

OneMode™-Link

10 Gbps+ data rates over a multimode infrastructure without replacing the fibers



The majority of fibers deployed in local campus networks are standard multimode optical fibers.

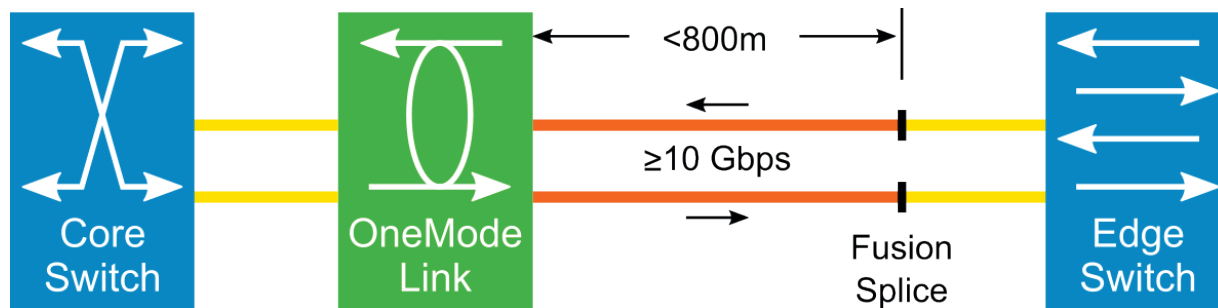
These fibers are limited in bandwidth and depending on the type of fiber (OM1, OM2, OM3, OM4), topology, and lengths of the cables deployed in the network, the transmitted bit rates are limited to 1Gbps or even 100Mbps. These data rates are too slow to support today's applications and end-user demand.

Modal dispersion is the main culprit in limiting the data rates that can be supported by multimode optical fiber. But what if the dispersion was eliminated?

OneMode™-Link is a passive media converter allowing the deployment of 10Gbps, 25Gbps, 50Gbps, and faster, using existing multimode fibers, by eliminating modal dispersion. This innovation provides a flexible and affordable solution that reduces the investment in upgrading the cabling infrastructure. Regardless of the network topology, OneMode™-Link can transport 10Gbps or more, and can support evolutions in network traffic, without long, complex, and expensive new deployment.

With OneMode™-Link, you do not need to trench, rip, and replace, or deploy air blown fiber to upgrade your campus network infrastructure.

OneMode™-Link devices are placed in-between the core switch and the edge switch. Singlemode optical modules connect to OneMode™-Link using singlemode patch cords. The multimode optical infrastructure attaches to the multimode port or pigtail. For links less than 800m, at the far end, multimode fiber is connected to a singlemode patchcord using a fiber adapter. For links greater than 800m, a OneMode™-Extender is used.



technical specifications

Parameter	OneMode™-Link
Operating wavelength	O-band (1310 nm) — C-band (1550 nm)
Reach	<5km
Number of fibers	Exists in 2/4/8/12/24
System capacity	10 + Gb/s per channel — Compatible with WDM Independent data rate over each channel
Insertion loss	<2 dB (typical : 1.5 dB)
Communication protocol	Transparent to standard protocols (Ethernet, Fiber Channel, etc.) Any type of duplex or bidirectional singlemode transceiver in O-band or C-band

OneMode™ - Link

physical characteristics

Parameter	Value
Fiber type	62.5/125µm (OM1) or 50/125µm (OM2 / OM3 / OM4 / OM5)
Reach	≤800m (Standard) <5km (Using extender)
Input/Output	Duplex LC/UPC connector in front side Multimode pigtail
Operating temperature	-40°C to +70°C (EN 300 019-1-3 Class 3.4)
Housing size	Rack mount, 19" wide, 1 RU H: 43mm x W: 480mm x D: 250mm

ordering information

1	2	3	4	5	6, 7	10
F	M	Function	# of Ports	Fiber Type	Form Factor	Rear Connector Type

F = Fiber

M = Mode

L = Link

1 = 1 Port

6 = OM1

RA = 1 RU
Rack Mount

N = None, Pigtail

2 = 2 Port

5 = OM2, OM3, OM4

4 = 4 Port

6 = 6 Port

C = 12 Port

Example: A two-port rack mountable unit for use with OM1 fiber pigtail: FME26RAN

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