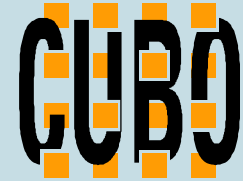




Good Things Come in Small Cubes

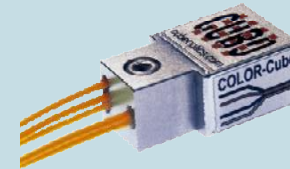
Cube Optics
40G and 100G Products

WDM components / sub-assemblies for transceivers



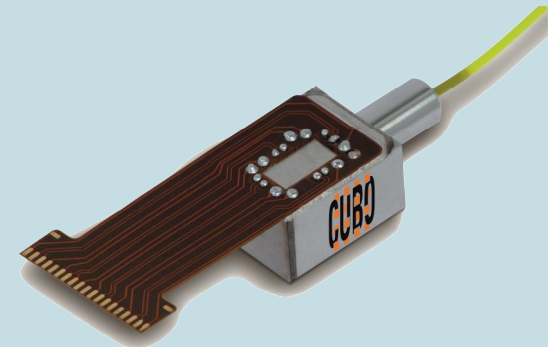
Purely passive fiber based WDM components

- Miniaturized mux/demux to be spliced to single lasers and/or detectors
 - Transparent to any bit rate, CWDM grid for 40Gbps, LAN WDM grid for 100Gbps
-



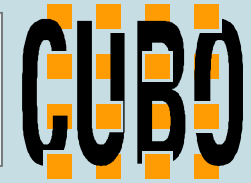
WDM Receiver Optical Sub-Assemblies (ROSA)

- Integrated multi- λ WDM + Detectors
- 10 (11.3) Gbps or 25 (28) Gbps per channel
- CWDM or LAN WDM grid



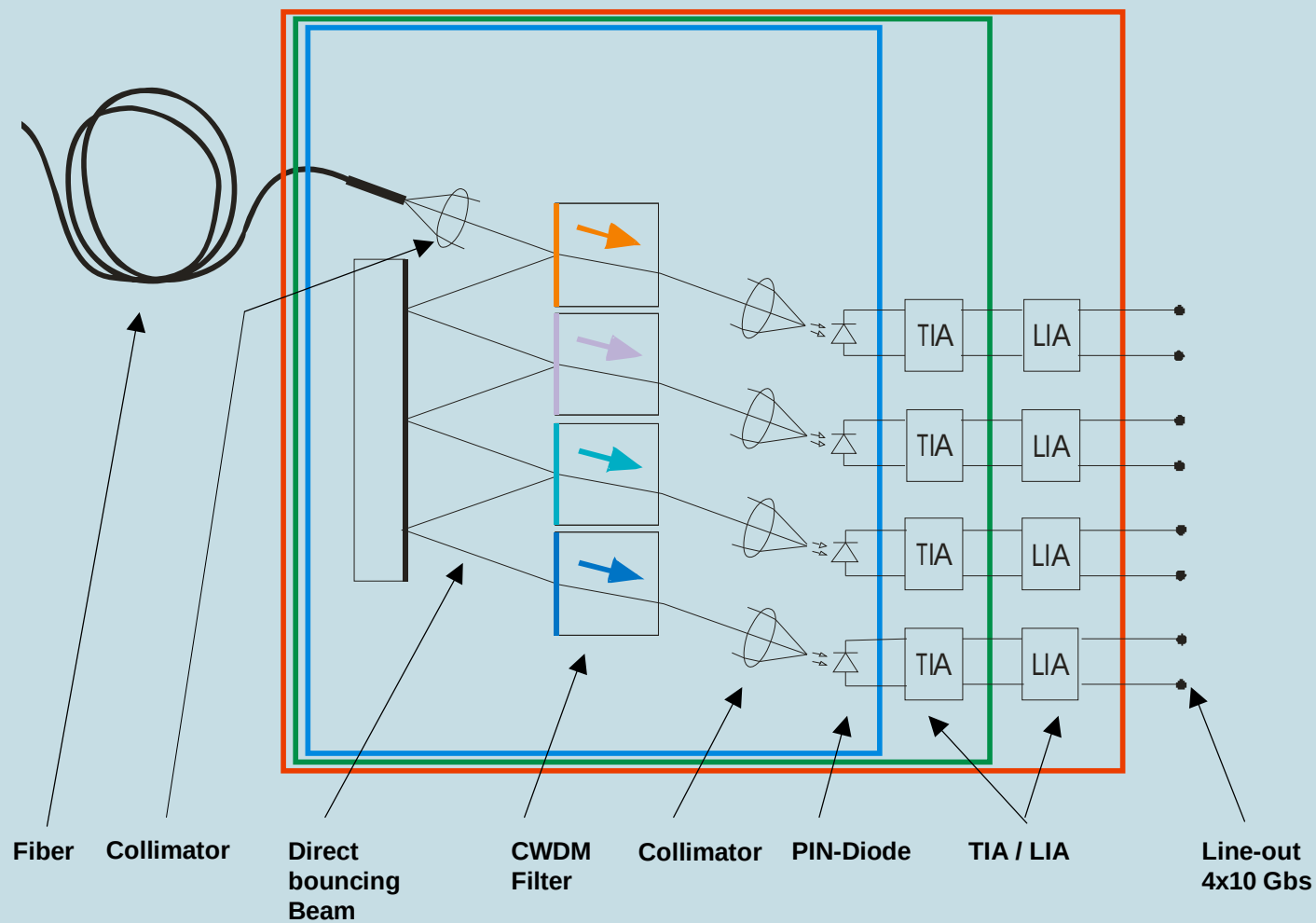
WDM Transmitter Optical Sub-Assemblies (TOSA)

- Integrated multi- λ WDM + Lasers
 - 10 (11.3) Gbps or 25 (28) Gbps per channel
 - CWDM or LAN WDM grid
 - Based on DFB, EML or VCSEL lasers
-

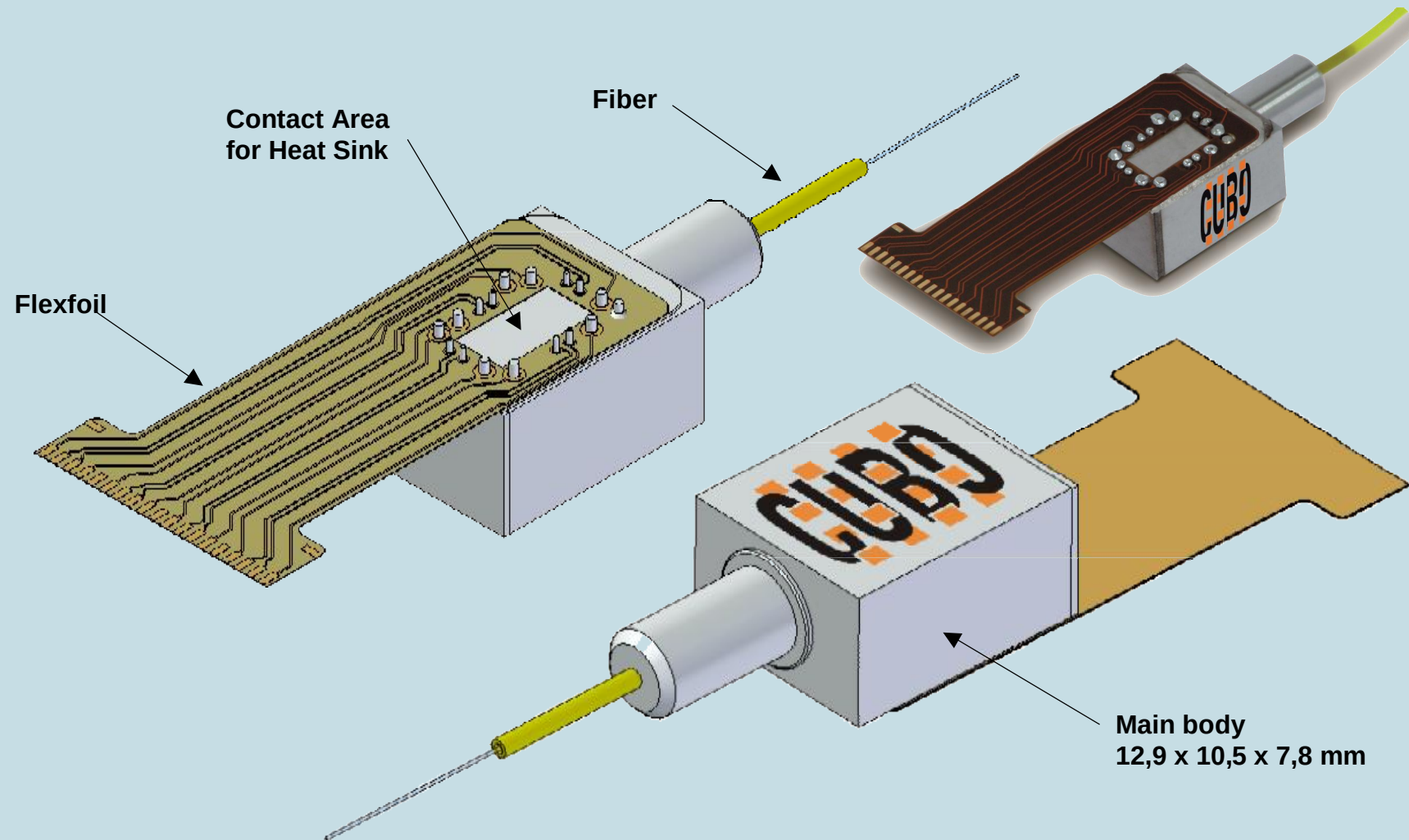
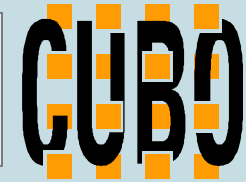


■ 4 channel CWDM 40G ROSA

Functional Blocks of CWDM - ROSA

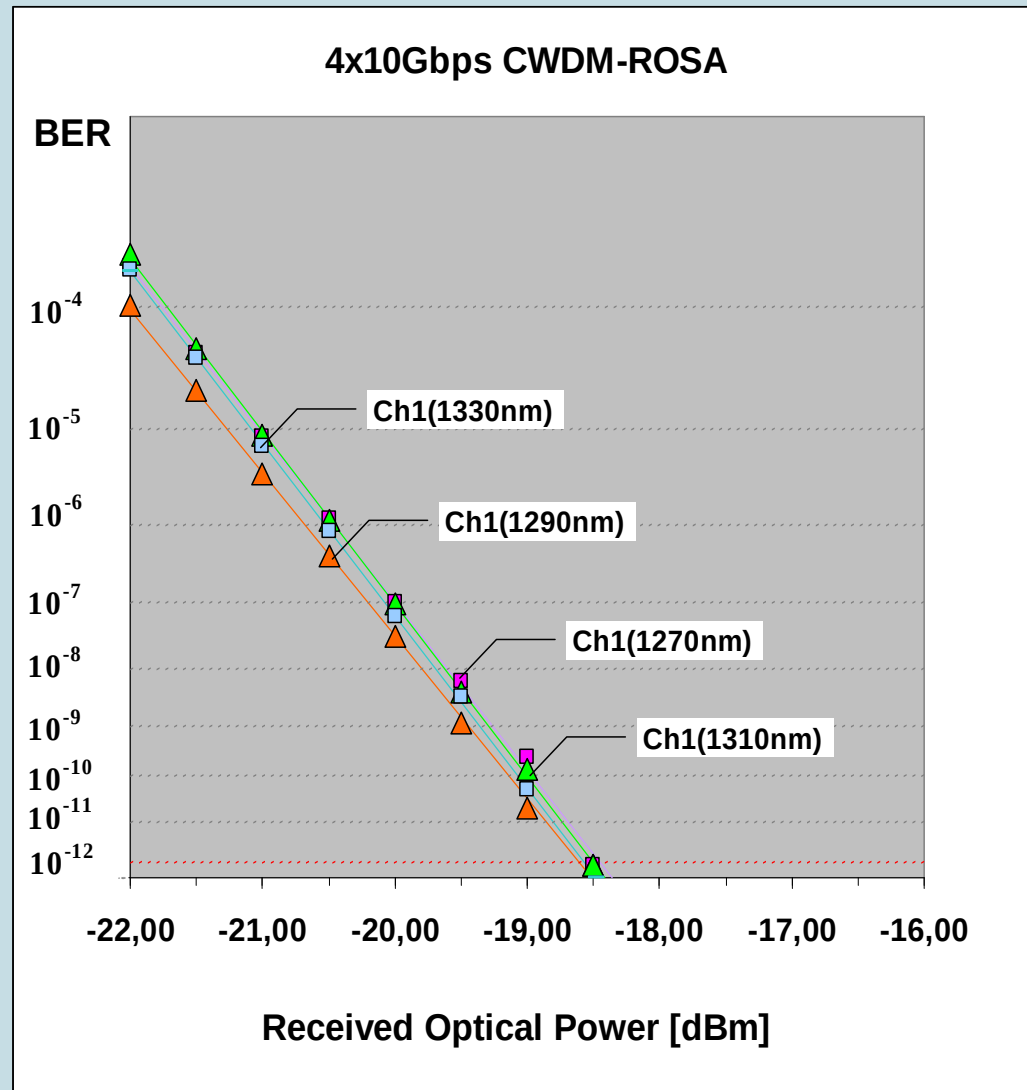
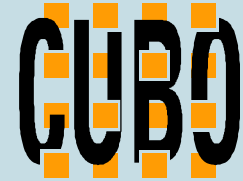


Setup of CWDM ROSA



Beta samples of 4x10Gbps CWDM ROSA available in Oct. 2008

Sensitivity of 40Gbps CWDM-ROSA Prototype



Sensitivity:

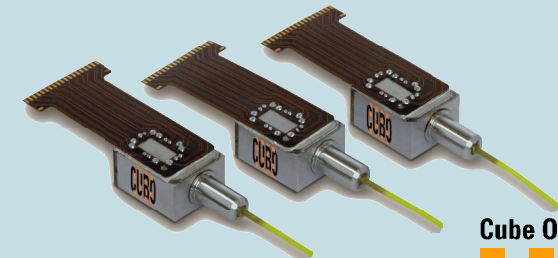
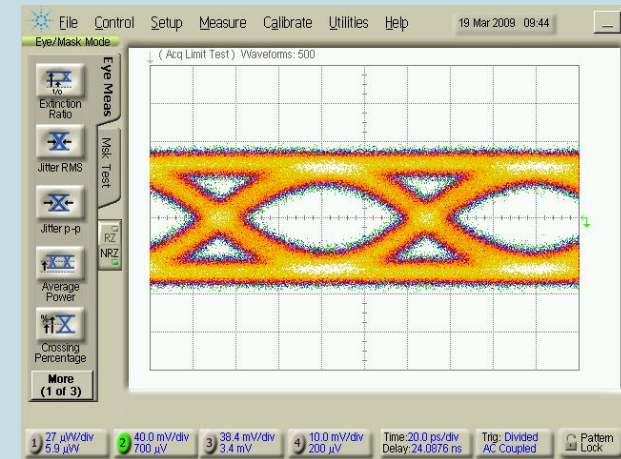
Ch1 (1270nm) = -18,5dBm

Ch2 (1290nm) = -18,6dBm

Ch3 (1310nm) = -18,5dBm

Ch4 (1330nm) = -18,6dBm

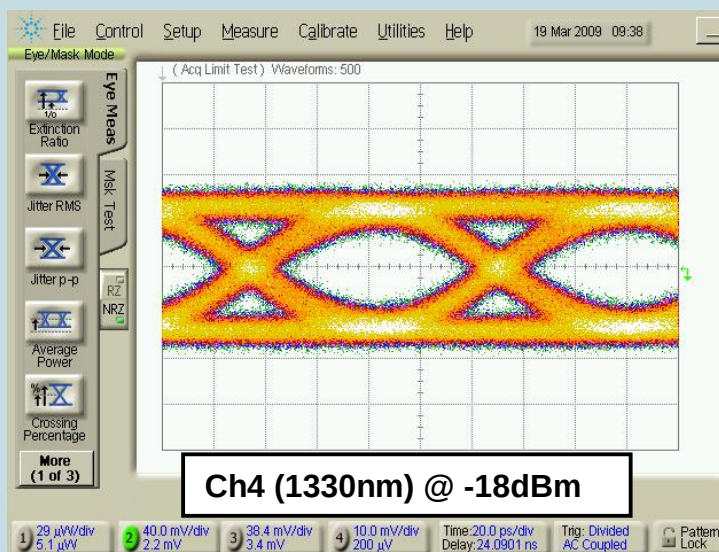
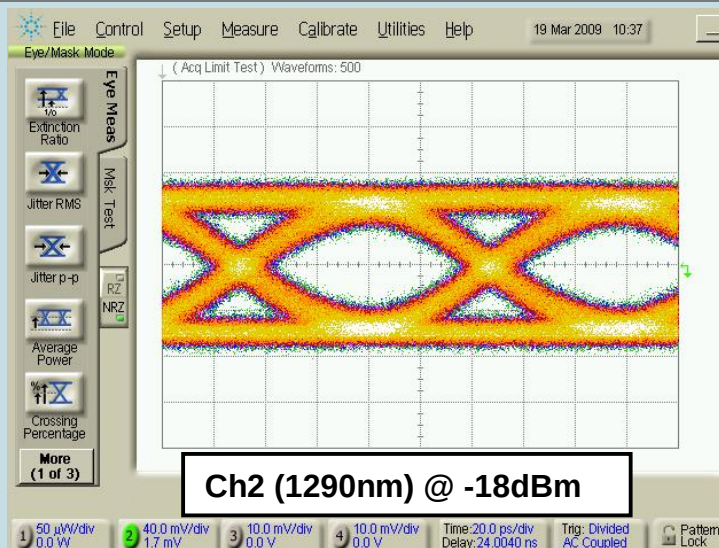
(Measured at ER=9dB)



Cube Optics AG



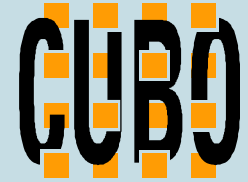
Eye Diagram of 40Gbps CWDM-ROSA Prototype



(Measured @ ER=9dB)

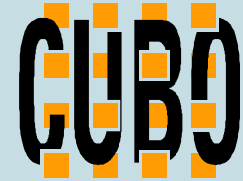
Cube Optics AG





- LAN WDM passive mux/demux

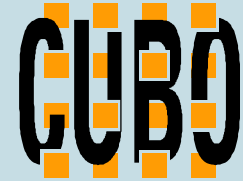
LAN WDM Proposed Specification Outline



LAN WDM mux/demux as proposed to IEEE in Orlando: cole_02_0308

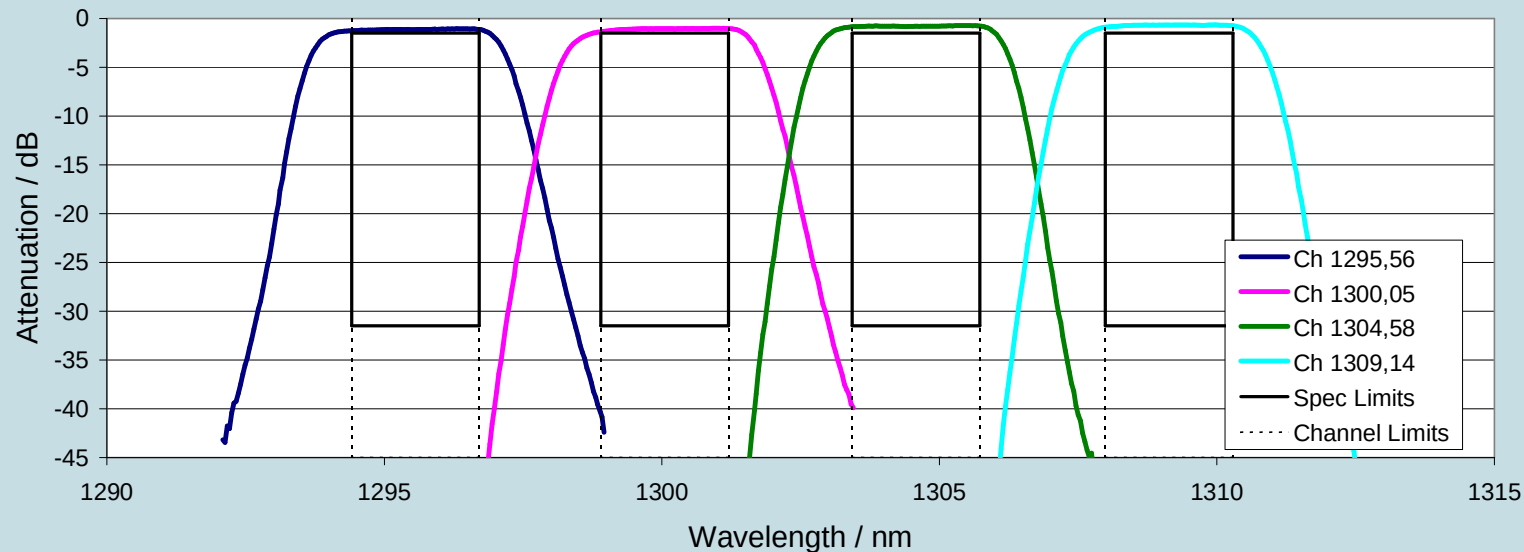
Thin Film (TFF) Zig-Zag Mux/DeMux	LAN WDM $\geq 800\text{GHz}$
Insertion Loss Max	1.5 dB (0.9 dB typical)
Adjacent channel Isolation	30 dB
Non-adjacent channel Isolation	40 dB
Operating Temperature	-40°C to +85°C
Size: Mux	11 x 13 x 6.5 mm ³
Size: Mux/DeMux	13 x 13 x 9 mm ³
Reliability	Telcordia 1221
Cost	
Availability	Q2, 2008

Optical LAN WDM Mux/Demux: Passband



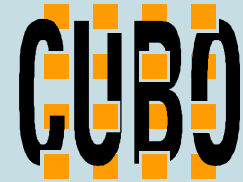
LAN WDM, 4 Channel, July 2008

1027669



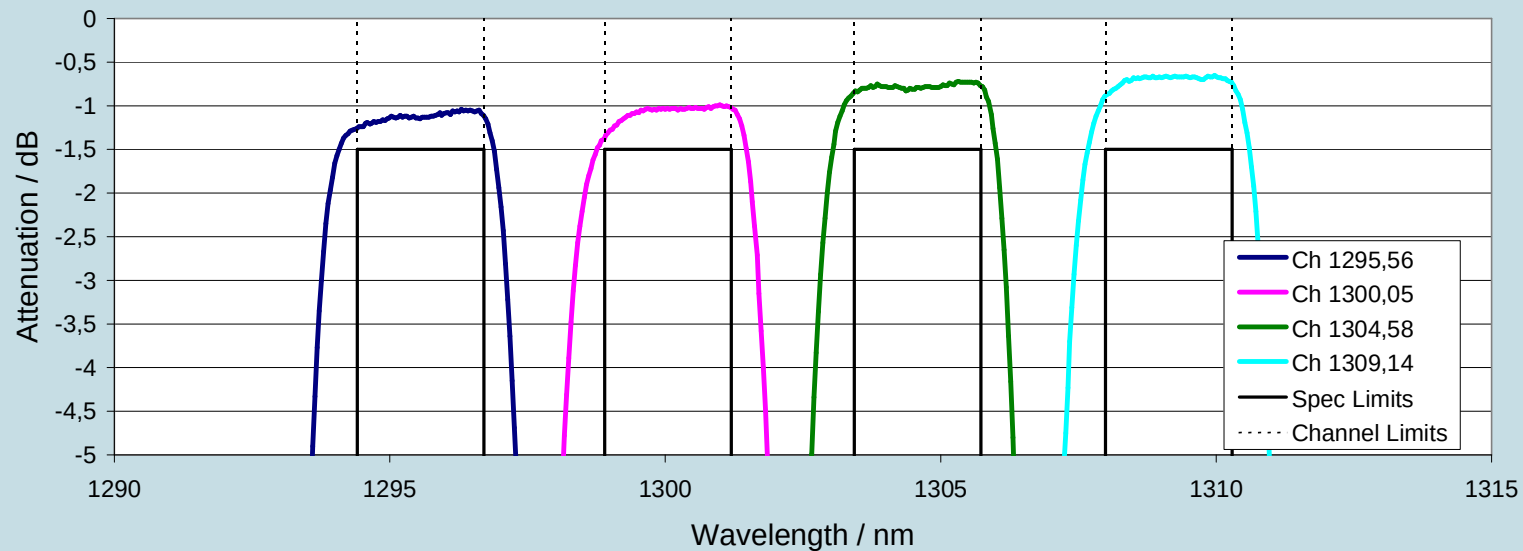
- Passband width set to 2.3nm around nominal center wavelength 1295.56, 1300.05, 1304.58, 1309.14nm
- Assumed limits for passband width, insertion loss and isolation are shown by black rectangles

Optical LAN WDM Mux/Demux: Insertion Loss



LAN WDM, 4 Channel, July 2008

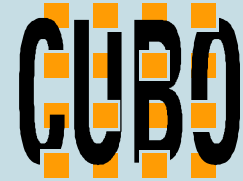
1027669



Wavelength [nm]	1295.56	1300.05	1304.58	1309.14
Insertion Loss at 25°C [dB]	-1.26	-1.37	-0.87	-0.91
Insertion Loss (0°...70°C) [dB]	-1.38	-1.48	-0.90	-0.91

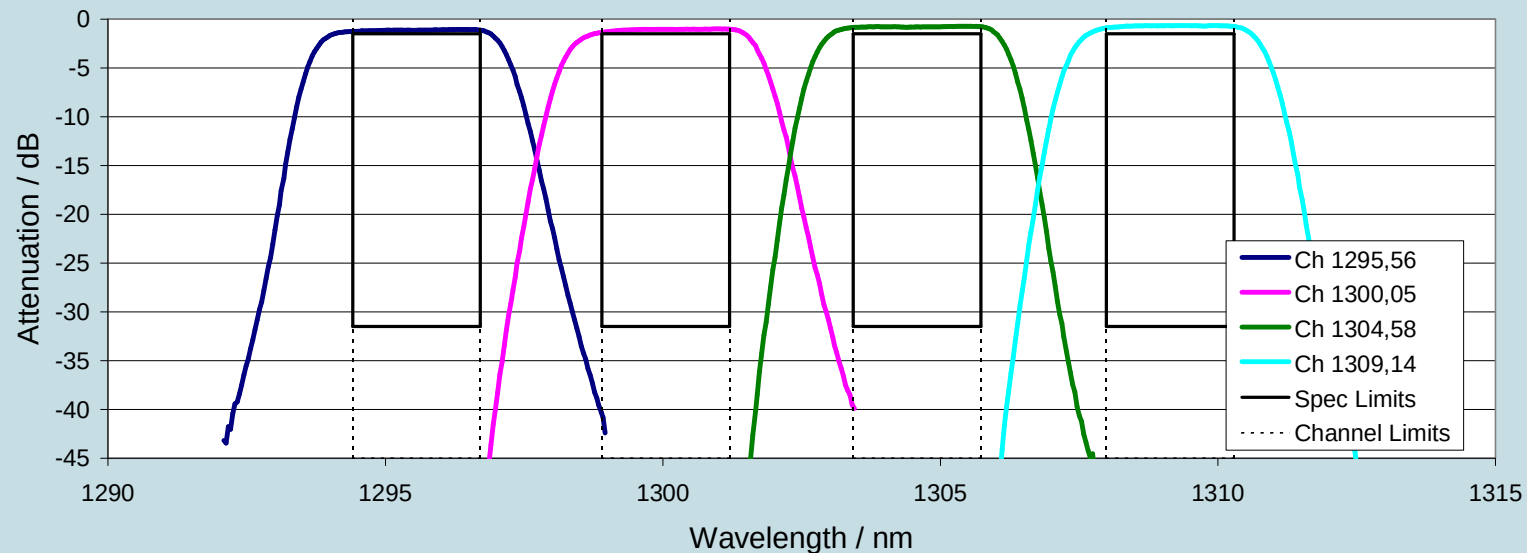
Meets target insertion loss < 1.5 dB

Optical LAN WDM Mux/Demux: Isolation



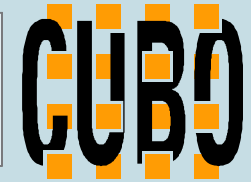
LAN WDM, 4 Channel, July 2008

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Wavelength [nm]	1295.56	1300.05	1304.58	1309.14
Isolation [dB]	39	38	>50	>50

Meets target isolation > 30 dB (adjacent channel)



Contact us!

We look forward to provide
you with further
information.

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