



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

### Product Description:

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. Main advantage of xWDM is its passive nature – no power supply or cooling necessary, robustness – no special micro-climate requirements and as passive element, it has MTBF 100+ Years. xWDM is – it 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, requires no configuration or maintenance.

DDAD-2 is passive double fiber 2-side (East and West) Optical Add-Drop Multiplexer (OADM) package based on Thin-Film Filter (TFF) technology, allowing extract and add 2 data stream from ITU-T G.694.1 compatible Dense Wavelength Division Multiplex (DWDM) link. DDAD-2 is manufactured as LGX type B module, installed in 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 B package
- Easy Installation & Expansion
- 5 Year Warranty

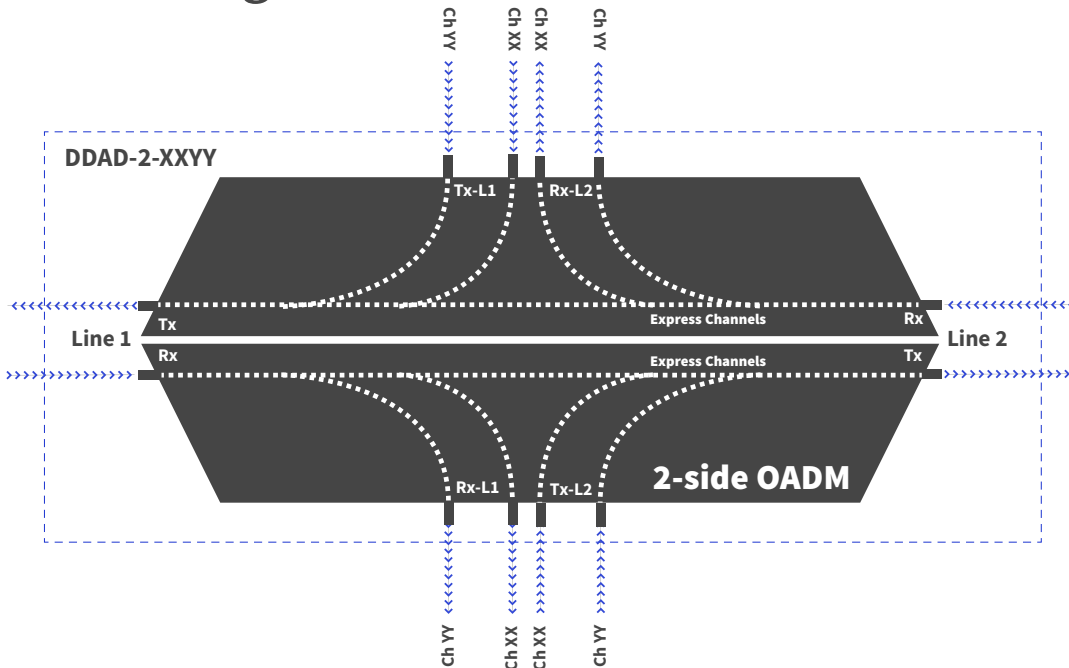


## Product Specification:

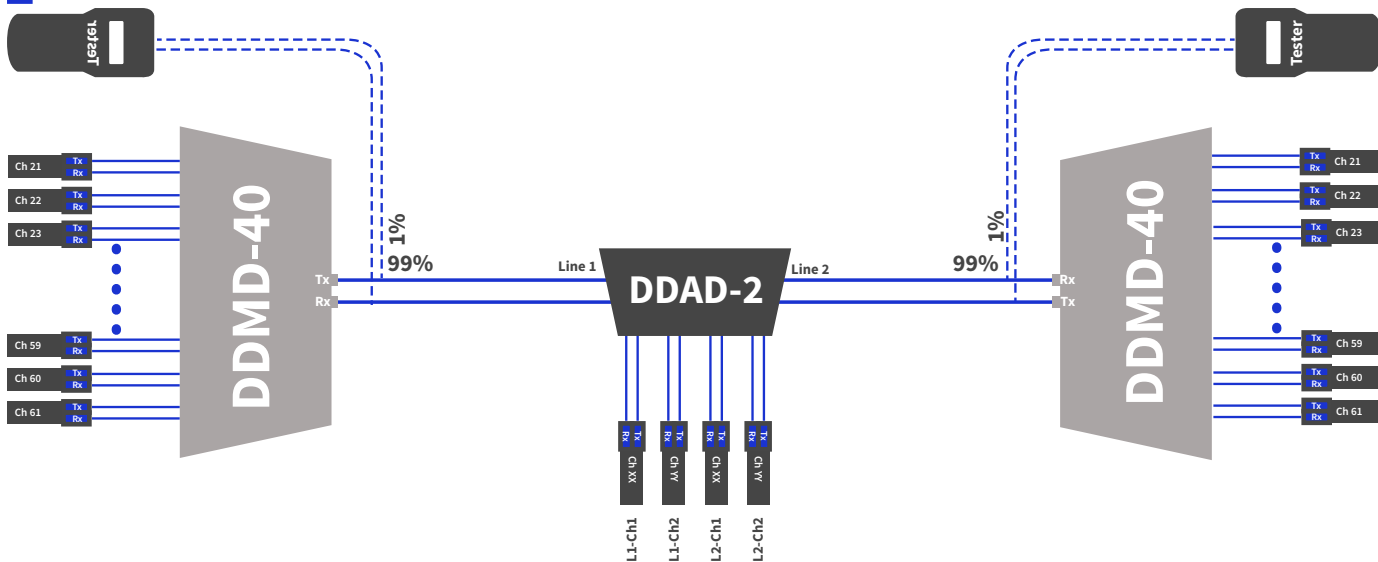
Parameter		Unit	Value
Product Type:			DWDM Two Side OADM
Number of Data Streams:			2
Number of Channels		Ch	2 DWDM Channels According ITU-T ITU G.694.1
Transport Media:			Double Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	ITU-T C-band 100 GHz Grid (According to supported versions below)
Filter Technology:			TFF (Thin Film Filter)
Passband:	$\lambda_{center}$	nm	$\pm 0.1$ nm
Channel Spacing:		nm	0.8 nm
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	30 dB
Channel Passband Ripple:	Min	dB	0.75 dB
Polarization Dependant Los (PDL):	Max	dB	<0.5 dB
Polarization Mode Dispersion (PMD):	Max	ps/nm	< 0.50 ps/nm
Directivity:	Min	dB	>21 dB
Return Loss:	Min	dB	>40 dB
Maximum Power:	Max	dBm	23 dBm on common port
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.694.1, CE, ISO, RoHS, Telecordia GR-20



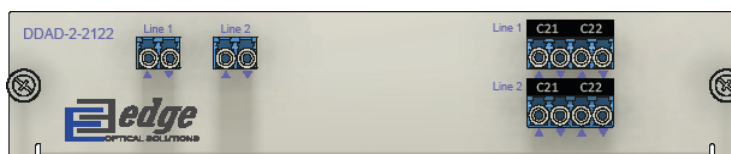
## Functional Diagram:



## Network Diagram:



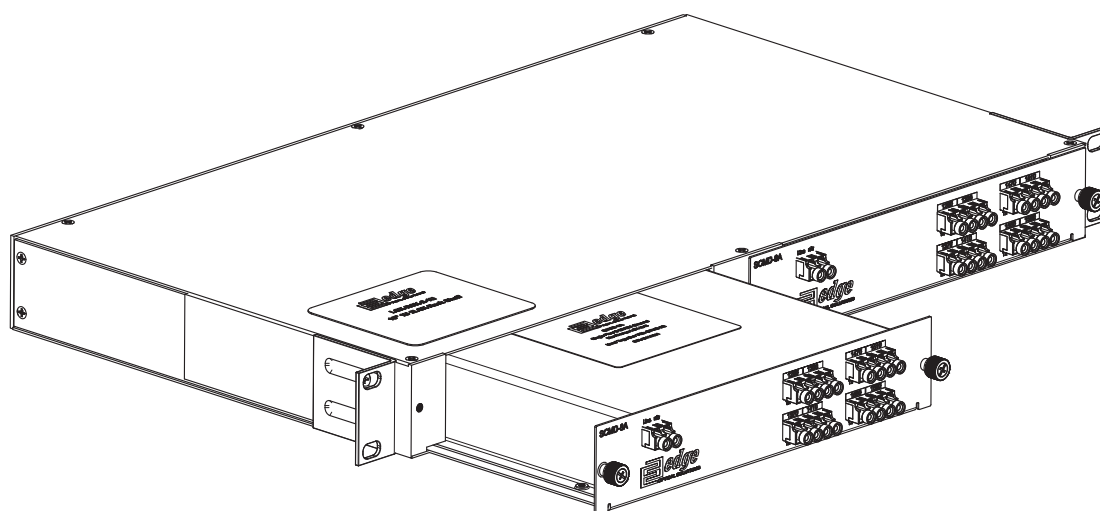
## Front Panel:



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

