

# THE H-SERIES PASSIVE OPTICAL NETWORKING PLATFORM

CWDM and DWDM mux/demux and OADMs



The Smartoptics H-Series is a high density, cost-efficient platform for passive optical layer nodes such as CWDM and DWDM multiplexers/demultiplexers and OADMs (Optical Add Drop Multiplexer). Using best of breed components, the H-Series offers the latest generation of solutions to your passive optical networking needs. Special attention has been paid to handling, compactness and flexibility, resulting in a 1 RU chassis housing a variety of filter modules and giving you up to five times higher packaging density than previous solutions. The H-Series is fully compatible with the ITU optical grid and interconnects seamlessly with Smartoptics transponder and muxponder product lines as well as with other vendors' products.

## H-SERIES IN SHORT

The H-Series platform comprises a high-density 1 RU chassis that can be equipped with combinations of filter modules for state of the art CWDM and DWDM mux/demux and DWDM OADM applications.

- Expands existing fiber capacity regardless of service
- 4-16 CWDM wavelengths mux/demux
- 8-40 DWDM wavelengths mux/demux
- 4 channel OADMs, single and dual degree solutions
- Monitor ports on all DWDM mux/demux

## APPLICATIONS

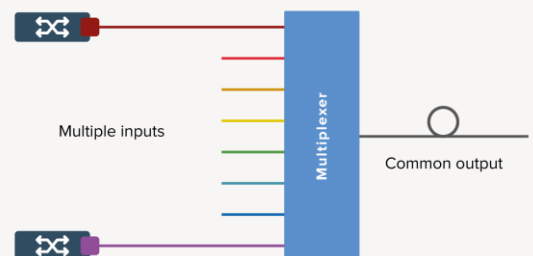
The H-Series is ideal when implementing fully passive optical layer solutions transparent to any data rate and service type. Used as a mux/demux it will multiplex new services over an existing fiber infrastructure without any need for power supply or active equipment. And as an OADM it can for example be used in cost-efficient add/drop rings.

### CWDM MUX/DEMUX

CWDM passive solutions carry up to 16 different wavelengths down a single fiber connection. The optical combining and splitting of wavelengths is a passive technology and a mux/demux unit requires neither electrical power nor software resulting in greatly increased reliability. The primary 8 channels operate in the 1500 nm band and the secondary 8 channels operate in the 1300 nm band.

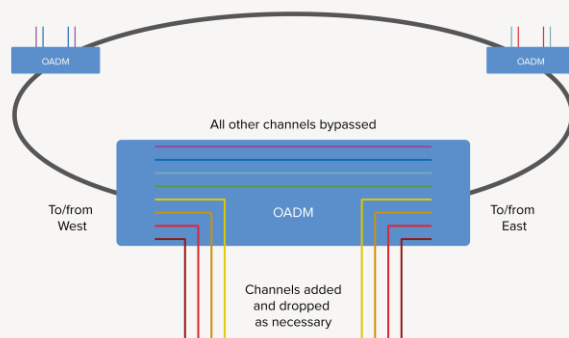
### DWDM MUX/DEMUX

DWDM passive solutions theoretically carry up to 80 different wavelengths down a single fiber connection. The optical combining and splitting of wavelengths is a passive technology and a mux/demux unit requires neither electrical power nor software resulting in greatly increased reliability. The channel spacing is typically 0.8 nm and the channels reside in the 1530 to 1560 nm band.



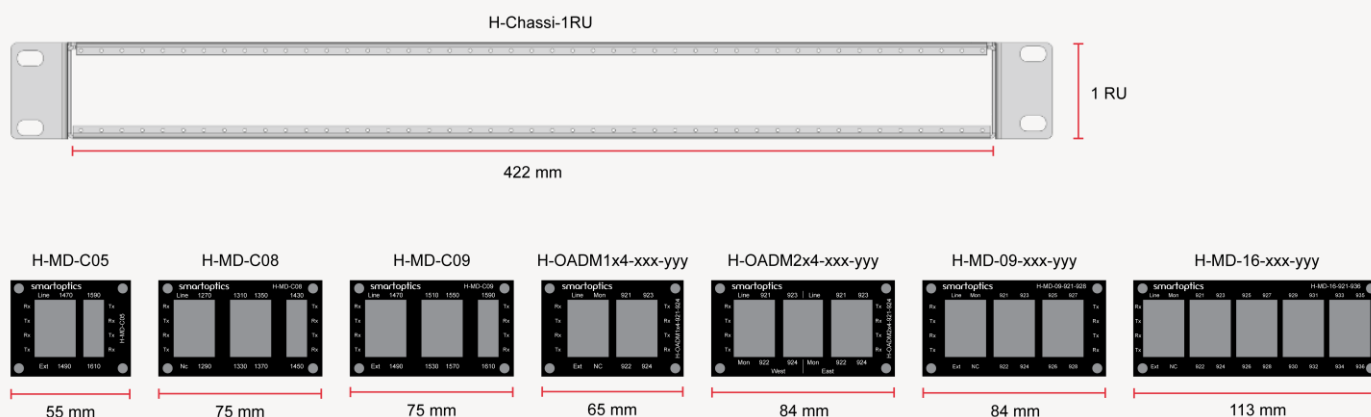
**OADM**

An OADM unit terminates a subset of wavelengths in a WDM system. OADMs typically add, or add and drop, 1, 2 or 4 wavelengths and the remaining wavelengths are bypassed (expressed) through the fiber. An OADM is often used to create ring networks and when only a few wavelengths are required at specific sites.



**THE HIGH-DENSITY H-SERIES 1 RU CHASSIS**

H-Series filter modules are accompanied by a flexible yet robust high density 1RU chassis that supports a variety of filter types (with different modular sizes) and different mounting configurations (recessed, mid and flush). An empty chassis can handle filter modules with varying widths up to 430 mm in total.



**COMMON SPECIFICATION ALL PRODUCTS**

Operating temperature -40 to +85 °C  
 Storage temperature -40 to +85 °C  
 Relative humidity 5 to 95%  
 Max power handling 500 mW

**ORDERING INFORMATION AND QUICK SPECIFICATION**

Part number	Type	Application	Channels	Monitor port	Extension port	Width mm
H-MD-C05	Mux/demux	CWDM	4	No	Yes	55
H-MD-C08	Mux/demux	CWDM	8	No	No	75
H-MD-C09	Mux/demux	CWDM	8	No	Yes	75
H-OADM1x4-xxx-yyy	OADM	DWDM	4	No	N/A	65
H-OADM2x4-xxx-yyy	OADM	DWDM	4	No	N/A	84
H-MD-09-xxx-yyy	Mux/demux	DWDM	8	Yes	Yes	84
H-MD-16-xxx-yyy	Mux/demux	DWDM	16	Yes	No	113
H-Chassi-1RU	1 RU chassis, width 430 mm					