WaveReady™

Outside Plant CWDM Optical Add/Drop (OSP CWDM OADM) Module

Key Features

- **Adds and drops two or four CWDM channels on a single fiber**
- **Reusable dropped wavelengths in adjoining spans add protection or double capacity in a ring**
- **Extended temperature range makes operation suitable for outside plant (OSP) cabinet installations**
- **Ultra-high isolation design eliminates need for channel power balancing**
- **Fits into standard LGX™ mounting solutions**
- **Requires no powering because of thermally stable passive optics**

Applications

- Maximize fiber in local loop
- Overlays CWDM with existing 1310 nm transmission systems
- Provides bidirectional transmission on a single fiber
- Supports linear and ring architectures requiring wavelength reuse

Compliance

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

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

The OSP CWDM OADM is a universal device configurable for either bidirectional transport over a single fiber or unidirectional transport over a fiber pair. This family of parts supports a broad range of wavelength-protected architectures, including dual-homed bus and protected rings over one or two fibers. The market-standard LGX packaging allows the OSP CWDM OADM to be readily deployed into existing fiber distribution frames (FDF), or alternatively adapted for installation in WaveReady shelves.

The OSP CWDM OADM interoperates with both the WaveReady line of transponder and optical regenerator solutions as well as CWDM transponders and small form-factor pluggables (SFPs) used in widely available transmission equipment. With billions of field operating hours, the industry-leading JDSU optical multiplexing technology offers unparalleled reliability and leading performance.

Specifications[1]

Parameter		2 Channel	4 Channel
Optical Characteristics			
CWDM add or drop insertion loss	Maximum	2.5 dB	3.3 dB
1310 nm add or drop insertion loss	Maximum	1.5 dB	1.5 dB
Through path inserton loss (COM E — COM W)	Maximum	3.6 dB	3.8 dB
Monitor tap ratio	Nominal	2%	
1310 nm channel bandwidth	Minimum	1260 nm to 1360 nm	
CWDM reflect bandwidth	Minimum	1463.5 nm to 1617.5 nm	
CWDM channel bandwidth	Minimum	ITU λ ±6.5 nm	
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	30 dB	
Dropped channel rejection at 1310 nm	Minimum	50 dB	
1310 nm band from CWDM channels	Minimum	50 dB	
CWDM channels from 1310 nm 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)	Maximum	0.2 dB	
Polarization mode dispersion (PMD)	Maximum	0.2 ps	
Physical Characteristics			
Size (H x W x L)		129.5 x 57.7 x 160.3 mm (5.10 x 2.28 x 6.36 in)	129.5 x 86.9 x 160.0 mm (5.10 x 3.42.x 6.30 in)
Optical connector type (all ports)		SC/PC bulkhead	
Weight		0.91 kg (2 lb)	1.36 kg (3 lb)

Environmental Characteristics	Minimum	Maximum
Operating ambient temperature	–40°C	65°C
Storage temperature	–40°C	85°C
Relative humidity (non-condensing)	5%	95%

[1] Specifications are worst case end of life over specified temperature and wavelength range.

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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, +1 800-5378-JDSU worldwide or via e-mail at sales@jdsu.com.

Sample: MDX-02ADCB1AA

MDX-□□ADCB□□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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 June 2008 30149394 000 0608 OSPCWDMOADM.DS.CMS.TM.AE