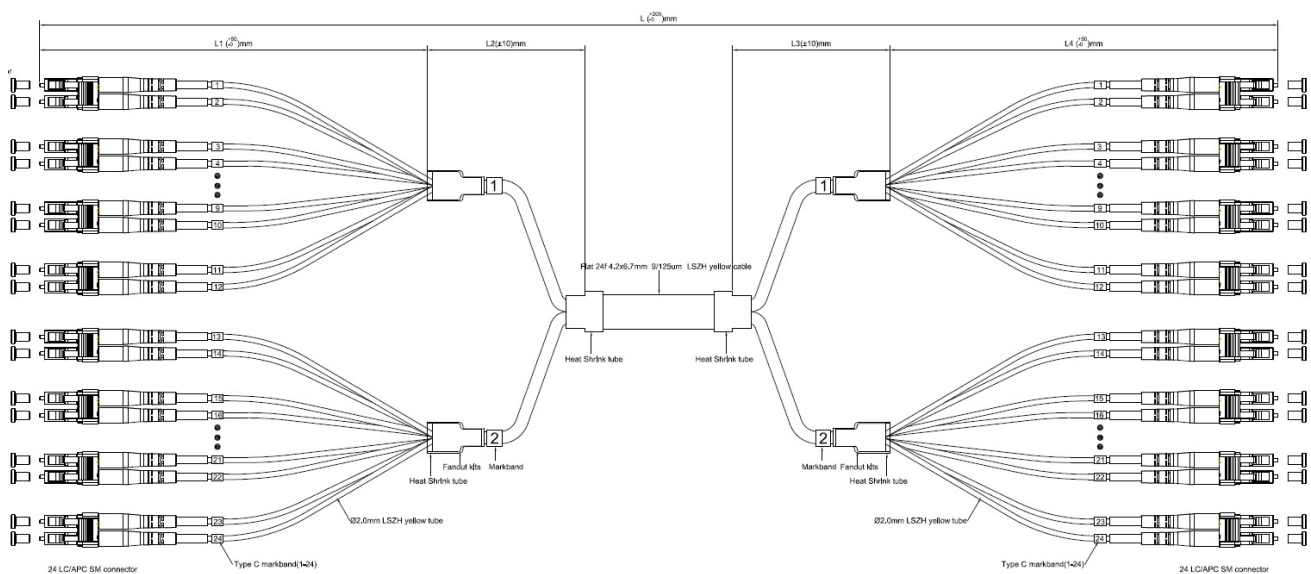
3, fumig-free Pallet

Related products

1x24F(24cores) Micro-Fiber fanout Patch Cables



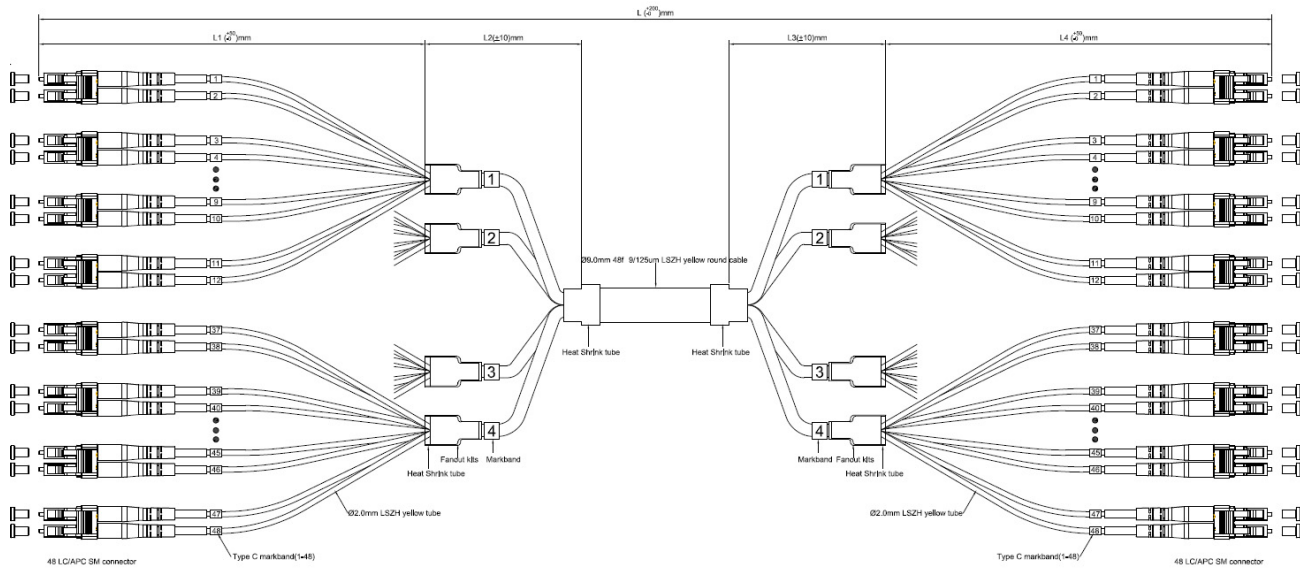
2x12F(24cores) Micro-Fiber fanout Patch Cables



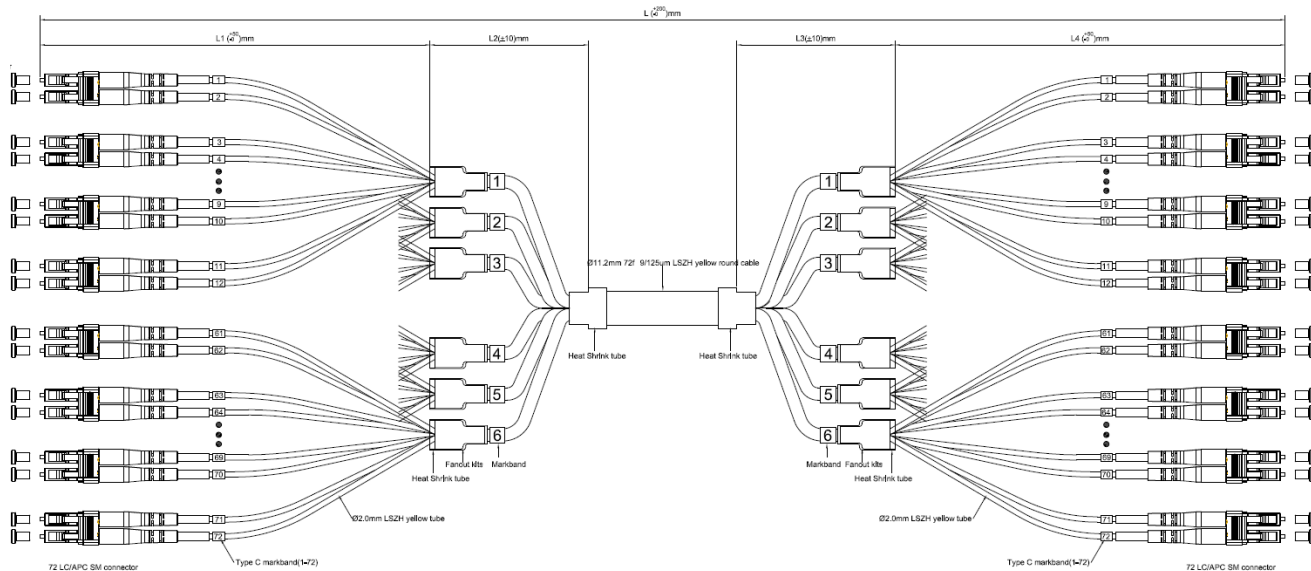


3-144F Pre-terminated Micro-Fiber fanout Patch Cord

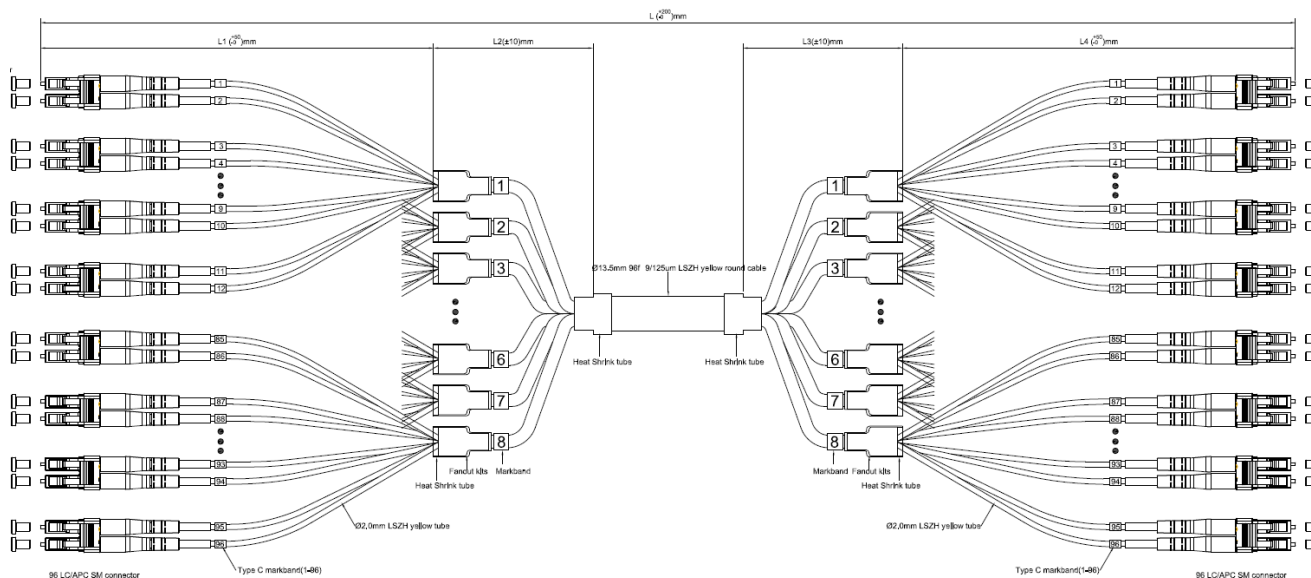
4x12F(48cores) Micro-Fiber fanout Patch Cables



6x12F(72cores) Micro-Fiber fanout Patch Cables



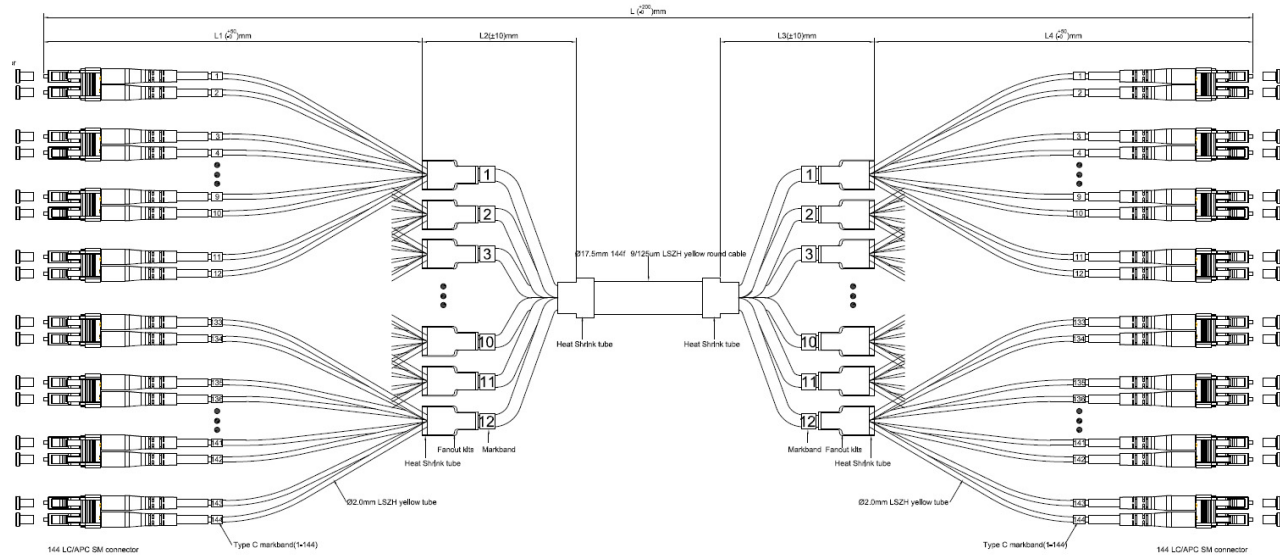
8x12F(96cores) Micro-Fiber fanout Patch Cables





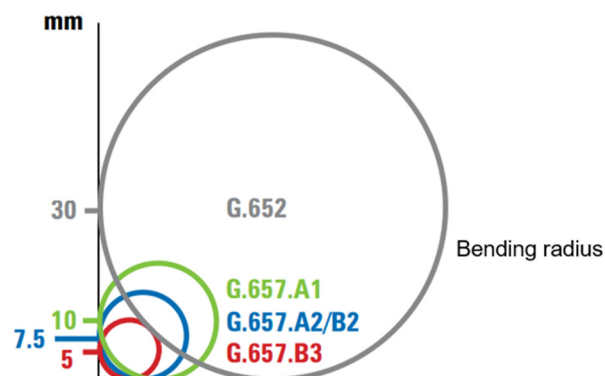
3-144F Pre-terminated Micro-Fiber fanout Patch Cord

12x12F(144cores) Micro-Fiber fanout Patch Cables



Optical fiber technical parameters-SMF

Item	Unit	Specification
Attenuation	dB/km	1310nm ≤ 0.4 ; 1550nm ≤ 0.3
Dispersion	Ps/nm. km	1285~1330nm ≤ 3.5 , 1550nm ≤ 18.0
Zero dispersion wavelength	Nm	1300~1324
Zero dispersion slope	Ps/nm. km	≤ 0.095
Fiber cutoff wavelength	Nm	≤ 1260
Mode field diameter	Um	9.2 $\pm$ 0.5
Mode field concentricity	Um	≤ 0.8
Cladding diameter	um	125 $\pm$ 1.0
Cladding non-circularity	%	≤ 1.0
Coating/cladding concentricity error	Um	≤ 12.5
Coating diameter	um	245 $\pm$ 10
Bending, dependence induced attenuation	1550nm, 1turns,32mm diameter 100rums,60mm diameter	≤ 0.5 dB
Proof test	kpsi	≥ 100



ITU recommendation G.657 specifies two classes of single-mode bend insensitive fiber patch cables: G.657 A and G.657 B. Each category (A and B) is then divided into two sub-categories: G.657.A1, G.657.A2 and G.657.B1, G.657.B2. The minimum bend radius of G.657.A1 fibers is 10 mm, of the G.657.A2 and G.657.B1 fibers is 7.5 mm and of the G.657.B2 fibers is 5 mm. Among, ITU-T G.657.A1 and ITU-T G.657.A2 fibers are fully compliant with ITU-T G.652.D fibers.



3-144F Pre-terminated Micro-Fiber fanout Patch Cord

Order Instruction

Patch cord	Fiber count	Fiber Grade	Connector A	A fanout cable OD	Connector B	B fanout cable OD	Out jacket	Cable Color	-	length
A	Standard Quality, No Geometric request X002- 2 cores X004- 4cores X006- 6cores	1 - G652D	A LC UPC	1-0.9mm	A LC UPC	1-0.9mm	H- LSZH	A Blue		1=1m
		2 - G657A1	B SC UPC	2-1.2mm	B SC UPC	2-1.2mm	C - PVC	B Orange		...
		3 - G657A2/B2	C FC UPC	3-1.6mm	C FC UPC	3-1.6mm	R - OFNR	C Green		
		4 - G657B3	D ST UPC	4-1.7mm	D ST UPC	4-1.7mm	P - OFNP	D Brown		
	Standard Quality+ Geometric request Y002- 2 cores Y004- 4cores Y006- 6cores	5 - OM1 BIF	E LC APC	5-1.8mm	E LC APC	5-1.8mm		E Grey		
		6 - OM2 BIF	F SC APC	6-2.0mm	F SC APC	6-2.0mm		F White		
		7 - OM3 BIF	G FC APC	7-2.4mm	G FC APC	7-2.4mm		G Red		
		8 - OM4 BIF	H ST APC	8-2.6mm	H ST APC	8-2.6mm		H Black		
	IEC Grade B Quality, No Geometric request K002- 2cores K004- 4cores K006- 6cores	9 - OM5 BIF	I E2000 UPC	9-2.8 (3.0) mm	I E2000 UPC	9-2.8 (3.0) mm		I Yellow		
		A - Corning G652D	J E2000 APC		J E2000 APC			J Purple		
		B - Corning G657A1	L DIN UPC		L DIN UPC			K Pink		
		C - Corning G657A2/B2	M DIN APC		M DIN APC			L aqua		
	IEC Grade B Quality+ Geometric request L002- 2cores L004- 4cores L006- 6cores	D - Corning G657B3	N D4		N D4			M Magenta		
		E - OM1 Corning	O MU UPC		O MU UPC			X- other		
		F - OM2 Corning	P MU APC		P MU APC					
		G - OM3 Corning	R LX.5 UPC		R LX.5 UPC					
		H - OM4 Corning	S LX.5 APC		S LX.5 APC					
		I - OM5 Corning	I MTRJ Female		I MTRJ Female					
			K MTRJ Male		K MTRJ Male					
			Q uniboot LC UPC		Q uniboot LC UPC					
			T uniboot LC APC		T uniboot LC APC					



3-144F Pre-terminated Micro-Fiber fanout Patch Cord

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



3-144F Pre-terminated Micro-Fiber fanout Patch Cord

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.
3. For OM4 patch cable it is 4700 MHz.km while for OM3 it is 2000 MHz.km.