

Four and eight channel mux/demux

An essential part of complete CFO fibre optic platform are the COM series accessories. In this range the COM is a common nominator for the passive optical units within CFO OP-X CWDM platform.



The four and eight channel multiplexer/demultiplexer products have been designed to provide a cost-effective alternative to any standards based CWDM system requiring passive optical multiplexing.

All COM series CWDM products do comply to ITU G.694.2 specified channel grid. All optical connections are equipped with high performance SC/APC connectors.

An innovating feature is an extended bybass channel operation. With 4-ch units the other part of CWDM spectrum can by-pass the unit providing a possibility to use this unit also for 4-ch add/drop topologies.

A parallel operation of a legacy system and a CWDM system is enabled by using a dedicated tap for 1310 nm bybassing.

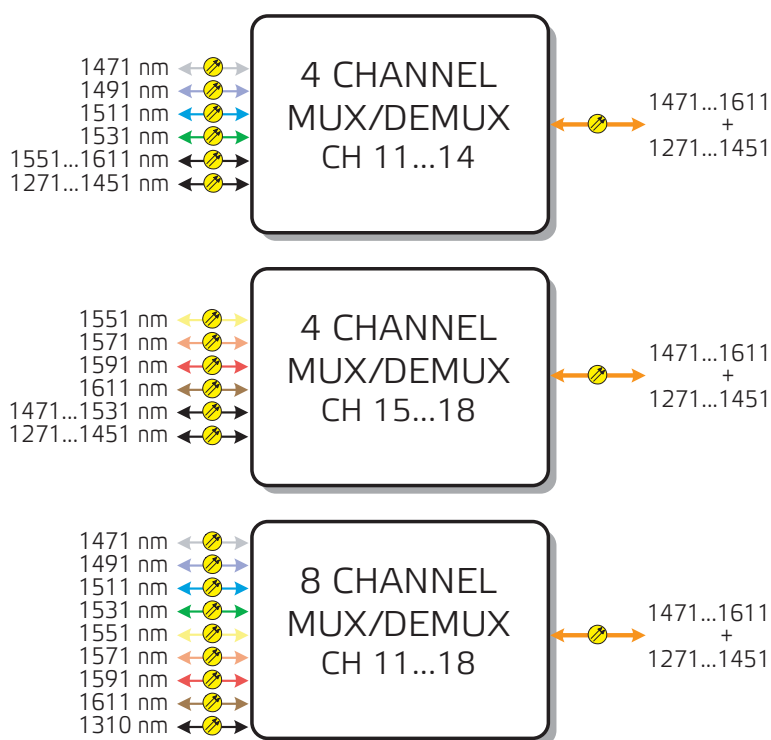
The unit is fully compatible with CFO system and it can be installed in a standard CSR installation frame or alternatively stand-alone CMA wall mount adapter.

As with all CFO Platform products, the unit meets all international EMC and environmental requirements.

Features

- Complies to ITU G.694.2 CWDM grid
- Uniform and low insertion loss
- High performance
- By-pass capability for other CWDM channels plus legacy 1310 nm
- Same units for rack mount or stand-alone
- Mechanically compact and ruggedised
- Environmental conformance
- Compatible with all CFO installation systems

Block diagrams



Technical specifications *(Typical values unless otherwise stated)*

Optical			General		
Centre wavelength (ITU G.694.2)	1471 nm	ch11	Supply voltage	-	passive unit
	1491 nm	ch12	Current consumption	-	passive unit
	1511 nm	ch13	Dimensions (H x W x D)	3U ● 5HP ● 190 mm	4 channel
	1531 nm	ch14		3U ● 10HP ● 190 mm	8 channel
	1551 nm	ch15	Weight	0.3 kg	4 channel
	1571 nm	ch16		0.5 kg	8 channel
	1591 nm	ch17	Operating temperature	-40...+85 °C	
	1611 nm	ch18	Storage temperature	-40...+85 °C	
Channel spacing	20 nm		Humidity	0...95 %	non condensing
<u>Bypass channel range</u>					
4 channel (ch 11-14)	1271...1451 & 1551...1611 nm				
4 channel (ch 15-18)	1271...1451 & 1471...1531 nm				
8 channel	1271...1451 nm				
<u>Insertion loss, all ports</u>					
CWDM port -> Common port	1.2 dB (4 channel unit)	max (-5...+65 °C)			
	1.8 dB (4 channel unit)	max (-40...+85 °C)			
	1.5 dB (8 channel unit)	max (-5...+65 °C)			
	2.1 dB (8 channel unit)	max (-40...+85 °C)			
Bypass channel -> Common port	1.5 dB (CWDM)	max (-5...+65 °C)			
	2.1 dB (CWDM)	max (-40...+85 °C)			
	1.2 dB (1310)	max (-5...+65 °C)			
	1.8 dB (1310)	max (-40...+85 °C)			
Pass band ripple	0.5 dB				
CWDM channel bandwidth	±6.5 nm	@-0.5 dB			
Adjacent channel isolation	30 dB				
Non-adjacent channel isolation	40 dB				
Directivity	50 dB				
Return loss	45 dB				
Polarization dependent loss (PDL)	0.3 dB	max (-40...+85 °C)			
Polarization mode dispersion	0.2 ps	max			
Optical power	300 mW	max allowed			
Connectors	SC/APC 8° female				

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100_M14/DEM11X-v1_07/05/2012

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P4P_MUX/DEMUX-v1 07/05/2012