

SYSTIMAX® OptiSPEED® Solutions

62.5 μm Multimode

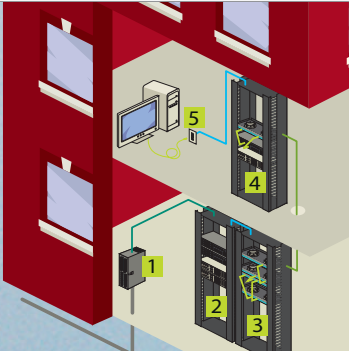
The OptiSPEED solution supports 1000BASE-SX (low-cost 850 nm Gigabit Ethernet) up to 300 meters with up to 6 LC connections, and supports 1000BASE-LX up to 600 meters. In addition, the OptiSPEED solution supports 10GBASE-LX4 (10 Gigabit Ethernet using 1300 nm CWDM optics) to 300 meters.

The OptiSPEED solution also includes the duplex SC and ST connectors in addition to the LC. OptiSPEED Solution supports up to 600 meter for 1000BASE-LX, Gbps ethernet LAN applications. In addition, OptiSPEED Solution supports 10 Gbps ethernet using CWDM 1,300 nm lasers to 300 meters.

In addition to LC connectors, OptiSPEED Solution supports the duplex SC connector as well as the ST connector although over restricted applications and number of connections. The LC is a small form factor connector that allows two LC connectors to fit in the space of a traditional connector such as the SC or ST II+. An extensive line of wall and rack mounted cabinets and telecommunication outlets for building entrance facilities, equipment rooms, telephone closets/floor distributors and work areas are available.

- 1 Fiber optic LIU/489 FIU
- 2 Racks and cabinets
- 3 Equipment room:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
- 4 Telecom closet:
-600 G2 modular shelf and panel shelf
-1000 G2 modular shelf and panel shelf
- 5 Faceplate/multimedia information outlet

— OptiSPEED outside plant cable
— OptiSPEED indoor/outdoor cable
— OptiSPEED indoor cable
— OptiSPEED patch cord
— OptiSPEED riser cable



Features and Benefits

- Standard multimode fiber
- Lowest multimode fiber channel loss available, up to 50% less than other systems
- Lowest loss small form factor connector available in the industry - LC connector

Physical Characteristics

OptiSPEED Optical Fiber

62.5 Micron, Multimode Fiber

Core Diameter	62.5 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Core/Clad Offset	≤ 1.5 µm
Coating Diameter (Uncolored)	245 ± 10 µm
Coating Diameter (Colored)	254 ± 7 µm
Coating/Cladding Concentricity Error, Max.	6 µm
Clad Non-Circularity	≤ 1%

Mechanical Characteristics

Proof Test	100 kpsi (0.69 Gpa)
Coating Strip Force	0.3 - 2.0 lbf (1.3 - 8.9 N)
Dynamic Fatigue Parameter (nd)	≥ 18
Macrobending, max. (100 turns @ 75 mm mandrel)	0.50 dB max. @ 850 nm and 1,300 nm

Optical Characteristics, Wavelength Specific

	850 nm	1,300 nm
Max. Attenuation, Loose Tube Cable	3.0 dB/km	1.0 dB/km
Max. Attenuation, Tight Buffer Cable	3.4 dB/km	1.0 dB/km
Min. Bandwidth, Overfilled	200 MHz-km	500 MHz-km
Group Refractive Index	1.496	1.491
1 Gb Ethernet Distance	300 m (1000BASE-SX)	600 m (1000BASE-LX)

Optical Characteristics, General

Numerical Aperture	0.275 ± 0.015
Point Defects, Max.	0.15 dB
Zero Dispersion Wavelength	1,320-1,365 nm
Zero Dispersion Slope	0.097 ps/[km-nm-nm]

Environmental Characteristics

Temperature Dependence -76°F to 185°F (-60°C to 85°C)	≤ 0.20 dB
Temperature Humidity Cycling 14°F to 185°F (-10°C to 85°C) up to 95% RH	≤ 0.20 dB
Water Immersion, 73.4°F (23°C)	≤ 0.20 dB
Heat Aging, 185°F (85°C)	≤ 0.20 dB

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