CWDM Module

1. Features

- Low Insertion Loss
- High Isolation
- Low PDL
- Compact Design
- Good Channel-to-channel Uniformity
- Wide Operating Wavelength:

  1260nm~1620nm or 1460nm~1620nm
- Wide Operating Temperature:

  -5℃~75℃
- High Reliability and Stability

2. Applications

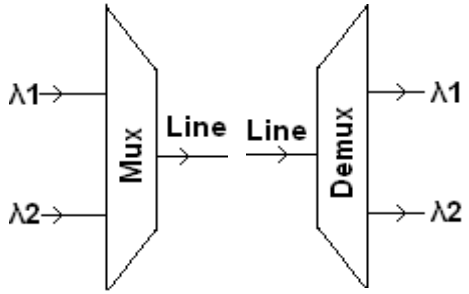
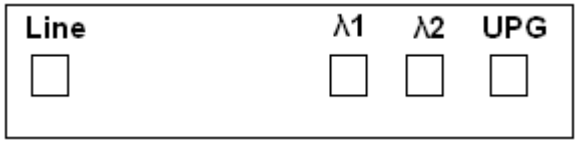
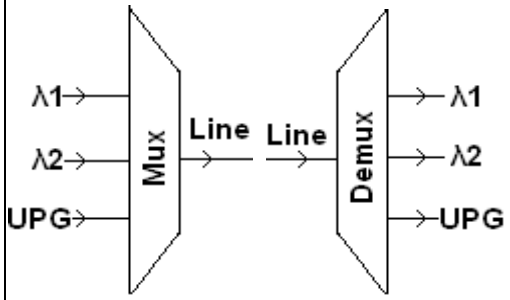
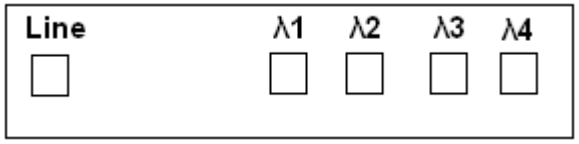
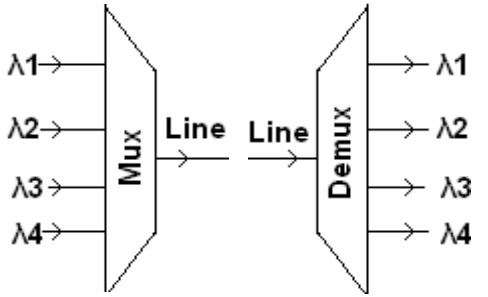
- CWDM System
- PON Networks
- CATV Links

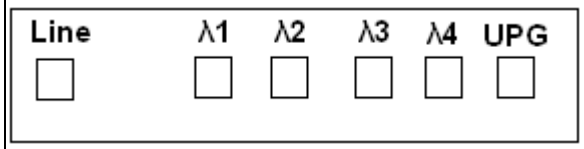
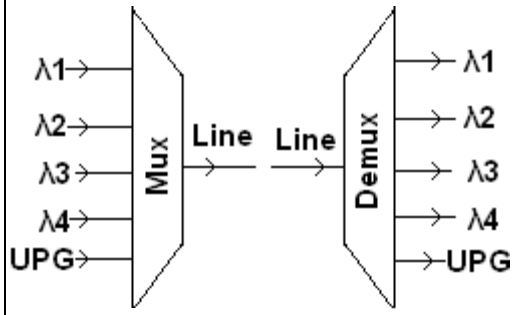
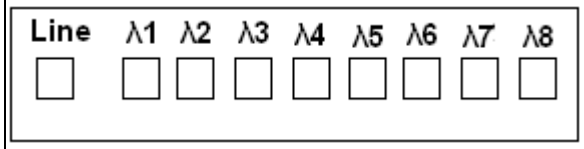
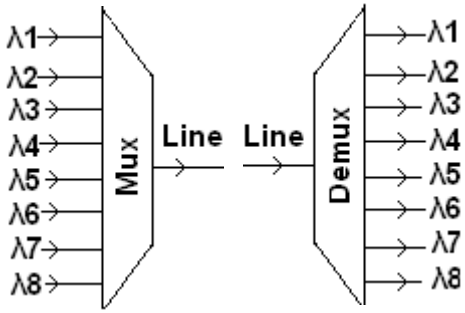
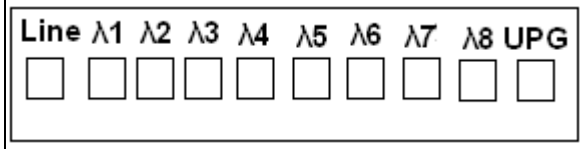
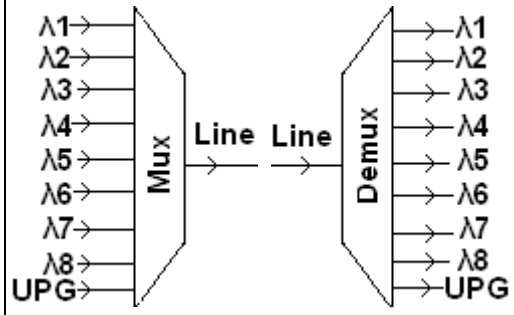
3. Compliance

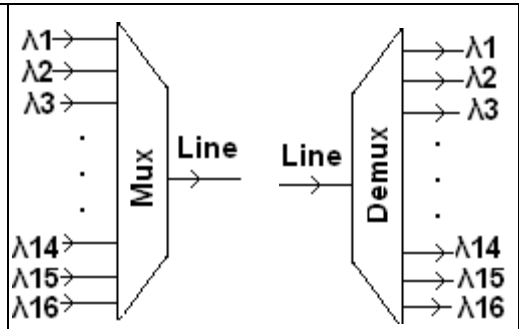
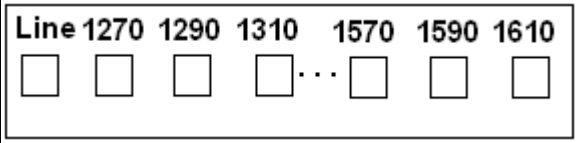
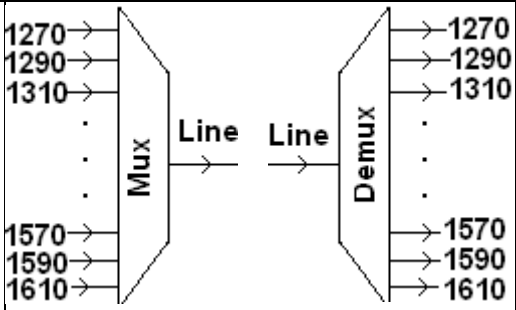
- Telcordia GR-1209-CORE-2001
- Telcordia GR-1221-CORE-1999
- ITU-T G.694.1
- RoHS

4. Specifications

CWDM Mux/Demux Module

GWM-02QMXX190910-55 		**2 Channel CWDM Mux/Demux** λ1, λ2 IL Link(dB): ≤1.2 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620 or 1460~1620
GWM-02Q3XX190910-55 		**2CH+Upgrade CWDM Mux/Demux** λ1, λ2,Upgrade IL Link(dB): ≤1.5 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Upgrade Channel: ≥12 Return Loss (dB): ≥45 Operating Wavelength(nm): 1460~1620 or 1260~1620
GWM-04QMXX190910-55 		**4 Channel CWDM Mux/Demux** λ1, λ2, λ3, λ4 IL Link(dB): ≤1.9 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1460~1620 or 1260~1620

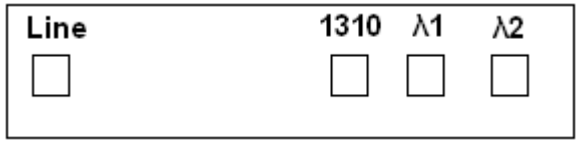
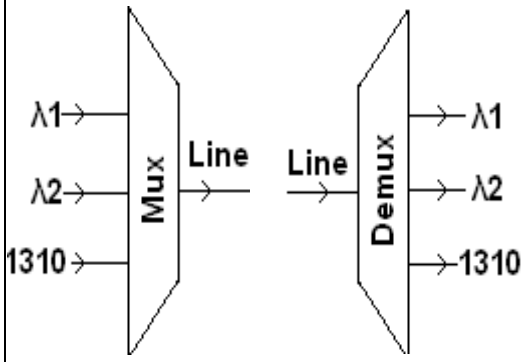
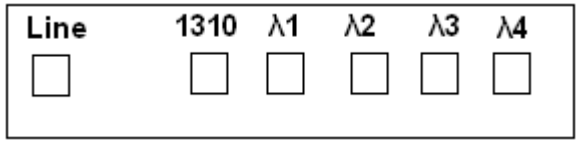
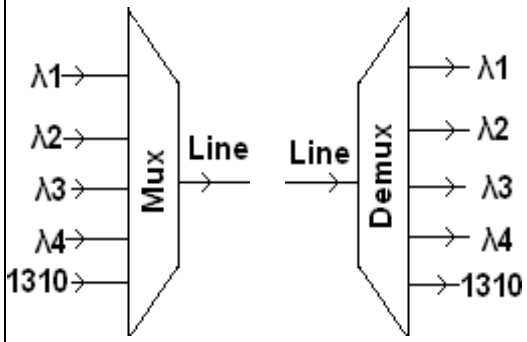
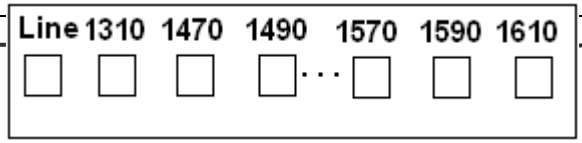
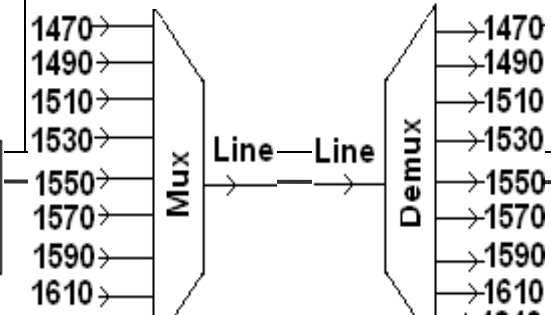
GWM-04Q3XX190910-55 		**4 CH+Upgrade CWDM Mux/Demux** λ1, λ2, λ3, λ4, Upgrade IL Link(dB): ≤2.0 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Upgrade Channel: ≥12 Return Loss (dB): ≥45 Operating Wavelength(nm): 1460~1620 or 1260~1620
GWM-08QMXX190910-55 		**8 Channel CWDM Mux/Demux** λ1, λ2, λ3, λ4, λ5, λ6, λ7, λ8 IL Link(dB): ≤2.7 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1460~1620 or 1260~1620
GWM-08Q3XX190910-55 		**8CH+Upgrade CWDM Mux/Demux** λ1, λ2, λ3, λ4, λ5, λ6, λ7, λ8, Upgrade IL Link(dB): ≤3.0 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Upgrade Channel: ≥12 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

GWM-16QMXX190910-55 		**16 Channel CWDM Mux/Demux** λ1, λ2, λ3, λ4, λ5, λ6, λ7, λ8, λ9, λ10, λ11, λ12, λ13, λ14, λ15, λ16 IL Link(dB): ≤4.2 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GWM-18QM27190910-55 		**18 Channel CWDM Mux/Demux** 1270nm,1290nm～1590nm,1610nm IL Link(dB): ≤4.2 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

Notes:

1. λ=ITU,ITU+1
2. λ=1270nm,1290nm,1310nm,1330nm,1350nm,1370nm,1390nm,1410nm,1430nm,1450nm,1470nm,1490nm, 1510nm,1530nm,1550nm,1570nm,1590nm,1610nm
3. Specified with connectors.
4. Available modules or LGX or 19 "case packaging.
5. Operating Temperature (℃): -5～75.
6. Storage Temperature (℃): -40～85.

CWDM Mux/Demux Module with 1310nm Expansion Port

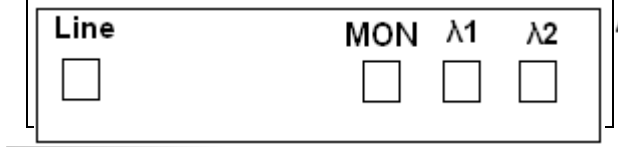
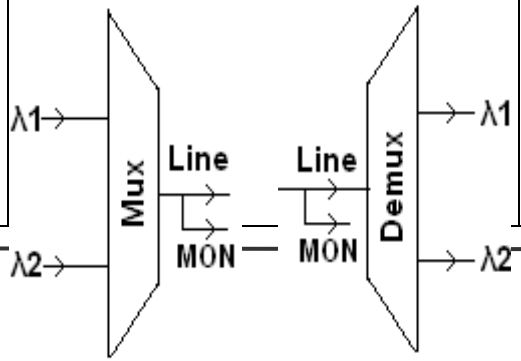
GWM-02Q1XX190910-55 		**2CH+1310nm CWDM Mux/Demux** 1310±40nm,λ1, λ2, IL Link(dB): ≤1.3 IL Link@1310nm(dB): ≤1.0 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 1310nm Channel: ≥30 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GWM-04Q1XX190910-55 		**4CH+1310nm CWDM Mux/Demux** 1310±40nm, λ1, λ2, λ3, λ4 IL Link(dB): ≤2.0 IL Link@1310nm(dB): ≤1.0 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 1310nm Channel: ≥30 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GWM-08Q147190910-55 		**8CH+1310nm CWDM Mux/Demux** 1310±40nm,1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm, 1590nm, 1610nm IL Link(dB): ≤2.8 IL Link@1310nm(dB): ≤1.0 Isolation(dB):

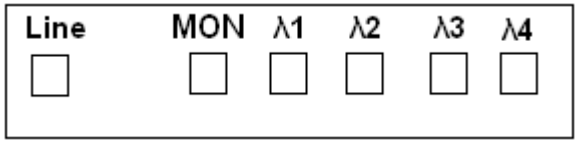
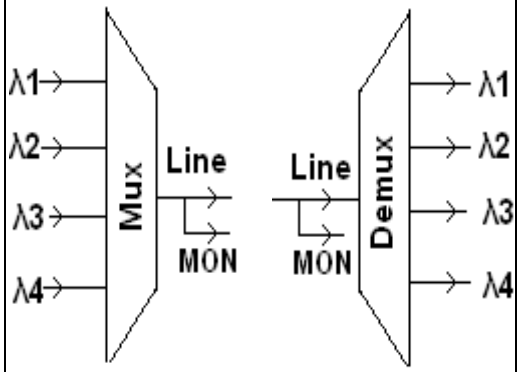
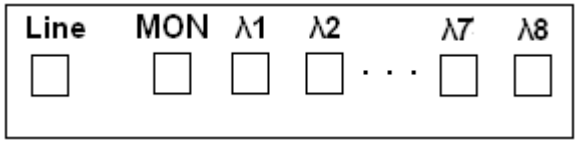
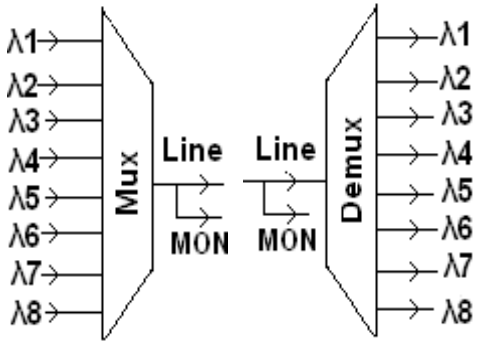
		Adjacent: ≥30 Non-Adjacent: ≥45 1310nm Channel: ≥30 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

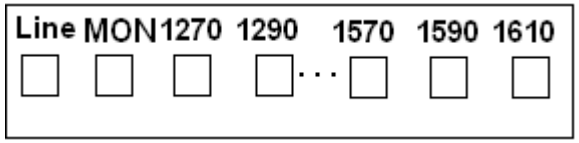
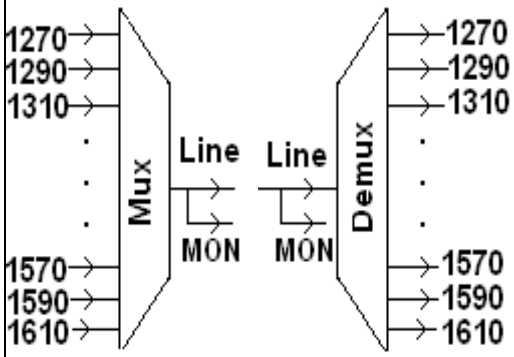
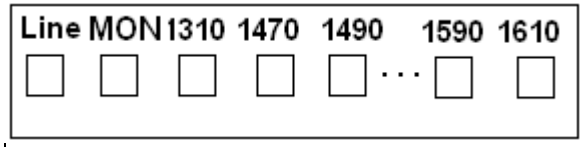
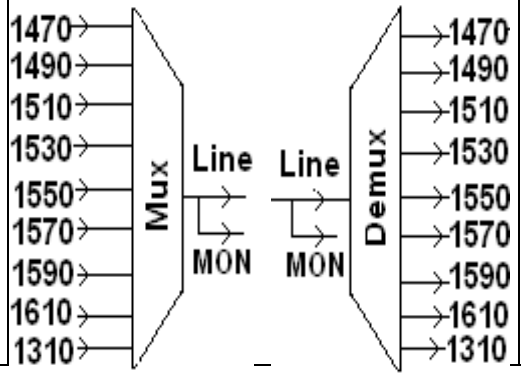
Notes:

1. λ=ITU,ITU+1
2. λ=1470nm,1490nm,1510nm,1530nm,1550nm,1570nm,1590nm,1610nm
3. Specified with connectors.
4. Available modules or LGX or 19 "case packaging.
5. Operating Temperature (℃): -5～75.
6. Storage Temperature (℃): -40～85.

CWDM Mux/Demux Module with Monitoring Port

GWM-02QMXX190910-55-MON 		**2CH+MON CWDM Mux/Demux** λ1, λ2 IL Link(dB): ≤1.7 IL MON(dB): 5%TAP: ≤16.0 2%TAP: ≤20.6 1%TAP: ≤23.9 Isolation(dB):

		Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620 or 1460~1620
GWM-04QMXX190910-55-MON 		**4CH+MON CWDM Mux/Demux** λ1, λ2, λ3, λ4 IL Link(dB): ≤2.3 IL MON(dB): 5%TAP: ≤16.7 2%TAP: ≤21.3 1%TAP: ≤24.1 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620 or 1460~1620
GWM-08QMXX190910-55-MON 		**8CH+MON CWDM Mux/Demux** λ1, λ2, λ3, λ4, λ5, λ6, λ7, λ8 IL Link(dB): ≤3.2 IL MON(dB): 5%TAP: ≤17.5 2%TAP: ≤22.1 1%TAP: ≤25.4 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620 or 1460~1620

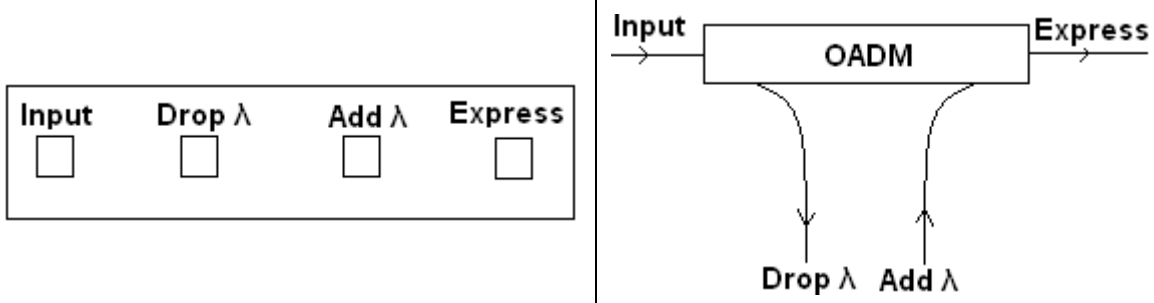
GWM-18QM27190910-55-MON 		**18CH+MON CWDM Mux/Demux** 1270nm,1290nm～1590nm,1610nm IL Link(dB): ≤4.7 IL MON(dB): 5%TAP: ≤19.0 2%TAP: ≤23.6 1%TAP: ≤26.9 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GWM-08Q7XX190910-55 		**8CH+1310nm+MON CWDM Mux/Demux** 1310±40nm,1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm, 1590nm, 1610nm IL Link(dB): ≤4.0 IL Link@1310nm(dB): ≤1.5 IL MON(dB): 5%TAP: ≤17.5 2%TAP: ≤22.1 1%TAP: ≤24.9 Isolation(dB): Adjacent: ≥30 Non-Adjacent: ≥45 1310nm Channel: ≥30

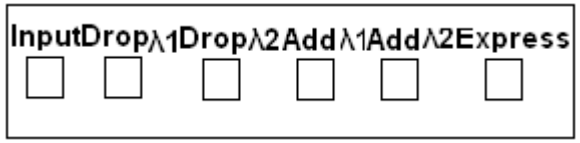
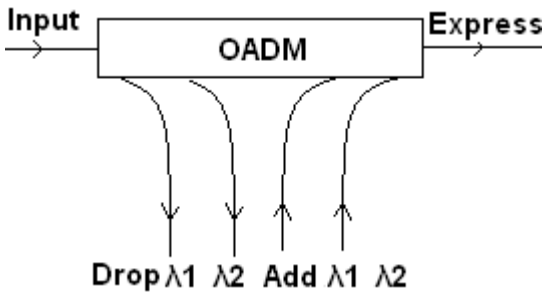
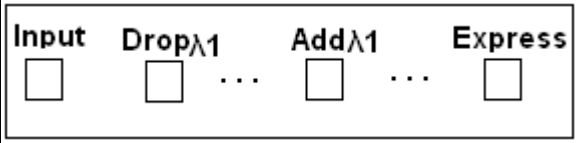
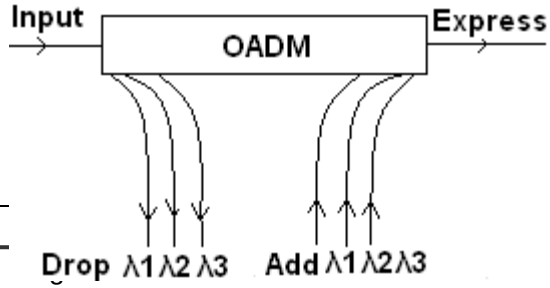
		Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

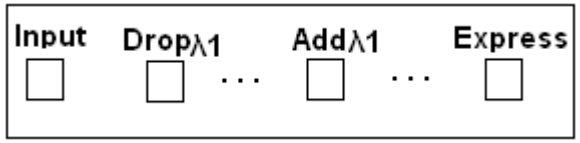
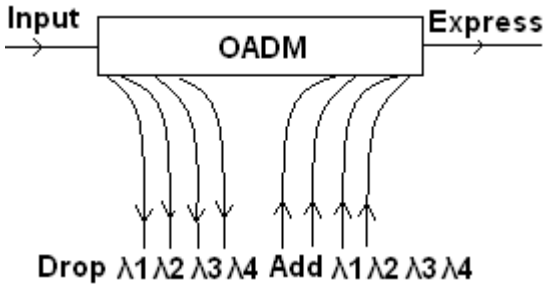
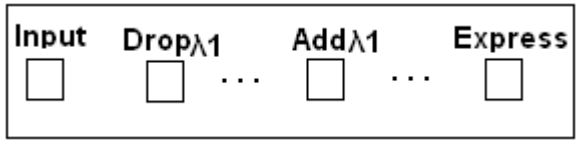
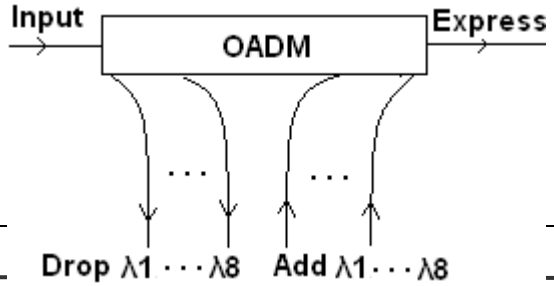
Notes:

1. λ=ITU,ITU+1
2. λ=1470nm,1490nm,1510nm,1530nm,1550nm,1570nm,1590nm,1610nm
3. Specified with connectors.
4. Available modules or LGX or 19 "case packaging.
5. Operating Temperature (℃): -5～75.
6. Storage Temperature (℃): -40～85.

CWDM Optical Add/Drop Module without 1310nm Expansion Port

GADM-1XX190910-555		**1CH CWDM OADM** λ Add/Drop Channel IL(dB): ≤0.8 Express Channel IL(dB): ≤1.0 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

GADM-2XX190910-555 		**2CH CWDM OADM** λ1, λ2 Add/Drop Channel IL(dB): ≤1.2 Express Channel IL(dB): ≤1.6 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GADM-3XX190910-555 		**3CH CWDM OADM** λ1, λ2, λ3, Add/Drop Channel IL(dB): ≤1.5 Express Channel IL(dB): ≤1.8 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm):

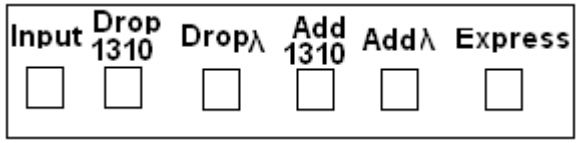
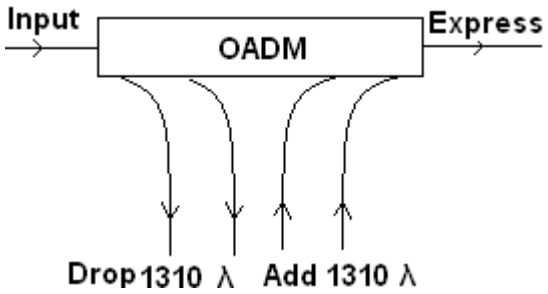
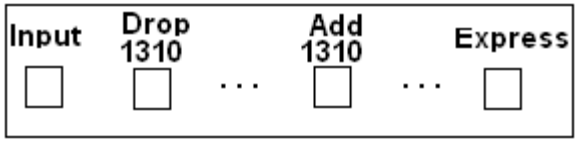
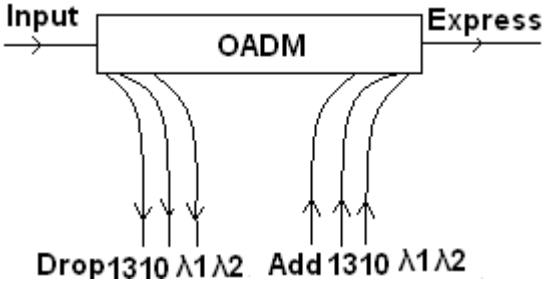
		1260~1620
GADM-4XX190910-555 		**4CH CWDM OADM** λ1, λ2, λ3, λ4 Add/Drop Channel IL(dB): ≤1.9 Express Channel IL(dB): ≤2.2 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent : ≥45 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GADM-8XX190910-555 		**8CH CWDM OADM** λ1, λ2, λ3, λ4, λ5, λ6, λ7, λ8 Add/Drop Channel IL(dB): ≤2.7 Express Channel IL(dB): ≤4.0 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm):

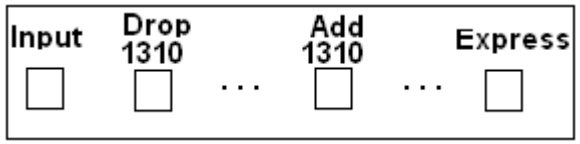
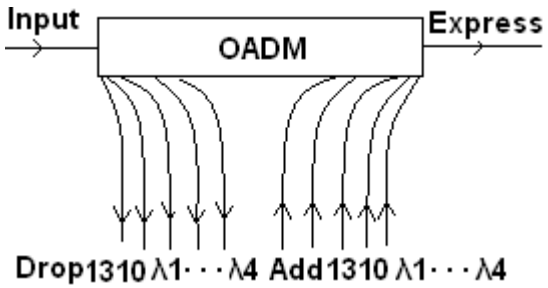
		1260~1620

Notes:

1. λ=ITU,ITU+1
2. λ=1270nm,1290nm,1310nm,1330nm,1350nm,1370nm,1390nm,1410nm,1430nm,1450nm,1470nm,1490nm, 1510nm,1530nm,1550nm,1570nm,1590nm,1610nm
3. Specified with connectors.
4. Available modules or LGX or 19 "case packaging.
5. Operating Temperature (℃): -5～75.
6. Storage Temperature (℃): -40～85.

CWDM Optical Add/Drop Module with 1310nm Expansion Port

GADM-2F1190910-555 		**1CH+1310nm CWDM OADM** 1310±40nm,λ Add/Drop Channel IL(dB): ≤0.8 Express Channel IL(dB): ≤1.0 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 1310nm Channel: ≥30 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620
GADM-3F1190910-555 		**2CH+1310nm CWDM OADM** 1310±40nm,λ1, λ2 Add/Drop Channel IL(dB): ≤1.2 Express Channel IL(dB): ≤1.6 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 1310nm Channel: ≥30 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

GADM-5F1190910-555 		**4CH+1310nm CWDM OADM** 1310±40nm,λ1, λ2, λ3, λ4 Add/Drop Channel IL(dB): ≤1.9 Express Channel IL(dB): ≤2.2 Isolation(dB): Add&Drop Adjacent: ≥30 Add&Drop Non-Adjacent: ≥45 1310nm Channel: ≥30 Express: ≥20 Return Loss (dB): ≥45 Operating Wavelength(nm): 1260~1620

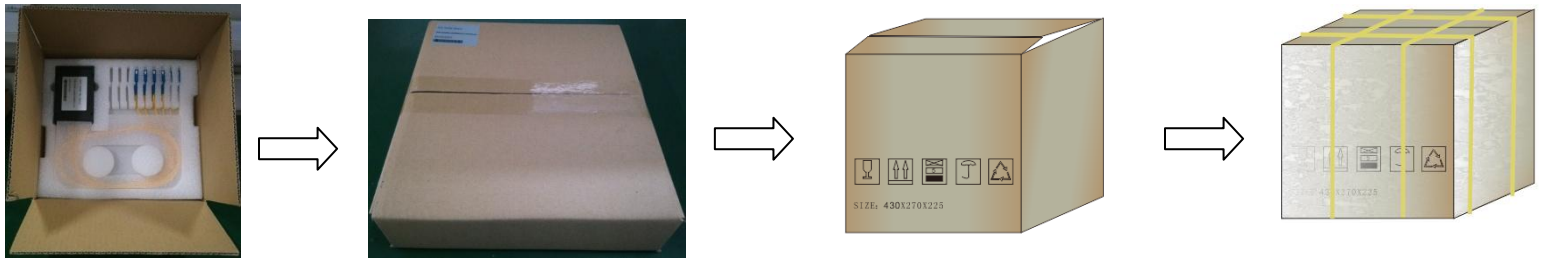
Notes:

1. λ=ITU,ITU+1
2. λ=1470nm,1490nm,1510nm,1530nm,1550nm,1570nm,1590nm,1610nm
3. Specified with connectors.
4. Available modules or LGX or 19 "case packaging.
5. Operating Temperature (℃): -5～75.
6. Storage Temperature (℃): -40～85.

5. Package

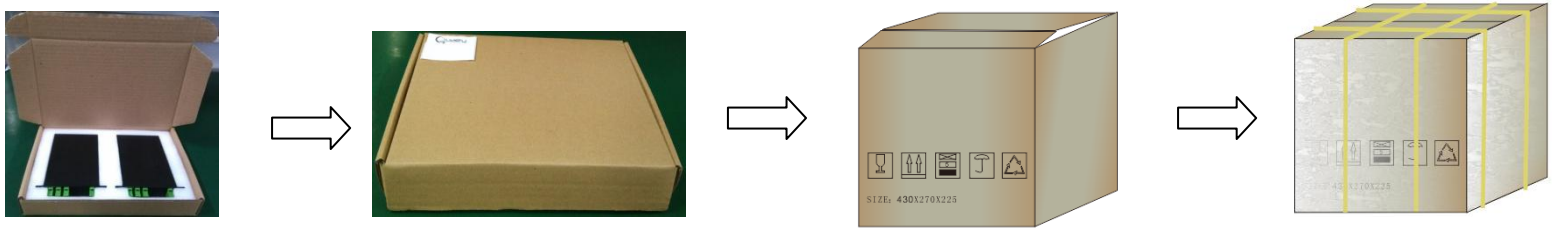
CWDM Module

Type	1X2	1X4	1X8	1X16	1X18	Box Size
Inner Box (pcs)	2	2	2	1	1	310mm*280mm*45mm
Outer Box (pcs)	12	12	12	6	6	440mm*330mm*360mm



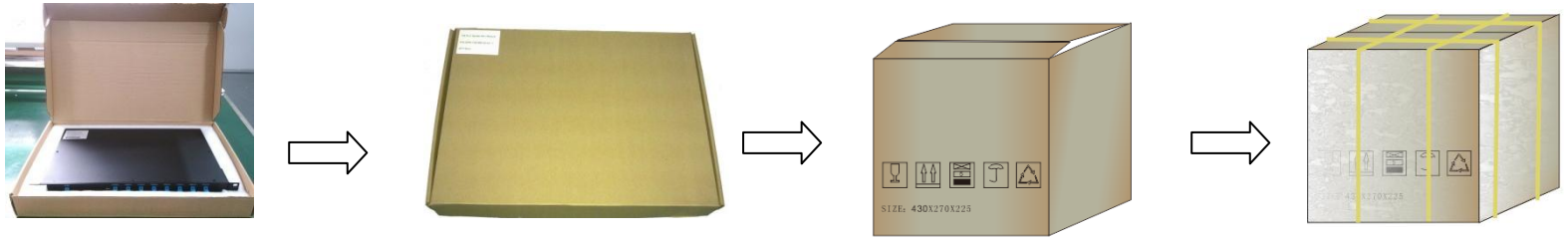
CWDM LGX

Type	1X2	1X4	1X8	Box Size
Inner Box (pcs)	2	2	2	300mm*200mm*55mm
Outer Box (pcs)	12	12	12	440mm*330mm*200mm



CWDM 19”Rack-Mount

Type	1X2	1X4	1X8	1X16	1X18	Box Size
Inner Box (pcs)	1	1	1	1	1	515mm*310mm*60mm
Outer Box (pcs)	5	5	5	5	5	515mm*310mm*300mm



6. Ordering information

CWDM Mux/Demux Module

GWM	-	XX	X	X	XX	XX	XX	XX	-	X	X
		Port Configuration	WDM Type	Module Type	Initial Wavelength	Package Type	Fiber Type	Output Fiber Length		Input Connector	Output Connector
G=Gigalight		01=1*1	C=CWDM 1460~1620	M=Mux	27=1270/1271	PS=100X80X10	09=0.9mm loose tube	05=0.5m		0=None	0=None
W=WDM		02=1*2	Q=CWDM 1260~1620	D=Demux	…..	PM=120X80X18	20=2.0mm loose tube	10=1.0m		1=FC/UPC	1=FC/UPC
M=Module		03=1*3		1=Mux&1310nm port	61=1610/1611	PL=140X115X18	30=3.0mm loose tube	12=1.2m		2=FC/APC	2=FC/APC
		……		2=Demux&1310nm port		LX=LGX box metal		15=1.5m		3=SC/UPC	3=SC/UPC
		18=1*18		3=Mux&Upgrade		19=19”1U Rack-Mount		XX= Customized		4=SC/APC	4=SC/APC
				4=Demux& Upgrade		XX=Customized				5=LC/UPC	5=LC/UPC
				5=Mux&1310nm port& Upgrade						6=LC/APC	6=LC/APC
				6=Demux&1310nm port& Upgrade						XX= Customized	XX= Customized
				7=Mux& 1310nm port& Monitor							
				8=Demux& 1310nm port& Monitor							

CWDM Optical Add/Drop Module

GADM	-	XX	X	XX	XX	XX	-	X	X	X
		Channel Number	Initial Wavelength	Package Type	Fiber Type	Output Fiber Length		Input Connector	Add/Drop Port Connector	Express Port Connector
G=Gigalight		1=1CH	F1=1310±40	PS=100X80X10	09=0.9mm	05=0.5m		0=None	0=None	0=None

					loose tube					
A/D= Optical Add/Drop		2=2CH	27=1270	PM=120X80X18	20=2.0mm loose tube	10=1.0m		1=FC/UPC	1=FC/UPC	1=FC/UPC
M=Module		4=4CH	47=1470	PL=140X115X18	30=3.0mm loose tube	12=1.2m		2=FC/APC	2=FC/APC	2=FC/APC
		8=8CH	…	LX=LGX box metal		15=1.5m		3=SC/UPC	3=SC/UPC	3=SC/UPC
			61=1610	19=19”1U Rack-Mount		XX= Customized		4=SC/APC	4=SC/APC	4=SC/APC
				XX=Customized				5=LC/UPC	5=LC/UPC	5=LC/UPC
								6=LC/APC	6=LC/APC	6=LC/APC
								XX= Customized	XX= Customized	XX= Customized

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