



Opto-Link  
Corporation Ltd

# Optical Wavelength Division Multiplexer (WDM)

Wavelength: 980 ~ 1600nm

Wavelength Division Multiplexer (WDM) is used to combine light with different wavelength into a fiber or separate an optical signal into two fibers. We provide two types of WDM, one is manufactured using fusion process, the other one is based on thin film filter technology. Both WDM have low insertion loss, high isolation and wide wavelength range.



## Applications

- CATV System
- DWDM System
- Erbium-Doped Fiber Amplifier (EDFA)

## Features

- Low Insertion Loss
- High Return Loss
- High Directivity
- Environmentally Stable
- Optical Path Epoxy Free (for TFF-WDM)



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## SPECIFICATIONS

### Fused Single Mode Wavelength Division Multiplexer (FSM - WDM)

Parameter	985	989	135	135H	135S	145	149	156	Units	
Operating Wavelength	980 & 1550	980 & 1590	1310 & 1550			1480 & 1550	1480 & 1590	1550 & 1625	nm	
Bandwidth	± 15		± 15			± 5	± 6	± 5	nm	
Insertion Loss	Max	0.15	0.2	0.6	0.8	0.25			dB	
Isolation	Min	20	17	38	45	16			dB	
PDL	Max	0.1							dB	
Thermal Stability	Max	0.002							dB/°C	
Directivity	Min	60							dB	
Configuration	1x2 or 2x2									
Operating Temperature	-40 to +85			-20 to +70			-40 to +85			°C

\*Above specifications are for device without connectors.

### Thin Film Filter Wavelength Division Multiplexer (TFF - WDM)

Parameter	1310 / 1550 nm	1480 / 1550 nm	1510 / 1550 nm	980 / 1550 nm	1550 / 1625 nm	Units	
Passband	Wavelength	1270~1350 / 1530~1600	1450~1490 / 1530~1580	1500~1520 / 1530~1570	950~1010 / 1500~1600	1528~1563 / 1615~1635	nm
	Insertion Loss	Max	0.7			1.0	dB
	Isolation	Min	30			35	dB
Reflection Band	Wavelength	1530~1600 / 1270~1350	1530~1580 / 1450~1490	1530~1570 / 1500~1520	1500~1600 / 950~1010	1615~1635 / 1528~1563	nm
	Insertion Loss	Max	0.5			0.6	dB
	Isolation	Min	12			15	dB
Thermal Stability	Max	0.005			0.007	dB/°C	
Return Loss	Min	50			45	dB	
PDL	Max	0.10			0.10	dB	
Tensile Load	Max	5			5	N	
Handling Power	Max	300			300	mW	
Operating Temperature	-5 to +70			-10 to +65			°C
Storage Temperature	-40 to +85			-40 to +85			°C

\*Above specifications are for device without connectors.

## ORDERING CODES

Fused Single mode WDM (FSM-WDM) :

OLWDM - F - [ ] - [ ] - [ ] - [ ]

Configuration	Code
1 x 2	12
2 x 2	22

Type and Wavelength	Code
980/1550nm	985
980/1590nm	989
1310/1550nm (Isolation >20)	135
1310/1550nm (Isolation >38)	135H
1310/1550nm (Isolation >45)	135S
1480/1550nm	145
1480/1590nm	149
1550/1625nm	156

Fiber Type	Code
250µm bare fiber	25
900µm loose tube	90
3mm loose cable	3

Connector Type	Code
No Connector	NC
FC/PC	FP
SC/PC	SP
FC/APC	FA
SC/APC	SA
LC/PC	LP
MU/PC	MP
Others	XX

Thin Film Filter WDM (TFF-WDM) :

OLWDM - T - [ ] - [ ] - [ ] - [ ]

Configuration	Code
1 x 2	12
2 x 2	22

Pass/Reflective band	Code	Pass/Reflective band	Code
1310/1550nm	135	1550/1310nm	135R
1480/1550nm	145	1550/1480nm	145R
1510/1550nm	155	1550/1510nm	155R
980/1550nm	985	1550/980nm	985R
1550/1625nm	156	1625/1550nm	156R

Fiber Type	Code
250µm bare fiber	25
900µm loose tube	90
3mm loose cable	3

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