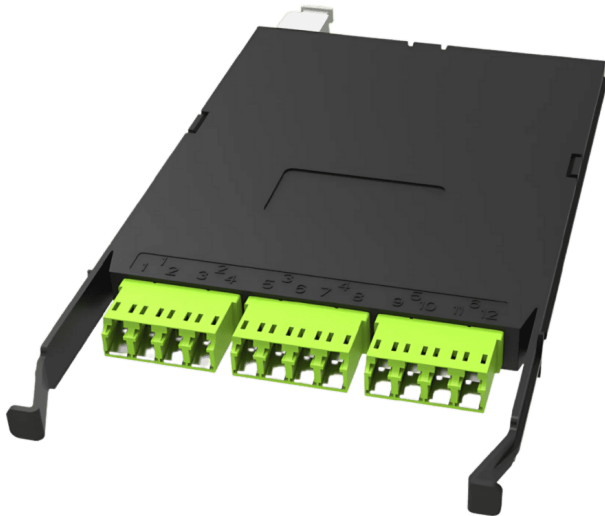




# FotonShield MPO-LC Cassette, 12F MPO (Male) Low Loss - 12 x LC/UPC, MM OM5



## Applicable Standards

- IEC 61754-7 (MPO Connector)
- IEC 61755-3-1 (LC/UPC)
- IEC 61300-3-35 (End-Face Cleanliness)
- RoHS and REACH

## Product Part Number

N172.MPO12LCU4A

## Product Description

The **FotonShield 12F MPO-LC Cassette** is a high-performance fiber optic module designed for low-loss, high-density multimode connectivity in data centers, enterprise networks, and high-speed backbone infrastructures. Featuring an **MPO (Male) Elite connector** and **3 x LC/UPC Quad adapters**, this cassette ensures minimal insertion loss, optimized signal integrity, and enhanced performance for 10G, 40G, 100G, and emerging 400G applications. Built with **OM5 wideband multimode fiber (WBMMF)**, this cassette is optimized for shortwave division multiplexing (SWDM) technology, allowing multiple wavelengths to be transmitted over the same fiber. This enables increased bandwidth and higher data transmission efficiency compared to OM4, making it ideal for future-proofing data center infrastructure. The housing is constructed from **ABS + PC** with a **UL-94 V0 flame-retardant rating**, ensuring durability, fire resistance, and long-term reliability in mission-critical environments.

## Product Features

- Ultra-Low Loss MPO Elite Connector : Provides exceptional signal integrity and minimal insertion loss.
- OM5 Wideband Multimode Fiber (WBMMF) : Supports SWDM technology for 4-wavelength transmission in short-reach applications.
- 12 x LC/UPC Ports : Designed for reliable fiber terminations and superior return loss performance.
- Polarity A (Straight-Through Configuration) : Ensures proper alignment in structured cabling environments.
- UL-94 V0 Flame-Retardant ABS + PC Housing : High durability, impact resistance, and enhanced fire safety.
- Plug-and-Play Modular Design : Enables fast and easy deployment in high-density rack-mount environments.





**FotonShield MPO-LC Cassette, 12F MPO  
(Male) Low Loss - 12 x LC/UPC, MM OM5**





# FotonShield MPO-LC Cassette, 12F MPO (Male) Low Loss - 12 x LC/UPC, MM OM5

## Material Specifications

Type	12F MPO-Male (Elite) to LC/UPC
Fiber Type	Multimode OM5 (WBMMF, 50/125µm)
LC Connector	Insertion Loss : $\leq 0.25$ dB, Return Loss : UPC $\geq 35$ dB
MPO (Elite) Connector	Insertion Loss : $\leq 0.35$ dB, Return Loss : UPC $\geq 35$ dB
Adapter Type	Quad LC/UPC
Polarity	Type A (Straight-Through)
Housing Material	ABS + PC (UL-94 V0 Flame-Retardant)
Application	Data Centers, Enterprise Networks, Telecom

## Environmental Specifications

Operating Temperature Range	- 20°C to 70°C
Storage Temperature Range	- 20°C to 70°C

## Ordering Information

N172.MPO12LCU4A	FotonShield MPO-LC Cassette, 12F MPO (Male) Low Loss - 12 x LC/UPC, MM OM5
-----------------	--

