



## 2 Data Channels Double Fiber Passive CWDM 2 side OADM DDAD-2

### Product Description:

2 Channels Double Fiber Passive DWDM Two side OADM Unit – DDAD-2 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.

DDAD-2 is a passive double fiber 2-side (East and West) Optical Add-Drop Multiplexer (OADM) package based on Thin-Film Filter (TFF) technology, designed to extract and add 2 data streams from ITU-T G.694.1 compatible Dense Wavelength Division Multiplex (DWDM) link. DDAD-2 is manufactured as an LGX-type package installed in a 19" 1U sub-rack fitting any standard equipment rack.

### Key Highlights:

- Add/Drop of 2 Link to East and West
- Fully Passive: No Power Supply or Cooling
- MTBF: 100+ Years
- Protocol & Data Rate neutral
- Low Insertion Loss - 1.2 dB
- Compact: LGX Type
- 5 Year Warranty

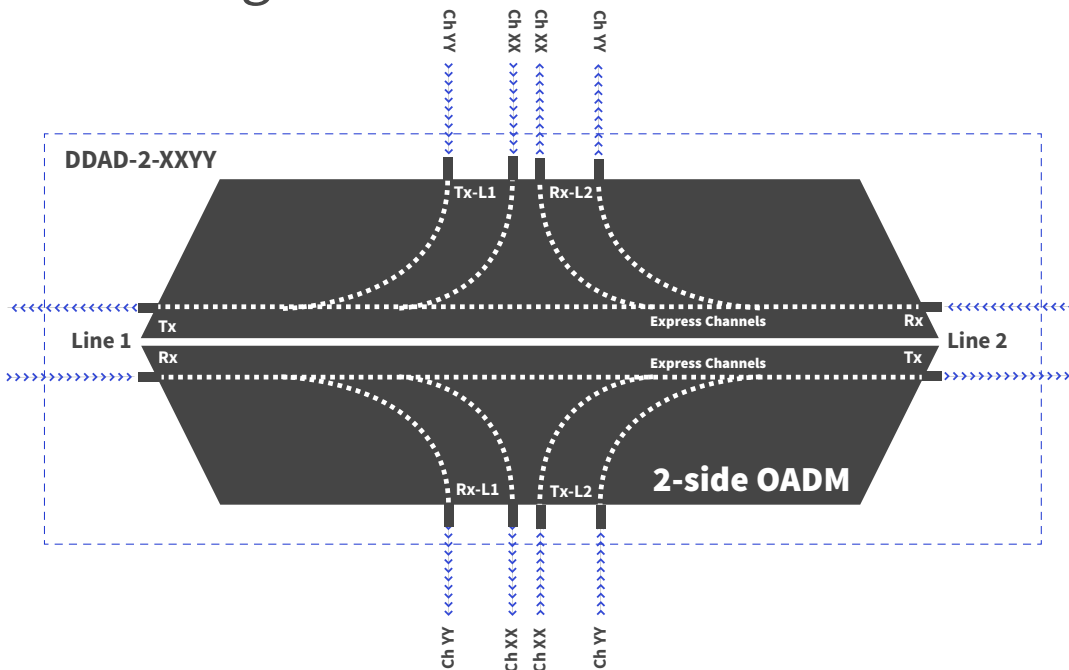


## Product Specification:

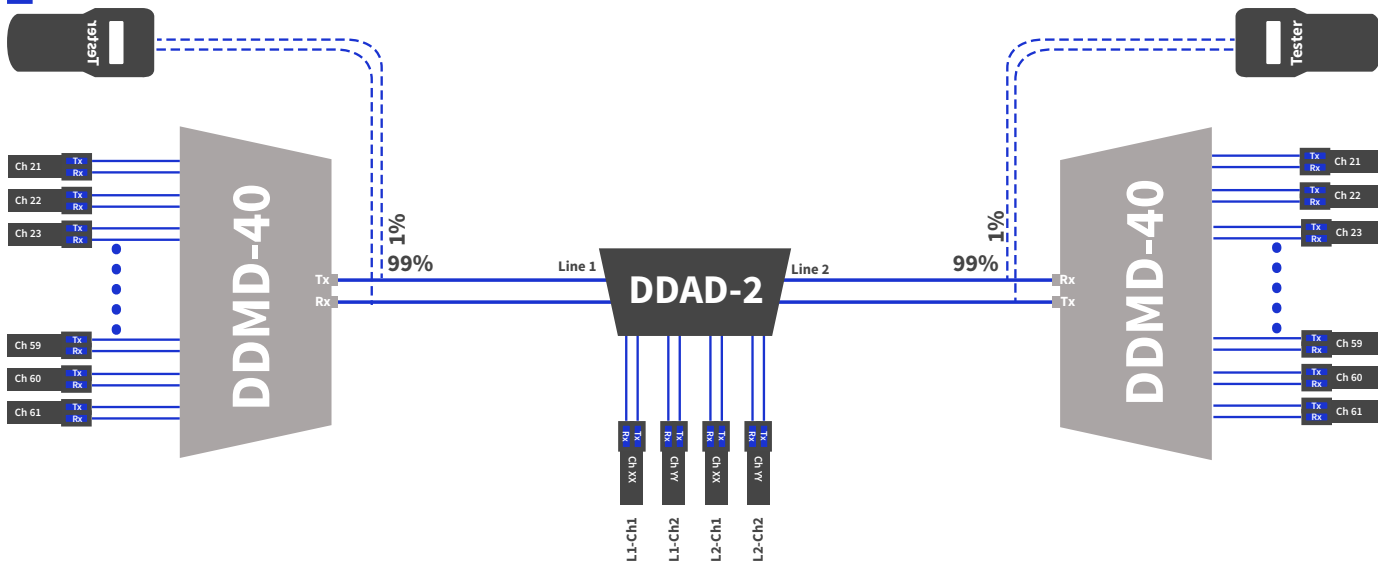
Parameter		Unit	Value
Product Type:			DWDM Two Side OADM
Number of Data Streams:			2
Number of Channels		Ch	2 DWDM Channels According ITU-T ITU G.694.1
Transport Media:			Double Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	ITU-T C-band 100 GHz Grid (According to supported versions below)
Filter Technology:			TFF (Thin Film Filter)
Passband:	$\lambda_{center}$	nm	>0.22 nm
Channel Spacing:		nm	100GHz (0.8nm)
Insertation Loss <sub>Add-Drop</sub> :	Max	dB	1.2 dB
Insertation Loss <sub>Express</sub> :	Max	dB	1.2 dB
Isolation Adjacent Channels:	Min	dB	>25 dB
Isolation Non-Adjacent Channels:	Min	dB	>35 dB
Channel Passband Ripple:	Min	dB	≤0.5 dB
Polarization 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:	Max	mW	500 mW
Connectors:			LC Adapters for use with TIA/EIA 604-10 compliant LC UPC Connectors
Operating Temperature:		(°C)	0~+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.694.1, CE, ISO, RoHS



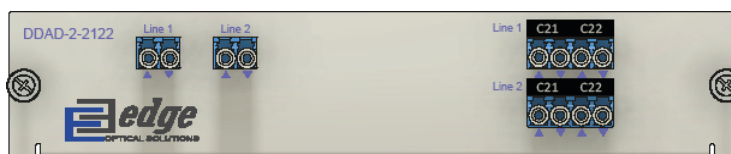
## Functional Diagram:



## Network Diagram:



## Front Panel:



Line 1/2: Line interface for common signal

Ch XX: DWDM Channel colored transceivers 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
DDAD-2-2122	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 21 / Ch 22
DDAD-2-2324	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 23 / Ch 24
DDAD-2-2526	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 25 / Ch 26
DDAD-2-2728	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 27 / Ch 28
DDAD-2-2930	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 29 / Ch 30
DDAD-2-3132	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 31 / Ch 32
DDAD-2-3334	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 33 / Ch 34
DDAD-2-3536	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 35 / Ch 36
DDAD-2-3738	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 37 / Ch 38
DDAD-2-3940	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 39 / Ch 40
DDAD-2-4142	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 41 / Ch 42
DDAD-2-4344	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 43 / Ch 44
DDAD-2-4546	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 45 / Ch 46
DDAD-2-4748	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 47 / Ch 48
DDAD-2-4950	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 49 / Ch 50
DDAD-2-5152	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 51 / Ch 52
DDAD-2-5354	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 53 / Ch 54
DDAD-2-5556	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 55 / Ch 56
DDAD-2-5758	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 57 / Ch 58
DDAD-2-5960	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 59 / Ch 60

