



## 1 Data Channels Double Fiber Passive CWDM 2 side OADM DCAD-1-XX

### Product Description:

1 Channel Double Fiber Passive CWDM 2-sided OADM Unit – DCAD-1 is a member of EDGE Optics xWDM Series product line. We designed EDGE Optics xWDM Series products to allow easy, gradual, logical, and cost-efficient expansion of network bandwidth using industry-leading passive WDM technology. The main advantage of xWDM is its passive nature – no power supply or cooling necessary, robustness – no special micro-climate requirements, and as a passive element, it has MTBF 100+ Years. xWDM is fully data rate or line protocol neutral – it is possible to use with colored transceivers supporting such applications as 1G/10G Ethernet, SDH/SONET, and 8/4/2/1G Fiber Channel. It's simple to install and requires no configuration or maintenance.

DCAD-1 is passive 2-side (East and West) Optical Add-Drop Multiplexer (OADM) package based on Thin-Film Filter (TFF) technology, allowing to extract and add 1 data stream from ITU-T G.694.2 compatible Coarse Wavelength Division Multiplex (CWDM) link. The unit has LC/UPC connectors. DCAD-1 is manufactured as an LGX-type package, installed in a 19" 1U sub-rack fitting any standard equipment rack.

### Key Highlights:

- Add/Drop of 1 Link to East and West
- Fully Passive: No Power Supply or Cooling
- MTBF: 100+ Years
- Protocol & Data Rate neutral
- Low Insertion Loss - 1.0 dB
- Compact: LGX Type package
- Easy Installation & Expansion
- 5 Year Warranty

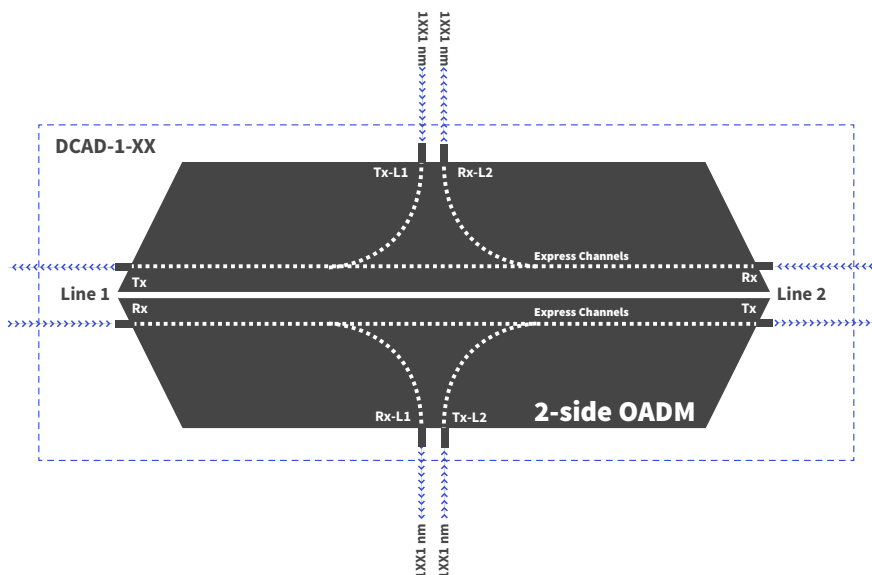


## Product Specification:

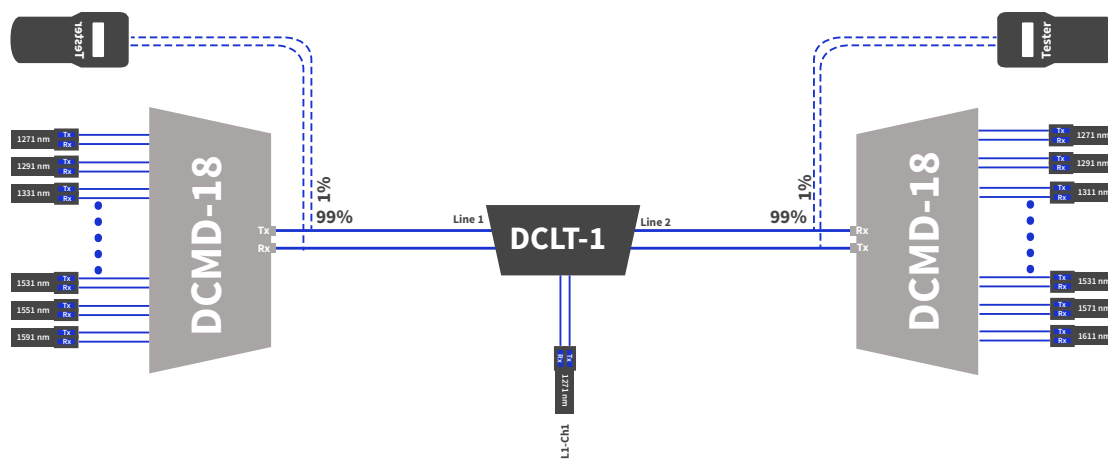
Parameter		Unit	Value																					
Product Type:			CWDM Two Side OADM																					
Number of Data Streams:			1																					
Number of Channels		Ch	1 CWDM Channels According ITU-T G.694.2																					
Transport Media:			Double Fiber Single Mode Fiber (SMF)																					
Operating Wavelengths:	center	nm	<table border="0"> <tr> <td>1271nm</td> <td>1411nm</td> <td>1551nm</td> </tr> <tr> <td>1291nm</td> <td>1431nm</td> <td>1571nm</td> </tr> <tr> <td>1311nm</td> <td>1451nm</td> <td>1591nm</td> </tr> <tr> <td>1331nm</td> <td>1471nm</td> <td>1611nm</td> </tr> <tr> <td>1351nm</td> <td>1491nm</td> <td></td> </tr> <tr> <td>1371nm</td> <td>1511nm</td> <td></td> </tr> <tr> <td>1391nm</td> <td>1531nm</td> <td></td> </tr> </table>	1271nm	1411nm	1551nm	1291nm	1431nm	1571nm	1311nm	1451nm	1591nm	1331nm	1471nm	1611nm	1351nm	1491nm		1371nm	1511nm		1391nm	1531nm	
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1371nm	1511nm																							
1391nm	1531nm																							
Filter Technology:			TFF (Thin Film Filter)																					
Passband:	$\lambda_{center}$	nm	$\pm 7.5$ nm																					
Channel Spacing:		nm	20 nm																					
Insertation Loss Add/Drop Channels:	Max	dB	1.0 dB																					
Insertation Loss Express Channels:	Max	dB	0.8 dB																					
Isolation Adjacent Channels:	Min	dB	> 30 dB																					
Isolation Non-Adjacent Channels:	Min	dB	> 45 dB																					
Channel Passband Ripple:	Min	dB	< 0.3 dB																					
Plarization Dependant Los (PDL):	Max	dB	< 0.1 dB																					
Polarization Mode Dispersion (PMD):	Max	ps/nm	< 0.1 PS																					
Directivity:	Min	dB	> 50 dB																					
Return Loss:	Min	dB	> 45 dB																					
Maximum Power Handling:	Max	mW	500 mW																					
Connectors:			LC Adapters for use with TIA/EIA 604-10 compliant LC UPC Connectors																					
Operating Temperature:		(°C)	-5~+70 (°C)																					
Storage Temperature:		(°C)	-40~+85 (°C)																					
Dimensions (W x H x D):		mm	214 x 41.3 x 198																					
Relative Humidity:		%	0 - 90%																					
Compliance:			ITU-T G.694.2, CE, ISO, RoHS																					



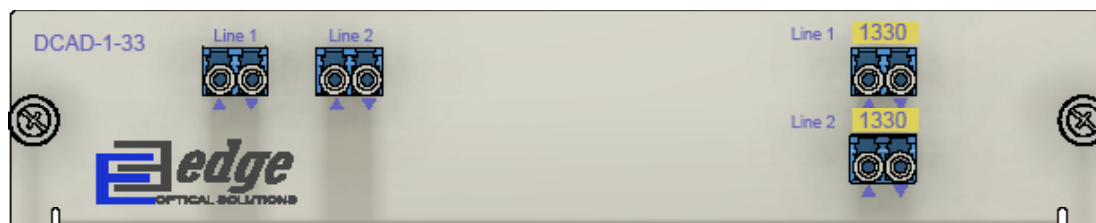
## Functional Diagram:



## Network Diagram:



## Front Panel:



L1/L2: East or West Line interface for common signal

L1-Ch1: CWDM Channel colored add/drop interfaces

## Installation:



In order to install CWDM LGX Module in 19" rack, please order 19" 1U sub-rack supporting up to two LGX modules. Product code **LGX-RCK-2-1U**.

## Warranty:

EDGE Optic's provides a limited warranty for **sixty (60)** months from Purchaser's receipt of the Equipment represented in this data sheet against defective design or workmanship.



## Supported Versions:

PN	Description
DCAD-1-27	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1270nm
DCAD-1-29	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1290nm
DCAD-1-31	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1310nm
DCAD-1-33	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1330nm
DCAD-1-35	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1350nm
DCAD-1-37	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1370nm
DCAD-1-39	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1390nm
DCAD-1-41	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1410nm
DCAD-1-43	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1430nm
DCAD-1-45	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1450nm
DCAD-1-47	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1470nm
DCAD-1-49	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1490nm
DCAD-1-51	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1510nm
DCAD-1-53	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1530nm
DCAD-1-55	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1550nm
DCAD-1-57	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1570nm
DCAD-1-59	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1590nm
DCAD-1-61	Double Fiber 2 side (East and West) OADM Unit Adding/Dropping 1 channel 1610nm

