

Field-Deployable CWDM Splice Tray Mounted Passives

CWDM filter modules in various configurations can be custom-mounted into splice trays of your choice^{1,2}. Specifications are the same as inside-plant deployed filters, and are designed to be matches in terms of performance characteristics. Trays can be configured with 1 or 2 filter modules per tray. No connectors on pigtails unless otherwise specified³.



CN-W₁con₁O₁-W₂con₂O₂-Dxxxx²

Number of filter modules (N)	Filter Operation Module 1 (-W ₁)	Module 1 Channel Configuration (con ₁)	-Options Module 1 (O ₁)	Filter Operation Module 2 ⁴ (-W ₂)	Module 2 Channel Configuration ⁴ (con ₂)	-Options Module 2 ⁴ (O ₂)	Tray Mfg Designator (-D)
1	A=Mux/Demux	O47/O49/O51/O53/O55/O57/O59/O61= single ch. OADM	M=monitor	0=no second module	O47/O49/O51/O53/O55/O57/O59/O61= single ch. OADM	M=monitor	P=Preformed Line Products
	B=mux		E =express	A=Mux/Demux		E =express	
	C=Demux	F01=1470-1530nm (4 channel, 20nm spacing)	C=monitor & express	B=mux	F01=1470-1530nm (4 channel, 20nm spacing)	C=monitor & express	M=3M
2	D=Single Fiber M/D	F02=1550-1610nm (4 channel, 20nm spacing)	31=1310nm pass-band	C=Demux	F02=1550-1610nm (4 channel, 20nm spacing)	31=1310nm pass-band	T=Tyco
	E=OADM	F03=1470-1610nm (8 channel, 20nm spacing)	0=no option port	D=Single Fiber M/D	F03=1470-1610nm (8 channel, 20nm spacing)	0=no option port	L=Leviton
				E=OADM			

- Notes**
- Additional tray manufacturers can be supported. Contact sales representative for ordering code.
 - Tray-vendor-specific suffix for part number will be assigned upon request of tray model (designated in xxxx portion of part number).
 - Add -FF to end of part number for pigtail connector type (L=LC/UPC, LA=LC/APC, S=SC/UPC, SA=SC/APC)
 - If no second module is required, enter '0' for the 2nd filter module (e.g. C1-AF03M-0-T2001 would be a single module (1470-1610nm mux/demux with monitor port in a Tyco tray)

Field-Deployable CWDM Passives

CWDM filter modules in various configurations¹ can be deployed in both inside- and outside-plant areas of the network. Specifications are the same as inside-plant deployed filters. No connectors on pigtails unless otherwise specified.



CCWDM-FYYYO-LC-T

Filter Operation (-F)	Channel Configuration (YYY)	Options (O)	Pigtail (-L)	Jacket (C)	Connector Type (-T)
A=Mux/Demux	O47/O49/O51/O53/O55/O57/O59/O61=single ch. OADM	M=monitor			L=(LC/UPC)
B=mux	F01=1470-1530nm (4 channel, 20nm spacing)	E=express		x=no jacket (900um)	LA=(LC/APC)
C=Demux	F02=1550-1610nm (4 channel, 20nm spacing)	C=monitor & express	X=length(m)		S=(SC/UPC)
D=Single Fiber M/D	F03=1470-1610nm (8 channel, 20nm spacing)	31=1310nm pass-band		TBD ²	SA=(SC/APC)
E=OADM	F04=1490-1550nm (4 channel, 20nm spacing)	0=no option port			(none – leave empty)
F=Single Fiber OADM	Sxxyy=Single fiber OADM (xx is λ _{transmit} , yy is λ _{receive} , 47-61)				

- Notes**
- Additional configurations are available. Contact sales representative for ordering code.
 - 2mm jacketed pigtails in development
 - OADMs (dual and single fiber) are east/west (for add and drop functionality) by default. Express channels are carried along from East to West ports.

Rack-mountable CWDM Filters

Inside plant CWDM filter modules in either relay rack (1RU x ½ rack unit) mountable or LGX cassette packaging. Modules can be configured with express ports, monitor port or both, as well as various filter set configurations for pass-band use. Additional filter channel configurations and connector types can be specified. Speak with your sales representative if you have a specific need.



CWDM-FYYYO-BT

Module Operation (-F)	Channel Configuration (YYY)	Options (O)	Packaging (-B)	Connector Type (T) ¹
A=Mux/Demux	O47/O49/O51/O53/O55/O57/O59/O61 = (single channel OADM)	M=monitor	L = LGX ²	L=(LC/UPC)
B=mux	F01=1470-1530nm (4 channel, 20nm spacing)	E=express		LA=(LC/APC)
C=Demux	F02=1550-1610nm (4 channel, 20nm spacing)	C=monitor & express	R = Relay Rack	S=(SC/UPC)
D=Single Fiber M/D	F03=1470-1610nm (8 channel, 20nm spacing)	31=1310nm pass-band		
E=OADM	F04=1490-1550nm (4 channel, 20nm spacing)	0=no option port		
F=double mux/ double demux	F05=1470-1590nm (4 channel, 40nm spacing)		D=Dense Shelf Module	SA=(SC/APC)
	F06=1490-1610nm (4 channel, 40nm spacing)			
	F07=1470-1510nm, 1590-1610nm (5 ch. + 1550nm pass-band)			
	F08=1430-1610nm (10 channel, 20nm spacing)			

Notes

1. Additional connector types can be supported. Contact sales representative for ordering code.
2. LGX module width is dependent on connector type and count (typically 1-3 units wide)

Champion's CWDM passives are protocol independent optical add/drop multiplexers that enable capacity growth on a single fiber run or strand.

LGX, Relay Rack, field deployable, and splice-tray mounting is available.

Highlights

- Direct replacement for OEM passive optics
- Standard (ITU-T 694.2) wavelengths
- Very low optical insertion loss
- Terminates 1, 4, 6, or 8 wavelengths
- Color coded for easy fiber installation

Applications

- Direct links, Point-to-Point, Metro Rings
- Multiple Gigabit Ethernet Links
- Single fiber network connections
- Hybrid CWDM and DWDM networks

Typical CWDM Filter Configurations

Parameter			Units	Single channel OADM E/W) with monitor	4 channel mux or demux with or without express	4 channel mux/demux with or without express and monitor	single fiber mux/demux 1470-1610nm	6 channel mux/demux 1470-1510 1550 pass-band 1590-1610nm	8 channel mux or demux with or without express	8 channel mux/demux without or without monitor
Pass-band width	nm	min		$\lambda_{ITU} \pm 6.0$	$\lambda_{ITU} \pm 6.5$	$\lambda_{ITU} \pm 6.0$	$\lambda_{ITU} \pm 6.0$	$\lambda_{ITU} \pm 6.5$	$\lambda_{ITU} \pm 6.5$	$\lambda_{ITU} \pm 6.0$
		typ			$\lambda_{ITU} \pm 7.5$				$\lambda_{ITU} \pm 7.5$	
Add/Drop Channel Insertion Loss	dB	typ			1.0				1.0	
		max		1.5	1.5	1.8	3.0	2.5	1.5	2.2
Express Channel Insertion Loss	dB	max		1.7	1.5	2.1	na	na	1	na
Adjacent Channel Isolation	dB	min			30	30	30	30	30	30
		typ							40	
Non-adjacent Channel Isolation	dB	min			45	45	45		45	45
		typ							50	
Return Loss	dB	min		45	48	45	45	45	45	45
Directivity	dB	min		50	55	50	50	50	55	50
PDL	dB	max		0.2	0.2	0.2	0.2	0.2	0.2	0.3
PMD	ps	max		0.2	0.2	0.2	0.2	0.2	0.2	0.2

The specifications above are for TYPICAL CWDM filter configurations.

Other filter configurations are available, and these filters are available for both inside (rack mounted) or outside (field deployable, or splice tray mounted) packaging. Please refer to the ordering information on the first two (2) pages of this document.