

Optical Add and Drop Multiplexers (OADMs), in the 100GHz and 200GHz spacing, utilize proven thin-film filter technology—which has outstanding performance specifications. The standard ITU channel sets are available in one or more channel configurations. All OADMs have passed the Bellcore GR1209 and GR1221 quality requirements.

OADM

- 100GHz Optical Add/Drop Multiplexer
- 1-Channel 100GHz Optical Add/Drop Multiplexer
- 2-Channel 100GHz Optical Add/Drop Multiplexer
- 200GHz Optical Add/Drop Multiplexer
- 1-Channel 200GHz Optical Add/Drop Multiplexer
- 2-Channel 200GHz Optical Add/Drop Multiplexer

100GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 100GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system



Specifications

OADM 1A (D)	Add-Ch.	Drop-Ch.
Center wavelength (nm)	ITU Grid (C-band: 1560.61 ~ 1529.55) (L- band: 1570.42 ~ 1603.17)	
Center wavelength difference (nm)	<= 0.1	
Channel spacing (GHz)	100 (~ 0.8nm)	
ITU Channel passband (nm)	(min.) ± 0.11 @ -0.5dB	(min.) ± 0.11 @ -1.0dB
Passband ripple (dB)	max.: 0.5	max.: 1.0
Add/Drop channel insertion loss (dB)	<= 1.8	<= 2.0
Adjcent channel isolation (dB)	>= 20	>= 25
Non-adjcent channel isolation (dB)	>= 45	
Express channel insertion loss (dB)	max.: 0.5, typ.: 0.35	
Express channel isolation (dB)	>= 10	
Directivity (dB) (all ports)	>= 55	
Return loss (dB) (all ports)	>= 50	
Insertion loss temperature sensitivity (dB / °C)	<= 0.005	
Wavelength temperature sensitivity (nm / °C)	<= 0.001	
Polarization dependence loss (PDL) (dB)	<= 0.1	
Polarization mode dispersion (PMD) (ps)	<= 0.1	
Max. operating power (mW)	<= 300	
Max. tensile load (N)	5	
Operating temperature range (°C)	0 ~ 65	
Storage temperature range (°C)	-40 ~ +85	
Package dimension (mm)	Bare fiber: 5.5 (D) x 32 (L); Loose tube: 5.5 (D) x 36 (L)	

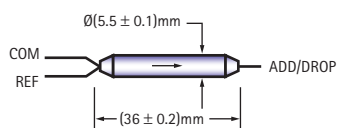
All specifications referenced are without connectors.

Ordering Information

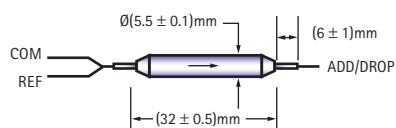
O	A	D	M	1						
Channel Spacing 1 = 100GHz					Connector 0 = None 1 = FC/APC 2 = SC/APC 3 = FC/PC 4 = SC/PC 5 = ST/PC 6 = LC/PC 7 = MU/PC 8 = Customer order					
Configuration 1A = Add 1D = Drop					Fiber Length 1 = 1m 2 = 2m 3 = Customer order					
ITU Channel 21 = 1560.607nm 22 = 1559.794nm					Pigtail Type B = 250µm bare fiber L = 900µm loose tube C = 3mm cable					
Package S = Standard C = Customer design module										

Dimensions

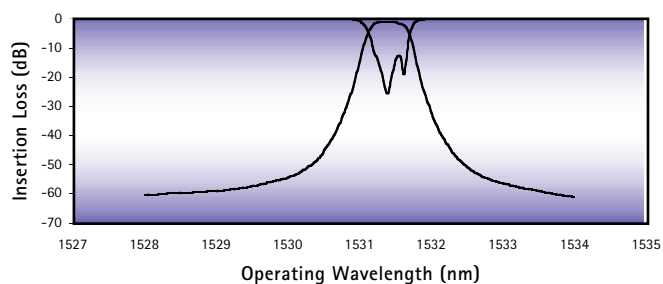
L: 900μm loose tube



B: 250μm bare fiber



Transmission Spectrum



1-CHANNEL 100GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 100GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system



Specifications

OADM11C	Add-Ch.	Drop-Ch.
Center wavelength (nm)	ITU Grid (C - band: 1560.61 ~ 1529.55) (L - band: 1570.42 ~ 1603.17)	
Center wavelength difference (nm)	<= 0.1	
Channel spacing (GHz)	100 (~ 0.8nm)	
ITU Channel passband (nm)	(min.) ± 0.11 @ -0.5dB	(min.) ± 0.11 @ -1.0dB
Add/Drop channel insertion loss (dB)	<= 1.8	<= 2.0
Adjcent channel isolation (dB)	> 20	> 25
Non-adjcent channel Isolation (dB)	> 45	
Passband ripple (dB)	max.: 0.5	max.: 1.0
Express channel insertion loss (dB)	max.: 0.9, typ.: 0.6	
Express channel isolation (dB)	>= 20	
Directivity (dB) (all ports)	>= 55	
Return loss (dB) (all ports)	>= 50	
Insertion loss temperature sensitivity (dB / °C)	< 0.005	
Wavelength temperature sensitivity (nm / °C)	< 0.001	
Polarization dependence loss (PDL) (dB)	<= 0.1	
Polarization mode dispersion (PMD) (ps)	<= 0.1	
Max. operating power (mW)	<= 300	
Max. tensile load (N)	5	
Operating temperature range (°C)	0 ~ +65	
Storage temperature range (°C)	-40 ~ +85	
Package dimension (mm)	(L) 102 x (W) 76 x (H) 10.7	

All specifications referenced are without connectors.

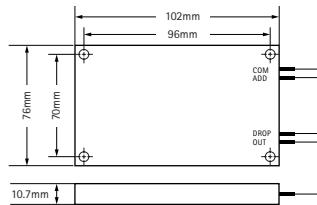


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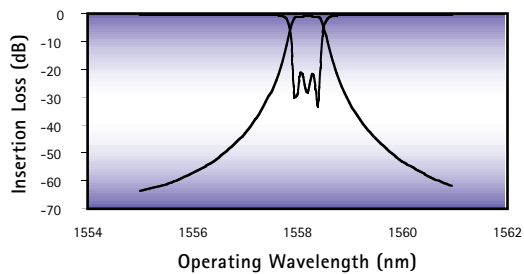
O	A	D	M	1						
Channel Spacing 1 = 100GHz					Connector 0 = None 1 = FC/APC 2 = SC/APC 3 = FC/PC 4 = SC/PC 5 = ST/PC 6 = LC/PC 7 = MU/PC 8 = Customer order					
Configuration 1C = Add and drop one channel					Fiber Length 1 = 1m 2 = 2m 3 = Customer order					
ITU Channel 21 = 1560.607nm 22 = 1559.794nm					Pigtail Type B = 250µm bare fiber L = 900µm loose tube C = 3mm cable					
Package S = Standard C = Customer design module										



Dimensions



Transmission Spectrum



2-CHANNEL 100GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 100GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system

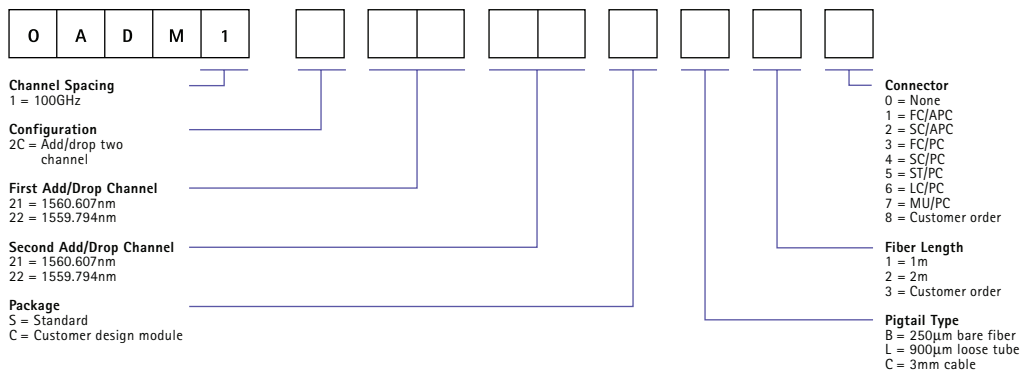


Specifications

OADM12C	Add-Ch.	Drop-Ch.
Center wavelength (nm)	ITU Grid (C - band: 1560.61 ~ 1529.55) (L - band: 1570.42 ~ 1603.17)	
Center wavelength difference (nm)	<= 0.1	
Channel spacing (GHz)	100 (~ 0.8nm)	
Channel passband (nm)	(min.) ± 0.11 @ -0.5dB	(min.) ± 0.11 @ - 1.0dB
Add/Drop channel insertion loss (dB)		
Com - Drop1; Add1 - Out (dB)	<= 2.0	
Com - Drop2; Add2 - Out (dB)	<= 2.5	
Adjcent channel isolation (dB)	> 20	> 25
Non-adjcent channel Isolation (dB)	> 45	
Passband ripple (dB)	max.: 0.5	max.: 1.0
Express channel insertion loss (dB)	max.: 1.8, typ.: 1.2	
Express channel isolation (dB)	>= 20	
Directivity (dB) (all ports)	>= 55	
Return loss (dB) (all ports)	>= 50	
Insertion loss temperature sensitivity (dB / °C)	< 0.005	
Wavelength temperature sensitivity (nm / °C)	< 0.001	
Polarization dependence loss (PDL) (dB)	<= 0.1	
Polarization mode dispersion (PMD) (ps)	<= 0.1	
Max. operating power (mW)	<= 300	
Max. tensile load (N)	5	
Operating temperature range (°C)	0 ~ +65	
Storage temperature range (°C)	-40 ~ +85	
Package dimension (mm)	(L) 127 x (W) 89 x (H) 10.7	

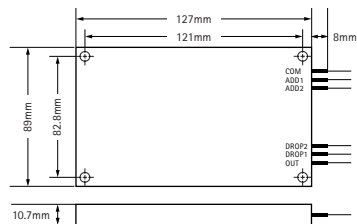
All specifications referenced are without connectors.

Ordering Information

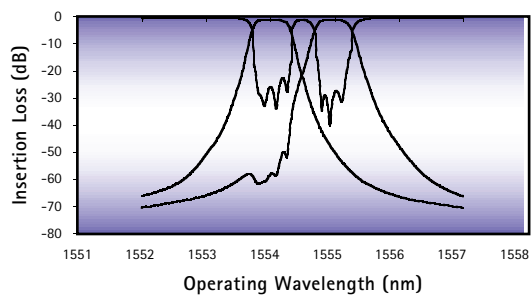


Note: More add/drop channels are available upon request.

Dimensions



Transmission Spectrum



200GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 200GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system

Specifications

OADM 2A (D)

Add / Drop-Ch.

Center wavelength (nm)

ITU Grid (C-band: 1560.61 ~ 1529.55)
(L- band: 1570.42 ~ 1603.17)

Center wavelength difference (nm)

≤ 0.1

Channel spacing (GHz)

200 ($\sim 1.6\text{nm}$)

ITU Channel passband (nm)

> 0.5

Add/Drop channel insertion loss (dB)

max.: 1.0, typ.: 0.8

Adjcent channel isolation (dB)

≥ 25

Non-adjcent channel isolation (dB)

≥ 45

Passband ripple (dB)

max.: 0.5

Express channel insertion loss (dB)

max.: 0.6, typ.: 0.4

Express channel isolation (dB)

≥ 12

Directivity (dB) (all ports)

≥ 55

Return loss (dB) (all ports)

≥ 50

Insertion loss temperature sensitivity (dB / $^{\circ}\text{C}$)

≤ 0.005

Wavelength temperature sensitivity (nm / $^{\circ}\text{C}$)

≤ 0.002

Polarization dependence loss (PDL) (dB)

≤ 0.1

Polarization mode dispersion (PMD) (ps)

≤ 0.1

Max. operating power (mW)

≤ 300

Max. tensile load (N)

5

Operating temperature range ($^{\circ}\text{C}$)

0 ~ 65

Storage temperature range ($^{\circ}\text{C}$)

-40 ~ +85

Package dimension (mm)

Bare filber: 5.5 (D) x 32 (L); Loose tube: 5.5 (D) x 36 (L)

All specifications referenced are without connectors.





Ordering Information

0	A	D	M	2						
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A = Add
D = Drop

Add/Drop Channel
21 = 1560.607nm
22 = 1559.794nm

Package
S = Standard
C = Customer design module

Pigtail Type
B = 250μm bare fiber
L = 900μm loose tube

Connector

0 = None
1 = FC/APC
2 = SC/APC
3 = FC/PC
4 = SC/PC
5 = ST/PC
6 = LC/PC
7 = MU/PC
8 = Customer order

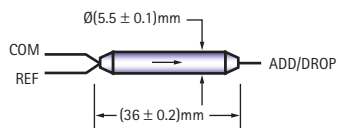
Fiber Length

1 = 1m
2 = 2m
3 = Customer order

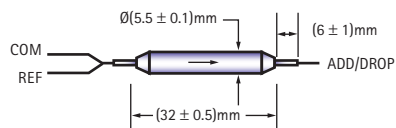


Dimensions

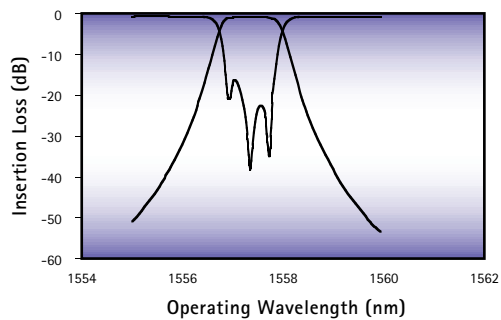
L: 900μm loose tube



B: 250μm bare fiber



Transmission Spectrum



1-CHANNEL 200GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 200GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system

Specifications

OADM21C

Add / Drop-Ch.

Center wavelength (nm)	ITU Grid (C-band: 1560.61 ~ 1529.55) (L- band: 1570.42 ~ 1603.17)
Center wavelength difference (nm)	<= 0.1
Channel spacing (GHz)	200 (~ 1.6nm)
Channel passband (nm) @ 0.5dB	>= 0.5
Add/Drop channel insertion loss (dB)	max.: 1.2, typ.: 0.8
Adjcent channel isolation (dB)	> 25
Non-adjcent channel Isolation (dB)	> 45
Passband ripple (dB)	max.: 0.5
Express channel insertion loss (dB)	max.: 1.0, typ.: 0.8
Express channel isolation (dB)	>= 20
Directivity (dB) (all ports)	>= 55
Return loss (dB) (all ports)	>= 50
Insertion loss temperature sensitivity (dB / °C)	< 0.005
Wavelength temperature sensitivity (nm / °C)	< 0.002
Polarization dependence loss (PDL) (dB)	<= 0.1
Polarization mode dispersion (PMD) (ps)	<= 0.1
Max. operating power (mW)	<= 300
Max. tensile load (N)	5
Operating temperature range (°C)	0 ~ +65
Storage temperature range (°C)	-40 ~ +85
Package dimension (mm)	(L) 102 x (W) 76 x (H) 10.7

All specifications referenced are without connectors.



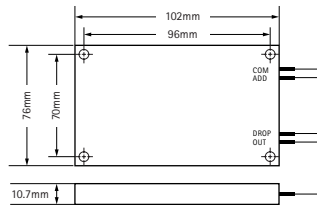


Ordering Information

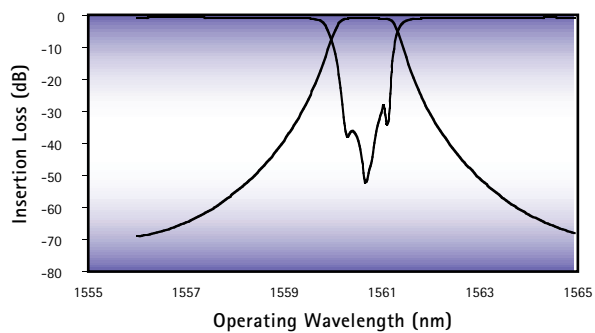
O	A	D	M	2						
Channel Spacing 2 = 200GHz					Connector 0 = None 1 = FC/APC 2 = SC/APC 3 = FC/PC 4 = SC/PC 5 = ST/PC 6 = LC/PC 7 = MU/PC 8 = Customer order					
Configuration 1C = Add and drop one channel					Fiber Length 1 = 1m 2 = 2m 3 = Customer order					
ITU Channel 21 = 1560.607nm 22 = 1559.794nm					Pigtail Type B = 250µm bare fiber L = 900µm loose tube C = 3mm cable					
Package S = Standard C = Customer design module										



Dimensions



Transmission Spectrum



2-CHANNEL 200GHz OPTICAL ADD/DROP MULTIPLEXER

Features

- 200GHz channel spacing
- Low insertion loss, high isolation
- High stability and reliability
- Optical path epoxy free

Applications

- Long-haul optical fiber network
- Metro optical fiber network
- CATV transmission systems
- EDFA system



Specifications

OADM22C

Center wavelength (nm)

Add / Drop-Ch.

ITU Grid (C-band: 1560.61 ~ 1529.55)
(L- band: 1570.42 ~ 1603.17)

Center wavelength difference (nm)

<= 0.1

Channel spacing (GHz)

200 (~ 1.6nm)

Channel passband (nm) @ 0.5dB

>= 0.5

Add/Drop channel insertion loss (dB)

Com - Drop1; Add1 - Out (dB)

<= 1.2

Com - Drop2; Add2 - Out (dB)

<= 1.8

Adjcent channel isolation (dB)

> 25

Non-adjcent channel Isolation (dB)

> 45

Passband ripple (dB)

max.: 0.5

Express channel insertion loss (dB)

max.: 1.8, typ.: 1.2

Express channel isolation (dB)

>= 20

Directivity (dB) (all ports)

>= 55

Return loss (dB) (all ports)

>= 50

Insertion loss temperature sensitivity (dB / °C)

< 0.005

Wavelength temperature sensitivity (nm / °C)

< 0.002

Polarization dependence loss (PDL) (dB)

<= 0.1

Polarization mode dispersion (PMD) (ps)

<= 0.1

Max. operating power (mW)

<= 300

Max. tensile load (N)

5

Operating temperature range (°C)

0 ~ +65

Storage temperature range (°C)

-40 ~ +85

Package dimension (mm)

(L) 127 x (W) 89 x (H) 10.7

All specifications referenced are without connectors.



Ordering Information

0	A	D	M	2
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Channel Spacing
2 = 200GHz

Configuration
2C = Add/drop two
channel

First Add/Drop Channel
21 = 1560.607nm
22 = 1559.794nm

Second Add/Drop Channel
21 = 1560.607nm
22 = 1559.794nm

Package
S = Standard
C = Customer design module

Connector

0 = None
1 = FC/APC
2 = SC/APC
3 = FC/PC
4 = SC/PC
5 = ST/PC
6 = LC/PC
7 = MU/PC
8 = Customer order

Fiber Length

1 = 1m
2 = 2m
3 = Customer order

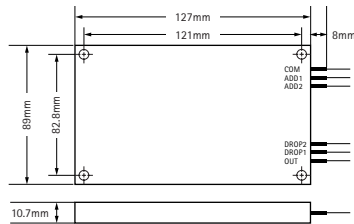
Pigtail Type

B = 250μm bare fiber
L = 900μm loose tube
C = 3mm cable

Note: More add/drop channels are available upon request.



Dimensions



Transmission Spectrum

