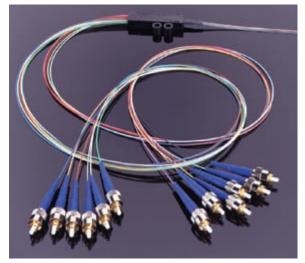


OptiFit® Node Assembly | Photo CAPSS1721



FC Ultra PC 12-Fiber | Photo CCA30

Description

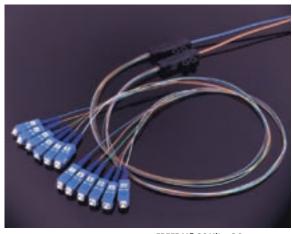
As the industry's leading supplier of single-mode cable assemblies, Corning Cable Systems offers the most complete line of connectors and factory-terminated cables. From single-fiber jumpers to high fiber count assemblies, Corning Cable Systems products meet or exceed all industry standards for reflectance and insertion loss.

Corning Cable Systems' state-of-the-art manufacturing process ensures unsurpassed connector performance. We thoroughly screen the fibers and ferrules at the beginning, assemble and polish them in a carefully monitored and controlled process, and quality test our assemblies at the end. This assembly and polishing process assures the same outstanding quality in every connector.

When performance counts, ask for Corning Cable Systems Assemblies.



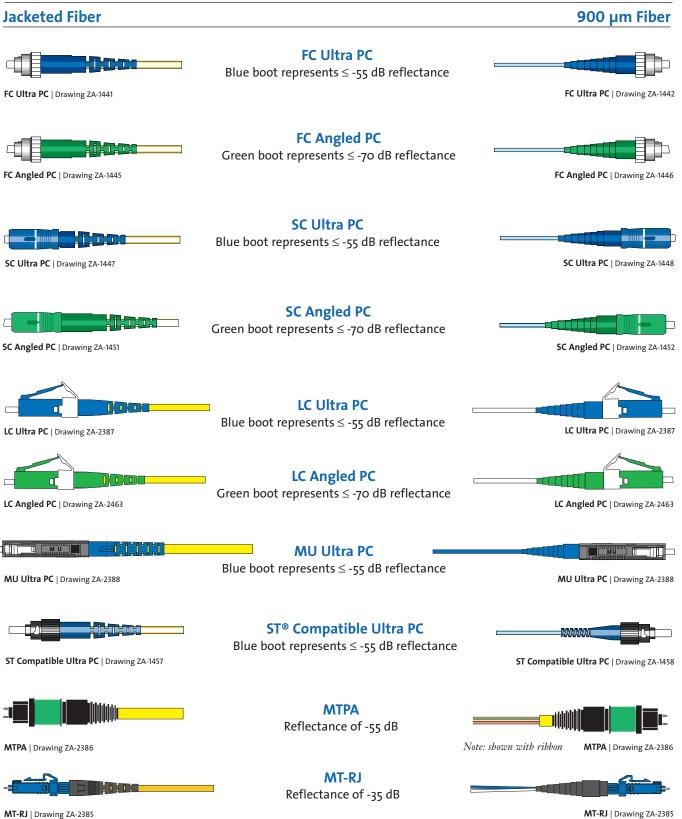
ST Ultra PC 12-Fiber | Photo CCA29



FREEDM® SC Ultra PC | Photo CCA31



Connector Types



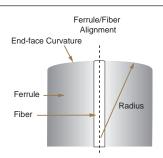
Cable Assemblies

Connector Performance

Controlling connector end-face geometry is key to assuring network reliability. Radius of Curvature, Apex Offset, and Fiber Undercut are the three critical parameters that affect long-term connector performance. These parameters are closely monitored and controlled throughout Corning Cable System's automated process, thus assuring the highest quality in each and every connector assembly.

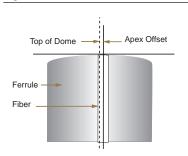
Radius of Curvature

Radius of Curvature describes the radius of the end-face surface measured from the ferrule axis. The correct Radius of Curvature is necessary to control the compressive forces on the connector end-face. Radius of Curvature values between 10 to 30 millimeters are recommended to avoid fiber damage and to assure low reflectance and insertion loss.



Radius of Curvature | Drawing ZA-1269

Apex Offset

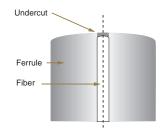


Apex Offset | Drawing ZA-1269

Apex Offset is the displacement between the apex of the sphere that fits the ferrule end-face and the center of the fiber core. Excessive Apex Offset can lead to lack of physical contact of the fiber cores and an increase in insertion loss. An Apex Offset value of ≤ 50 microns is recommended. Values greater than 50 microns can reduce fiber-to-fiber contact and cause increases in reflectance over the operating temperature.

Fiber Undercut/Protrusion

Fiber Undercut is the distance of the fiber above or below the fitted spherical surface of the ferrule. Proper undercut guarantees that fiber-to-fiber contact will always be maintained over the operating temperature range. An undercut value of \pm 50 nanometers is recommended to avoid air gaps between fibers. Larger undercut values can cause changes in reflectance and insertion loss. Excessive fiber protrusion can increase the compressive load at the end of the fiber causing fiber damage or failure of the fiber-ferrule epoxy bond.



Radius of Curvature | Drawing ZA-1269

	Shroud*	Boot	Cable
SM	Blue	Blue	Yellow
MM 62.5 μm	Beige	Black	Orange
MM 50 μm	Black	Black	Orange
SX+	Black	Aqua	Aqua

^{*}Note: Shroud color scheme is not applicable on FC or ST^{*} compatible connectors.

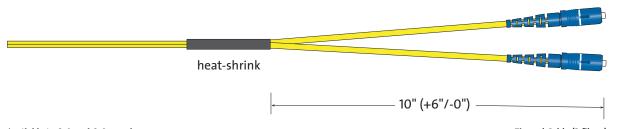
Single-Fiber Cable



Available in 1.6 mm, 2.0 mm, 2.4 mm, or 2.9 mm outer diameters.

Single-Fiber Cable | Drawing ZA-2557

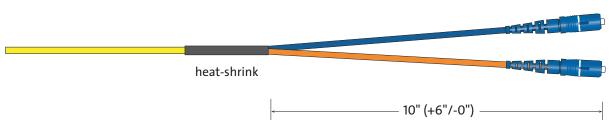
Zipcord Cable (2 fibers)



Available in 2.0 and 2.9 mm legs.

Zipcord Cable (2 fibers) | Drawing ZA-2555

DFX° Cable (2 fibers)



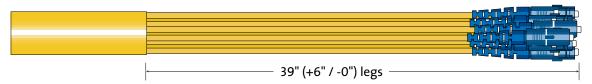
Available in 2.0 mm, 2.4 mm, or 2.9 mm legs. For total assembly length less than 3 feet, legs are 6 inches (+3 inch/-0 inch).

DFX Cable (2 fibers) | Drawing ZA-2556

© 2002 Corning Cable Systems

Fan-Out Cable (2 - 24 fibers)

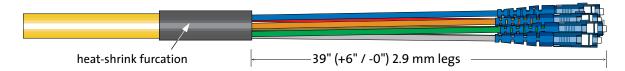
Example shows cable with SC Ultra PC connectors installed.



Maximum fiber count for Fan-Out cable assemblies is 24 fibers. Available in 1.6 mm, 2.0 mm, 2.4 mm, and 2.9 mm subunits Fan-Out Cable (2 - 24 fibers) | Drawing ZA-1461

MIC® Furcation (2 - 12 fibers) with 2.9 mm legs

Example shows cable with SC Ultra PC connectors installed.

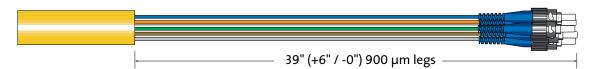


Also available in 2.0 mm and 900 µm legs.

MIC Furcation (2 - 12 fibers) | Drawing ZA-1462

MIC Furcation (13 - 24 fibers) with 900 µm legs

Example shows cable with ST® Compatible Ultra PC connectors installed.

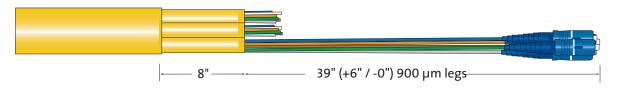


Standard construction of 24-fiber assembly is a single layer MIC. For UMIC construction, a serialized part number is required.

MIC Furcation (13 - 24 fibers) | Drawing ZA-1464

Unitized MIC Furcation (24 - 144 fibers)

Example shows cable with SC Ultra PC connectors installed.

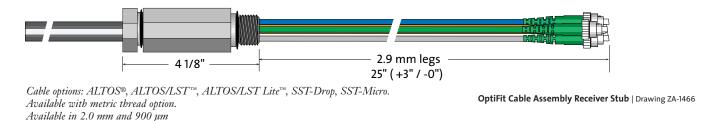


Also available in 2.0 mm and 2.9 mm legs. Standard construction is 6-fiber subunit up to 72-fiber, and 12-fiber subunit from 84 to 144 fibers.

Unitized MIC Furcation (24 - 144 fibers) | Drawing ZA-1473

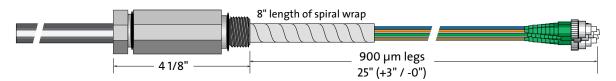
OptiFit® Cable Assembly Receiver Stub (6 fibers maximum for 2.9 mm legs)

Example shows cable with FC Angled PC connectors installed.



OptiFit Cable Assembly Receiver Stub (12 fibers maximum for 900 µm legs)

Example shows cable with FC Angled PC connectors installed.

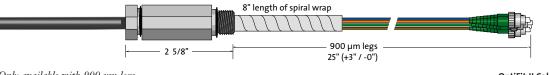


Cable options: ALTOS, ALTOS/LST, ALTOS/LST Lite, SST-Drop, SST-Micro. Up to 12 fibers available with 2.0 mm and 900 µm legs. Available with metric thread option.

OptiFit Cable Assembly Receiver Stub | Drawing ZA-1465

OptiFit II[®] Cable Assembly (12 fibers maximum for 900 µm legs)

Example shows cable with FC angled PC connectors installed.



Only available with 900 µm legs.
Only available with FREEDM/LST™ cable.
Available with metric thread option.

OptiFit II Cable Assembly | Drawing ZA-2331

ALTOS® Riser Cable Configuration

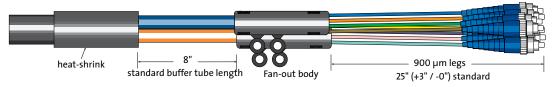
Example shows cable with FC Ultra PC connectors installed.



ALTOS Riser Cable Configuration | Drawing ZA-1467

ALTOS Outside Plant and FREEDM® Cable Configuration

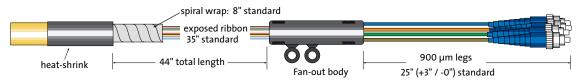
Example shows cable with FC Ultra PC connectors installed.



ALTOS Outside Plant and FREEDM Cable Configuration | Drawing ZA-1468

Ribbon Riser and FREEDM® Ribbon Cable Configuration (12 - 72 fibers)

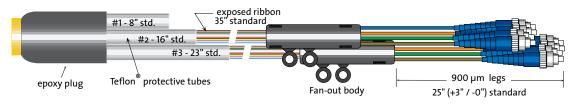
Example shows cable with FC Ultra PC connectors installed.



Ribbon Riser and FREEDM Ribbon Cable Configuration | Drawing ZA-1469

Ribbon Riser and FREEDM Ribbon Cable Configuration (84 - 216 fibers)

Example shows 216-fiber cable with FC Ultra PC connectors installed.

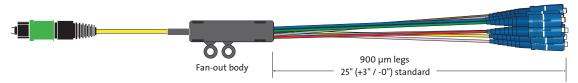


Fiber Counts for Protective Tubes:

Tube #1: 1 - 72 fibers Tube #2: 73 - 144 fibers Tube #3: 145 - 216 fibers Ribbon Riser and FREEDM Ribbon Cable Configuration | Drawing ZA-1470

Ribbon Interconnect Cable Configuration (6 - 12 fibers with 900 μm legs)

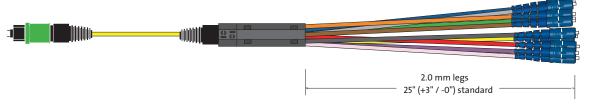
Example shows MTP°-SC Ultra PC connectors installed



Ribbon Interconnect Cable Configuration | Drawing ZA-2329

Ribbon Interconnect Cable Configuration with Upjacketed Legs

Example shows MTP-SC Ultra PC connectors installed



6 fibers maximum with 2.9 mm legs 12 fibers maximum with 2.0 mm legs Ribbon Interconnect Cable Configuration with Upjacketed Legs | Drawing ZA-2424

Connector Specifications

Туре	Code	Insertion Loss (dB) Typical 50/125 µm and 62.5/125 µm	Ferrule	Construction Housing
Multimode Connectors				
FC PC	17	0.35	Ceramic	Nickel, Brass
SC PC	39	0.35	Ceramic	Composite
568SC Duplex	57	0.35	Ceramic	Composite
568SC Duplex Composite	91	0.35	Composite	Composite
ST® Compatible PC Composite	25	0.35	Composite	Composite
SC Composite	56	0.35	Composite	Composite
ST Compatible PC Ceramic	50	0.35	Ceramic	Composite
MTP® (no pins)	69	0.5	Composite	Composite
MT-RJ (no pins)	97	0.3	Composite	Composite
LC	03	0.35	Ceramic	Composite
LC Duplex	05	0.35	Ceramic	Composite

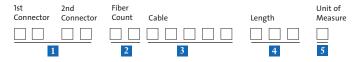
	Insertion Loss (dB)	Reflectance (dB)		
Code	Typical	Typical	Ferrule	Housing
54	0.15	≤ -59	Ceramic	Nickel, Brass
21	0.15	≤ -75	Ceramic	Nickel, Brass
58	0.15	≤ -58	Ceramic	Composite
65	0.15	≤ -75	Ceramic	Composite
61	0.15	≤ -58	Ceramic	Composite
90	0.5	≤ -65	Composite	Composite
98	0.3	≤ -53	Composite	Composite
02	0.1	≤ -58	Ceramic	Composite
04	0.1	≤ -58	Ceramic	Composite
10	0.3	≤ -75	Ceramic	Composite
85	0.3	≤ -58	Ceramic	Composite
12	0.1	≤ -58	Ceramic	Composite
23	0.1	≤ -58	Ceramic	Composite
72	0.15	≤ -59	Ceramic	Composite
62	0.3	≤ -58	Ceramic	Composite
	21 58 65 61 90 98 02 04 10 85 12 23 72	Code Typical 54 0.15 21 0.15 58 0.15 65 0.15 61 0.15 90 0.5 98 0.3 02 0.1 04 0.1 10 0.3 85 0.3 12 0.1 23 0.1 72 0.15	Code Typical 54 0.15 ≤ -59 21 0.15 ≤ -75 58 0.15 ≤ -58 65 0.15 ≤ -75 61 0.15 ≤ -58 90 0.5 ≤ -65 98 0.3 ≤ -53 02 0.1 ≤ -58 04 0.1 ≤ -58 10 0.3 ≤ -75 85 0.3 ≤ -75 12 0.1 ≤ -58 23 0.1 ≤ -58 72 0.15 ≤ -59	Code Typical Typical Ferrule 54 0.15 ≤ -59 Ceramic 21 0.15 ≤ -75 Ceramic 58 0.15 ≤ -58 Ceramic 65 0.15 ≤ -75 Ceramic 61 0.15 ≤ -58 Ceramic 90 0.5 ≤ -65 Composite 98 0.3 ≤ -53 Composite 02 0.1 ≤ -58 Ceramic 04 0.1 ≤ -58 Ceramic 10 0.3 ≤ -75 Ceramic 85 0.3 ≤ -58 Ceramic 12 0.1 ≤ -58 Ceramic 23 0.1 ≤ -58 Ceramic 72 0.15 ≤ -59 Ceramic

^{*}Note: For information on low-loss jumpers, please call Customer Service.

Single-Fiber Connectors

Ordering Information

Corning Cable Systems' patch cords and high fiber count assemblies are ordered using five easy steps. The steps involve the selection of connector(s), cable, and length. The format and steps are listed below.



For single-fiber connectors, use the following options to construct the part number:

Select connector code based on the type of adapter used at the patch panel and the electronic interface connector. The connector and adapter must be compatible for a correct connection. (Always use the lowest code first when constructing the part number.)

00= No connectors (use when ordering a pigtail)

Multimode

17 = FC PC	50 = ST [®] Compatible PC
39 = SC PC Ceramic	Ceramic
91 = SC PC Composite	25 = ST Compatible PC
57 = 568SC, Duplex, Ceramic	Composite
56 = 568SC, Duplex, Composite	$03 = LC PC^*$
	05 = LC PC Duplex*

^{*}Available on 1.6 mm, 2.0 mm, and 900 µm cable types only.

Single-mode

54 = FC Ultra PC	61 = ST Compatible
21 = FC Angled PC	Ultra PC
58 = SC Ultra PC	02 = LC Ultra PC
72 = SC Ultra PC Duplex	Simplex*
65 = SC Angled PC	04 = LC Ultra PC
10 = LC Angled PC*	Duplex*
85 = MU Ultra PC*	62 = D4 Ultra PC
12 I C I II DC	

^{12 =} LC Ultra PC with 90° boot clip* 23 = LC Ultra PC Duplex with 90° boot clip*

2 Select fiber count.

01-961

¹For lengths greater than 99, contact Customer Service.

Single-Fiber Connectors

Ordering Information (continued)

3	Select cable	code based	on construction	and fiber type.
---	---------------------	------------	-----------------	-----------------

Cable Type	Fiber Type		
Cable Listing: No Listing Required	62.5 µm	50 µm	Single-mode
900 μm	K4141	C4131	R4131
Cable Listing: Riser – OFNR			
Single-Fiber Cable			
2.9 mm	K3141	C3131	R3131
2.4 mm	K32.4	C32.4	R32.4
2.0 mm	K2141	C2131	R2131
1.6 mm	K3116	C3116	R3116
Zipcord Cable – 2 fibers			
2.9 mm	K5141	C5131	R5131
2.0 mm	K5120	C5120	R5120
DFX® Cable – 2 fibers			
2.9 mm legs	K9141	C9131	R9131
2.4 mm legs	K92.4	C92.4	R92.4
2.0 mm legs	K9120	C9120	R9120
Fan-Out Cable – 2-24 fibers			
2.9 mm subunits	K61HD	C61HD	R61HD
2.4 mm subunits	K61SD	C61SD	R61SD
2.0 mm subunits	K61LD	C61LD	R61LD
1.6 mm subunits	K61XD	C61XD	R61XD
MIC® Cable – 2-24 fibers	K8130	C8131	R8131
UMIC Cable – 24-144 fibers	K8130	C8131	R8131
Ribbon Interconnect	KJ140	CJ131	RJ131
Ribbon Riser	KC725*	CC725*	RC725*
Cable Listing: Plenum – OFNP			
Single-Fiber Cable			
2.9 mm	K3841	C3831	R3831
2.4 mm	K3824	C3824	R3824
2.0 mm	K2841	C2831	R2831
1.6 mm	K3816	C3816	R3816
Zipcord Cable – 2 fibers			
2.9 mm	K5841	C5831	R5831
2.0 mm	K5820	C5820	R5820
DFX Cable – 2 fibers	N/A	N/A	N/A
Fan-Out Cable			
2.9 mm subunits	K68HD	C68HD	R68HD
2.4 mm subunits	K68SD	C68SD	R68SD
2.0 mm subunits	K68LD	C68LD	R68LD
1.6 mm subunits	K68XD	C68XD	R68XD
MIC Cable – 2-24 fibers	K8830	C8831	R8831
UMIC Cable – 24-144 fibers	K8830	C8831	R8831
Ribbon Interconnect	KJ840	CJ831	RJ831
Ribbon Plenum	KC825*	CC825*	RC825*
Indoor/Outdoor	110029	33323	110023
FREEDM®	KWF25*	CWF25*	RWF25*
FREEDM/LST™	KSF25*	CSF25*	RSF25*
FREEDM Ribbon Riser	KCF25*	CCF25*	RCF25*
Outdoor	RCF23	CCI25	KCI 23
ALTOS®	KW425*	CW425*	RW425*
ALTOS/LST™	KS425*	CVV 423 CS425*	RS425*
ALTOS Riser	KW725*	CW725*	RW725*
*Other leg lengths available. Part number wi		G V V / 23	IXVV / 4 J

4 Select cable assembly length. 001 to 9991

5 Select unit of measure.

F = Feet M = Meters

¹For lengths greater than 999, contact Customer Service.

MT-RJ Jumpers

Ordering Information

Corning Cable Systems 2-fiber patch cords are ordered using four easy steps. The steps involve the selection of connector(s), cable, and length. The format and steps are listed below.



For 2-fiber connectors, use the following options to construct the part number:

Select connector code based on the type of adapter used at the panel and the electronic interface connector. The connector and adapter must be compatible for a correct connection. (Always use the lowest code first when constructing the part number.)

Multimode

97 = MT-RJ (no pins)

Single-mode

98 = MT-RJ (no pins)

Note: MT-RJ Patch cords are typically sold without pins. For pinned versions call Customer Service.

For single-fiber connectors, use the following options to construct the part number:

Select connector code based on the type of adapter used at the patch panel and the electronic interface connector. The connector and adapter must be compatible for a correct connection. (Always use the lowest code first when constructing the part number.)

Multimode	50 = ST® Compatible PC	Single-mode	
17 = FC PC	Ceramic	54 = FC Ultra	23 = LC Ultra PC Duplex with
39 = SC PC Ceramic	25 = ST Compatible PC	21 = FC Angled PC	90° boot clip*
91 = SC PC Composite	Composite	58 = SC Ultra PC	85 = MU UPC*
57 = 568SC Duplex, Ceramic	$03 = LC PC^*$	72 = SC Ultra Duplex	61 = ST Compatible Ultra PC
56 = 568SC, Duplex, Composite	05 = LC PC Duplex*	65 = SC Angled PC	02 = LC Ultra PC Simplex*
		10 = LC Angled PC*	04 = LC Ultra PC Duplex*
		12 = LC Ultra PC with	62 = D4 Ultra PC
		90° boot clip*	

2 Select cable.

Cable Type Cable Listina: Riser – OFNR	нвег туре 62.5 µm	50 µm	Single-mode
Ribbon Interconnect Cable Listing: Riser – OFNP	02KJ140	02CJ131	2RJ131
Ribbon Interconnect	02KJ840	02CJ831	02RJ831

Note: For hybrid jumpers, standard leg length for single-fiber connector end is 10 inches, 2.9 mm legs. For LC and MU, standard leg is 2.0 mm.

3 Select length.

001 - 9991

4 Select unit of measure.

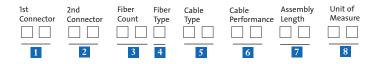
F = Feet M = Meters

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^{*}LC and MU available with 2.0 mm and 900 µm legs only.

MT-RJ Trunks, 6-144 Fibers

Ordering Information



For MT-RJ fiber connectors, use the following options to construct the part number:

Select connector type on first end.

Single-mode

 $87 = MT-RJ \text{ (pins)}^*$

*Note: Select connector code based on the type of adapter used at the patch panel and the electronic interface connector. The connector and adapter must be compatible for a correct connection. (Always use the lowest code first when constructing the part number.)

Multimode

86 = MT-RJ (pins)*

*Most multifiber applications are for backbone cabling and will require an MT-RJ (pinned) connector. If non-pinned connectors are required, please contact Customer Service.

For MT-RJ end, standard legs are 900 µm. Leg lengths are 39 inches (-0 / +3 inches).

For single-fiber connectors, use the following options to construct the part number:

Multimode

50 = ST® Compatible PC 17 = FC PC39 = SC PC Ceramic Ceramic 25 = ST Compatible PC 91 = SC PC Composite 57 = 568SC Duplex, Ceramic Composite 56 = 568SC, Duplex, Composite $03 = LC PC^{**}$ 05 = LC PC Duplex**

Fiber counts 12 or less, standard legs are 2.9 mm, leg lengths 39 inches (-0 / +3 inches). Fiber counts greater than 12, standard legs are 900 µm, leg lengths 39 inches (-0 / +3 inches).

Single-mode

54 = FC Ultra PC 21 = FC Angled PC 58 = SC Ultra PC 72 = SC Ultra PC Duplex 65 = SC Angled PC 10 = LC Angled PC** 85 = MU Ultra PC**

12 = LC Ultra PC with 90° boot clip**

23 = LC Ultra PC Duplex 90° with boot clip**

61 = ST Compatible Ultra PC 02 = LC Ultra PC Simplex**

04 = LC Ultra PC Duplex**

62 = D4 Ultra PC

2 Select connector type on second end.

**Available with 2.0 mm and 900 µm legs only.

Single-mode

 $87 = MT-RJ (pins)^*$

Multimode

 $86 = MT-RJ (pins)^*$

*Note: If non-pinned connectors are required, please contact Customer Service.

For MT-RJ end, standard legs are 900 µm. Leg lengths are 39 inches (-0 / +3 inches).

3 Select standard fiber count.

06 = 6 fibers 12 = 12 fibers 24 = 24 fibers 36 = 36 fibers 48 = 48 fibers 72 = 72 fibers 96 = 96 fibers

E4 = 144 fibers

4 Select fiber type.

R = Single-mode $K = 62.5/125 \mu m$ $C = 50/125 \mu m$

001 - 9991

Select cable type.

81 = MIC® riser 88 = MIC plenum

6 Select cable performance.

31 = Single-mode 1.0/.75 $30 = 62.5/125 \,\mu m \, InfiniCor^{\circ} 300$ $31 = 50/125 \,\mu m \, InfiniCor \, 600$

8 Select unit of measure. 7 Select assembly length.

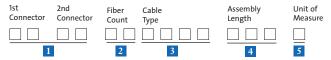
F = Feet M = Meters

¹For lengths greater than 999, contact Customer Service.

MTP[®] Jumpers

Ordering Information

Corning Cable Systems' patch cords and pigtails are ordered using five easy steps. The steps involve the selection of connector(s), cable, and length. The format and steps are listed below.



For two-fiber connectors, use the following options to construct the part number:

I Select connector code based on the type of adapter used at the patch panel and the electronic interface connector. The connector and adapter must be compatible for a correct connection. (Always use the lowest code first when constructing the part number.)

00= No connectors (use when ordering a pigtail)

Multimode

69 = MTP® (no pins)

70 = MTP (pin)

Single-mode

90 = MTP (no pins)

89 = MTP (pin)

2 Select fiber count.

04 = 4 fibers

08 = 8 fibers

12 = 12 fibers

3 Select cable code based on construction and fiber type.

Cable Type Cable Listing: Riser – OFNR	Fiber Type 62.5 µm	50 µm	Single-mode
Ribbon Interconnect Cable Cable Listing: Plenum – OFNP	KJ140	CJ131	RJ131
Ribbon Interconnect Cable	KJ840	CJ831	RJ831

Note: For hybrid jumpers, standard leg length for single-fiber connector end is:

4 fibers - 25-inch, 2.9 mm legs

8-12 fibers - 25-inch, 900 µm legs

Select cable assembly length.

001 to 9991

¹For lengths greater than 999, contact Customer Service.

5 Select unit of measure.

F = Feet

M = Meters

Note: A separate spec sheet with MTP connector ordering information is available.

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Ordering Information

Product Ordering Examples

Jumper with Single-Fiber Connectors

Multimode 62.5 µm jumper with SC PC ceramic and ST® compatible ceramic PC connectors on 2.9 mm riser single-fiber cable, 10 feet.

1 39 = SC PC Ceramic – 1st end 50 = ST Compatible PC – 2nd end

2 01K3141 = Single-fiber cable 2.9 mm

3 010 = Assembly length of 10

4 F = Unit of measure is feet

Jumper with MT-RJ Connectors

Multimode 62.5 µm jumper with 568SC Duplex, Ceramic and MT-RJ (no pins) connectors, ribbon interconnect cable, 5 meters.

57 = 568SC Duplex, Ceramic – 1st end 97 = MT-RJ (no pins) – 2nd end

 $2 ext{ 02 = 2-Fiber count}$

3 KJ1 = Ribbon Interconnect Cable

4 40 = 10-inch leg length with 2.9 mm legs

5 005 = Assembly length of 5

6 M = Unit of measure is meters

Pigtail with MTP® Connectors

Multimode 62.5 µm pigtail with MTP connector, 12-fiber ribbon interconnect cable, 10 meters.

 $\frac{00\ 69}{1}\ \frac{12\,\text{KJ}\,140}{2}\ \frac{010}{3}\ \frac{\text{M}}{4}$

1 00 = Pigtail – 1st end 69 = MTP (no pins) – 2nd end

2 12KJ140 = 12-fiber ribbon interconnect cable

3 010 = Assembly length of 10

4 M = Unit of measure is meters

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