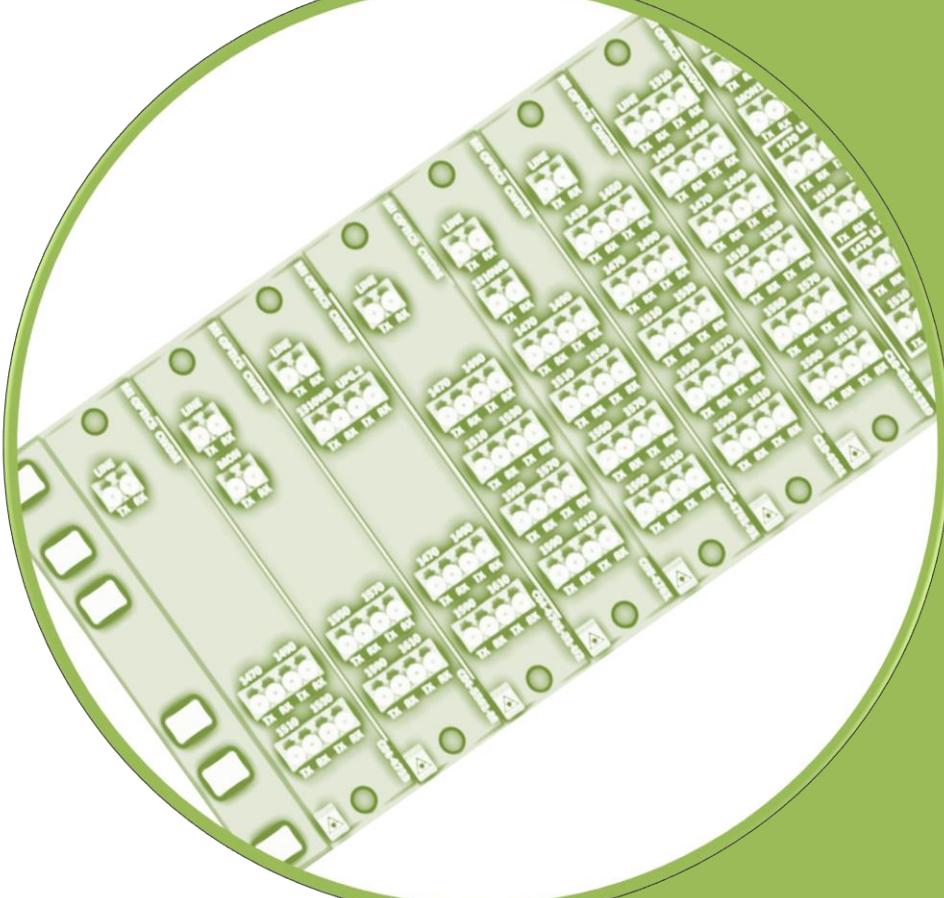




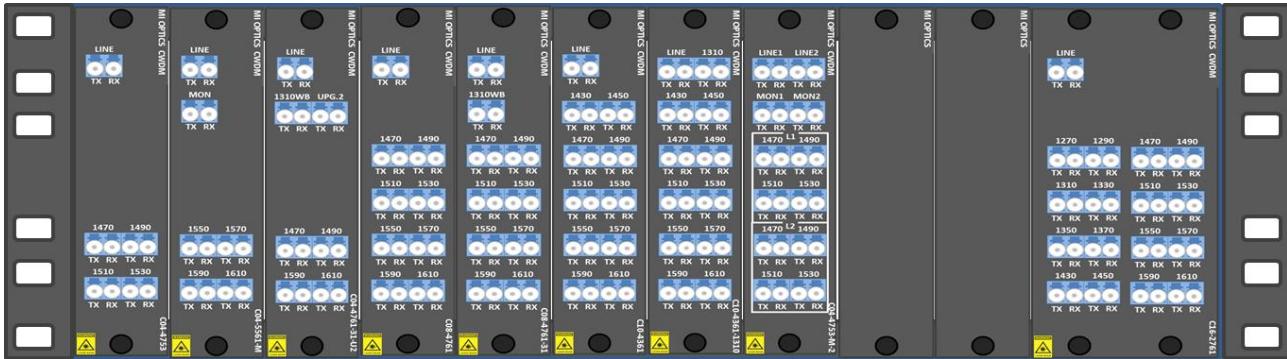
METRIC
INDUSTRIAL

CWDM-MPS

Modulært CWDM System



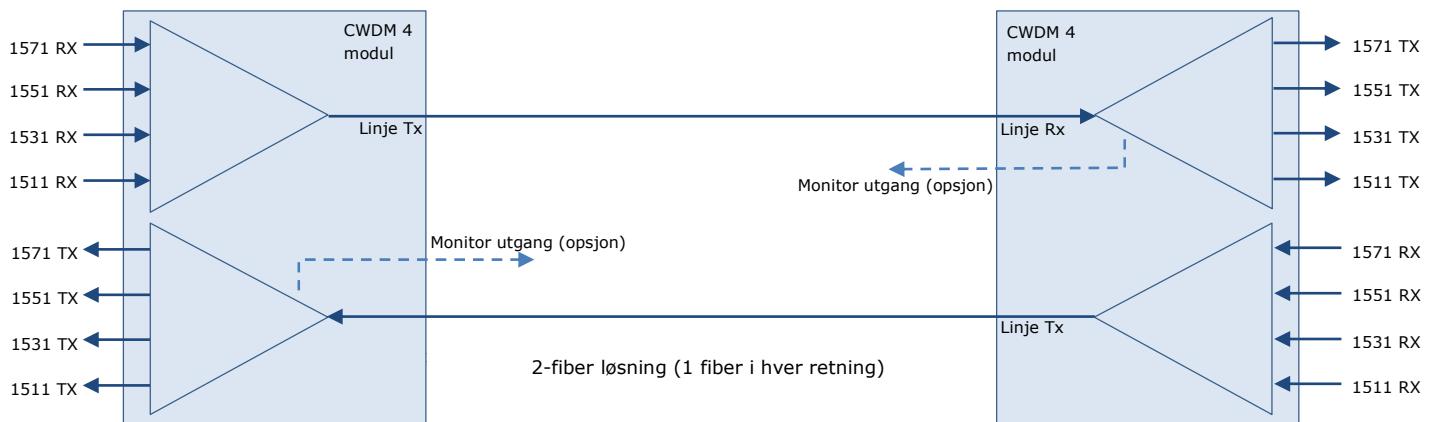
Passivt optisk system som på en god og rimelig måte øker kapasiteten på eksisterende nettverk ved at flere bølgelengder overføres på samme fiber. Systemet er uavhengig av protokoll og bit hastighet og kan leveres i et stort antall kombinasjoner fra 4 til 18 kanaler. Systemet leveres som innstikksmoduler tilpasset 1U og 3U modulært panel. Systemet er skalerbart som gjør at forskjellige moduler kan plasseres i vilkårlig rekkefølge i panelene. Dette gir god fleksibilitet og mulighet for meget høy pakketetthet. Modulene leveres komplett med komponenter for toveis kommunikasjon. To moduler utgjør ett komplett system for toveis kommunikasjon. (Multiplekser og Demultiplekser)



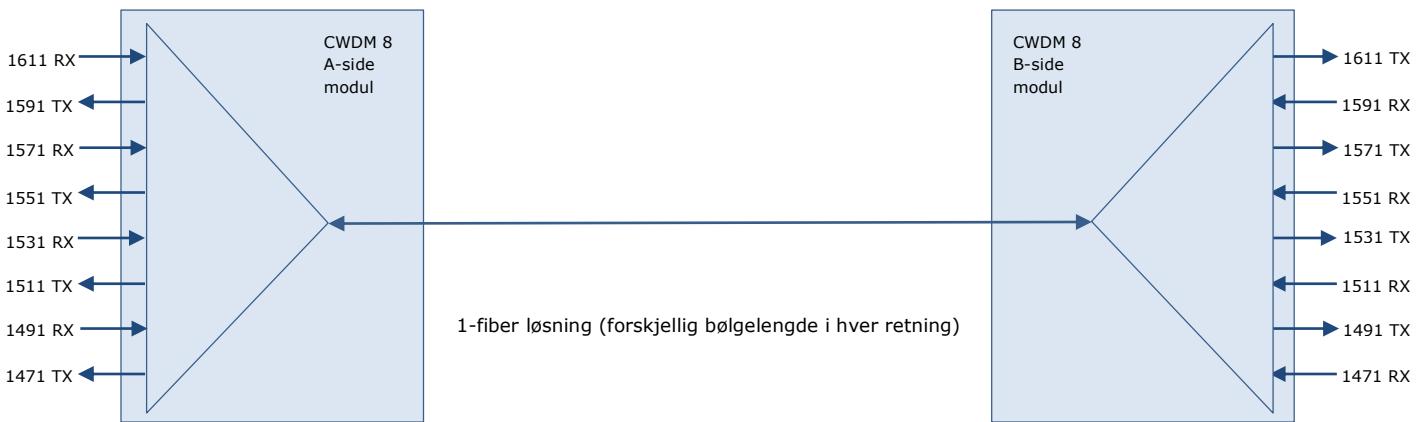
Egenskaper

- Passiv optisk multiplekser/demultiplekser
 - Øker kapasiteten på eksisterende nettverk ved at flere bølgelengder overføres på samme fiber
 - Uavhengig av protokoll og bit hastighet
 - Tilgjengelig i flere kombinasjoner fra 4 til 18-kanals systemer
 - Leveres som innstikksmoduler til 1U og 3U panel
 - Leveres med LC kontakter som standard, SC kontakter er tilgjengelig på forespørsel
 - Møter internasjonale standarder som Telcordia GR-1209-CORE-2001/GR-1221-CORE-1999
 - Kontakt kvalitet møter IEC 61300-3-35 og IEC 61755-1
 - Skalerbar og med høy fleksibilitet
 - Enkelt å installere, vedlikeholde og oppgradere
 - Ved hjelp av DWDM kan antallet kanaler utøkes til totalt 38
 - I kombinasjon med OADM kan enkeltbølgelengder plukkes ut og/eller legges til
 - Kan kunde spesifiseres

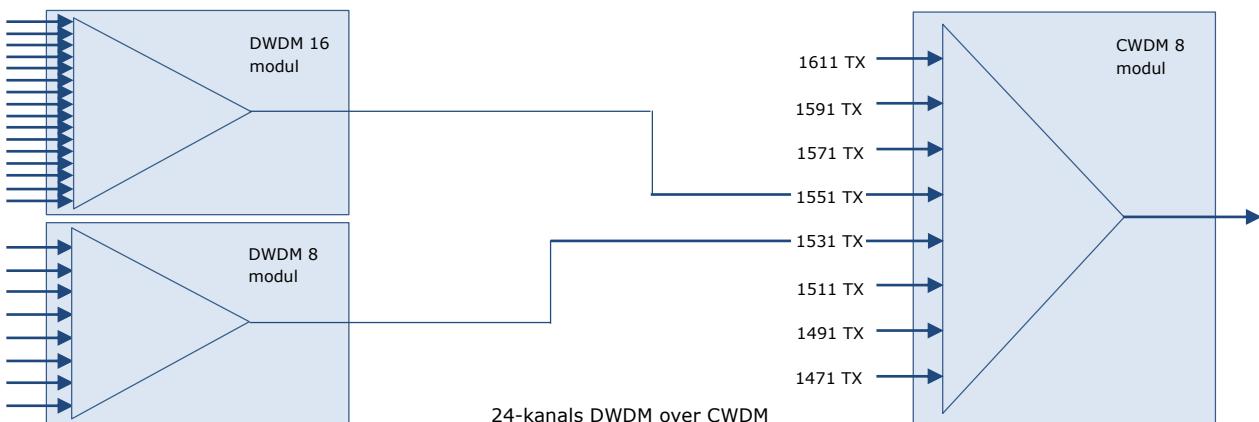
Den vanligste måten å benytte enhetene på er i en 2-fiber løsning hvor 1 fiber benyttes i hver retning. Modulene er da identiske i begge ender av overførings kabelen som vist i illustrasjonen under. Noen varianter av demultiplexeren kan leveres med monitorutgang (vist stiptet i figuren). Her avtappes 2 % av signalet på linjen slik at monitorering kan utføres uten å forstyrre trafikken.



Dersom kun én fiber er tilgjengelig kan man benytte bi-direksjonell kommunikasjon (forskjellige bølgelengder på Tx og Rx). Man benytter da for eksempel 8 bølgelengder for å overføre 4 bølgelengder i hver retning. Her vil ikke modulene være identiske slik at man må bestille en A-side og en B-side som vist i illustrasjonen under.

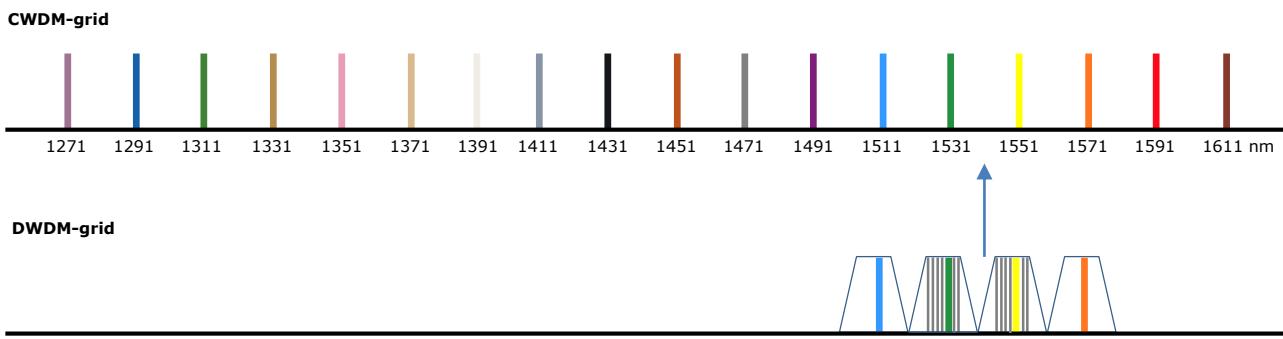


CWDM systemet kan oppgraderes ved å legge til DWDM kanaler. Vanligst er det å multipleksere/demultipleksere 8 DWDM kanaler på CWDM-kanal 1531 og 16 DWDM-kanaler på CWDM-kanal 1551 som vist i illustrasjonen under.



CWDM modulene kan også leveres med en WB 1310 nm kanal som multiplekseres inn sammen med CWDM kanalene. Dette benyttes dersom man ønsker å kombinere med en 1310 nm kanal.

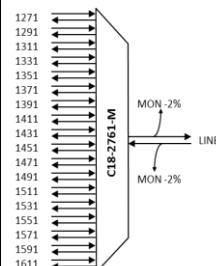
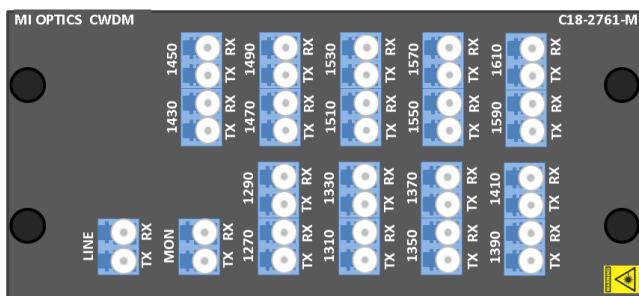
I figuren under vises tilgjengelige bølgelengder i et standard CWDM system og hvordan DWDM bølgelengdene passer inn i dette.



Spesifikasjoner			
Fiber Type	ITU-T G.657A1		
Innskuddstap over ett komplettert system MUX og DEMUX	Type	Maksimum (dB)	Typisk (dB)
	4-kanals	2,4	2,0
	4-kanals + monitor	2,6	2,2
	4-kanals +1310WB	2,4/1,6	2,0/1,2
	4-kanals +1310WB + monitor	3,0/1,9	2,6/1,5
	4-kanals +1310WB + upg.2	3,0/1,9/1,0	2,6/1,5/0,8
	4-kanals en-fiber	3,2	2,4
	4-kanals en-fiber + monitor	3,8	3,0
	8-kanals	3,6	3,0
	8-kanals nedre bånd	3,6	3,0
	8-kanals + monitor	4,0	3,6
	8-kanals +1310WB	3,6/2,8	3,0/2,2
	8-kanals +1310WB + monitor	4,1/3,1	3,5/2,5
	8-kanals en-fiber	5,6	4,4
	8-kanals en-fiber + monitor	6,2	5,0
	10-kanals	4,0	3,4
	10-kanals nedre bånd	4,0	3,4
	10-kanals + monitor	4,1	3,5
	10-kanals + 1310 +/-50 nm	4,0/1,2	3,5/0,8
	16-kanals	4,6	4,0
	16-kanals + monitor	5,2	4,6
	18-kanals	5,0	4,4
	18-kanals + monitor	5,6	5,0
Bølgelengde (i hht. ITU-T G.694.2)	4-kanals	1471, 1491, 1511, 1531 eller 1551, 1571, 1591, 1611 eller 1471, 1491, 1591, 1611 eller 1511, 1531, 1551, 1571 eller 1271, 1291, 1311, 1331 eller 1351, 1371, 1391, 1411 nm	
	8-kanals	1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 eller 1271, 1291, 1311, 1331, 1351, 1371, 1431, 1451 nm eller 1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411 nm	
	10-kanals	1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1431, 1451 eller 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm	
	16-kanals	1271, 1291, 1311, 1331, 1351, 1411, 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm	
	18-kanals	1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1431, 1451, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611 nm	

Direktivitet	>50 dB	
Tilbake reflektert signal (RL)	>45 dB	
Isolasjon	Inntilliggende kanaler	>30 dB
	Øvrige kanaler	>45 dB
Innskuddstap ved temperatur endringer	<0,005 dB/°C	
Bølgelengde variasjon over temperatur endringer	<0,002 nm/°C	
Polarisasjons avhengig tap	<0,1 dB	
Polarisasjon Mode Dispersjon	<0,1 ps	
Maks. effekt	500mW	
Temperaturområde	-40°C ~ +85°C	
Passbånd	CWDM kanalene	+/- 6,5 nm
	1310 nm	+/- 50 nm
	1310 nm WB	1260~1458 nm
	Upgrade 2	1504~1577 nm
Monitor port (der tilgjengelig)	-2% (17 dB under linjesignalet)	
Panel	3 moduls	44,45(1U) x 483 (19") x 70 mm
	12 moduls	133,35(3U) x 483(19") x 20 mm,
Vekt panel	3 moduls	0,65 kg
	12 moduls	0,85 kg
Materiale panel	Pulverlakkert aluminium, RAL 9004 (Signalsort)	
Modul	Enkel	29,5 x 133 x 20
	Dobbel	59,0 x 133 x 20
Vekt modul	Enkel	Fra 0,6 kg avhengig av bestykning
Materiale modul	Dobbel	Fra 1,3 kg avhengig av bestykning
	Pulverlakkert aluminium, RAL 9004 (Signalsort)	

C18-2761-M

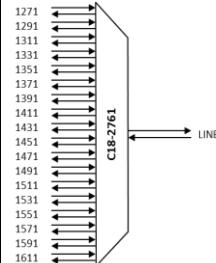
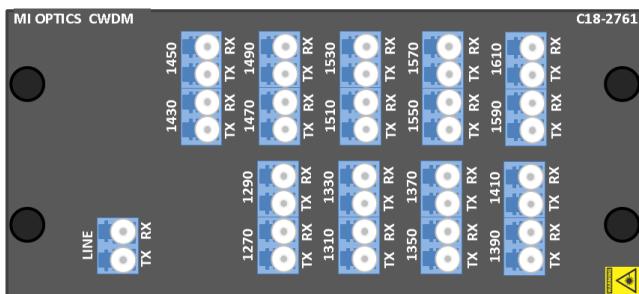


18 kanals CWDM Mux/Demux med monitor port

C27, C29, C31, C33, C35, C37, C39, C41, C43, C45, C47, C49, C51, C53, C55, C57, C59, C61, - 2% monitor

IL Link: Maks <5,6 dB / Typisk <5,0 dB

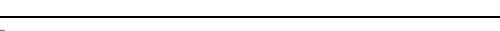
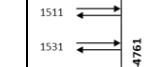
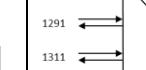
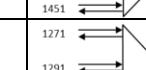
C18-2761



18 kanals CWDM Mux/Demux

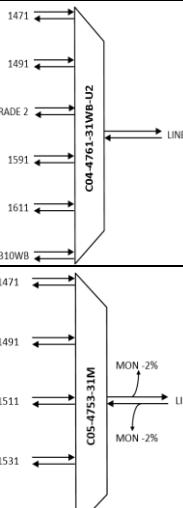
C27, C29, C31, C33, C35, C37, C39, C41, C43, C45, C47, C49, C51, C53, C55, C57, C59, C61

IL Link: Maks <5,0 dB / Typisk <4,4 dB

C08-4761-31-M			8 kanals CWDM Mux/Demux med 1310 nm Wide Band og monitor port C47, C49, C51, C53, C55, C57, C59, C61, 1310WB, -2% monitor IL Link: Maks <4,1/3,1 dB / Typisk <3,5/2,5 dB
C08-4761-31			8 kanals CWDM Mux/Demux med 1310 nm Wide Band port C47, C49, C51, C53, C55, C57, C59, C61, 1310WB IL Link: Maks <3,6/2,0 dB / Typisk <2,8/2,2 dB
C08-4761-M			8 kanals CWDM Mux/Demux med monitor port C47, C49, C51, C53, C55, C57, C59, C61, -2% monitor IL Link: Maks <4,0 dB / Typisk <3,6 dB
C08-4761			8 kanals CWDM Mux/Demux C47, C49, C51, C53, C55, C57, C59, C61, -2% monitor IL Link: Maks <3,6 dB / Typisk <3,0 dB
C08-2745-M			8 kanals CWDM Mux/Demux med monitor port C27, C29, C31, C33, C35, C37, C43, C45, -2% monitor IL Link: Maks <4,0 dB / Typisk <3,6 dB
C08-2745			8 kanals CWDM Mux/Demux C27, C29, C31, C33, C35, C37, C43, C45, -2% monitor IL Link: Maks <3,6 dB / Typisk <3,0 dB
C08-2741-M			8 kanals CWDM Mux/Demux med monitor port C27, C29, C31, C33, C35, C37, C39, C41, -2% monitor IL Link: Maks <4,0 dB / Typisk <3,6 dB

C08-2741	<p>MI OPTICS CWDM</p> <p>LINE TX RX TX RX TX RX 1270 1290 TX RX TX RX 1310 1330 TX RX TX RX 1350 1370 TX RX TX RX 1390 1410 TX RX TX RX</p> <p>C08-2741</p>	<p>8 kanals CWDM Mux/Demux</p> <p>C27, C29, C31, C33, C35, C37, C39, C41</p> <p>IL Link: Maks <3,6 dB / Typisk <3,0 dB</p>
C04-5561-31-M	<p>MI OPTICS CWDM</p> <p>LINE TX RX MON TX RX 1310WB TX RX 1550 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561-31M</p>	<p>4 kanals CWDM Mux/Demux med 1310 nm Wide Band og monitor port</p> <p>C55, C57, C59, C61, 1310WB, -2% monitor</p> <p>IL Link: Maks <3,0/1,9 dB / Typisk <2,6/1,5 dB</p>
C04-5561-31	<p>MI OPTICS CWDM</p> <p>LINE TX RX 1310WB TX RX 1550 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561-31</p>	<p>4 kanals CWDM Mux/Demux med 1310 nm Wide Band port</p> <p>C55, C57, C59, C61, 1310WB</p> <p>IL Link: Maks <2,4/1,6 dB / Typisk <2,0/1,2 dB</p>
C04-5561-M	<p>MI OPTICS CWDM</p> <p>LINE TX RX MON TX RX 1310WB TX RX 1550 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561-M</p>	<p>4 kanals CWDM Mux/Demux med monitor port</p> <p>C55, C57, C59, C61, -2% monitor</p> <p>IL Link: Maks <2,6 dB / Typisk <2,2 dB</p>
C04-5561	<p>MI OPTICS CWDM</p> <p>LINE TX RX 1550 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561</p>	<p>4 kanals CWDM Mux/Demux</p> <p>C55, C57, C59, C61</p> <p>IL Link: Maks <2,4 dB / Typisk <2,0 dB</p>
C04-5561-31-2	<p>MI OPTICS CWDM</p> <p>LINE1 TX RX TX RX 1310WB TX RX 1550 L1 1570 TX RX TX RX 1590 1610 TX RX TX RX 1550 L2 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561-31-2</p>	<p>2x 4 kanals CWDM Mux/Demux med 1310 nm Wide Band port</p> <p>2x C55, C57, C59, C61, 1310WB</p> <p>IL Link: Maks <3,0/1,9 dB / Typisk <2,6/1,5 dB</p>
C04-5561-M-2	<p>MI OPTICS CWDM</p> <p>LINE1 TX RX TX RX MON1 MON2 TX RX TX RX 1550 L1 1570 TX RX TX RX 1590 1610 TX RX TX RX 1550 L2 1570 TX RX TX RX 1590 1610 TX RX TX RX</p> <p>C04-5561-M-2</p>	<p>2x 4 kanals CWDM Mux/Demux med monitor port</p> <p>2x C55, C57, C59, C61, -2% monitor</p> <p>IL Link: Maks <2,6 dB / Typisk <2,2 dB</p>

C04-4761-31-UPG

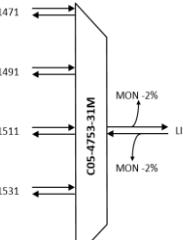


4 kanals CWDM Mux/Demux med 1310WB og Upgrade 2 port

C47, C49, C59, C61, 1310WB, Upgrade 2

IL Link: Maks <3,0/1,9/1,0 dB / Typisk <2,6/1,5/0,8 dB

C04-4753-31-M

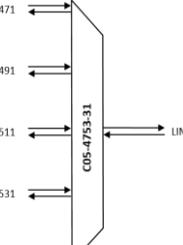


4 kanals CWDM Mux/Demux med 1310WB og monitor port

C47, C49, C51, C53, 1310WB, -2% monitor

IL Link: Maks <3,0/1,9 dB / Typisk <2,6/1,5 dB

C04-4753-31

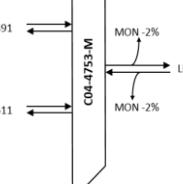


4 kanals CWDM Mux/Demux med 1310WB port

C47, C49, C51, C53, 1310WB

IL Link: Maks <2,4/1,6 dB / Typisk <2,0/1,2 dB

C04-4753-M

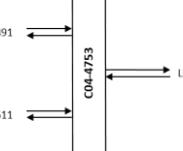


4 kanals CWDM Mux/Demux med monitor port

C47, C49, C51, C53, -2% monitor

IL Link: Maks <2,6 dB / Typisk <2,2 dB

C04-4753

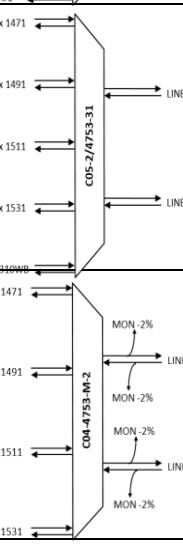
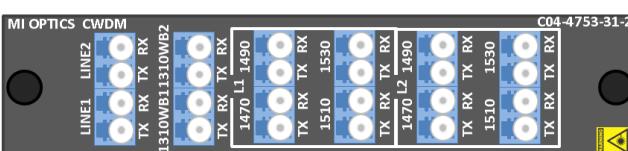


4 kanal Mux/Demux

C47, C49, C51, C53

IL Link: Maks <2,4 dB / Typisk <2,0 dB

C04-4753-31-2

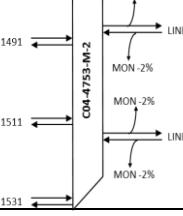
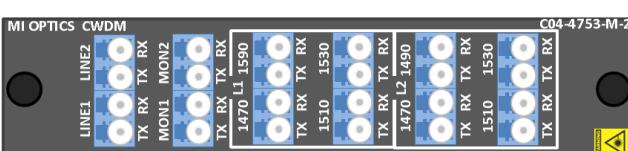


2x 4 kanals CWDM Mux/Demux med 1310 nm Wide Band port

2x C47, C49, C51, C53, 1310WB

IL Link: Maks <2,4/1,6 dB / Typisk <2,0/1,2 dB

C04-4753-M-2



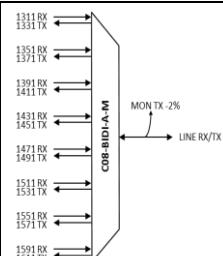
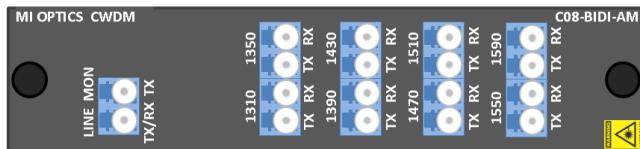
2x 4 kanals CWDM Mux/Demux med monitor port

2x C47, C49, C51, C53, -2% monitor

IL Link: Maks <2,6 dB / Typisk <2,2 dB

C04-3541-M	<p>MI OPTICS CWDM</p> <p>LINE TX RX MON TX RX</p> <p>1350 1370 TX RX TX RX 1390 1410 TX RX TX RX</p> <p>C04-3541-M</p>	<p>1351 1371 1391 1411</p> <p>MON -2% MON -2%</p> <p>C04-3541-M</p>	4 kanals CWDM Mux/Demux med monitor port C35, C37, C39, C41, -2% monitor IL Link: Maks <2,6 dB / Typisk <2,2 dB
C04-3541	<p>MI OPTICS CWDM</p> <p>LINE TX RX</p> <p>1350 1370 TX RX TX RX 1390 1410 TX RX TX RX</p> <p>C04-3541</p>	<p>1351 1371 1391 1411</p> <p>C04-3541</p>	4 kanals CWDM Mux/Demux C35, C37, C43, C41 IL Link: Maks <2,4 dB / Typisk <2,0 dB
C04-3541-2	<p>MI OPTICS CWDM</p> <p>LINE1 TX RX TX RX LINE2 TX RX TX RX</p> <p>1350 L1 1370 TX RX TX RX 1430 1450 TX RX TX RX 1350 L2 1370 TX RX TX RX 1430 1450 TX RX TX RX</p> <p>C04-3541-2</p>	<p>2x1351 2x1371 2x1391 2x1411</p> <p>C04-3541-2</p>	2x 4 kanals CWDM Mux/Demux 2x C35, C37, C43, C41, -2% monitor IL Link: Maks <2,4 dB / Typisk <2,0 dB
C04-3541-M-2	<p>MI OPTICS CWDM</p> <p>LINE1 TX RX TX RX LINE2 TX RX TX RX</p> <p>MON1 TX RX TX RX MON2 TX RX TX RX</p> <p>1350 L1 1370 TX RX TX RX 1430 1450 TX RX TX RX 1350 L2 1370 TX RX TX RX 1430 1450 TX RX TX RX</p> <p>C04-3545-M-2</p>	<p>2x1351 2x1371 2x1391 2x1411</p> <p>C04-3541-M-2</p>	2x 4 kanals CWDM Mux/Demux med monitor port 2x C35, C37, C43, C41, -2% monitor IL Link: Maks <2,6 dB / Typisk <2,2 dB
C04-2733-M	<p>MI OPTICS CWDM</p> <p>LINE TX RX MON TX RX</p> <p>1270 1290 TX RX TX RX 1310 1330 TX RX TX RX</p> <p>C04-2733-M</p>	<p>1271 1291 1311 1331</p> <p>MON -2% MON -2%</p> <p>C04-2733-M</p>	4 kanals CWDM Mux/Demux med monitor port C27, C29, C31, C33, -2% monitor IL Link: Maks <2,6 dB / Typisk <2,2 dB
C04-2733	<p>MI OPTICS CWDM</p> <p>LINE TX RX</p> <p>1270 1290 TX RX TX RX 1310 1330 TX RX TX RX</p> <p>C04-2733</p>	<p>1271 1291 1311 1331</p> <p>C04-2733</p>	4 kanals CWDM Mux/Demux C27, C29, C31, C33 IL Link: Maks <2,4 dB / Typisk <2,0 dB
C04-2733-2	<p>MI OPTICS CWDM</p> <p>LINE1 TX RX TX RX LINE2 TX RX TX RX</p> <p>1270 L1 1290 TX RX TX RX 1310 1330 TX RX TX RX 1270 L2 1290 TX RX TX RX 1310 1330 TX RX TX RX</p> <p>C04-2733-2</p>	<p>2x1271 2x1291 2x1311 2x1331</p> <p>C04-2733-2</p>	2x 4 kanals CWDM Mux/Demux 2x C27, C28, C31, C33 IL Link: Maks <2,4 dB / Typisk <2,0 dB

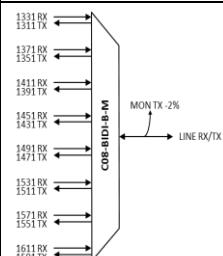
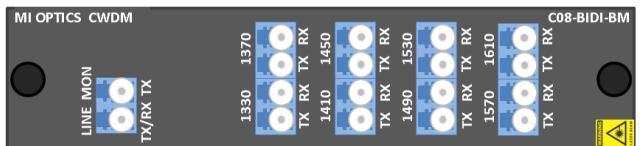
C04-2733-M-2	<p>MI OPTICS CWDM LINE1 LINE2 TX RX TX RX MON1 MON2 TX RX TX RX TX RX TX RX C04-2733-M-2</p>	<p>2x 1271 ← 2x 1291 ← 2x 1311 ← 2x 1331 ← CO4-2733-M-2 MON -2% MON -2% MON -2% MON -2% 2x 1270 L1 1290 1310 1330 1310 1330 1310 1330 1310 1330</p>	2x 4 kanals CWDM Mux/Demux med monitor port 2x C27, C28, C31, C33, -2% monitor IL Link: Maks <2,6 dB / Typisk <2,2 dB
C04-BIDI-A	<p>MI OPTICS CWDM LINE TX/RX TX RX C04-BIDI-A</p>	<p>1471 RX 1491 TX 1511 RX 1531 TX 1551 RX 1571 TX 1591 RX 1611 TX CO4-BIDI-A LINE RX/TX</p>	4 kanals CWDM BiDi (en-fiber) Mux/Demux, A-side C47, C51, C55, C59 IL Link: Maks <3,2 dB / Typisk <2,4 dB
C04-BIDI-B	<p>MI OPTICS CWDM LINE TX/RX TX RX C04-BIDI-B</p>	<p>1491 RX 1511 TX 1531 RX 1551 TX 1551 RX 1571 TX 1571 RX 1591 TX CO4-BIDI-B LINE RX/TX</p>	4 kanals CWDM BiDi (en-fiber) Mux/Demux, B-side C49, C53, C57, C61 IL Link: Maks <3,2 dB / Typisk <2,4 dB
C04-BIDI-AM	<p>MI OPTICS CWDM LINE MOD TX/RX TX RX C04-BIDI-AM</p>	<p>1471 RX 1491 TX 1511 RX 1531 TX 1551 RX 1571 TX 1591 RX 1611 TX CO4-BIDI-AM MON TX -2% LINE RX/TX</p>	4 kanals CWDM BiDi (en-fiber) Mux/Demux med monitor port, A-side C47, C51, C55, C59 IL Link: Maks <3,8 dB / Typisk <3,0 dB
C04-BIDI-BM	<p>MI OPTICS CWDM LINE MOD TX/RX TX RX C04-BIDI-BM</p>	<p>1491 RX 1511 TX 1531 RX 1551 TX 1551 RX 1571 TX 1571 RX 1591 TX CO4-BIDI-BM MON TX -2% LINE RX/TX</p>	4 kanals CWDM BiDi (en-fiber) Mux/Demux med monitor port, B-side C49, C53, C57, C61 IL Link: Maks <3,8 dB / Typisk <3,0 dB
C08-BIDI-A	<p>MI OPTICS CWDM LINE TX/RX TX RX TX RX TX RX TX RX C08-BIDI-A</p>	<p>1311 RX 1331 TX 1351 RX 1371 TX 1391 RX 1411 TX 1431 RX 1451 TX 1471 RX 1491 TX 1511 RX 1531 TX 1551 RX 1571 TX 1591 RX 1611 TX CO8-BIDI-A LINE RX/TX</p>	8 kanals CWDM BiDi (en-fiber) Mux/Demux, A-side C31, C35, C39, C43, C47, C51, C55, C59 IL Link: Maks <5,6 dB / Typisk <4,4 dB
C08-BIDI-B	<p>MI OPTICS CWDM LINE TX/RX TX RX TX RX TX RX TX RX C08-BIDI-B</p>	<p>1331 RX 1351 TX 1371 RX 1391 TX 1411 RX 1431 TX 1451 RX 1471 TX 1491 RX 1511 TX 1531 RX 1551 TX 1571 RX 1591 TX 1611 RX 1591 TX CO8-BIDI-B LINE RX/TX</p>	8 kanals CWDM BiDi (en-fiber) Mux/Demux, B-side C33, C37, C41, C45, C49, C53, C57, C61 IL Link: Maks <5,6 dB / Typisk <4,4 dB

C08-BIDI-AM

**8 kanals CWDM BiDi (en-fiber)
Mux/Demux med monitor port, A-side**

C31, C35, C39, C43, C47, C51, C55, C59,
-2% monitor

IL Link: Maks <6,2 dB / Typisk <5,0 dB

C08-BIDI-BM

**8 kanals CWDM BiDi (en-fiber)
Mux/Demux med monitor port, B-side**

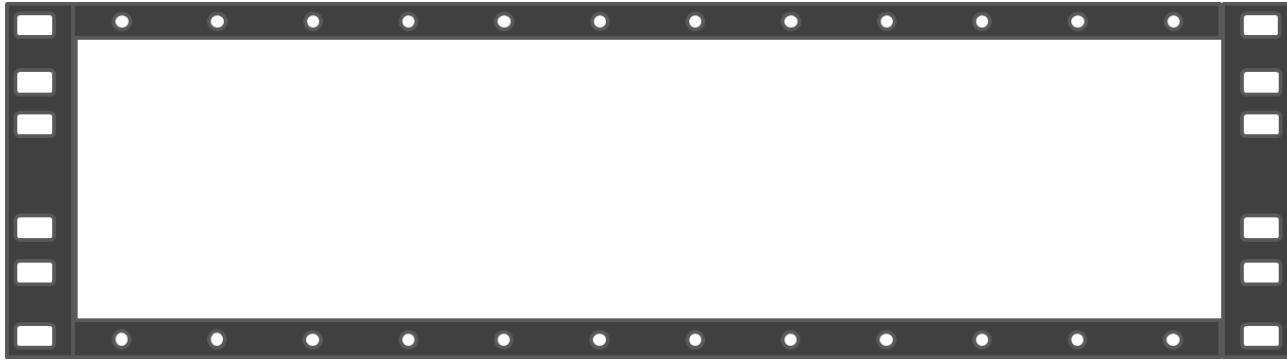
C33, C37, C41, C45, C49, C53, C57, C61,
-2% monitor

MPS-01-1200-PLT

Blindplate

MPS-10-0300-MOD (1U panel)

MPS-30-1200-MOD (3U panel)



Bestillingsinformasjon

4 kanals CWDM	
C04-2733	CWDM modul 4 kanals CWDM, SM, 1271/29/31/33
C04-3541	CWDM modul 4 kanals CWDM, SM, 1351/37/39/41
C04-3545	CWDM modul 4 kanals CWDM, SM, 1335/37/43/45
C04-4753	CWDM modul 4 kanals CWDM, SM, 1471/49/51/53
C04-4761	CWDM modul 4 kanals CWDM, SM, 1471/49/59/61
C04-5157	CWDM modul 4 kanals CWDM, SM, 1511/53/55/57
C04-5561	CWDM modul 4 kanals CWDM, SM, 1555/57/59/61
C04-2733-M	CWDM modul 4 kanals CWDM, SM, 1271/29/31/33 + monitor port
C04-3541-M	CWDM modul 4 kanals CWDM, SM, 1351/37/39/41 + monitor port
C04-3545-M	CWDM modul 4 kanals CWDM, SM, 1335/37/43/45 + monitor port
C04-4753-M	CWDM modul 4 kanals CWDM, SM, 1471/49/51/53 + monitor port
C04-4761-M	CWDM modul 4 kanals CWDM, SM, 1471/49/59/61 + monitor port
C04-5157-M	CWDM modul 4 kanals CWDM, SM, 1511/53/55/57 + monitor port
C04-5561-M	CWDM modul 4 kanals CWDM, SM, 1555/57/59/61 + monitor port
4+1 kanals CWDM	
C04-4753-31	CWDM modul 4+1 kanals CWDM, SM, 1471/49/51/53 + 1310WB
C04-4761-31	CWDM modul 4+1 kanals CWDM, SM, 1471/49/59/61 + 1310WB
C04-4761-31-UPG	CWDM modul 4+1 kanals CWDM, SM, 1471/49/59/61 + 1310WB + Upgrade port
C04-5157-31	CWDM modul 4+1 kanals CWDM, SM, 1511/53/55/57 + 1310WB
C04-5561-31	CWDM modul 4+1 kanals CWDM, SM, 1555/57/59/61 + 1310WB
C04-4753-31-M	CWDM modul 4+1 kanals CWDM, SM, 1471/49/51/53 + 1310WB + monitor port
C04-4761-31-M	CWDM modul 4+1 kanals CWDM, SM, 1471/49/59/61 + 1310WB + monitor port
C04-5157-31-M	CWDM modul 4+1 kanals CWDM, SM, 1511/53/55/57 + 1310WB + monitor port
C04-5561-31-M	CWDM modul 4+1 kanals CWDM, SM, 1555/57/59/61 + 1310WB + monitor port
2x 4+1 kanals CWDM	
C04-2733-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1271/29/31/33
C04-3541-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1351/37/39/41
C04-2733-M-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1271/29/31/33 + monitor port
C04-3541-M-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1351/37/39/41 + monitor port
C04-4753-M-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1471/49/51/53 + monitor port
C04-5561-M-2	CWDM modul 2x 4 kanals CWDM, SM, 2x 1555/57/59/61 + monitor port
C04-4753-31-2	CWDM modul 2x 4+1 kanals CWDM, SM, 2x 1471/49/51/53 + 1310WB
C04-4761-31-2	CWDM modul 2x 4+1 kanals CWDM, SM, 2x 1471/49/59/61 + 1310WB

C04-5157-31-2	CWDM modul 2x 4+1 kanals CWDM, SM, 2x 1511/53/55/57 + 1310WB
C04-5561-31-2	CWDM modul 2x 4+1 kanals CWDM, SM, 2x 1555/57/59/61 + 1310WB
8 kanals CWDM	
C08-2741	CWDM modul 8 kanals CWDM, SM, 1271/29/31/33/35/37/39/41
C08-2745	CWDM modul 8 kanals CWDM, SM, 1271/29/31/33/35/37/43/45
C08-4761	CWDM modul 8 kanals CWDM, SM, 1471/49/51/53/55/57/57/61
C08-2741-M	CWDM modul 8 kanals CWDM, SM, 1271/29/31/33/35/37/39/41 + monitor port
C08-2745-M	CWDM modul 8 kanals CWDM, SM, 1271/29/31/33/35/37/43/45 + monitor port
C08-4761-M	CWDM modul 8 kanals CWDM, SM, 1471/49/51/53/55/57/57/61 + monitor port
8+1 kanals CWDM	
C08-4761-31	CWDM modul 8+1 kanals CWDM, SM, 1471/51/53/55/57/59/61 + 1310WB
C08-4761-31-M	CWDM modul 8+1 kanals CWDM, SM, 1471/51/53/55/57/59/61 + 1310WB + monitor port
10 kanals CWDM	
C10-2745	CWDM modul 10 kanals CWDM, SM, 1271/29/31/33/35/37/39/41/43/45
C10-4361	CWDM modul 10 kanals CWDM, SM, 1243/45/47/49/51/53/55/57/59/61
C10-2745-M	CWDM modul 10 kanals CWDM, SM, 1271/29/31/33/35/37/39/41/43/45 + monitor port
C10-4361-M	CWDM modul 10 kanals CWDM, SM, 1243/45/47/49/51/53/55/57/59/61 + monitor port
C10-4361-1310	CWDM modul 10 kanals CWDM, SM, 1243/45/47/49/51/53/55/57/59/61 + 1310 +/- 50 nm
16 kanals CWDM	
C16-2761	CWDM modul 16 kanals CWDM, SM, 1271~1371 og 1431~1611
C16-2761-M	CWDM modul 16 kanals CWDM, SM, 1271~1371 og 1431~1611 + monitor port
18 kanals CWDM	
C18-2761	CWDM modul 18 kanals CWDM, SM, 1271~1611
C18-2761-M	CWDM modul 18 kanals CWDM, SM, 1271~1611 + monitor port
1-fiber 4 kanals CWDM	
C04-BIDI-A	CWDM modul 4 kanals CWDM, SM, 1-fiber, A side, 1471~1591
C04-BIDI-B	CWDM modul 4 kanals CWDM, SM, 1-fiber, B side, 1491~1611
C04-BIDI-AM	CWDM modul 4 kanals CWDM, SM, 1-fiber, A side, 1471~1591 + monitor port
C04-BIDI-BM	CWDM modul 4 kanals CWDM, SM, 1-fiber, B side, 1491~1611 + monitor port
1-fiber 8 kanals CWDM	
C08-BIDI-A	CWDM modul 8 kanals CWDM, SM, 1-fiber, A side, 1271~1591
C08-BIDI-B	CWDM modul 8 kanals CWDM, SM, 1-fiber, B side, 1291~1611
C08-BIDI-AM	CWDM modul 8 kanals CWDM, SM, 1-fiber, A side, 1271~1591 + monitor port
C08-BIDI-BM	CWDM modul 8 kanals CWDM, SM, 1-fiber, B side, 1291~1611 + monitor port
Panel	
MPS-10-0300-MOD	1U 19" panel for inntil tre moduler. Leveres med 2 stk. blindplater
MPS-30-1200-MOD	3U 19" panel for inntil tolv moduler. Leveres med 2 stk. blindplater
MPS-01-1200-PLT	Blindplate

Andre varianter tilgjengelig på forespørsel