



1 Data Channels Double Fiber Passive DWDM 2 side OADM DDAD-1

Product Description:

1 Channel Double Fiber Passive DWDM Two side OADM Unit – DDAD-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.

DDAD-1 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 1 data stream 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 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
- 5 Year Warranty

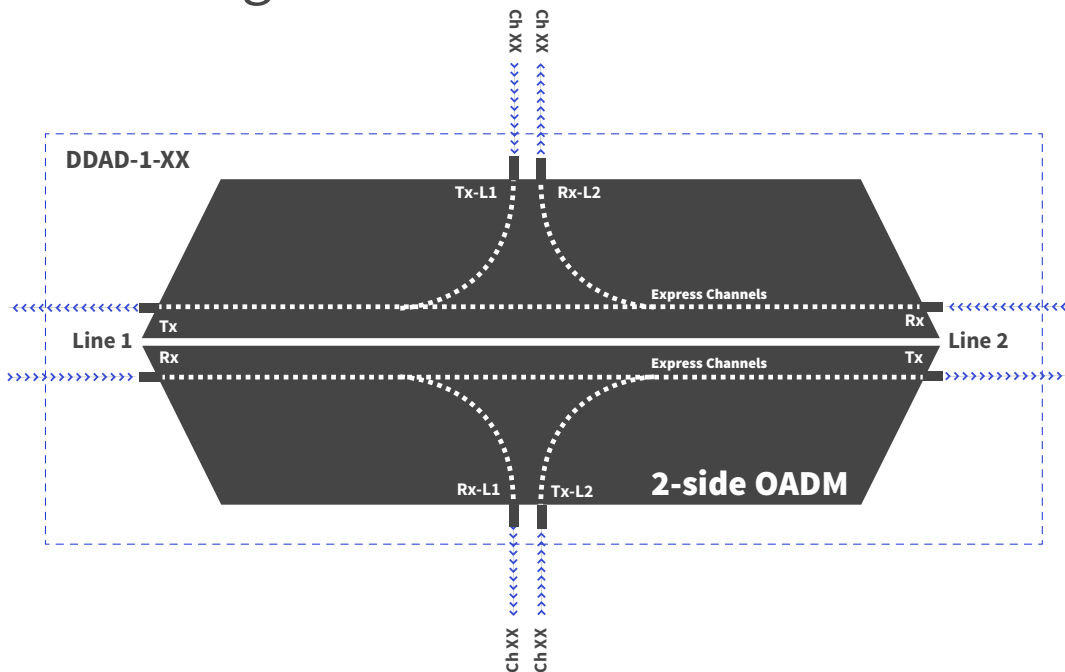


Product Specification:

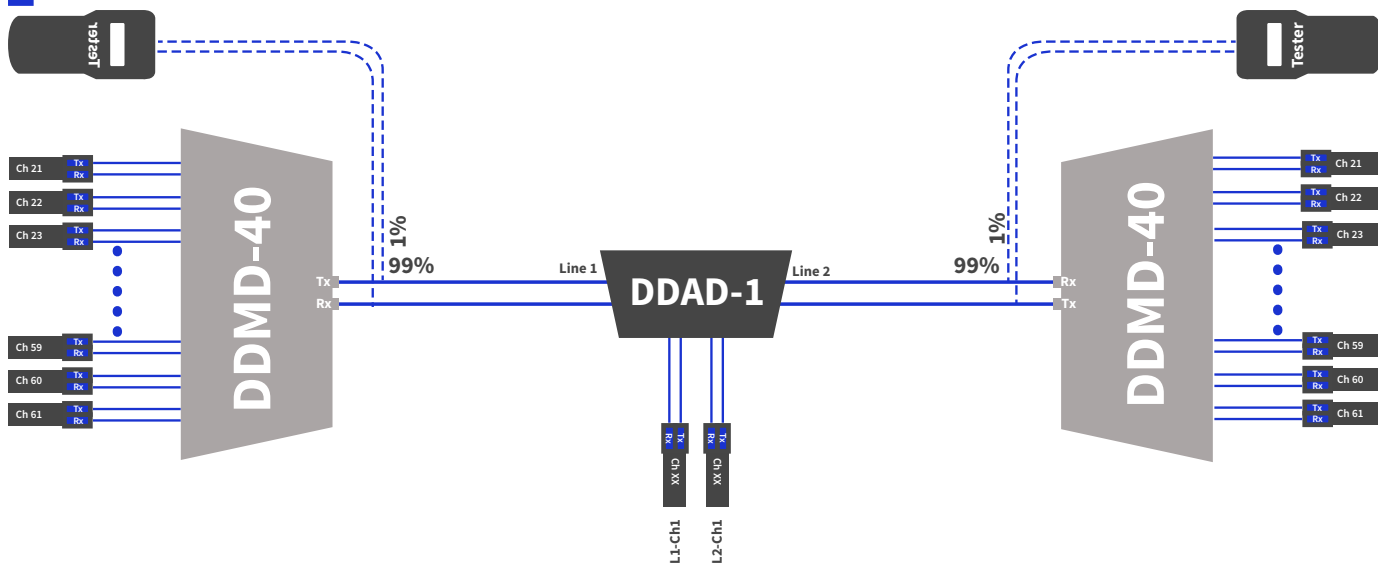
Parameter		Unit	Value
Product Type:			DWDM Two Side OADM
Number of Data Streams:			1
Number of Channels		Ch	1 DWDM Channels According ITU-T ITU G.694.1
Transport Media:			Double Fiber Single Mode Fiber (SMF)
Operating Wavelengths:	center	nm	ITU-T C-band 100 GHz Grid (According to supported versions below)
Filter Technology:			TFF (Thin Film Filter)
Passband:	λ_{center}	nm	>0.22 nm
Channel Spacing:		nm	100GHz (0.8nm)
Insertation Loss _{Add-Drop} :	Max	dB	1.0 dB
Insertation Loss _{Express} :	Max	dB	0.8 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



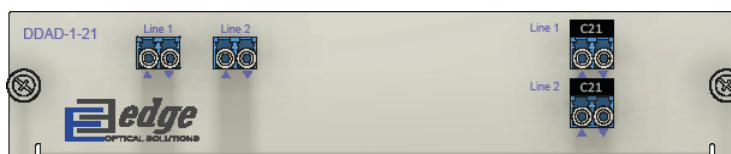
Functional Diagram:



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-1-21	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 21
DDAD-1-22	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 22
DDAD-1-23	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 23
DDAD-1-24	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 24
DDAD-1-25	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 25
DDAD-1-26	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 26
DDAD-1-27	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 27
DDAD-1-28	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 28
DDAD-1-29	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 29
DDAD-1-30	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 30
DDAD-1-31	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 31
DDAD-1-32	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 32
DDAD-1-33	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 33
DDAD-1-34	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 34
DDAD-1-35	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 35
DDAD-1-36	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 36
DDAD-1-37	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 37
DDAD-1-38	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 38
DDAD-1-39	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 39
DDAD-1-40	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 40
DDAD-1-41	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 41
DDAD-1-42	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 42
DDAD-1-43	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 43
DDAD-1-44	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 44
DDAD-1-45	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 45
DDAD-1-46	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 46
DDAD-1-47	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 47
DDAD-1-48	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 48
DDAD-1-49	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 49
DDAD-1-50	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 50
DDAD-1-51	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 51
DDAD-1-52	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 52
DDAD-1-53	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 53
DDAD-1-54	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 54
DDAD-1-55	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 55
DDAD-1-56	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 56
DDAD-1-57	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 57
DDAD-1-58	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 58
DDAD-1-59	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 59
DDAD-1-60	Double Fiber 2-Side Add/Drop multiplexer Unit adding/dropping DWDM 100GHz Ch 60

