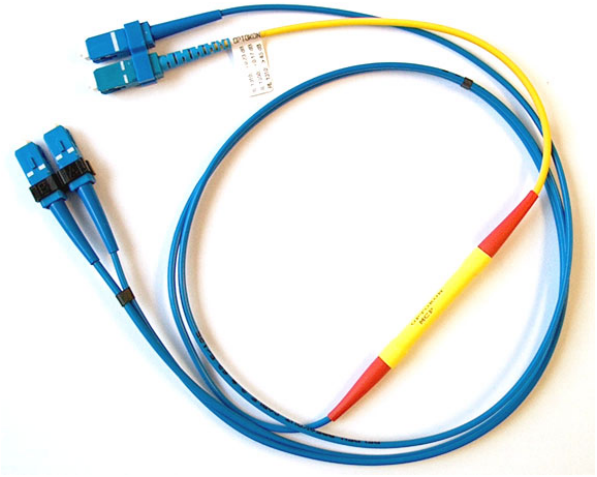
MCP Patchcord

Description:

OPTOKON offers Mode Conditioning Patchcord for long wave (-LX) multimode applications of Gigabit Ethernet. This patchcord consist of customer designed connectors on each end of cable assembly with a singlemode fiber offset to a multimode fiber connection point in between.
This patch cord optimizes the singlemode launch nature of the -LX (1300 nm) transceiver modules used for Gigabit Ethernet that must operate over both singlemode and multimode fibers. A single-mode laser launch into the center of a multimode fiber can generate multiple signals that confuse the receiver at the other end of the fiber. These multiple signals, caused by Differential Mode Delay (DMD) effects, limit the system distance lengths for operating Gigabit Ethernet. OPTOKON Mode Conditioning Patchcord eliminates these multiple signals by aligning the single-mode launch away from the center of a multimode fiber core. This offset launch creates a transmitted signal that is similar to typical multimode light emitting diode (LED) launches.



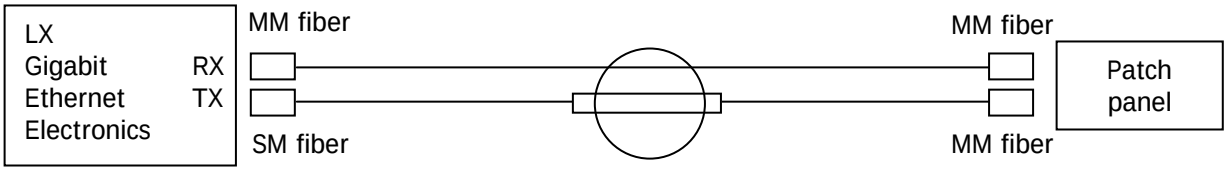
MCP-SC-SC-D8 OM1-02

Features:

- IEEE-802.3z (Gigabit Ethernet) and IEEE-802.3ae (10 Gigabit Ethernet) compliant
- Pernament offset closure
- Low profile offset closure
- Low loss
- Fits existing cabling scheme
- Easy to use

Specifications:

SX (850 nm) Operating Distance			LX (1300 nm) Operating Distance		
Fiber type	**Modal Bandwith 850 nm**	**Distance**	**Fiber type**	**Modal Bandwith 1300 nm**	**Distance**
62.5 µm	160 MHz/km	220 m	62.5 µm	500 MHz/km	500 m
62.5 µm	200 MHz/km	275 m	50 µm	500 MHz/km	550 m
50 µm	400 MHz/km	500 m	9 µm SM	N/A	10 000 m
50 µm	500 MHz/km	550 m			



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Applications:

- 1G Ethernet
- 10G Ethernet

Ordering code:

MCP - AA - BB - XX XXX - XX

AA - Multimode network

Type	Description
LC	LC/PC
MU	MU/PC
PC	FC/PC
SC	SC/PC
SL	ST/PC
PE2	LSH (E2000)/PC
DIN	DIN/PC
EC	ESCON
FDDI	FDDI
MJF	MT/RJ - without pins
MJM	MT/RJ - with guide pins

BB – LX device interface

Type	Description
SC	SC interface
LC	LC interface

XX length [m]

XX – cable size

D1	duplex minizip 1.8 x 3.6 mm
D3	duplex zipcord 2.0 x 4.2 mm
D4	duplex zipcord 2.4 x 5.5 mm
D8	duplex zipcord 2.8 x 5.5 mm

XXX - type of fiber

OM1	MM 62.5/125 µm
OM2	MM 50/125 µm

Notes:

Requirements for Gigabit Ethernet Transmissions
MCP is required for 1000BASE-LX applications in the 1300-nm window over OM1, and OM2 fiber types.
Don´t use the MCP in 1000BASE-SX links in the 850-nm window.
Don´t use the MCP for applications over OM3, also known as “laser-optimized fiber.”

Requirements for 10 Gigabit Ethernet Transmissions
MCP is required for 10GBASE-LR transceivers transmitting in the 1300-nm window in applications over OM1, and OM2 fiber types.
Don´t use the MCP for 10GBASE-SR transceivers transmitting in the 850-nm window.
Don´t use the MCP for applications over OM3, also known as “laser-optimized fiber.”

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