Outside Plant CWDM Optical Drop Module

OSP CWDM ODM



Key Features

- **Add/drop two or four CWDM (20-nm spaced) channels to a single fiber**
- **Legacy network overlay using the 1310 nm bypass channel**
- **Ultra-high isolation design eliminates need for channel power balancing**
- **Full usage of available fiber bandwidth on the CWDM grid**
- **Fits into standard LGX-mounting solutions**
- **Thermally stable passive optics; no powering is required**
- **Environmentally hardened for ambient operating temperatures of -40°C to 65°C; suitable for outside plant applications**

Applications

- Fiber exhaust in local loop applications
- CWDM overlay with existing 1310 nm transmission systems
- Bidirectional transmission on a single fiber
- Linear bus architectures

Compliance

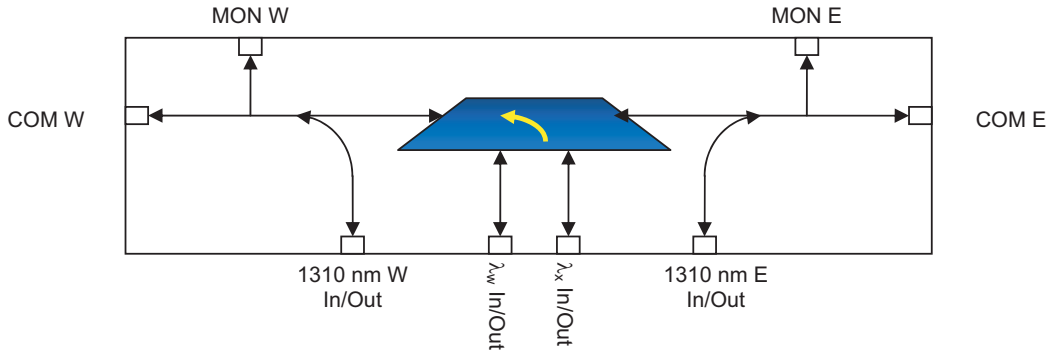
- Channel plan compliant with ITU-T G694.2
- NEBS Level 3

The WaveReady™ Outside Plant Coarse Wavelength Division Multiplexer Optical Drop Module (OSP CWDM ODM) is a flexible, low-cost solution that enables capacity expansion of existing fiber. Coupled with highly reliable passive optics, which are certified for environmentally hardened applications, the OSP CWDM ODM allows carriers to make full use of the fiber's available bandwidth in the local loop.

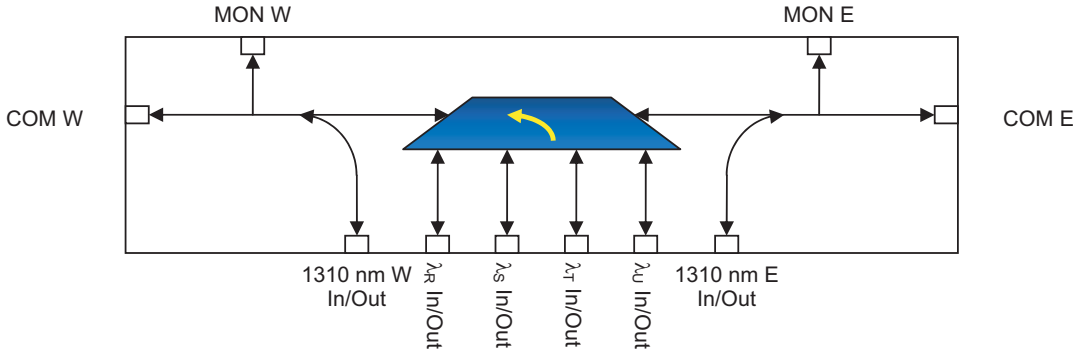
The OSP CWDM ODM is a universal device capable of bidirectional (on a single fiber) or unidirectional (on two fibers) transport applications. The device has been designed to support a broad range of architectures, ranging from scalable point-to-point links to two-fiber protected rings. The market-standard LGX packaging of the OSP CWDM ODM allows for ready deployment in existing LGX-compatible frames. Alternatively, the device can be adapted for use in WaveReady shelves.

The OSP CWDM ODM is designed to interoperate with both the WaveReady line of transponder and optical regenerator solutions as well as the CWDM transponders and SFPs used in widely available transmission equipment. With billions of field operating hours, JDSU's industry-leading optical multiplexing technology offers unparalleled reliability and leading-edge performance.

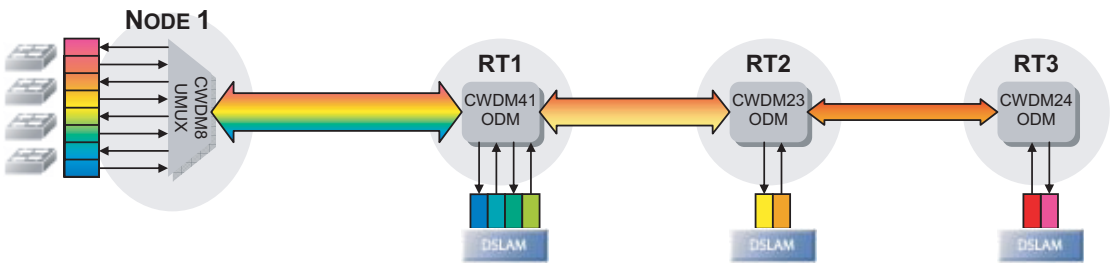
Functional Diagram:
2-Channel OSP CWDM ODM



Functional Diagram:
4-Channel OSP CWDM ODM



Sample Configuration:
Linear Bus



Specifications[1]

Parameter		2-channel	4-channel
Network Optical			
CWDM add or drop insertion loss	Maximum	2.3 dB	3 dB
1310 nm add or drop insertion loss	Maximum	1.5 dB	1.5 dB
Through path insertion loss (COM W ↔ COM E)	Maximum	2.6 dB	3.2 dB
Monitor port tap ratio	Nominal	2%	
1310 nm channel bandwidth		1260 nm to 1360 nm	
CWDM reflect bandwidth		1464.5 nm to 1617.5 nm	
CWDM channel bandwidth	Minimum	ITU λ ± 6.5 nm (minimum)	
Channel flatness	Maximum	0.5 dB	
Isolation			
Adjacent 20-nm spaced channels	Minimum	40 dB	
Non-adjacent 20-nm spaced channels	Minimum	45 dB	
Dropped channel rejection at CWDM	Minimum	15 dB	
Dropped channel rejection at 1310	Minimum	30 dB	
1310 band from CWDM channels	Minimum	50 dB	
CWDM channels from 1310 band	Minimum	50 dB	
Optical return loss	Minimum	40 dB	
Input optical power – sum of all channel ports	Maximum	1 W	
Polarization dependent loss (PDL) – all channel ports	Maximum	0.2 dB	
Polarization mode dispersion (PMD) – all channel ports	Maximum	0.2 ps	
Physical			
Size (H x W x L) (double slot LGX)		5.1 x 2.28 x 6.31 in (129.5 x 57.7 x 160.3 mm)	
Optical connector type (all ports)		SC/PC	
Weight (approximate)		2 lb (0.91 kg)	
Environmental			
Operating ambient temperature		-40°C to 65°C	
Storage temperature		-40°C to 85°C	
Relative humidity (non-condensing)		5% to 95%	

1. Specifications are worst case over specified temperatures and wavelength ranges.

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via e-mail at customer.service@jdsu.com.

Sample: MDX-02ADCU1AA

MDX- ☐☐ **ADCU** ☐☐ **A**

Code	Number of Channels
02	2
04	4

Code	Channel Plan (2-channel)
1A	1471 nm, 1491 nm
1B	1511 nm, 1531 nm
2A	1551 nm, 1571 nm
2B	1591 nm, 1611 nm
Code	**Channel Plan (4-channel)**
01	1471 nm, 1491 nm, 1511 nm, 1531 nm
02	1551 nm, 1571 nm, 1591 nm, 1611 nm

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