

EKINOPS CM OADMxx

DWDM Optical Add & Drop Multiplexer Family

DATA SHEET 09 | 2020

KEY FEATURES & BENEFITS

- 1-, 2- or 4-channel Add & Drop modules to match your network requirements
- Supports both uni- and bi-directional traffic
- Single fiber operation
- Dense footprint with 4 modules hosted in 1RU
- Extended Temperature Range (ETR) -40°C to +65°C / -40°F to +149°F supported on all modules
- Completely passive, no power or maintenance required

APPLICATIONS

- Aggregation of multiple antenna sites for Mobile Backhaul (MBH) / Mobile Fronthaul (MFH)
- Intermediate traffic Add & Drop on regional and long-haul networks
- Cost-effective metro ring expansion
- Services backhaul from rural and remote locations without climate control or power
- Single fiber networks

— INCREASE THE FLEXIBILITY OF YOUR DWDM NETWORK WITH THE ABILITY TO ADD OR DROP ANY WAVELENGTH AT ANY POINT NO MATTER YOUR NETWORK TOPOLOGY OR TRAFFIC PATTERNS.

OVERVIEW

Getting the most out of your network is critical in today's capital-constrained environment. Deploying dedicated fiber runs to every location is both impractical and expensive so reaching as many customers as possible from your existing fiber plant is critical to your success as a network operator. With Ekinops' line of low-cost Optical Add & Drop Multiplexers (OADMs), you can aggregate traffic from multiple locations and deploy service to any customer without disrupting existing traffic. Ekinops provides a broad line of OADM solutions for any network environment, even in single fiber networks. Whether you need to add or drop a single wavelength or multiple wavelengths in only one direction or both east and west, Ekinops has the solution for you. With up to four OADM modules hosted in a single 1RU enclosure, we provide a high density, low cost platform in the least amount of space to minimize the impact on your operations and your bottom line.

FUNCTIONAL DESCRIPTION

The Ekinops solution is based on a 1RU passive chassis which can hold a mix of various elements such as Optical Multiplexers (OMs) and OADMs. The OADM modules support either 1-, 2-, or 4-channel Add & Drop capability on dual fiber spans covering the C-band from 1528.7 nm to 1561.5 nm. OADMs can be one-degree adding and dropping traffic from a single side, or two-degree adding and dropping traffic in both the east and west directions.

All OADMs are designed for operation in Extended Temperature Range (ETR) environments from -40°C to +65°C / -40°F to +149°F.

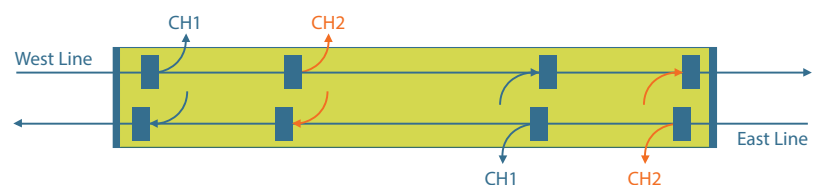


Figure 1: CM OADM2-ETR

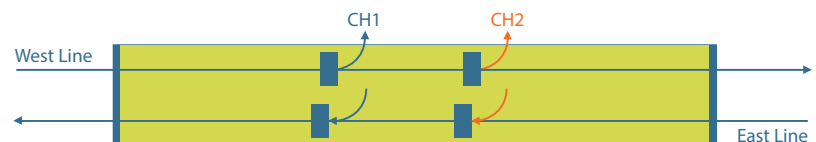


Figure 2: CM OADM2H-ETR

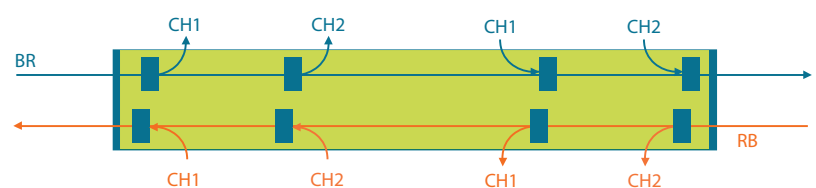
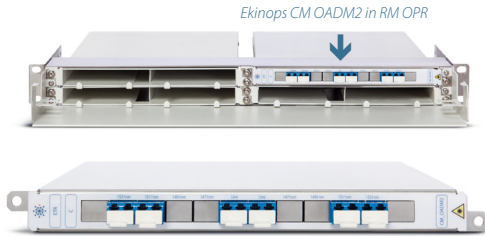


Figure 3: CM OADM2-SF--ETR



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SPECIFICATIONS

• PHYSICAL SPECIFICATIONS

Module size	1 slot in RM_OPR
Operating temperature (ETR)	-40°C to +65°C -40°F to +149°F
Storage temperature	-40°C to +85°C -40°F to +185°F
Optical connectors	LC/PC

• REFERENCE STANDARD

ITU G.694.1; ROHs 6

• OPTICAL CHARACTERISTICS

Dual Sided, Dual Fiber OADMs	CM_OADM1-ETR	CM_OADM2-ETR	CM_OADM4-ETR	
Wavelength Range (nm)	1528.7 - 1561.5			
Channel Spacing (GHz)	100			
Number of Channels	1	2	4	
Channel Center Wavelength	ITU-T, 100GHz			
Insertion Loss (dB)	IN > Drop 1	≤1.2	≤1.5	≤2
	Add1 > OUT	≤1.2	≤1.2	≤1.2
	IN > Drop 2	-	≤1.2	≤1.8
	Add2 > OUT	-	≤1.5	≤1.5
	IN > Drop 3	-	-	≤1.5
	Add3 > OUT	-	-	≤1.8
	IN > Drop 4	-	-	≤1.2
	Add4 > OUT	-	-	≤2
	Combined IL	≤2.5	≤3.0	≤3.5
	COM IN > COM OUT (East Line West Line-Express)	≤1.2	≤1.8	≤2.8
Passband Ripple (dB)	≤0.5			
Isolation (dB)	Adjacent Channel	≥25		
	Non-Adjacent Channel	≥45		
	Express	≥12		
Return Loss (dB)	≥45			
PDL (dB)	≤0.2			
PMD (ps)	≤0.2			
Power Handling (mW)	≤300			





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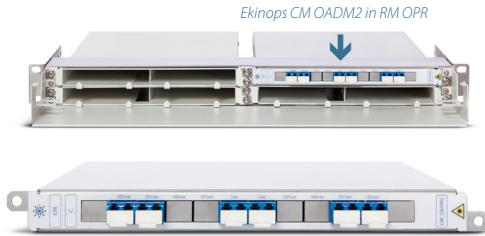
DWDM Optical Add & Drop Multiplexer Family

SPECIFICATIONS



Dual Sided, Single Fiber OADMs	CM_OADM1-SF-ETR	CM_OADM2-SF-ETR	
Wavelength Range (nm)	1528.7 - 1561.5		
Channel Spacing (GHz)	100		
Number of Channels	1	2	
Channel Center Wavelength	ITU-T, 100GHz		
Insertion Loss (dB)	IN > Drop 1	≤1.2	≤1.5
	Add1 > OUT	≤1.2	≤1.2
	IN > Drop 2	-	≤1.2
	Add2 > OUT	-	≤1.5
	IN > Drop 3	-	-
	Add3 > OUT	-	-
	IN > Drop 4	-	-
	Add4 > OUT	-	-
	Combined IL	≤2.5	≤2
COM IN > COM OUT (East Line West Line-Express)	≤1.2	≤1.8	
Passband Ripple (dB)	≤0.5		
Isolation (dB)	Adjacent Channel	≥25	
	Non-Adjacent Channel	≥45	
	Express	≥12	
Return Loss (dB)	≥45		
PDL (dB)	≤0.2		
PMD (ps)	≤0.2		
Power Handling (mW)	≤300		

Single Sided, Dual Fiber OADMs	CM_OADM1H-ETR	CM_OADM2H-ETR	CM_OADM4H-ETR	
Wavelength Range (nm)	1528.7 - 1561.5			
Channel Spacing (GHz)	100			
Number of Channels	1	2	4	
Channel Center Wavelength	ITU-T, 100GHz			
Insertion Loss (dB)	IN > Drop 1	≤1.2	≤1.5	≤2
	Add1 > OUT	≤1.2	≤1.2	≤1.2
	IN > Drop 2	-	≤1.2	≤1.8
	Add2 > OUT	-	≤1.5	≤1.5
	IN > Drop 3	-	-	≤1.5
	Add3 > OUT	-	-	≤1.8
	IN > Drop 4	-	-	≤1.2
	Add4 > OUT	-	-	≤2
	Combined IL	≤2.5	≤3.0	≤3.5
COM IN > COM OUT (East Line West Line-Express)	≤1	≤1.2	≤1.8	
Passband Ripple (dB)	≤0.5			
Isolation (dB)	Adjacent Channel	≥25		
	Non-Adjacent Channel	≥45		
	Express	≥12		
Return Loss (dB)	≥45			
PDL (dB)	≤0.2			
PMD (ps)	≤0.2			
Power Handling (mW)	≤300			



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ORDERING INFORMATION

CASSETTE MODULE (CM)

PRODUCT CODE	DESCRIPTION
CM_OADM1-ETR	Cassette mounted 1 Channel Dual Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM2-ETR	Cassette mounted 2 Channel Dual Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM4-ETR	Cassette mounted 4 Channel Dual Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM1-SF-ETR	Cassette mounted 1 Channel Dual Sided Add & Drop Unit, for Single Fiber, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM2-SF-ETR	Cassette mounted 2 Channel Dual Sided Add & Drop Unit, for Single Fiber, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM1H-ETR	Cassette mounted 1 Channel Single Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM2H-ETR	Cassette mounted 2 Channel Single Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)
CM_OADM4H-ETR	Cassette mounted 4 Channel Single Sided Add & Drop Unit, for RM_OPR, ETR (-40°C to +65°C)

RACKABLE MODULE (RM)

PRODUCT CODE	DESCRIPTION
RM_OPR	Optical Passive Rack with Cover, 1U, 4 Cartridges capacity, ETR (-40°C to +65°C).

CONTACT



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