

DATA SHEET

CWDM, DWDM, WDM DEVICES

DESCRIPTION

3-port filters with low insertion loss and high isolation component, used for different WDM applications where add/drop of WDM channel is needed. High customization is possible for this filter.



KEY FEATURES

Low insertion loss and high isolation

Wide pass band

High stability and high reliability

Epoxy-free optical path

APPLICATIONS

Channel Add/Drop

Telecommunications

Wavelength routing

CATV Fiber optic System

CONTACT INFORMATION

For additional information and evaluation samples order, please contact:

Chuck Sinha, Sr. Director of Sales

Jabil Photonics

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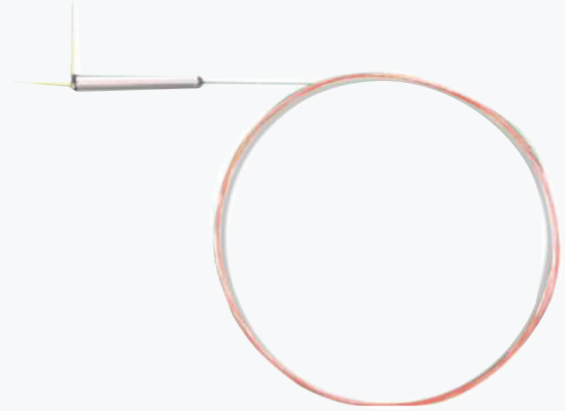
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DATA SHEET

HYBRID ISOLATOR TAP PD

DESCRIPTION

This high quality hybrid component includes in one product three different functions: Isolator, Tap and Photodiode. This allows to save space in design of amplifiers and components that need all these three functions.



KEY FEATURES

Highly integrated Isolator/TAP/PD

Super-compact size: Ø3.0x22

Customizable tap ratio, 1/2/5/X %

Provides high directivity for preventing backward optical power into PD

Low dark current

Operating temperature range: 0 °C to 70 °C

CONTACT INFORMATION

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DATA SHEET

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 $+85^{\circ}\text{C}$.

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



KEY 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

DATA SHEET

PASSIVE CWDM 2 CHANNEL FILTER

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

DATA SHEET

PASSIVE CWDM 2 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	2CH			TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

CONTACT INFORMATION

For additional information and evaluation samples order, please contact:

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DATA SHEET

PASSIVE CWDM 2 CHANNEL FILTER

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

DATA SHEET

PASSIVE CWDM 4 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 $+85^{\circ}\text{C}$.

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



KEY 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

DATA SHEET

PASSIVE CWDM 4 CHANNEL FILTER

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)	2		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	≤ 0.15		ps
PDL	≤ 0.15		dB
Directivity	≥ 50		dB

DATA SHEET

PASSIVE CWDM 4 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	4CH			TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

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PASSIVE CWDM 4 CHANNEL FILTER

CHANNEL PLAN

Wavelength	Channel Number
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1291	29
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1411	41
1431	43
1451	45
1471	47
1491	49
1511	51
1531	53
1551	55
1571	57
1591	59
1611	61

DATA SHEET

PASSIVE CWDM 8 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 $+85^{\circ}\text{C}$.

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



KEY 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

DATA SHEET

PASSIVE CWDM 8 CHANNEL FILTER

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)	3		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	≤ 0.15		ps
PDL	≤ 0.20		dB
Directivity	≥ 50		dB

DATA SHEET

PASSIVE CWDM 8 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	8CH			TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
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) - SCA (SC/APC)
- LCU (LC/UPC) - FCU (FC/UPC)
- SCU (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

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DATA SHEET

PASSIVE CWDM 8 CHANNEL FILTER

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

DATA SHEET

PASSIVE CWDM 16 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 $+85^{\circ}\text{C}$.

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



KEY 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

DATA SHEET

PASSIVE CWDM 16 CHANNEL FILTER

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)	3.5		dB
Adjacent Channel Isolation	≥ 30		dB
Non-Adjacent Channel Isolation	≥ 45		dB
Wavelength thermal stability	≤ 0.002		nm/°C
IL thermal stability	≤ 0.007		dB/°C
Return Loss	≥ 45		dB
PMD	≤ 0.15		ps
PDL	≤ 0.25		dB
Directivity	≥ 50		dB

DATA SHEET

PASSIVE CWDM 16 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	8CH			TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

CONTACT INFORMATION

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DATA SHEET

PASSIVE CWDM 16 CHANNEL FILTER

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

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

DESCRIPTION

Jabil Photonics DWDM optical filters have low insertion and low polarization dependent losses.

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 $+85^{\circ}\text{C}$.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

MUX/DMUX/OADM

Low insertion loss, wide bandwidth and high isolation

High stability and high reliability

Any combination of ITU wavelength plan

Fully customized to customer requirements

Telcordia GR-1209, GR-1221-CORE qualified

Mini-cassette, Fiber Tray, LGX & Rackmount

APPLICATIONS

Data Center Interconnect

Enterprise networking

Access networks

CATV fiber optic links

COMPLIANCES

Compliant with Telcordia GR-1209, GR-1221-CORE

Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

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
Channel Spacing	100		GHz
Channel Pass Band@0.5dB	± 0.125nm		nm
Operating Wavelength	1527.22 - 1564.68	C16-63	nm
UPG Wavelength	1527.22 - 1564.68 (Except channel used)		nm
EXP Wavelength Range	1260-1520, 1570-1635		nm
MON Insertion Loss	19-21	Only coupler	dB
Ripple	≤ 0.5		dB
UPG & EXP Isolation	≥ 12		dB
Adjacent Channel Isolation	≥ 28		dB
Non-adjacent Channel Isolation	≥ 40		dB
PDL	≤ 0.25		dB
PMD	≤ 0.2		ps
Return Loss	≥ 45		dB
IL Thermal stability	≤0.005		dB/°C
Wavelength Thermal Stability	≤0.002		nm/°C
Directivity	≥ 45		dB
Maximum Input Power	≤300		mW
MAX Channel Insertion Loss	1.5		dB
MAX UPG Insertion Loss	1.3		dB
MAX EXP Insertion Loss	1		dB

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	1CH	100GHZ		TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
DUAL	EXP	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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

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

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
191.80	1563.05	180	18
191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
193.05	1552.93	305	
193.10	1552.52	310	31
193.15	1552.12	315	
193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM 1 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

DESCRIPTION

Jabil Photonics DWDM optical filters have low insertion and low polarization dependent losses.

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 $+85^{\circ}\text{C}$.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

MUX/DMUX/OADM

Low insertion loss, wide bandwidth and high isolation

High stability and high reliability

Any combination of ITU wavelength plan

Fully customized to customer requirements

Telcordia GR-1209, GR-1221-CORE qualified

Mini-cassette, Fiber Tray, LGX & Rackmount

APPLICATIONS

Data Center Interconnect

Enterprise networking

Access networks

CATV fiber optic links

COMPLIANCES

Compliant with Telcordia GR-1209, GR-1221-CORE

Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

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
Channel Spacing	100		GHz
Channel Pass Band@0.5dB	± 0.125nm		nm
Operating Wavelength	1527.22 - 1564.68	C16-63	nm
UPG Wavelength	1527.22 - 1564.68 (Except channel used)		nm
EXP Wavelength Range	1260-1520, 1570-1635		nm
MON Insertion Loss	19-21	Only coupler	dB
Ripple	≤ 0.5		dB
UPG & EXP Isolation	≥ 12		dB
Adjacent Channel Isolation	≥ 30		dB
Non-adjacent Channel Isolation	≥ 40		dB
PDL	≤ 0.2		dB
PMD	≤ 0.15		ps
Return Loss	≥ 45		dB
IL Thermal stability	≤0.005		dB/°C
Wavelength Thermal Stability	≤0.002		nm/°C
Directivity	≥ 45		dB
Maximum Input Power	≤300		mW
MAX Channel Insertion Loss	1.8		dB
MAX UPG Insertion Loss	1.8		dB
MAX EXP Insertion Loss	1		dB

DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	2CH	100GHZ		TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
DUAL	EXP	UPG	TXRXMON				

- WDM
 - DWDM for Dense WDM
 - CWDM for Coarse WDM
- 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
- #Channels:
 - Number of add/dropped channels: **2CH,4CH,8CH,16CH,40CH** etc.
- Grid: (applicable only to DWDM)
 - **50GHZ** - **100GHZ** - **200GHZ**
- Form: form factor (available **CGM, LGX 1RU, LGX 2RU, HDLGX1, HDLGX2**)
- Technology:
 - **TFF** (typically for 4,8,16)
 - **AAWGM** (typically for 40,48,64)
- 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**
- Connector:
 - **LCA** (LC/APC) - **SCA** (SC/APC)
 - **LCU** (LC/UPC) - **FCU** (FC/UPC)
 - **SCU** (SC/UPC) - **FCA** (FC/APC)
- 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:

- 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.
- 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
 - **EXP**: it indicates that EXPRESS port (or port pair) is requested.
- 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)
- Fiber Length**:
 - **0.5M** : 50cm
 - **1M** : 1 meter
 - **2M** : 2 meter
- Fiber Diameter**:
 - **900um**
 - **250um**
 - **1.2mm**
 - **2mm**
 - **3mm**
- Others**: it is also possible to specify other characteristics

CONTACT INFORMATION

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 5960 Inglewood Dr. Suite 100, Pleasanton, CA

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DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
191.80	1563.05	180	18
191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
193.05	1552.93	305	
193.10	1552.52	310	31
193.15	1552.12	315	
193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM 2 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

DESCRIPTION

Jabil Photonics DWDM optical filters have low insertion and low polarization dependent losses.

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 $+85^{\circ}\text{C}$.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

MUX/DMUX/OADM

Low insertion loss, wide bandwidth and high isolation

High stability and high reliability

Any combination of ITU wavelength plan

Fully customized to customer requirements

Telcordia GR-1209, GR-1221-CORE qualified

Mini-cassette, Fiber Tray, LGX & Rackmount

APPLICATIONS

Data Center Interconnect

Enterprise networking

Access networks

CATV fiber optic links

COMPLIANCES

Compliant with Telcordia GR-1209, GR-1221-CORE

Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

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
Channel Spacing	100		GHz
Channel Pass Band@0.5dB	± 0.125nm		nm
Operating Wavelength	1527.22 - 1564.68	C16-63	nm
UPG Wavelength	1527.22 - 1564.68 (Except channel used)		nm
EXP Wavelength Range	1260-1520, 1570-1635		nm
MON Insertion Loss	19-21	Only coupler	dB
Ripple	≤ 0.5		dB
UPG & EXP Isolation	≥ 12		dB
Adjacent Channel Isolation	≥ 28		dB
Non-adjacent Channel Isolation	≥ 40		dB
PDL	≤ 0.25		dB
PMD	≤ 0.2		ps
Return Loss	≥ 45		dB
IL Thermal stability	≤0.005		dB/°C
Wavelength Thermal Stability	≤0.002		nm/°C
Directivity	≥ 45		dB
Maximum Input Power	≤300		mW
MAX Channel Insertion Loss	2.4		dB
MAX UPG Insertion Loss	2.4		dB
MAX EXP Insertion Loss	1		dB

DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	4CH	100GHZ		TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
DUAL	EXP	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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
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The following are instead optional fields needed to specify additional requests:

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 - **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

CONTACT INFORMATION

For additional information and evaluation samples order, please contact:

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DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
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191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
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193.10	1552.52	310	31
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193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM 4 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

DESCRIPTION

Jabil Photonics DWDM optical filters have low insertion and low polarization dependent losses.

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 $+85^{\circ}\text{C}$.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

MUX/DMUX/OADM

Low insertion loss, wide bandwidth and high isolation

High stability and high reliability

Any combination of ITU wavelength plan

Fully customized to customer requirements

Telcordia GR-1209, GR-1221-CORE qualified

Mini-cassette, Fiber Tray, LGX & Rackmount

APPLICATIONS

Data Center Interconnect

Enterprise networking

Access networks

CATV fiber optic links

COMPLIANCES

Compliant with Telcordia GR-1209, GR-1221-CORE

Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

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
Channel Spacing	100		GHz
Channel Pass Band@0.5dB	± 0.11nm		nm
Operating Wavelength	1527.22 - 1564.68	C16-63	nm
UPG Wavelength	1527.22 - 1564.68 (Except channel used)		nm
EXP Wavelength Range	1260-1520, 1570-1635		nm
MON Insertion Loss	19-21	Only coupler	dB
Ripple	≤ 0.5		dB
UPG & EXP Isolation	≥ 12		dB
Adjacent Channel Isolation	≥ 30		dB
Non-adjacent Channel Isolation	≥ 40		dB
PDL	≤ 0.25		dB
PMD	≤ 0.2		ps
Return Loss	≥ 45		dB
IL Thermal stability	≤0.005		dB/°C
Wavelength Thermal Stability	≤0.002		nm/°C
Directivity	≥ 45		dB
Maximum Input Power	≤300		mW
MAX Channel Insertion Loss	3.0		dB
MAX UPG Insertion Loss	3.0		dB
MAX EXP Insertion Loss	1.0		dB

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	8CH	100GHZ		TFF		
SINGLE / DUAL FIBER		EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS
DUAL		EXP	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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

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

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
191.80	1563.05	180	18
191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
193.05	1552.93	305	
193.10	1552.52	310	31
193.15	1552.12	315	
193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM 8 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

DESCRIPTION

Jabil Photonics DWDM optical filters have low insertion and low polarization dependent losses.

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 $+85^{\circ}\text{C}$.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

MUX/DMUX/OADM

Low insertion loss, wide bandwidth and high isolation

High stability and high reliability

Any combination of ITU wavelength plan

Fully customized to customer requirements

Telcordia GR-1209, GR-1221-CORE qualified

Mini-cassette, Fiber Tray, LGX & Rackmount

APPLICATIONS

Data Center Interconnect

Enterprise networking

Access networks

CATV fiber optic links

COMPLIANCES

Compliant with Telcordia GR-1209, GR-1221-CORE

Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

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
Channel Spacing	100		
Channel Pass Band@0.5dB	± 0.125nm		nm
Operating Wavelength	1527.22 - 1564.68	C16-63	nm
UPG Wavelength	1527.22 - 1564.68 (Except channel used)		nm
EXP Wavelength Range	1260-1520, 1570-1635		nm
MON Insertion Loss	19-21	Only coupler	dB
Ripple	≤ 0.5		dB
UPG & EXP Isolation	≥ 12		dB
Adjacent Channel Isolation	≥ 30		dB
Non-adjacent Channel Isolation	≥ 40		dB
PDL	≤ 0.25		dB
PMD	≤ 0.2		ps
Return Loss	≥ 45		dB
IL Thermal stability	≤0.005		dB/°C
Wavelength Thermal Stability	≤0.002		nm/°C
Directivity	≥ 45		dB
Maximum Input Power	≤300		mW
MAX Channel Insertion Loss	4.0		dB
MAX UPG Insertion Loss	4.0		dB
MAX EXP Insertion Loss	1		dB

DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
CWDM	MUX/DEMUX	16CH	100GHZ		TFF		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
DUAL	EXP	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) - **SCA** (SC/APC)
- **LCU** (LC/UPC) - **FCU** (FC/UPC)
- **SCU** (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

CONTACT INFORMATION

For additional information and evaluation samples order, please contact:

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DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
191.80	1563.05	180	18
191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
193.05	1552.93	305	
193.10	1552.52	310	31
193.15	1552.12	315	
193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM 16 CHANNEL FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

DESCRIPTION

Jabil Photonics DWDM AAWG optical filters have low insertion and low polarization dependent losses.

Different filters are available for the add/drop of 20, 40, 44, 48, 96 channels. In addition it is possible to monitor the signal at the ingress or at the egress of the line system.

Standard version is the two fiber pair (one fibers for RX and one fiber for TX) at 100GHz channel spacing, with LC/APC connectors, monitoring port and upgrade port. Customized versions are available.



KEY FEATURES

- Low insertion loss and PDL
- Low crosstalk, high uniformity
- Fully passive module
- Gaussian, or flattop
- High stability and high reliability
- 20-ch, 40 ch, 44-ch, 48-ch, 96-ch
- Optical MUX/DMUX

APPLICATIONS

- Data Center Interconnect
- Enterprise networking
- Access/Metro/Long Haul networks
- CATV fiber optic links

COMPLIANCES

- Compliant with Telcordia GR-1209, GR-1221-CORE
- Compliant with RoHS-6

DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min.	Typ.	Max.	Unit
Operation Temperature	-5		+65	°C
Storage Temperature	-40	-----	+85	°C
Operation Humidity*	5	-----	90	%
Storage Humidity	5	-----	90	%

(*) not condensing

OPTICAL SPECIFICATIONS

Parameter	Min	Typ	Max	Unit
Channels		40		Ch
Channel Spacing		100		GHz
Reference Passband (Relative to the ITU grid)			12.5	GHz
1dB Bandwidth	0.4			nm
Insertion loss (with connector)			6.0	dB
Insertion Loss Uniformity			1.5	dB
Ripple			0.5	dB
Adjacent Channel Isolation	25			dB
Non-Adjacent Channel Isolation	30			dB
Total Crosstalk	22			dB
Polarization Dependent Loss (PDL)			0.7	dB
Return Loss	45			dB
Maximum continuous optical power	300			mW
Chromatic Dispersion (CD)	-20		+20	ps/nm
Polarization Mode Dispersion (PMD)			0.5	ps

DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

ORDERING INFORMATION

WDM	TYPE	#CHANNELS	GRID	FORM	TECHNOLOGY	CH PLAN	CONNECTOR
DWDM	MUX/DEMUX	4CH			AAWG		
SINGLE / DUAL FIBER	EXPRESS	UPGRADE	MON	FIBE LENGTH	FIBER DIA	OTHERS	
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) - SCA (SC/APC)
- LCU (LC/UPC) - FCU (FC/UPC)
- SCU (SC/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
 - **EXP**: it indicates that EXPRESS port (or port pair) 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

CONTACT INFORMATION

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DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
191.70	1563.86	170	17
191.75	1563.45	175	
191.80	1563.05	180	18
191.85	1562.64	185	
191.90	1562.23	190	19
191.95	1561.83	195	
192.00	1561.42	200	20
192.05	1561.01	205	
192.10	1560.61	210	21
192.15	1560.20	215	
192.20	1559.79	220	22
192.25	1559.39	225	
192.30	1558.98	230	23
192.35	1558.58	235	
192.40	1558.17	240	24
192.45	1557.77	245	
192.50	1557.36	250	25
192.55	1556.96	255	
192.60	1556.55	260	26
192.65	1556.15	265	
192.70	1555.75	270	27
192.75	1555.34	275	
192.80	1554.94	280	28
192.85	1554.54	285	
192.90	1554.13	290	29
192.95	1553.73	295	
193.00	1553.33	300	30
193.05	1552.93	305	
193.10	1552.52	310	31
193.15	1552.12	315	
193.20	1551.72	320	32
193.25	1551.32	325	
193.30	1550.92	330	33
193.35	1550.52	335	

DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
193.40	1550.12	340	34
193.45	1549.72	345	
193.50	1549.32	350	35
193.55	1548.91	355	
193.60	1548.51	360	36
193.65	1548.11	365	
193.70	1547.72	370	37
193.75	1547.32	375	
193.80	1546.92	380	38
193.85	1546.52	385	
193.90	1546.12	390	39
193.95	1545.72	395	
194.00	1545.32	400	40
194.05	1544.92	405	
194.10	1544.53	410	41
194.15	1544.13	415	
194.20	1543.73	420	42
194.25	1543.33	425	
194.30	1542.94	430	43
194.35	1542.54	435	
194.40	1542.14	440	44
194.45	1541.75	445	
194.50	1541.35	450	45
194.55	1540.95	455	
194.60	1540.56	460	46
194.65	1540.16	465	
194.70	1539.77	470	47
194.75	1539.37	475	
194.80	1538.98	480	48
194.85	1538.58	485	
194.90	1538.19	490	49
194.95	1537.79	495	
195.00	1537.40	500	50
195.05	1537.00	505	

DATA SHEET

PASSIVE DWDM AWG 40 CHANNELS FILTER

CHANNEL PLAN

Channel (nm)	Frequency (THz)	50GHZ GRID CHANNEL NUMBER	100GHZ-200GHZ GRID CHANNEL NUMBER
195.10	1536.61	510	51
195.15	1536.22	515	
195.20	1535.82	520	52
195.25	1535.43	525	
195.30	1535.04	530	53
195.35	1534.64	535	
195.40	1534.25	540	54
195.45	1533.86	545	
195.50	1533.47	550	55
195.55	1533.07	555	
195.60	1532.68	560	56
195.65	1532.29	565	
195.70	1531.90	570	57
195.75	1531.51	575	
195.80	1531.12	580	58
195.85	1530.72	585	
195.90	1530.33	590	59
195.95	1529.94	595	
196.00	1529.55	600	60
196.05	1529.16	605	
196.10	1528.77	610	61
196.15	1528.38	615	
196.20	1527.99	620	62
196.25	1527.60	625	
196.30	1527.22	630	63
196.35	1526.83	635	
196.40	1526.44	640	64
196.45	1526.05	645	

DATA SHEET

COUPLER AND PLC MODULE

DESCRIPTION

High performance PLC Splitter with very low insertion loss used mainly in access Fiber to the Home applications, available in LGX or customized module format factor.



KEY FEATURES

Wide operating bandwidth and temperature range

Low insertion loss and PDL

High stability and high reliability

APPLICATIONS

PON, GPON

FTTH

LAN/WAN System

CATV System

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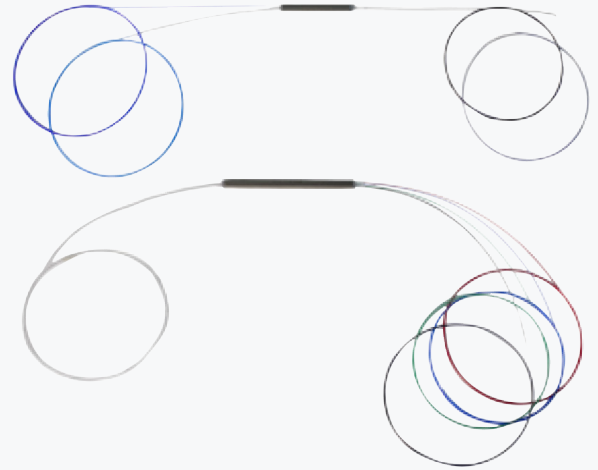
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DATA SHEET

OPTICAL FUSED COUPLER

DESCRIPTION

Fused couplers are used to split optical signals between two fibers, or to combine optical signals from two fibers into one fiber. Low insertion loss products with variety of coupling ratios are available.



KEY FEATURES

- Wavelength independent
- Low insertion loss and PDL
- High power handling
- Variety of coupling ratios available
- Excellent environmental and mechanical stability

APPLICATIONS

- Signal monitoring in EDFA
- Network Performance Monitoring
- CATV and Local Area Networks
- Switches, Testing Instruments

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DATA SHEET

PLC SPLITTER

DESCRIPTION

High performance PLC Splitter with very low insertion loss used mainly in access Fiber to the Home applications.



KEY FEATURES

Low IL and PDL

Wide operating bandwidth and temperature range

Telcordia GR1221 Qualified

APPLICATIONS

PON, GPON

FTTH

LAN/WAN System

CATV System

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