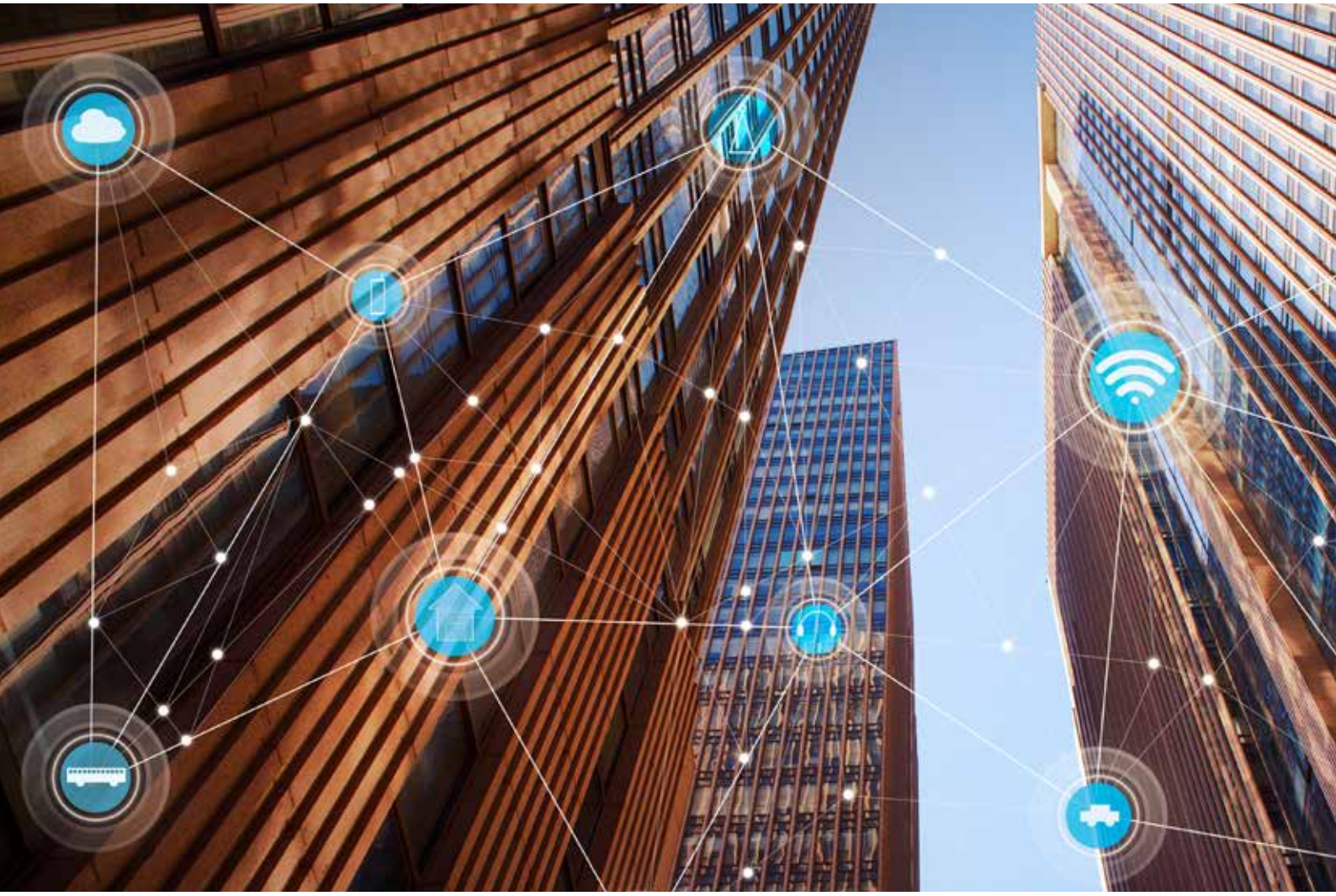
FIBER TO THE X (FTTx) ›
NEXT GENERATION NETWORK ACCESS



molex

FTTx / PON

Optimized Solutions for Next Generation Passive Optical Network Challenges

Increased bandwidth demand is driving Passive Optical Network (PON) upgrades globally. Where there is existing PON infrastructure, providers are extending the life of the existing PON network by an upgrading or adding to an existing network. These so-called “brownfield deployments” of new PON infrastructure will require new optical devices in order to leverage the existing Passive Optical Network and allow coexistence (CEx) of different generations of PON.

Since Optical Network Terminations (ONT) could now receive multiple wavelengths, a blocking filter (WBF) may become necessary to avoid interference issues. In the case of NGPON-2 deployments, a solution for muxing and demuxing wavelengths at the Optical Line Termination (OLT) is required as well.

Molex integrates its optical expertise with a strong capability in mechanical design, software development, electronic integration and supply chain management to deliver market-leading solutions and services. We have a long track record of providing many of the highest performing, field-proven wavelength management products in the market. We deliver end-to-end solutions for the optical infrastructure of next-generation networks.

Molex can provide technically optimized solutions for the new PON challenges

- Manufacturer with 3,000-employee factory making WDMs from filter/subcomponent level
- Manufacturing excellence with more than 20 years’ track record of delivering WDM products
- Large production capacity of 3,000+ devices per day
- Advanced proprietary automation WDM alignment and testing processes
- Manufacturing automation for scale, flexibility and consistency
- Vertically integrated with in-house thin-film filter coating and filter packaging capabilities which are critical to WDM’s performance, cost and quality
- Reduce total cost of ownership by consolidating the supply base with one global leading optical solution partner

As a strong vertically integrated company, Molex meets each customer’s unique challenge by offering wavelength management solutions that include a broad portfolio of products and capabilities — from components to intelligent modules and from circuit packs to transport boxes.

Molex Coexistence Module (CEx)

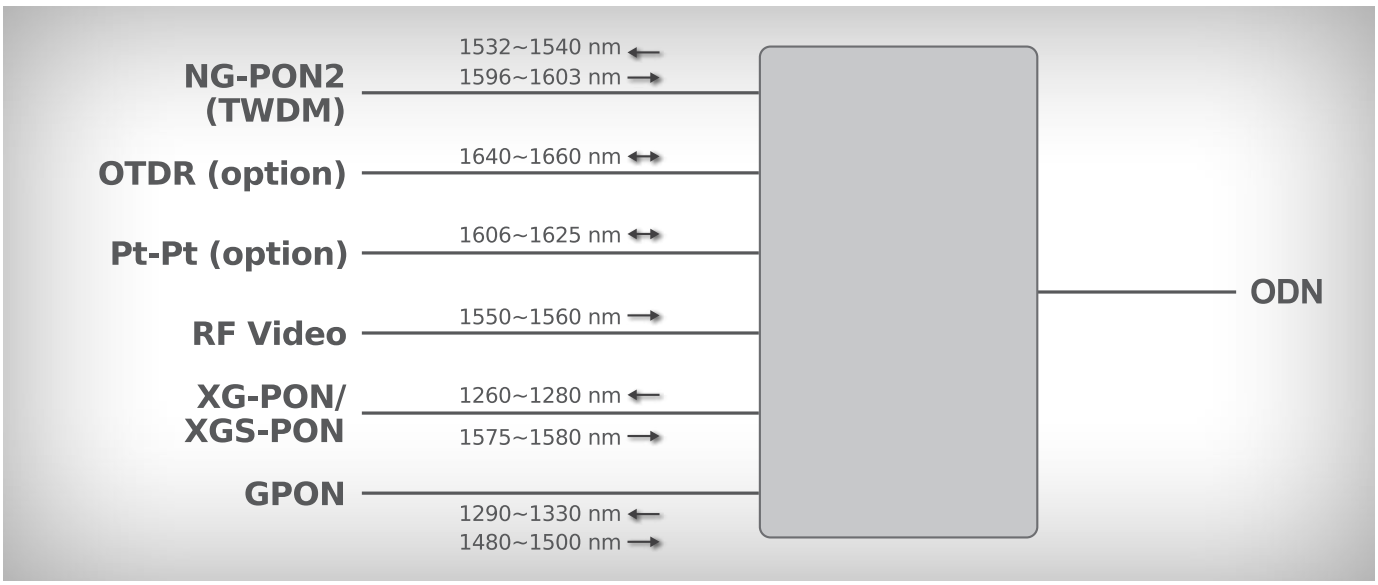
The Molex Coexistence Module (CEx) supports coexistence of all legacies (ITU G.984.5) and can be customized to your requirements.

The module fits in a 19” 2RU chassis and can accomodate up to 6 pluggable cassettes with each capable of hosting two CEx or Wavelength Multiplexer Modules (WM1) (1RU and 3RU chassis also available).

Features

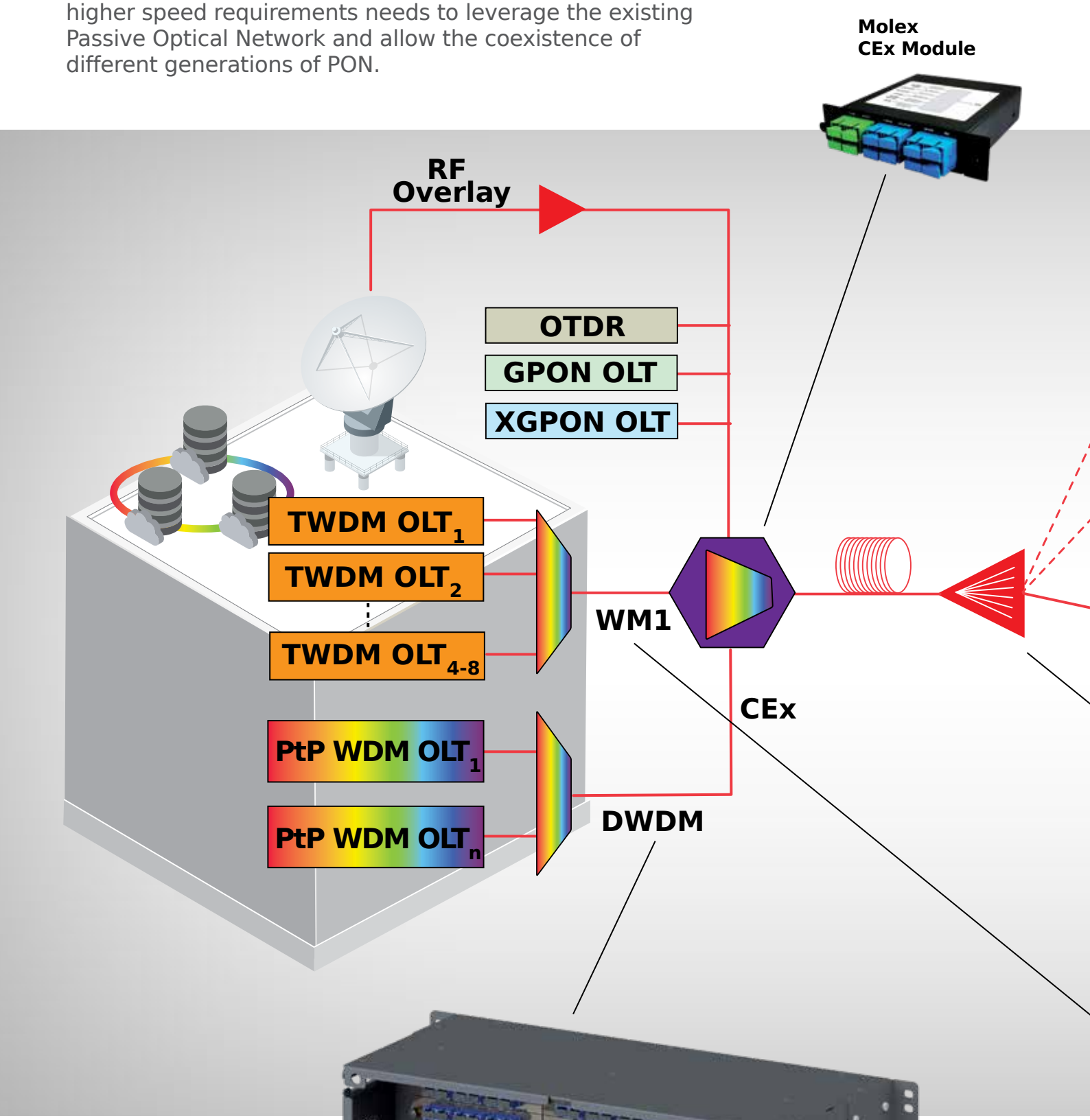
- Very flexible design to accommodate any combination of legacy and future services and standards
- High quality and reliability to support industrial environment temperature range (-40° to +85°C)
- Unique athermal TFF device packaging design to achieve high performance with low insertion loss as well as low temperature dependent loss
- Assembled inside standard LGX style cassette or any customized cassettes, including outside plant enclosures

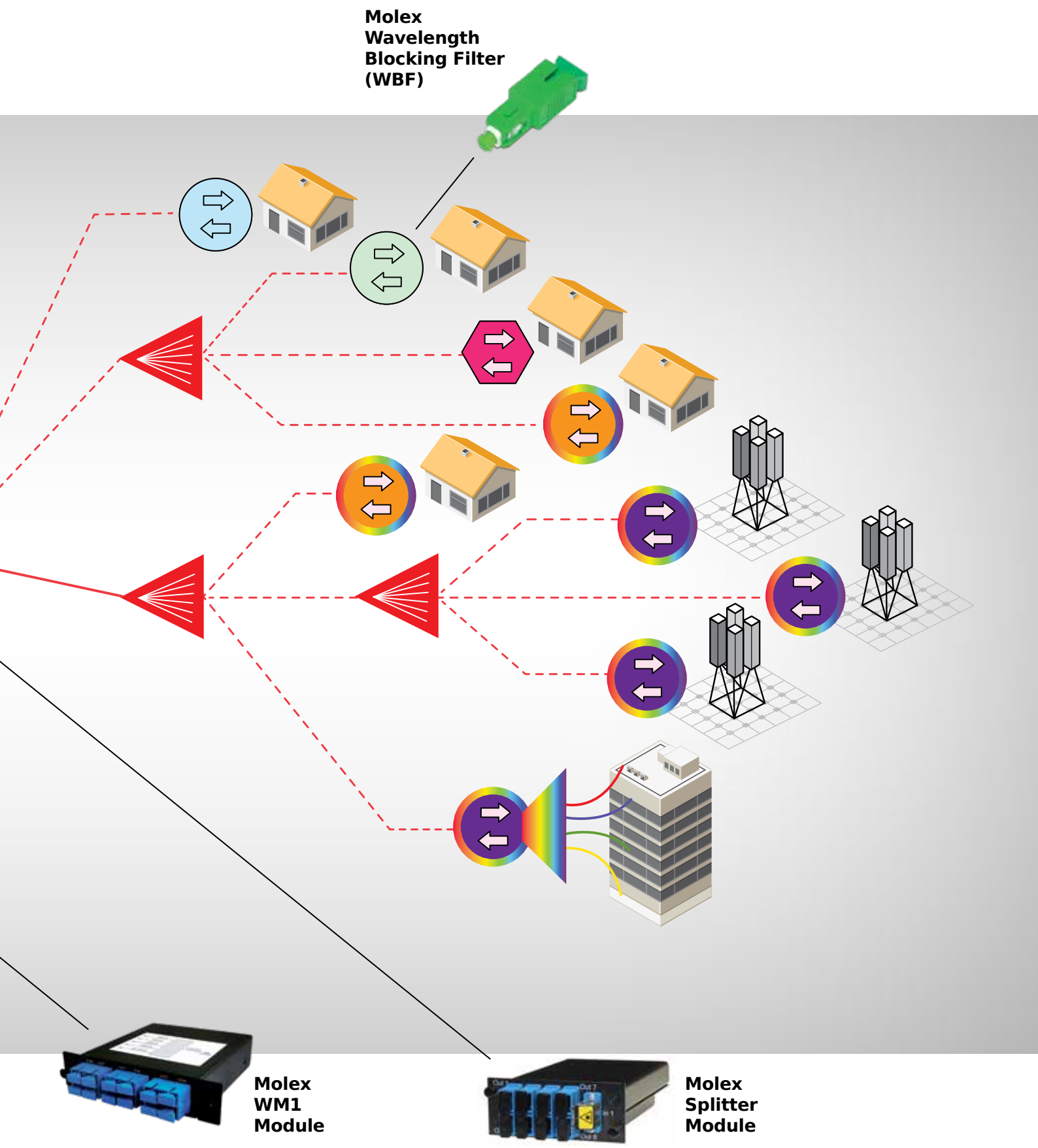
Optical network spectrum



FTTx / Passive Optical Network (PON) ›

Progress in Passive Optical Network standards to adapt to higher speed requirements needs to leverage the existing Passive Optical Network and allow the coexistence of different generations of PON.

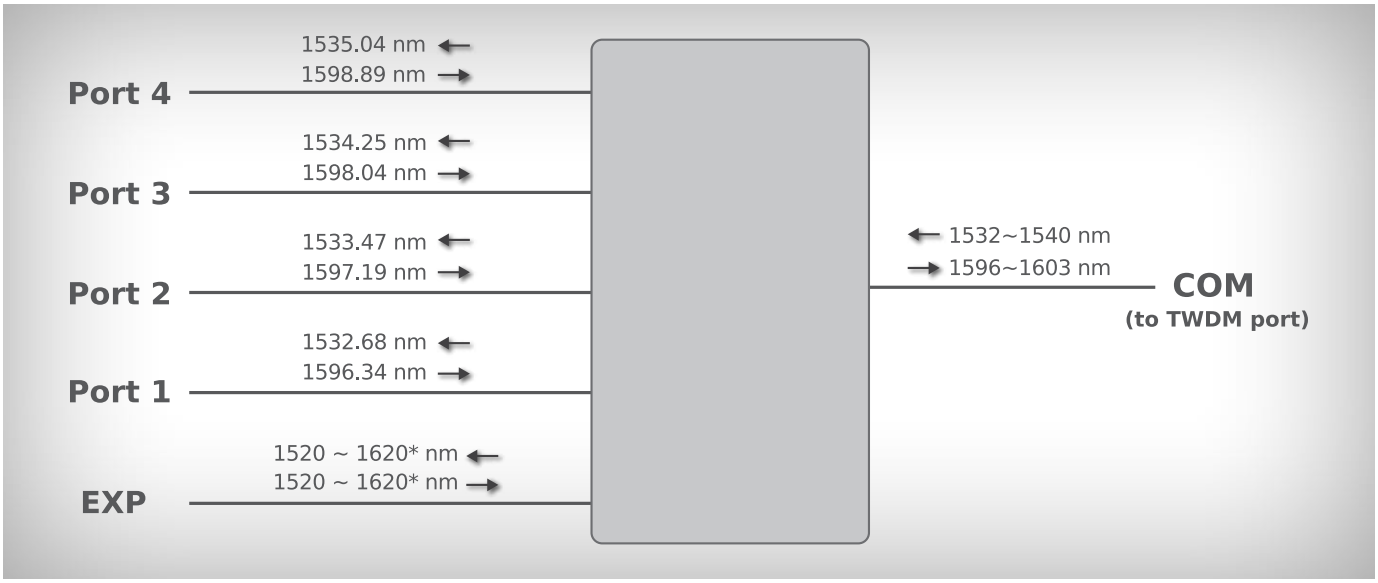



Molex
Wavelength
Blocking Filter
(WBF)
Molex
WM1
Module
Molex
Splitter
Module

Molex Wavelength Multiplexer (WM1) and Dense Wavelength Division Multiplexing (DWDM) Solutions

Features

- Support both C and L band DWDM bi-directional transmission
- Support NG-PON2 4 channel and 8 channel standards as well as any proprietary design
- High reliability and excellent performance
- Support industrial temperature range (-40° to +85°C) and various standard or proprietary cassettes and enclosures

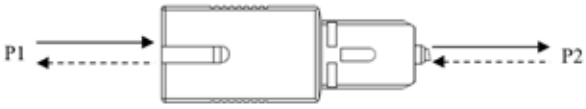


Molex Wavelength Blocking Filter (WBF)

The Wavelength Blocking filter (WBF), blocks interfering signals, allowing only the desired wavelength to come through.

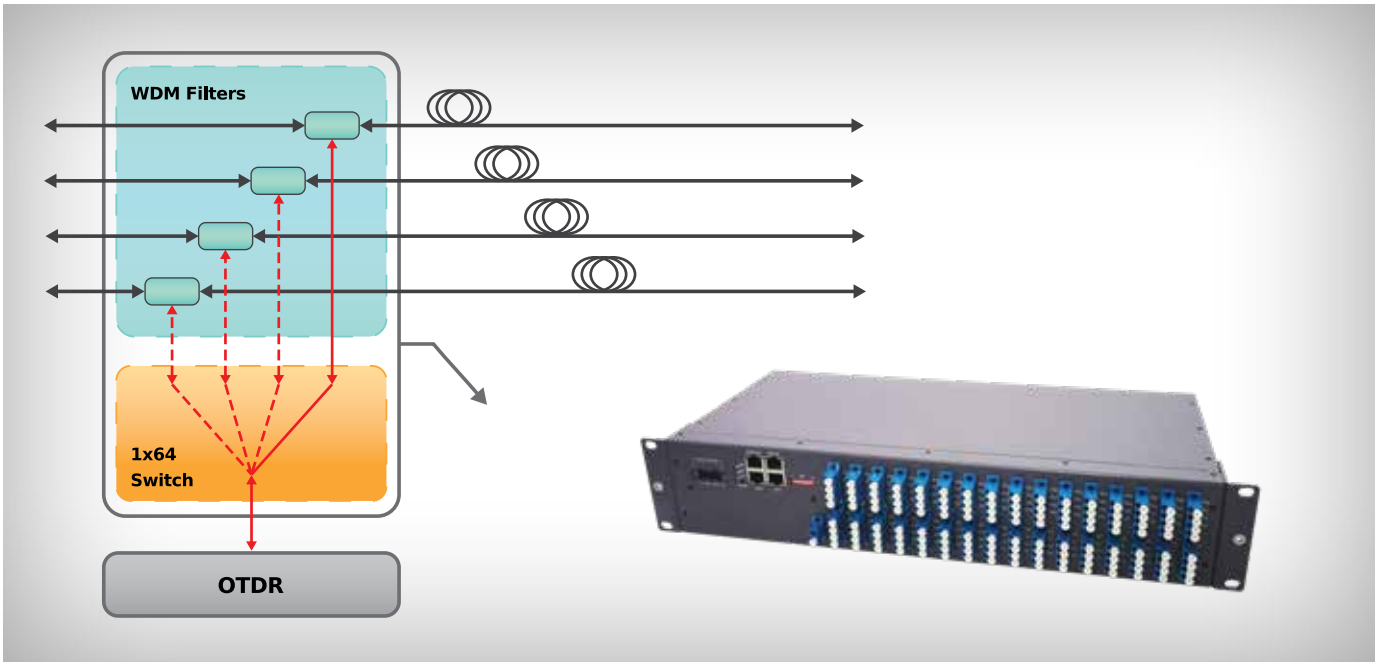
Features

- Supports industrial temperature range (-40° to +85°C)
- Low insertion loss and high blocking isolation
- Flexible blocking spectra design
- Standard adapter sizes



Molex 1x48 /1x64 Switch for OTDR Multi-point Monitoring

- Injects OTDR light source into fiber via WDM filter
- Monitor 64 fibers with one OTDR through 1x64 switch
- WDM filters and switch can be assembled in one chassis to save space, or housed in separated chassis



Molex CES PLC Splitter Solution

Features

- Wide Operating Wavelength Range: 1260-1650nm
- Support NG-PON2, XG-PON, GPON, EPON
- From 1X2 to 1X64 Capability
- Excellent Channel IL Uniformity
- Low PDL
- Support industrial temperature range (-40° to +85°C)
- Low loss connector optional

Molex CES PLC Splitter Box Solution

Features

- Wide Operating Wavelength Range: 1260-1650nm
- Support NG-PON2, XG-PON, GPON, EPON
- From 1X2 to 1X16 Capability
- Excellent Channel IL Uniformity
- Low PDL
- Support industrial temperature range (-40° to +85°C)
- High reliability and excellent performance
- 6-PAK standard footprint

1U Multi-Function Fibre Enclosure

Features

- Accommodates up to 4 6-PAK Spliiter BOX which allows 4X64 capacity
- Support 1X64 by adapter plate
- Self-adhesive fibre management hub is stackable and can be segmented providing individualisation of fibre routing
- Optional front cable management allows for secure routing of patch cords can be retrofitted
- Optional locking kits provides security with its over-locking curved cam lock by locking into the top of the enclosure. The hinged top allow easy moves, adds and changes, and can be retrofitted
- Incorporates heavy duty ball bearing slides for smooth and limited extension of the drawer, allowing access
- Rugged steel construction in graphite finish

Molex CES Indoor Secured Wall mount Enclosure

Features

- Rugged steel(CRS) construction in black
- Support up to 1X32 capacity
- Support up to 2 6-PAK module
- Comes multiple entry points
- Fully Secured with Lockable and Secured Steel doors
- Robust cable management shelf ensures bend radius compliance

Molex CES Field Terminiation Box

Features

- Dome style or In-Line style
- Various choice based on fibre counts
- Wide capability range 12-576 fibres
- IP68(Dome) and IP65(In-Line)
- Compact size
- High reliable

www.molexces.com/solutions-overview/passive-optical-networks/

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Order No. 987652-2161 CES

CES/MH/2020.05