# SPECIALTY PATCH CORDS



MTP, MPO, MT, fan-out cords, MCP, etc.





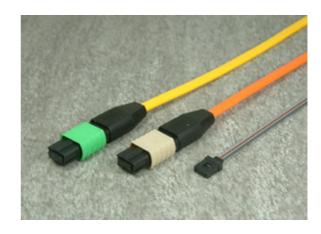
# MT Family - MPO/MTP/MT - FIBER OPTIC PATCH CORDS

# **Description**

MT family is an array technology providing quick connection for 4, 8 or 12 fibers. It reduces time and cost of installation. Fiber alignment is achieved with high precision guide pins. The ferrules and connectors are manufactured to IEC 61754-5 and 61754-7 respectively.

The MT family has two catagories:

1) MPO or MTP\* connector assembled to ribbon(or ribbonized) cable or bare ribbon. Connectors with push-pull latching mechanism are coupled via an adapter.



MTP has an extra feature over MPO with a removable housing for re-polishing.

2) MT ferrule with fiber ribbon. MT ferrules are coupled using a spring clamp only.

Multimode connectors are flat polished, and single mode connectors are 8° angle-polished. Other end-face polishes are provided on request.

\*MTP is a trademark of US Conec Ltd.

#### **Features**

- High density interconnection
- High precision guide pins for fiber alignment
- Materials meet RoHS requirements
- Riser, Plenum, and LSZH cables available

### **Applications**

- Local Area Networks
- Optical switch connections
- Fiber Channel
- Parallel interconnection
- Miniature OE modules

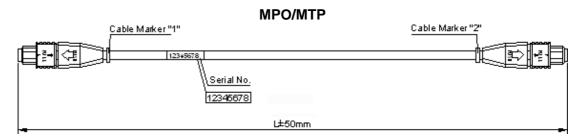
# **Specifications**

Basic				
Characteristics	Unit	SM	Low Loss SM	ММ
Insertion Loss (IL)	dB	≤0.75	≤0.35	<u>&lt;</u> 0.75
Return Loss (RL)	dB	≥55		<u>&gt;</u> 20
Endurance (500 remates)	dB	ΔIL <u>&lt;</u> 0.3		∆IL <u>&lt;</u> 0.2
Endface	-	8° Angle Polish		Flat Polish
Operating Temperature	°C	-10 ~ +60		
Storage Temperature	°C	-40 ~ <b>+</b> 70		
Axial Pull for jacketed cable	N	100		

## **Specifications**

Transmission						
Characteristics	Unit	SM	Std. 50um	62.5um	OM2	OM3
Max. Attenuation	dB/km (nm)	0.4/0.3 (1310/1550)	2.8 (850)	3.0 (850)	2.8 (850)	2.8 (850)
Min. Bandwidth	MHz•km (nm)	-	500/500 (850/1300)	200/200 (850/1300)	750 (850)	2000 (850)
Dispersion Coefficient	ps/ nm <sup>2</sup> •km	≤3.0 (1310nm)	-	-	-	-

# **Dimensional Drawing**



# **Ordering Information**

Part Number: PC-MO M MO F 12 R R R-5

1 2 3 4 5 6 7 8 9

Connector #1 MO=MPO, MP=MTP, MT=MT

Gender 1 F=Female, M=Male

Connector #2 MO=MPO, MP=MTP, MT=MT, P=Pigtail (no connector at this end)

Gender 2 F=Female, M=Male, T=Pigtail

5 Fiber Count 8 or 12

6 Fiber R=SM(G652), K=62.5um, C=50um, B=OM2, A=OM3, D=Low Loss SM

Cable Jacket R=Riser, P=Plenum, L=LSZH, N=no jacket(bare ribbon)
 Cable Type R=Ribbon Cable, D=Distribution Cable, B=Bare Ribbon, etc.

9 Cable Length Length in meter, i.e. 5=5m

Products manufactured in ISO 9001 certified facilities





# FIBER OPTIC FAN-OUT CORDS

# **Description**

Fiber optic fan-outs are designed for patch panels or cable ducts where space-saving is required. The patch panels have either array fusion splicing (between outside plant cables and bare ribbon pigtails) or array interconnections (MPO/MTP fan-out). For cables that run from patch panels to equipment or patch panels to patch panels, the fan-out cords with either ribbon cables or distribution cables can save space for cable ducts. Distribution cables are more rugged than ribbon cables.



Most popular connectors, such as SC\*1, FC\*1, ST\*2, LC, E2000\*3, MU, DIN, D4, and MPO/MTP\*4 are available. A fan-out cord can have MPO/MTP at one end, and fan-out terminated with single fiber connectors at the other end. The fan-out tube has a choice of 900um or 2mm.

- \*1 SC and FC are trademarks of NTT Advanced Technology Corp.
- \*2 ST is a trademark of Lucent Technologies
- \*3 The E2000 connectors are manufactured under license of Diamond SA.
- \*4 MTP is a trademark of US Conec Ltd.

#### **Features**

- 4, 6, 8 and 12-fiber count available
- Save duct space and installation time
- 900um, or 2mm fan-out tube
- Easy to use
- Jacketed ribbon cables, bare ribbons, or distribution cables

# **Applications**

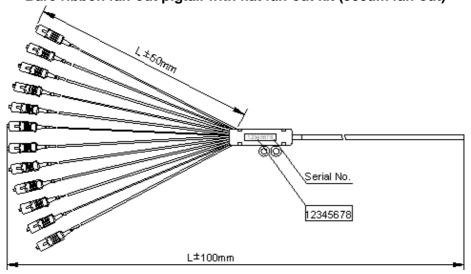
- Telecommunication
- Long haul networks
- CATV networks
- Building interconnections

# **Specifications**

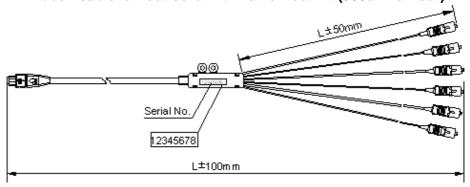
Characteristics	Unit	Value/Performance		
Fiber Count	-	4, 6, 8 or 12		
Cable Type	-	Bare ribbon, jacket ribbon or distribution cable		
Optical Performance	-	See corresponding patch cord data sheets		
Fan-out Diameter		900um	2mm	
Operating Temperature	°C	0 ~ +70°C	-20 ~ +70°C	
Storage Temperature	°C	-5 ~ +70°C	-40 ~ +70°C	
Tensile strength	kg	≥2.5kg	≥6.8kg	

# **Dimensional Drawing**

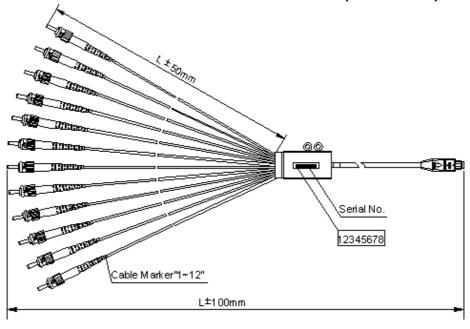
#### Bare ribbon fan-out pigtail with flat fan-out kit (900um fan-out)



#### Ribbon cable fan-out cord with flat fan-out kit (900um fan-out)

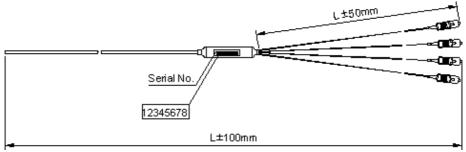


#### Ribbon cable fan-out cord with flat fan-out kit (2mm fan-out)



# **Dimensional Drawing**

#### Ribbon cable fan-out pigtail with round fan-out kit (900um fan-out)



# Distribution cable fan-out cord (2mm fan-out) Serial No. Serial No. Cable Marker"1~4" L±100mm

# **Ordering Information**

Part Number: FO-JR 12 R 10 F - A MO F - B S U 2.0-1
1 2 3 4 5 6 7 8 9 10 11 12 13

Cable Type JR=Jacket Ribbon, BR=Bare Ribbon, DS=Distribution Cable

2 Fiber Count 4, 6, 8 or 12

Fiber Type R=SM, K=62.5um, C=50um, B=OM2, A=OM3

Cable Length Length in meter, i.e. 10=10m

5 Fan-out Kit Type F=Flat, R=Round

6 Connector at A MO=MPO, MP=MTP, L=LC, E2=E2000, F=FC, S=SC, T=ST, etc.
7 Finish or Gender at A S=SPC, U=UPC, A=APC, P=PC, MPO/MTP: F=Female; M=Male

Tubing Diameter at A 2.0=Ø2.0mm, 0.9=Ø0.9mm, etc.; blank = no fan-out (MPO/MTP)

9 Fan-out Length at A Length in meter, i.e. 1=m; blank = no fan-out (MPO/MTP)

Connector at B P=Pigtail (no connector at this end), MO=MPO, MP=MTP, L=LC,

E2=E2000, F=FC, S=SC, T=ST, etc.

finish or Gender at B S=SPC, U=UPC, A=APC, P=PC, T=Pigtail, MPO/MTP: F=Female;

M=Male

12 Tubing Diameter at B 2.0=Ø2.0mm, 0.9=Ø0.9mm, etc.; blank = no fan-out (MPO/MTP or pigtail)

13 Fan-out Length at B Length in meter, i.e. 1=m; blank = no fan-out (MPO/MTP or pigtail)

Products manufactured in ISO 9001 certified facilities



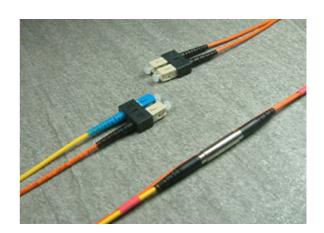




# MODE CONDITIONING PATCH CORDS

# **Description**

Our mode conditioning patch cords(MCP) are designed to eliminate Differential Mode Delay(DMD) effects which can occur when a single mode signal is launched into a multimode fiber. They are especially suitable for applications where new Gigabit 1000 BASE-LX routers or switches are being deployed into existing multimode plants. They allow customers an upgrade of their hardware technology without the costly upgrade of their fiber plant. Besides, the MCPs significantly improve data signal quality and increase the transmission distance.



Each of our MCPs has rugged and compact device closure with rubber boots to protect cable from side pulling. Flame retardant grade cable sheathing options are offered. Riser rated cable will be provided as standard. LSZH and Plenum can be provided upon request.

#### **Features**

#### ■ IEEE802.3z(Gigabit Ethernet) compliant

- Suitable for Gigabit 1000 BASE-LX on multimode cable
- Eliminate Differential Mode Delay effects
- Tested and approved to Gigabit Ethernet protocols - Coupled Power Ratio (CPR)
- Function like standard patch cords
- Riser, Plenum, and LSZH cables available

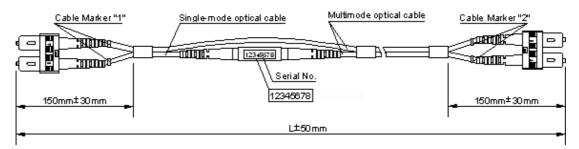
# **Applications**

Gigabit Ethernet hardware upgrade

# **Specifications**

Characteristics	Unit	62.5um	50um
Attenuation (SM to MM)	dB	≤0.5	
Return Loss (SM to MM)	dB	<u>≥</u> 26	
Coupled Power Ratio (CPR)	dB	28 - 40	12 -20
LX(1310nm) Operating Distance	m	550	500
Tensile strength	kg	≥10	
Operating Temperature	°C	-10 ~ +70	
Storage Temperature	°C	-40 ~ <b>+</b> 70	

## **Dimensional Drawing**



# **Ordering Information**

Part Number: MCP-S T K R 3.0-2

1 2 3 4 5 6

Connectors to Equipment S=SC, T=ST, MR=MTRJ, L=LC, etc

Connectors to Plant S=SC, T=ST, MR=MTRJ, L=LC, etc

Fiber Type R=SM, K=62.5um, C=50um Cable Jacket R=Riser, P=Plenum, L=LSZH

Cable Diameter 3.0=Ø3.0mm, 2.0=Ø2.0mm, etc.

Cable Length Length in meter, i.e. 2=2m

> Products manufactured in ISO 9001 certified facilities



