

## CWDM Passive Optical Add/Drop Multiplexers



### Highlights

- Optical Add/Drop Multiplexing (OADM)
- 1, 2, 4, or 8 CWDM wavelengths (ITU-T g.694.2, 2002)
- Single-side (east or west) or dual-side (east and west)
- Versatile topology support
  - Point-to-point bus
  - Linear point-to-multipoint
- Low insertion losses
- Power required only for managed applications
- 1-slot design with hot-swap support fits any Fiber Driver chassis

### Overview

Extending the capabilities of Wave Division Multiplexing systems, Fiber Driver™ CWDM Passive OADM modules from MRV Communications can add or drop up to eight wavelengths at specific locations along a CWDM trunk. The technology enables intelligent planning and flexible provisioning of optical services while simplifying the deployment and maintenance of optical networks.

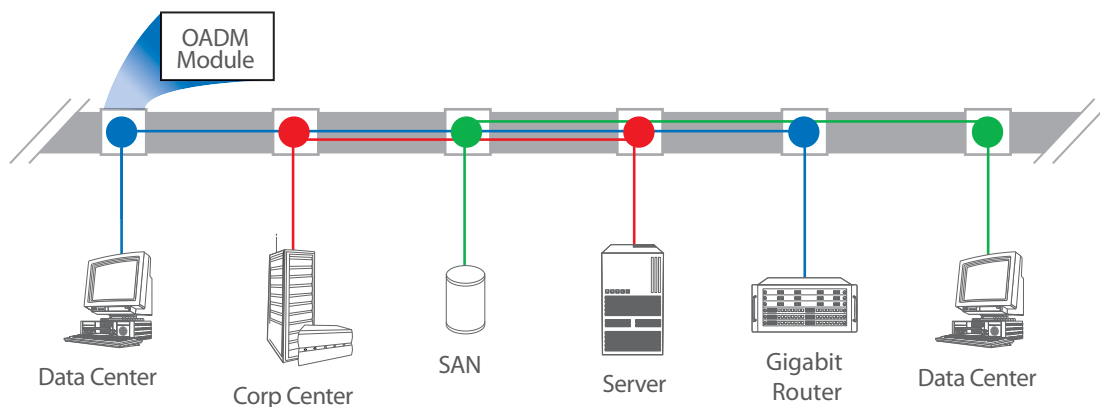
CWDM passive OADM modules are protocol-transparent, so their operation is invisible to both the network and the users. With plug-n-play setup and a design that minimizes budget loss, it can readily and seamlessly integrate into an existing network. The small form factor and power independence allows the module to deploy virtually anywhere.

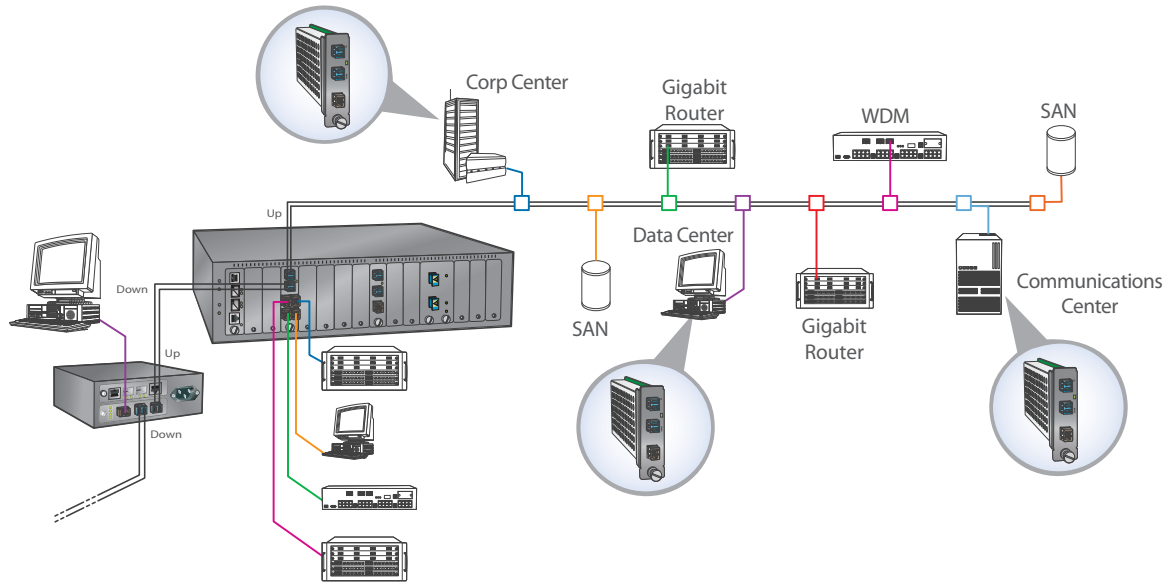
CWDM passive OADM modules are available in single-sided (East or West) and dual-sided (East and West) configurations supporting up to eight wavelengths. Each high-density, single-slot module can install in any Fiber Driver chassis. A powered chassis is required only for managed applications.

Each Fiber Driver CWDM passive OADM uses wavelengths that fall within the ITU-T G.694.2 (2002) CWDM grid standard from 1310 nm to 1610 nm with 20 nm spacing. (See the tables at the end of this datasheet for specific ordering information.)

Contact your nearest authorized MRV representative for additional information on Fiber Driver or any of the full line of MRV products.

### Point-to-Point Bus Application



**Datasheet**
**Linear Point-to-Multipoint Application**

**Physical Specifications\***

<b>Operating Temperature: Non-powered Chassis</b>	-40°C to 85°C (-40°F to 185°F)
<b>Storage Temperature</b>	-40°C to 85°C (-40°F to 185°F)
<b>Relative Humidity</b>	85% maximum, non-condensing
<b>Physical Dimensions</b>	25 mm x 75 mm x 175 mm deep (1" x 3" x 6" deep)
<b>Approximate Weight</b>	120 - 249 g (4.2 - 8.5 oz) depending on configuration
<b>Regulatory Compliance</b>	RoHS Directive; China RoHS; WEEE Directive

\*Specifications for the chassis and other installed components must all support the operating environment.

**CWDM SINGLE-SIDED OADM, DUAL FIBER DROP/INSERT CHANNEL, DUAL FIBER TRUNK/EXPRESS**
**Ordering Information**

Model	Description	Common/Express Connector	Add/Drop Connector	Add/Drop Wavelength (nm)	Insertion Loss (dB)		Common/Express Insertion Loss (dB)
					Add	Drop	
<b>EM316OSC-xx<sup>1</sup></b>	Optical Service Channel Module, Dual Fiber, (Includes MU to LC Cables, 12", SM)	LC / LC	LC	Select from Wavelength Chart	1.0	1.0	0.2 / 0.6
<b>EM316PAD-xx<sup>1</sup></b>	1- Channel Add/Drop Module Dual Fiber (Includes MU to LC Cables, 12", SM)	LC / LC	MU	Select from Wavelength Chart	1.0	1.0	0.2 / 0.6
<b>EM316PAD-xyyy<sup>1</sup></b>	2-Channel Add/Drop Module Dual Fiber (Includes MU to LC Cables, 12", SM)	LC / LC	MU	Select from Wavelength Chart	1.0 - 1.3	1.0 - 1.3	0.2 / 1.0
<b>EM316PADM41</b>	4-Channel Add/Drop Module Dual Fiber (Includes MU to LC Cables, 12", SM).	LC / LC	MU	1470 - 1530 (20 nm increments)	1.3 - 2.2	1.3 - 2.2	0.2 / 1.5
<b>EM316PADM42</b>	4-Channel Add/Drop Module Dual Fiber (Includes MU to LC Cables, 12", SM)	LC / LC	MU	1550 - 1610 (20 nm increments)	1.3 - 2.2	1.3 - 2.2	0.2 / 1.5
<b>EM316PADM8</b>	8-Channel Add/Drop Module Dual Fiber (Includes MU to LC Cables, 12", SM).	MU / MU	MU	1470 - 1610 (20 nm increments)	0.9 - 2.7	0.9 - 2.7	0.2 / 3.5

**Datasheet**
**CWDM DUAL-SIDED OADM, DUAL FIBER DROP/INSERT CHANNEL, DUAL FIBER TRUNK/EXPRESS**

Ordering Information							
Model	Description	Common/Express Connector	Add/Drop Connector	Add/Drop Wavelength (nm)	Insertion Loss (dB)		Common/Express Insertion Loss (dB)
					Add	Drop	
EM316CDADDxx <sup>1</sup>	Dual Fiber Add/Drop Module, East/West 1 Channel (Includes MU to LC Cables, 12", SM)	MU / MU	MU	Select from Wavelength Chart	1.0	1.0	0.2 / 0.6
EM316CDADDxxyy <sup>1</sup>	Dual Fiber Add/Drop Module, East/West 2 Channel (Includes MU to LC Cables, 12", SM)	MU / MU	MU	Select from Wavelength Chart	1.3 - 1.9	1.3 - 1.9	0.2 / 1.0

**CWDM DUAL-SIDED OADM, DUAL FIBER DROP/INSERT CHANNEL, SINGLE FIBER TRUNK/EXPRESS**

Ordering Information							
Model	Description	Common/Express Connector	Add/Drop Connector	Add/Drop Wavelength (nm)	Insertion Loss (dB)		Common/Express Insertion Loss (dB)
					Add	Drop	
EM316CSADDxx <sup>1</sup>	Single Fiber Add/Drop Module, East/West 1 Channel/2 Consecutive Wavelength Starting xx (Includes MU to LC Cables, 12", SM)	MU / MU	Dual MU (x2)	Select from Wavelength Chart	1.2	0.9	0.2 / 0.6
EM316CSADDxxyy <sup>1</sup>	Single Fiber Add/Drop Module, East/West 2 Channel (4 Wavelength), Each Channel 2 Consecutive Wavelengths Starting at xx and yy (Includes MU to LC Cables, 12", SM)	MU / MU	Dual MU (x4)	Select from Wavelength Chart	1.2 - 1.8	0.9 - 1.5	0.2 / 1.0

<sup>1</sup> See the ITU Channel/Wavelength Chart for xx and yy substitution values

**CWDM SINGLE-SIDED OADM, DUAL FIBER DROP/INSERT CHANNEL, SINGLE FIBER TRUNK/EXPRESS**

Ordering Information							
Model	Description	Common/Express Connector	Add/Drop Connector	Add/Drop Wavelength (nm)	Insertion Loss (dB)		Common/Express Insertion Loss (dB)
					Add	Drop	
EM316CSADSxx <sup>1</sup>	Single Fiber Add/Drop Module, East or West, 1 Channel/2 Consecutive Wavelengths Starting xx (Includes MU to LC Cables, 12", SM)	MU	MU	Select from Wavelength Chart	1.5	1.2	1.5
EM316CSADSxxyy <sup>1</sup>	Single Fiber Add/Drop Module, East or West, 2 Channel/4 Wavelengths Each Channel Consecutive Wavelengths Starting at xx or yy (Includes MU to LC Cables, 12", SM)	MU / MU	Dual MU (x2)	Select from Wavelength Chart	1.5 2.0	1.2 1.7	1.5
EM316CSADS4xx <sup>1</sup>	Single Fiber Add/Drop Module, East or West 4 Channel/ 8 Wavelengths Each Channel Consecutive Wavelengths Starting at 1470 nm (Includes MU to LC Cables, 12", SM)	MU / MU	Dual MU (x4)	1470 (20 nm increments)	1.5 2.0 2.5 3.0	1.2 1.7 2.2 2.7	2.5

<sup>1</sup> See the ITU Channel/Wavelength Chart for xx and yy substitution values



## Datasheet

### ADAPTER CABLES

#### Ordering Information

Model	Description	Connectors Port / Link	Fiber Length (cm)
10600120-0002	Patch Cable	MU / LC	30

#### CWDM Wavelengths Chart

xx or yy	Wavelength	xx or yy	Wavelength	xx or yy	Wavelength	xx or yy	Wavelength
31	1310 nm	39	1390 nm	47	1470 nm	55	1550 nm
33	1330 nm	41	1410 nm	49	1490 nm	57	1570 nm
35	1350 nm	43	1430 nm	51	1510 nm	59	1590 nm
37	1370 nm	45	1450 nm	53	1530 nm	61	1610 nm

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