



## 1 Data Channels Single Fiber Passive DWDM 2side OADM SDAD-1

### Product Description:

1 Channel Single Fiber Passive DWDM Two side OADM Unit – SDAD-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.

SDAD-1 is a passive single fiber 2-side (East and West) Optical Add-Drop Multiplexer (OADM) package based on Thin-Film Filter (TFF) technology, allowing extract and add 1 data stream (2 wavelengths) from ITU-T G.694.1 compatible Dense Wavelength Division Multiplex (DWDM) link. The unit has LC/UPC connectors. SDAD-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 - 1.2 dB
- Compact: LGX package
- 5 Year Warranty

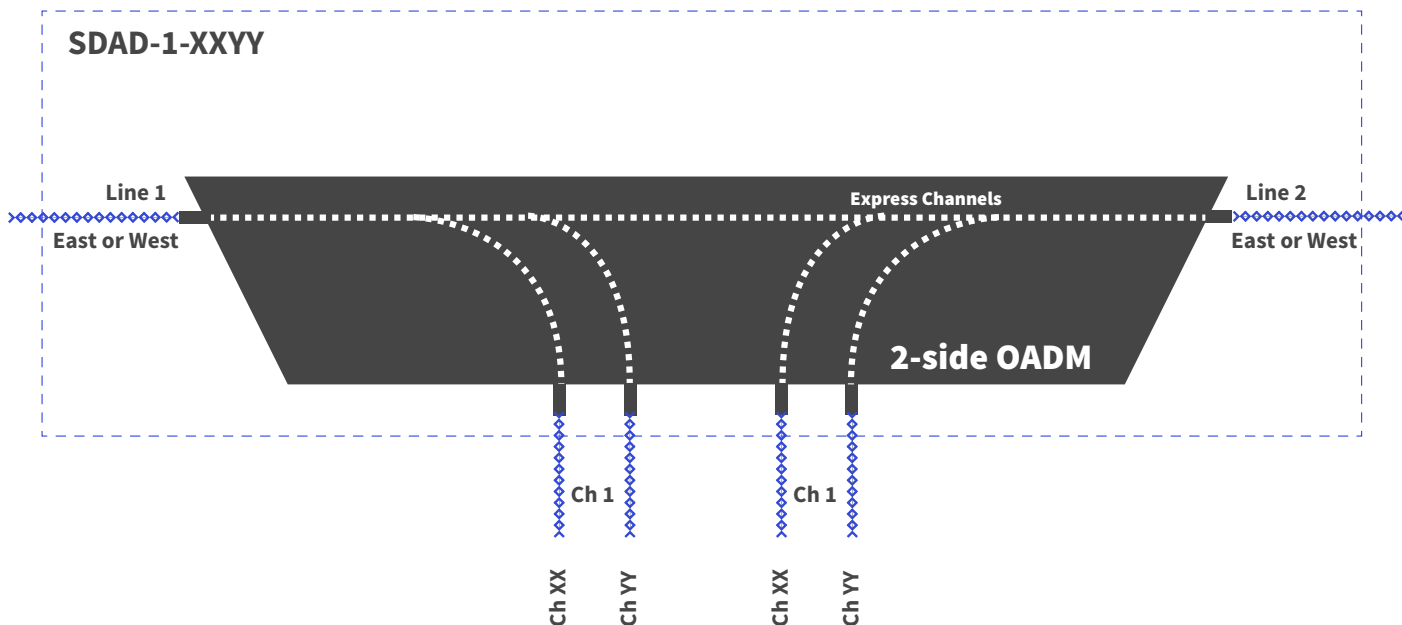


## Product Specification:

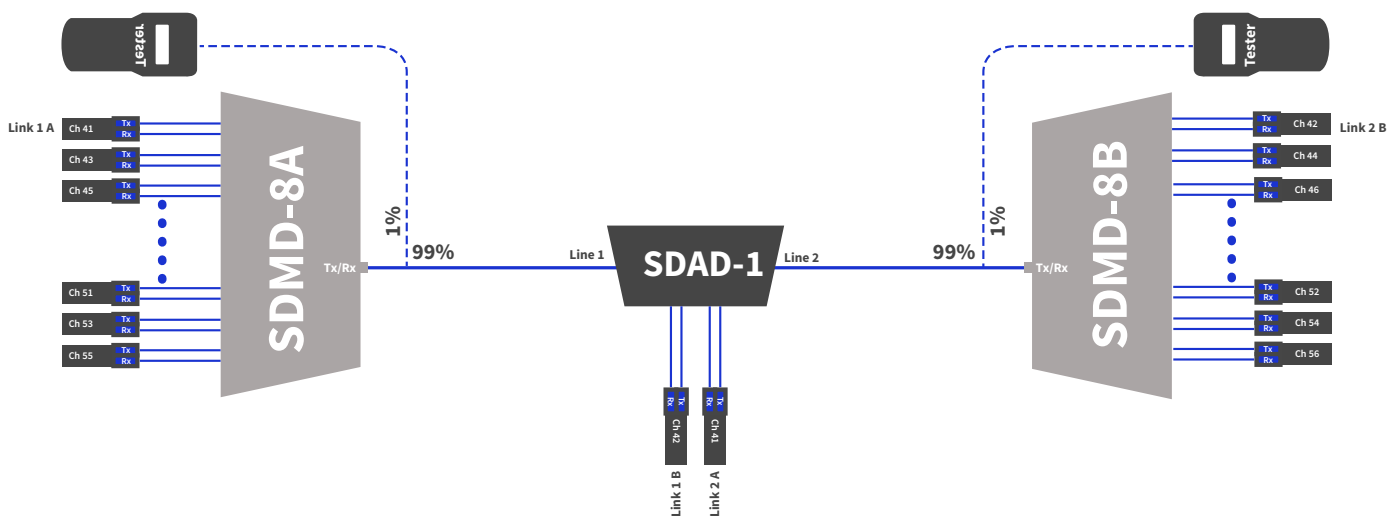
Parameter		Unit	Value
Product Type:			DWDM Two Side OADM
Number of Data Streams:			1
Number of Channels		Ch	4 DWDM Channels According ITU-T ITU G.694.1
Transport Media:			Single Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	ITU-T C-band 100 GHz Grid (According to supported versions below)
Filter Technology:			TFF (Thin Film Filter)
Passband:	$\lambda_{center}$	nm	>0.22 nm
Channel Spacing:		nm	100GHz (0.8nm)
Insertation Loss <small>Add-Drop</small> :	Max	dB	1.2 dB
Insertation Loss <small>Express</small> :	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



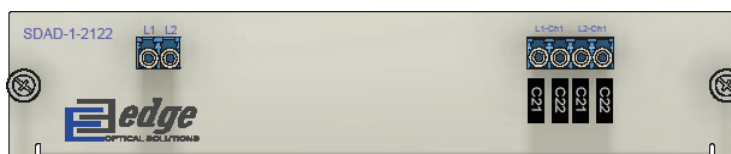
## Functional Diagram:



## Network Diagram:



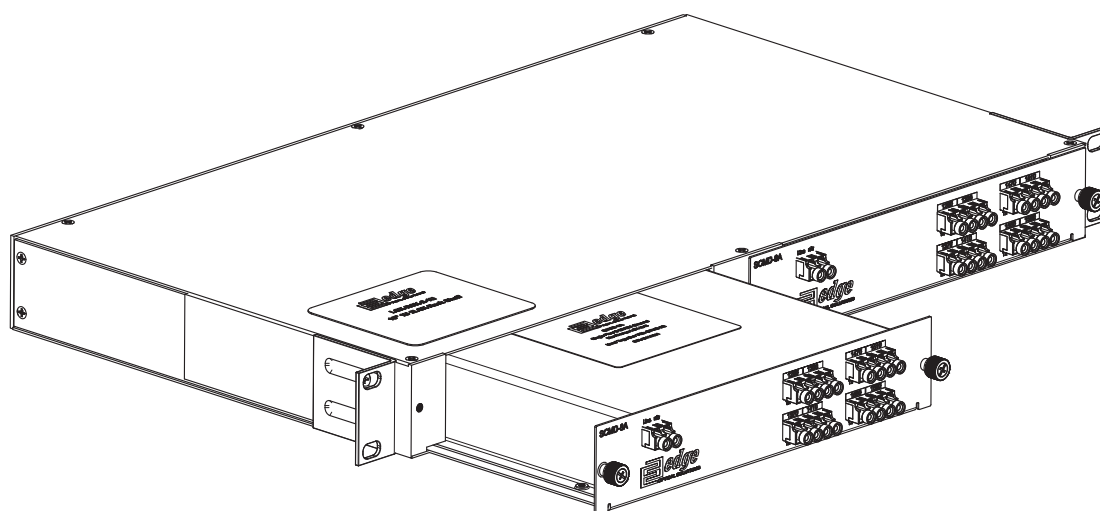
## Front Panel:



L1/L2: 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
SDAD-1-2122	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 21/Ch 22
SDAD-1-2324	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 23/Ch 24
SDAD-1-2526	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 25/Ch 26
SDAD-1-2728	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 27/Ch 28
SDAD-1-2930	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 29/Ch 30
SDAD-1-3132	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 31/Ch 32
SDAD-1-3334	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 33/Ch 34
SDAD-1-3536	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 35/Ch 36
SDAD-1-4142	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 41/Ch 42
SDAD-1-4344	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 43/Ch 44
SDAD-1-4546	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 45/Ch 46
SDAD-1-4748	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 47/Ch 48
SDAD-1-4950	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 49/Ch 50
SDAD-1-5152	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 51/Ch 52
SDAD-1-5354	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 53/Ch 54
SDAD-1-5556	Single Fiber DWDM OADM adding/dropping DWDM 100 GHz Chanel pair Ch 55/Ch 56

