

## Coarse Wavelength Division Multiplexer/Demultiplexer (CWDM) Filter



### Key Features

- Low insertion loss
- Low polarization dependent loss
- Extended operating temperature range suitable for uncontrolled environment
- Exceptional reliability and environmental stability
- Excellent temperature stability

### Applications

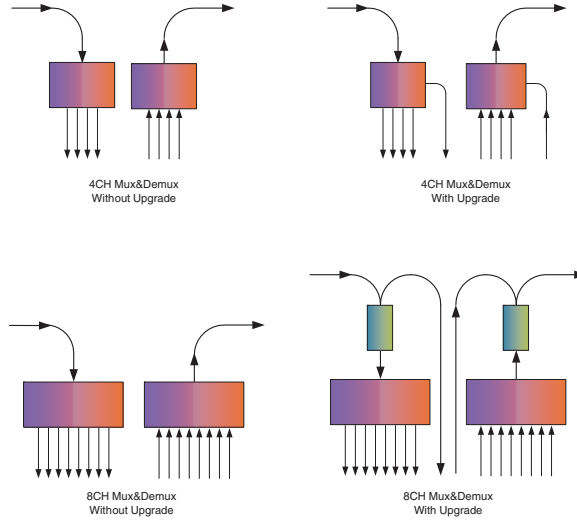
- Metro optical networks
- Access optical networks
- Enterprise networks

The JDSU CWDM modules, based on thin-film filter (TFF) technology, provide extremely high performance. With low insertion loss, low polarization sensitivity, and high temperature stability, these modules are well suited to CWDM network applications. The modules can mux/demux 4 or 8 CWDM channels in the network.

These fixed CWDM modules offer low-cost wavelength management solutions. In addition, they are easily customizable, and can be configured by customer-specific channel plan, packaging type, and connector type.

## 2

### Functional Diagram



### Specifications

Parameter		Without Upgrade Port		With Upgrade Ports		
		4 Ch	8 Ch	4 Ch	8 Ch	
Operating wavelength range	Minimum	1260 – 1620 nm				
Passband width	Minimum	$\lambda_c \pm 6.5$ nm				
Insertion loss <sup>1</sup>	Mux	Maximum	2.0 dB	3.5 dB	2.3 dB	3.9 dB
	Demux	Maximum	2.3 dB	3.8 dB	2.3 dB	4.2 dB
	Upgrade	Maximum	N/A	N/A	2.2 dB	1.3 dB
Passband ripple	Maximum	0.35 dB	0.4 dB	0.35 dB	0.4 dB	
Mux isolation	Adjacent channel	Minimum	15 dB			
	Non-adjacent channel	Minimum	15 dB			
Demux isolation	Adjacent channel	Minimum	30 dB			
	Non-adjacent channel	Minimum	50 dB			
Upgrade isolation	Minimum	N/A	N/A	15 dB	15 dB	
Polarization dependent loss	Maximum	0.2 dB				
Polarization mode dispersion	Maximum	0.2 ps				
Return loss	Minimum	45 dB				
Directivity	Minimum	50 dB				
Optical power	Maximum	500 mW				
Operating temperature range		-40 – 85°C				
Storage temperature range		-40 – 85°C				
Operating humidity		5 – 85%				

1. Including connectors' loss.

**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](mailto:customer.service@jdsu.com).

**Sample: WDM-CMD040001**
**WDM-CMD0** 

Code	Number of Channels
4	4 without upgrade
F	4 with upgrade
8	8 without upgrade
E	8 with upgrade



Code	Channel
00	1271 nm
01	1291 nm
02	1311 nm
03	1331 nm
04	1351 nm
05	1371 nm
06	1391 nm
07	1411 nm
08	1431 nm
09	1451 nm
10	1471 nm
11	1491 nm
12	1511 nm
13	1531 nm
14	1551 nm



Code	Packaging
0	LGX <sup>1</sup>
1	1U 19-inch rack <sup>1</sup>
2	1U 23-inch rack <sup>1</sup>



Code	Connector Type
1	SC/UPC
2	SC/APC
3	Duplex LC/UPC
4	Duplex LC/APC
5	LC/UPC
6	LC/APC

1. Detailed package drawings are available upon request.