

CWDM Mux Demux | Single Fiber

Description

The CWDM Mux Demux single fiber bidirectional solution supports CWDM channels in both directions over a single simplex singlemode fiber. The principle difference between single fiber and dual fiber CWDM is the single fiber requires different wavelengths transmitted in either direction: A 4 channel CWDM single fiber system, for example, would require 8 different wavelength channels - The East (Mux/Tx) to West (Demux/Rx) direction would utilize 1470/1510/1550/1590 wavelengths; The West (Mux/Tx) to East (Demux/Rx) direction would utilize 1490/1530/1570/1610 wavelengths.

Applications

-) Access / Metro CWDM networks
-) Enterprise networks

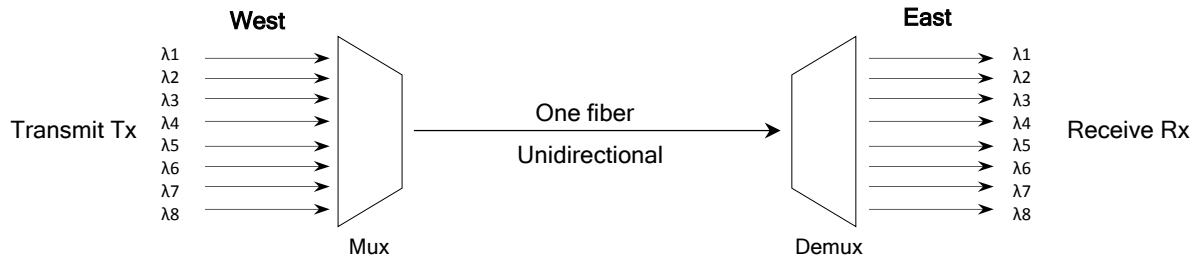
Features

-) High channel isolation
-) Wide pass band
-) Excellent environmental stability & reliability
-) Premium grade components & connectivity
-) Telcordia GR-1221 qualified
-) RoHS compliant

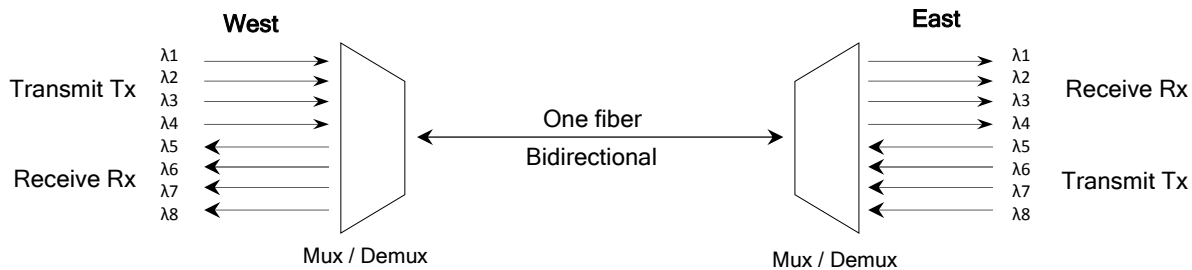


Mux | Demux single fiber configurations

1. Unidirectional Mux | Demux over one fiber:



2. Bidirectional Mux | Demux over one fiber:



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Specifications

Parameters		Value				
Channel number		2	4	8	16	18
Central wavelength nm		ITU-T Grid				
Bandwidth (@0.5dB Passband) nm		≥ 14				
Channel passband nm		ITU±6.5				
Ripple dB		≤ 0.3				
Insertion loss dB	Typical	1.2	1.6	2.2	3.2	3.8
	Max.	1.4	1.8	2.8	5.0	5.6
PDL dB		≤ 0.10	≤ 0.15	≤ 0.20	≤ 0.25	≤ 0.30
Adj. channel isolation dB		≥ 30				
Non-adj. channel isolation dB		≥ 45				
Return loss dB		≥ 45				
Directivity dB		≥ 50				
Operating temperature °C		-5 to +70				
Storage temperature °C		-40 to +85				
Fiber type		Singlemode Bend insensitive G657A				

Note: Above values do not include connectors

CWDM reference table - ITU G.694.2

Nominal central wavelengths for 20nm spacing

1270	1450
1290	1470
1310	1490
1330	1510
1350	1530
1370	1550
1390	1570
1410	1590
1430	1610

Housing type

CWDMs available in the following standard housing types and in high-density options

LGX® module

Cassette

Rack-mount 19/23"

Note:

CWDM housing size/dimensions dependant on the number of channels and packaging in either single mux, single demux, or combination mux/demux. CWDM housing type and size determined at time of inquiry.

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Ordering information

M W - C 2 0 - 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9

1. Number of channels:		2. Starting wavelength (nm):			3. Application type:	
2		27	1270	45	1450	M Mux only (unidirectional)
4		29	1290	47	1470	D Demux only (unidirectional)
8		31	1310	49	1490	MD1 Mux/Demux (bidirectional via one fiber)
16		33	1330	51	1510	
18		35	1350	53	1530	
Note:		37	1370	55	1550	
Available in other channels		39	1390	57	1570	
		41	1410	59	1590	
		43	1430	61	1610	

4. Housing type:		5. Adapter/connector type:		6. Fiber length Input / output (m):	
C	Cassette	AFC	FC/APC	0.5 ~ 5	
M	LGX® module	FCU	FC/UPC	Note: For specifying fiber cable leads on housings with connectors or pigtails;	
R	Rack-mount	ALC	LC/APC	<u>Leave Blank</u> if not specifying fiber cable leads	
		LCU	LC/UPC		
		ASC	SC/APC		
		SCU	SC/UPC		
		PL	Pigtail		

7. Fiber cable type options:		8. Additional wideband port:		9. Upgrade/Express Port:	
9um	900um loose-tube cable	31	1310±40nm wideband	U Upgrade/Express	
2mm	2.0mm diameter	55	1550±40nm wideband	Note: <u>Leave Blank</u> if not specifying Additional port	
3mm	3.0mm diameter	Note: <u>Leave Blank</u> if not specifying Additional port			
Note: For specifying fiber cable leads on housings with connectors or pigtails; <u>Leave Blank</u> if not specifying fiber cable leads					