PASSIVE CWDM 2 CHANNEL FILTER

Description

Jabil Photonics CWDM Optical Filters have low insertion loss and high isolation.

Different filters are available for the add/drop of 1, 2, 4, 8, 16 channels (in any combination as per customer requirements). In addition it is possible to monitor the signal at the ingress or at the egress of the line system, and to provide additional features like the possibility to add/drop a bandwidth or to manage at the same time CWDM and DWDM wavelengths.

The filter can be packaged in an LGX compatible module but also customization is possible. It is designed to be used in extreme temperature environments within a temperature range of –40° to +85°C.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX), with LC/APC connectors, monitoring port upgrade port.

It is anyway possible to require customized version respect to the standard one.

Features
- MUX/DMUX/OADM
- Low insertion loss and high isolation
- High stability and high reliability
- Epoxy-free optical path
- Fully customized to customer requirements
- Telcordia GR-1209, GR-1221-CORE qualified
- Mini-cassette, Fiber Tray, LGX & Rackmount

Applications
- Enterprise networking
- Access networks
- CATV fiber optic links

Compliances
- Compliant with Telcordia GR-1221-CORE
- Compliant with RoHS-6

MADE **POSSIBLE.**
MADE **BETTER.**

Environmental Specifications

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-40		+85	°C
Storage Temperature	-40	------	+85	°C
Operation Humidity*	5	------	95	%
Storage Humidity	5	------	95	%

(*) not condensing

Optical Specifications

Parameter	Value	Note	Unit
Operating Wavelength	ITU-T Grid		
Channel Pass Band@0.5dB	>14		nm
Passband	ITU-T +/- 6.5		nm
Passband flatness	≤ 0.5		dB
Insertion Loss (Max)	1.8		dB
Adjacent Channel Isolation	≥ 30		dB
Non-Adjacent Channel Isolation	≥ 45		dB
Wavelength thermal stability	≤ 0.002		nm/°C
IL thermal stability	≤ 0.005		dB/°C
Return Loss	≥ 45		dB
PMD	≤ 0.1		ps
PDL	≤ 0.15		dB
Directivity	≥ 50		dB

MADE **POSSIBLE.**
MADE **BETTER.**

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR	SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBER LENGTH	FIBER DIA	OTHERS
CWDM	MUX/DEMUX	2CH			TFF			DUAL		UPG	TXRXMON			

1) WDM
   - **DWDM** for Dense WDM
   - **CWDM** for Coarse WDM

2) TYPE:
   - **MUX/DEMUX**: it can also act as OADM function, requiring UPG port (see dedicated field)
   - **MUX**: unidirectional application with only MUX function
   - **DEMUX**: unidirectional application with only DEMUX function

3) #Channels:
   - Number of add/dropped channels: **2CH,4CH,8CH,16CH,40CH** etc.

4) Grid: (applicable only to DWDM)
   - **50GHZ**
   - **100GHZ**
   - **200GHZ**

5) Form: form factor (available **CGM, LGX 1RU, LGX 2RU, HDLGX1, HDLGX2**)

6) Technology:
   - **TFF** (typically for 4,8,16)
   - **AAWGM** (typically for 40,48,64)

7) Channel Plan:
   - It can indicate the first and the last channel in case of consecutive channels or the specific channels to be managed
   - **CHxx-CHyy**
   - **CHxx, CHyy, CHzz**

8) Connector:

- **LCA** (LC/APC)
- **LCU** (LC/UPC)
- **SCU** (SC/UPC)
- **SCA** (SC/APC)
- **FCU** (FC/UPC)
- **FCA** (FC/APC)

9) Single/Dual Fiber:

- **SINGLE**: Single Fiber application: it means that only one connector is provided for each port, and some channels are used for TX and others for RX
- **DUAL**: Dual Fiber application: pair of connector (IN/OUT) for each port.

The following are instead optional fields needed to specify additional requests:

10) EXPRESS: it indicates if additional bandwidth is extracted before filtering the channels. This typically applies to cases where mix of CWDM and DWDM network is managed:

- **EXP**: it indicates that EXPRESS port (or port pair) is requested.

11) UPGRADE: it indicates that the rest of the channels (not dropped) is sent to an UPGRADE port. This applies to OADM configurations and to Terminal MUX with the possibility of expanding the number of terminated channels

- **UPG**: it indicates that UPGRADE port (or pair of ports) is requested.

12) MONITORING: it indicates that monitoring port is requested. There are some options possible:

- **RXMON**: monitoring associated to the Ingress COM interface (ingress line)
- **TXMON**: monitoring associated to the Egress COM interface (egress line)
- **TXRXMON**: pair of monitoring ports associated to both the Ingress COM interface (ingress line) and to Egress COM interface (egress line)
- **BIDMON**: monitoring associated to the single COK interface (single fiber application)

13) Fiber Length:

- **0.5M** : 50cm
- **1M** : 1 meter
- **2M** : 2 meter

14) Fiber diameter:

- **900um**
- **250um**
- **1.2mm**
- **2mm**
- **3mm**

15) Others: it is also possible to specify other characteristics

Standard Modules

CWDM MODULES (LGX)	Description	Channels
CWDM-MUX-LGX-2CH-CH27-29-LCA-UPG	CWDM OADM-2ch module	CH27-29
CWDM-MUX-LGX-2CH-CH31-33-LCA-UPG	CWDM OADM-2ch module	CH31-33
CWDM-MUX-LGX-2CH-CH35-27-LCA-UPG	CWDM OADM-2ch module	CH35-27
CWDM-MUX-LGX-2CH-CH39-41-LCA-UPG	CWDM OADM-2ch module	CH39-41
CWDM-MUX-LGX-2CH-CH43-45-LCA-UPG	CWDM OADM-2ch module	CH43-45
CWDM-MUX-LGX-2CH-CH47-49-LCA-UPG	CWDM OADM-2ch module	CH47-49
CWDM-MUX-LGX-2CH-CH51-53-LCA-UPG	CWDM OADM-2ch module	CH51-53
CWDM-MUX-LGX-2CH-CH55-57-LCA-UPG	CWDM OADM-2ch module	CH55-57
CWDM-MUX-LGX-2CH-CH59-61-LCA-UPG	CWDM OADM-2ch module	CH59-61

Contact information

For additional information and evaluation samples order, please contact:

Chuck Sinha, Sr. Director of Sales

Jabil Photonics

5960 Inglewood Dr. Suite 100, Pleasanton, CA

Mobile: 408-505-0955

Email: Chuck_Sinha@Jabil.com

Channel Plan

Wavelength	Channel Number
1271	27
1291	29
1311	31
1331	33
1351	35
1371	37
1391	39
1411	41
1431	43
1451	45
1471	47
1491	49
1511	51
1531	53
1551	55
1571	57
1591	59
1611	61