
Cost Comparision of Long Wavelength Solutions

Infineon Technologies

Fiber Optics

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Long Wavelength Concept Consideration

Outline

- 3 PMD model
- 3 PMD model - Future Proof
- Cost comparison MMF vs. SMF
- Conclusion

Cost Comparison of Long Wavelength Solutions

100 m inst. MMF and SMF*)	1310 WWDWDM	*) In case of SMF
300 m MMF and SMF*)		
2 km SMF		
10 km SMF		
40 km SMF	1550 Serial	

Cost Comparison of Long Wavelength Solutions

Future Proof - 40Gb/s and beyond

100 m SMF	1310 WWDW	1310 Serial
300 m SMF		
2 km SMF		
10 km SMF		
40 km SMF	1550 Serial	

Cost Comparison of Long Wavelength Solutions

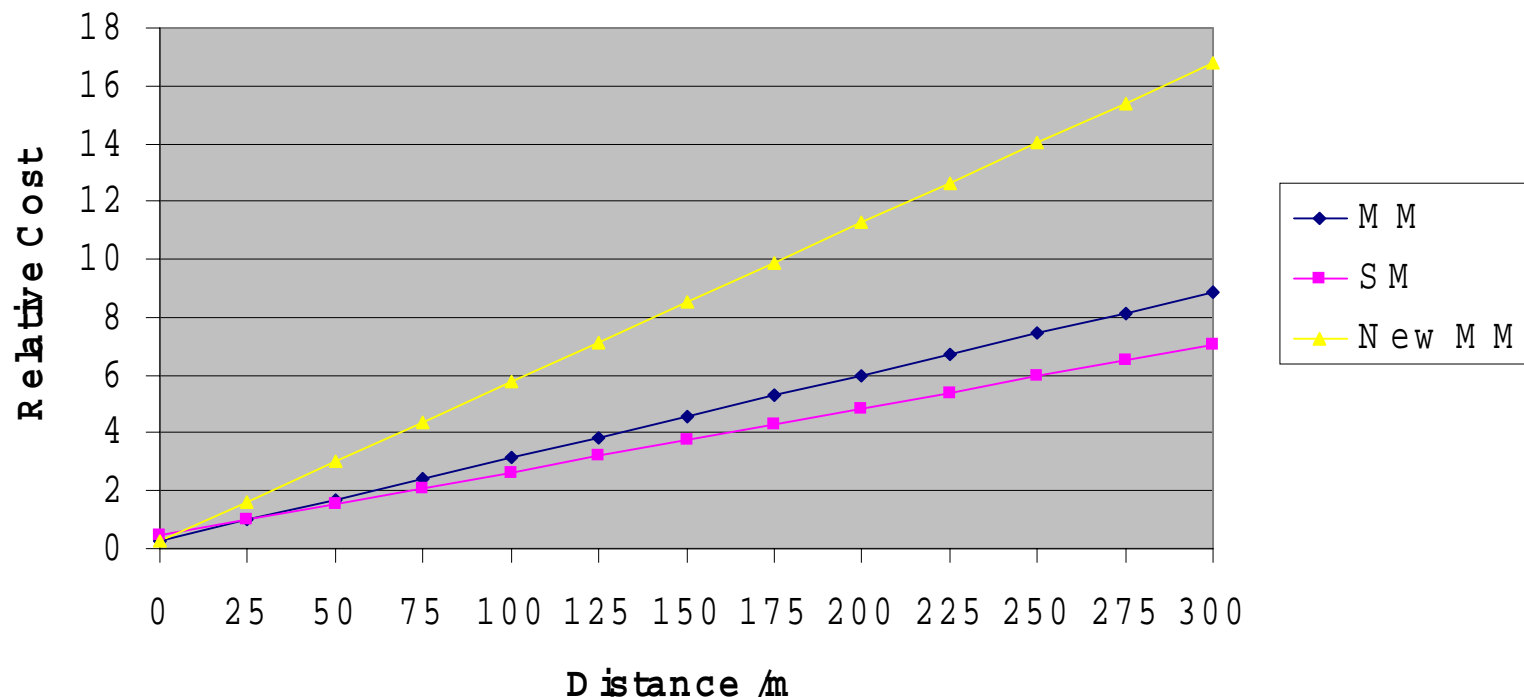
Relative Cost Comparison Cable Types;

Current Cost Estimate w 2 connectors

MM-Fiber Cost = 1.3 * SM-Fiber Cost

New-MM-Fiber Cost = 2.5 * SM-Fiber Cost

SM-Connector-Cost = 1.7 * MM-Connector-Cost



Cost Comparison of Long Wavelength Solutions

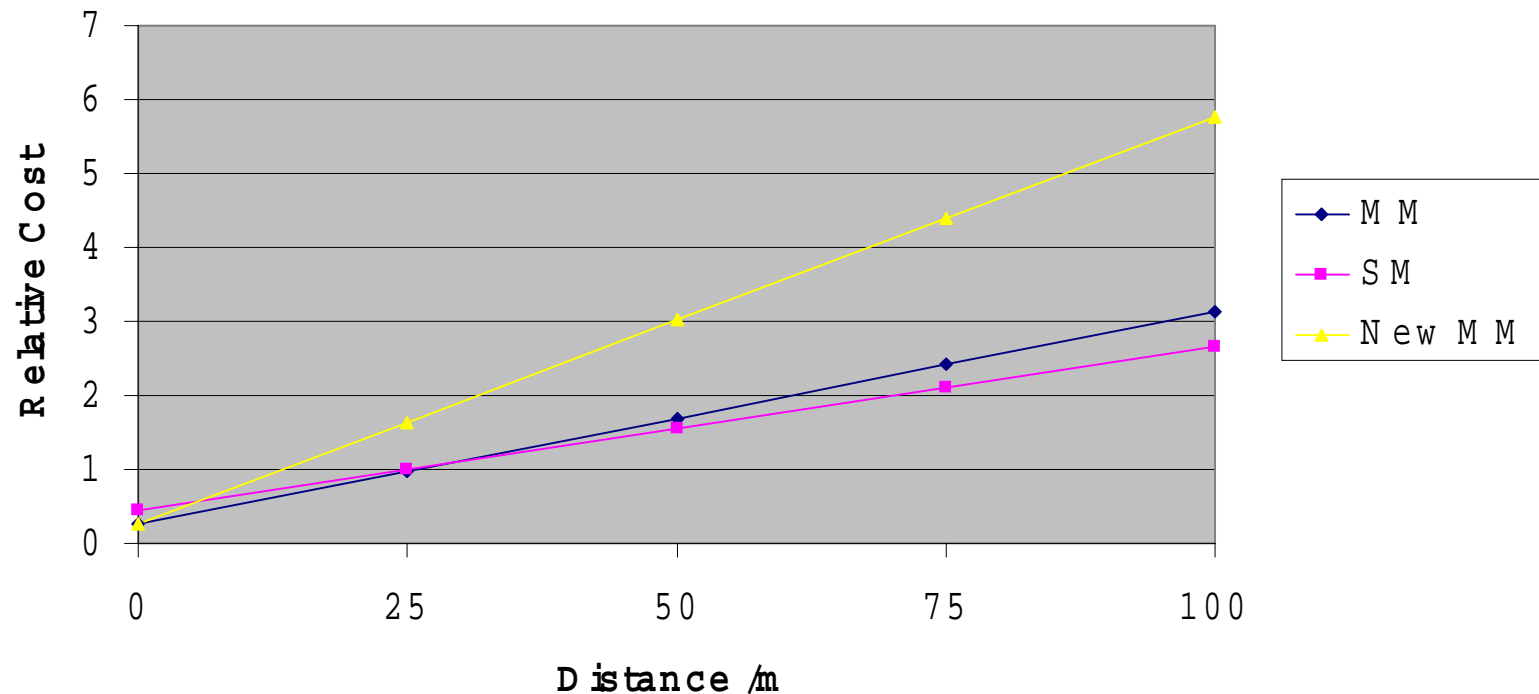
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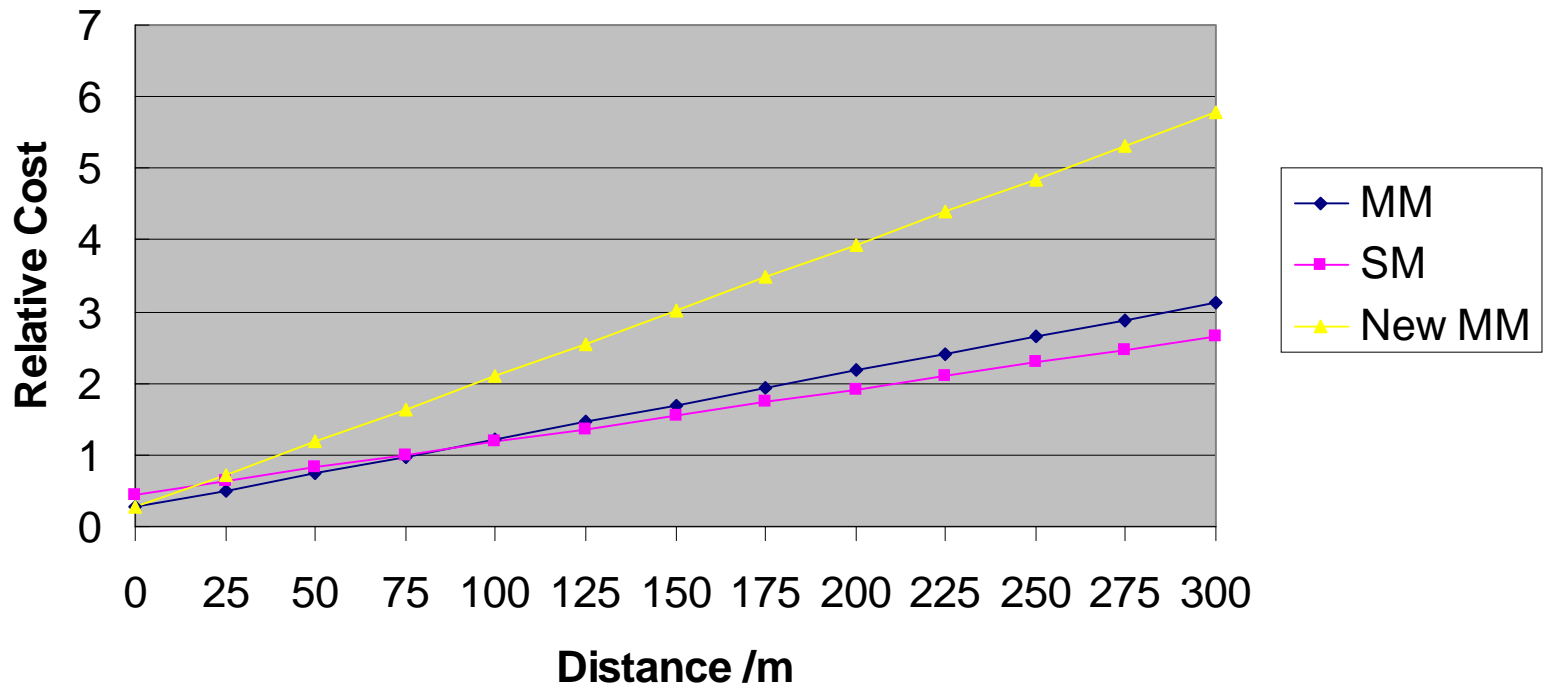
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Cost Comparison of Long Wavelength Solutions

Relative Cost Comparison Cable Types; Current Cost Estimate w 6 connectors

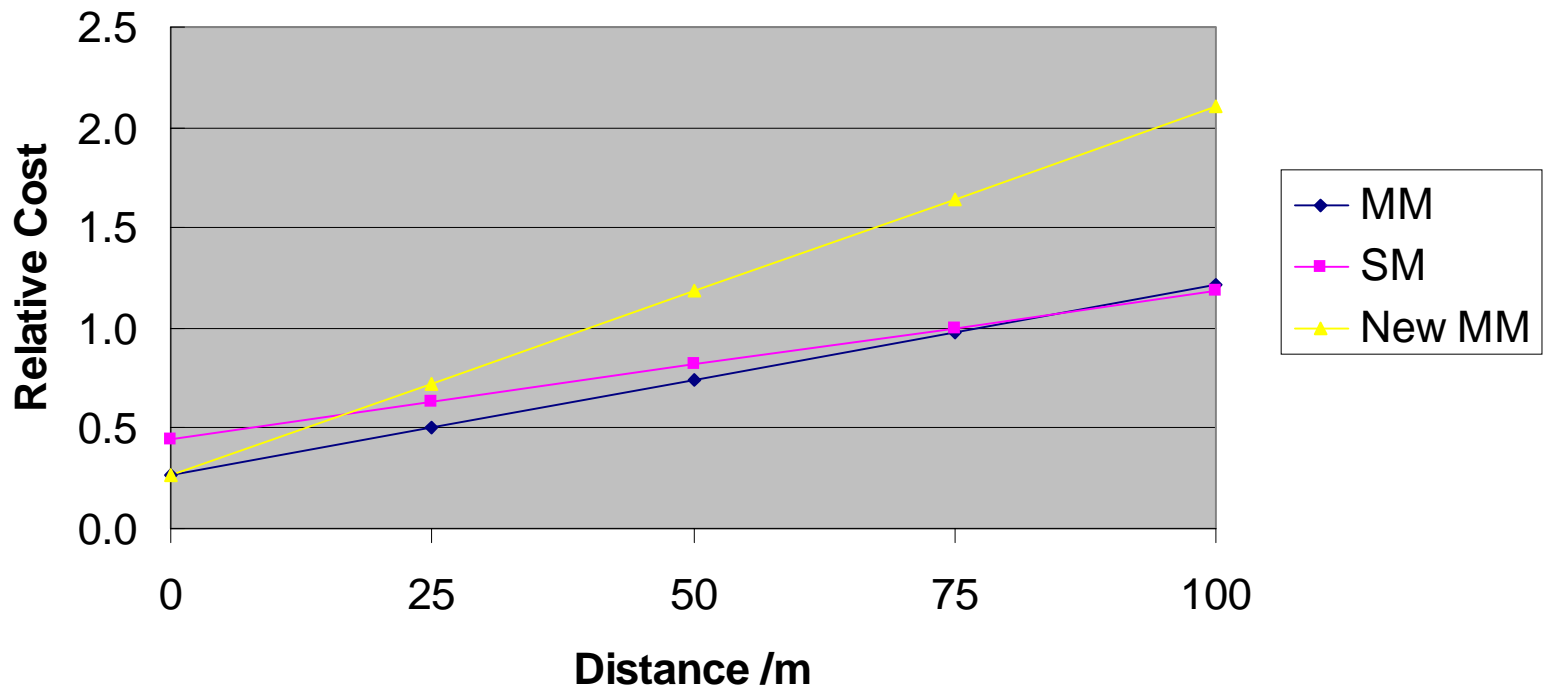
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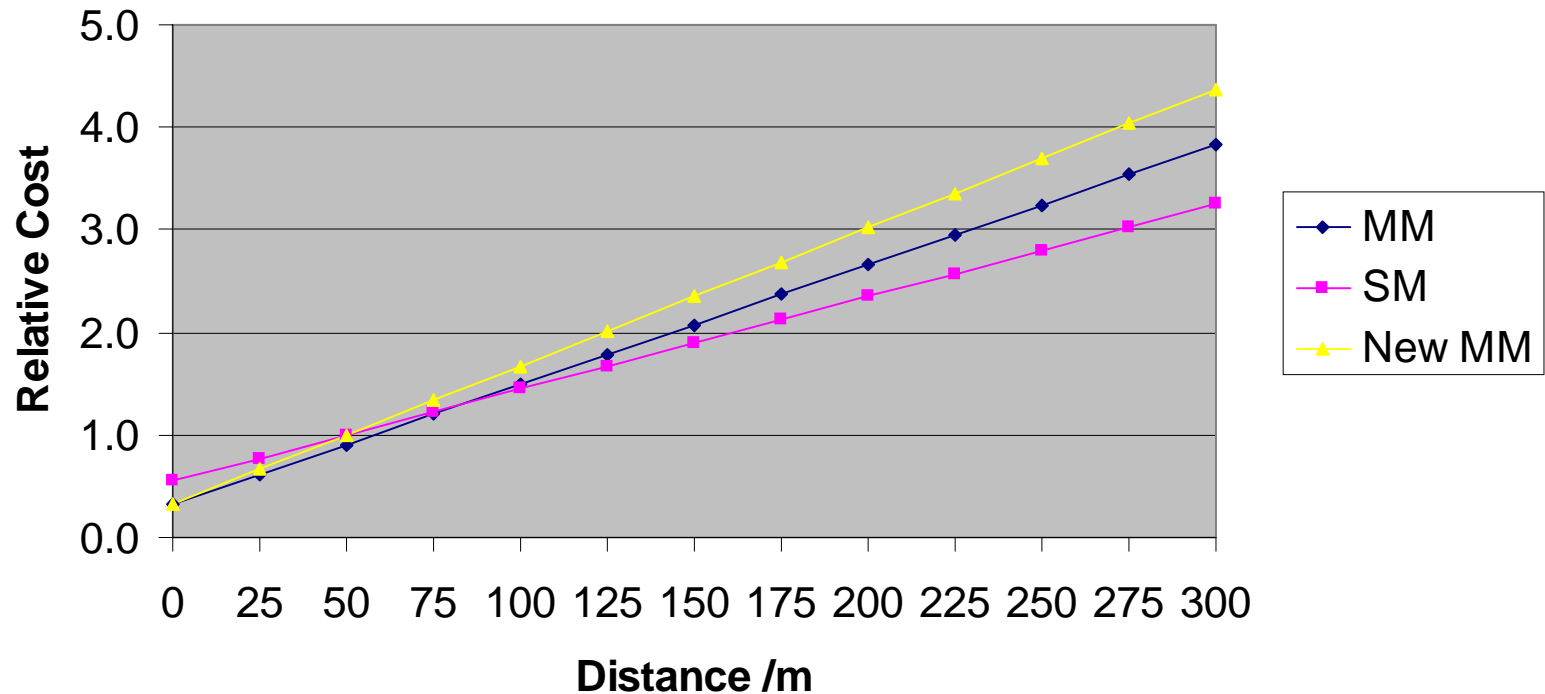
Cost Comparison of Long Wavelength Solutions

Relative Cost Comparison Cable Types; Volume Estimate (Future) w 6 connectors

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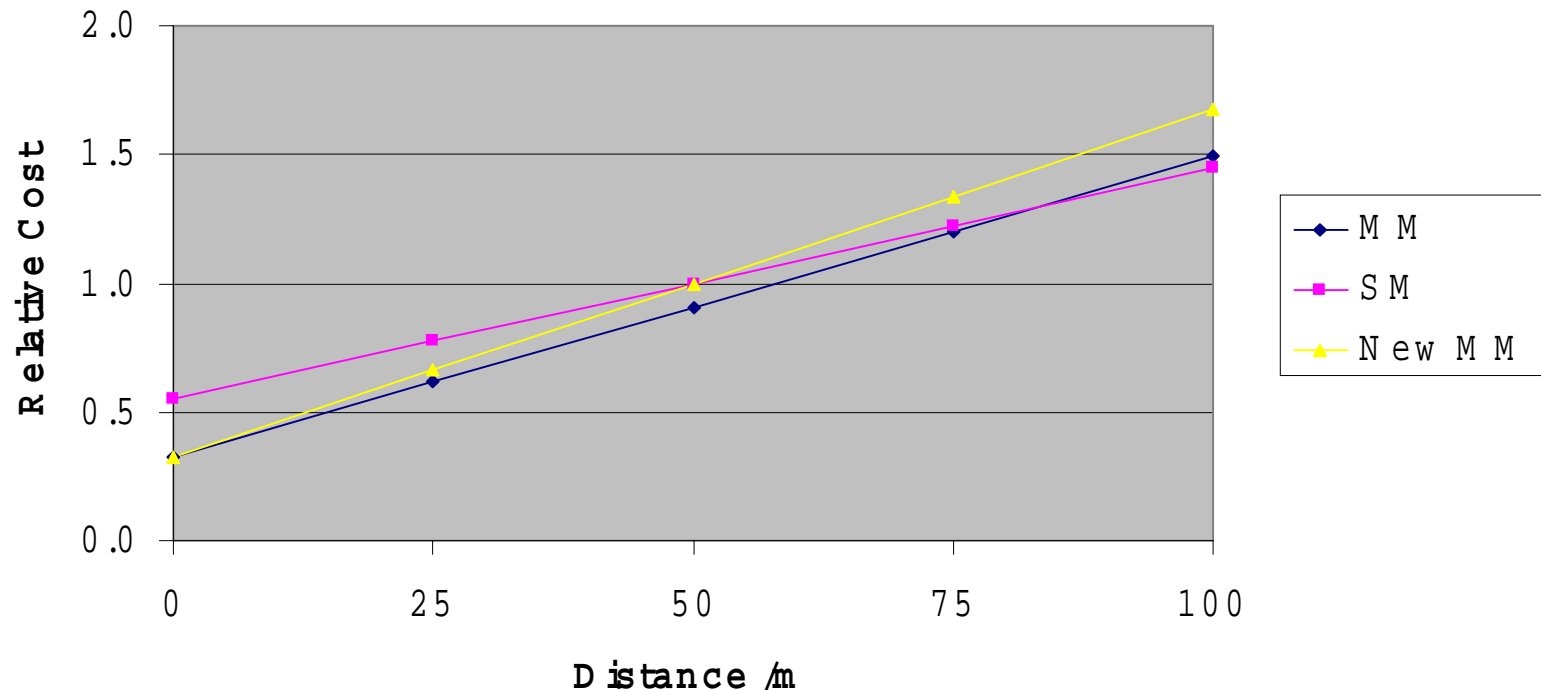
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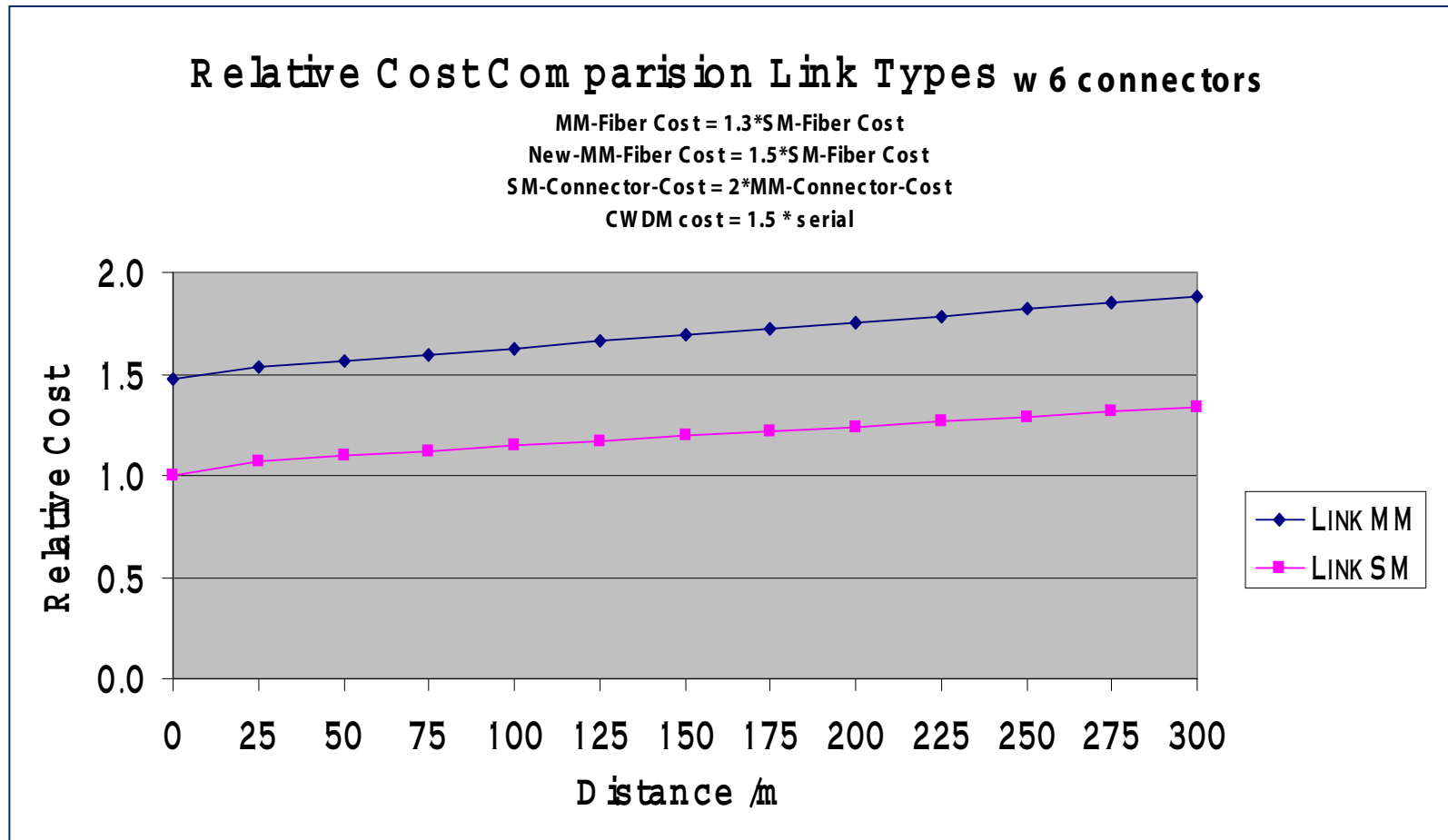
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Conclusion

- Define 3PMD Solution for 10GbE because of:
 - „Time to Market“ for the Standard and Market development
 - Future Proof with SM installed for short and long distance
 - Cost Effective with SM even for short distance
 - Further Cost Reduction with SM1300nm VCSEL possible
- Exploit Existing Installations of Hybrid-Cables (MM & SM) with Single Mode Fiber and Dark Fiber

Comment:

850nm is needed for short distances and will be defined by „Box Suppliers“ or in other Committees (e g: Fibre Channel, OIF, InfiniBand...)