Common MDI requirements

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36 port 100G Ethernet switch
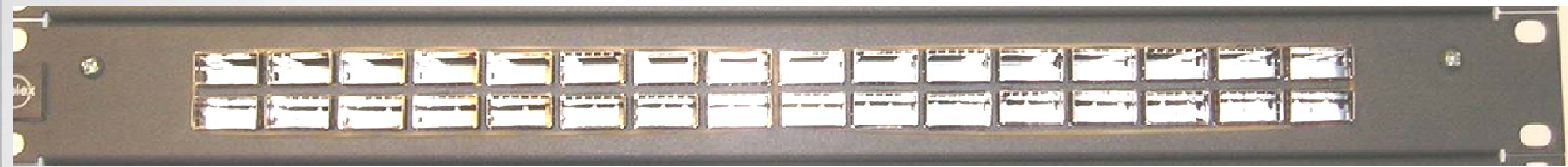
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Must support copper

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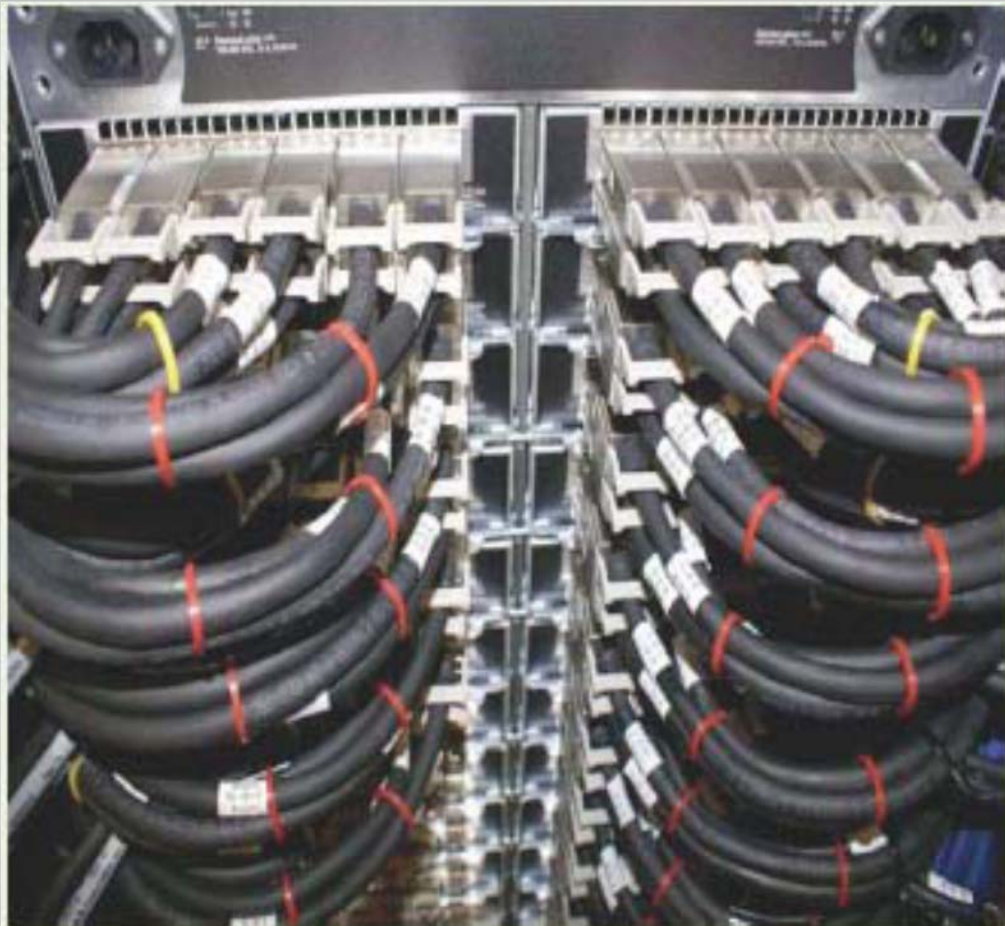
Must support active cables and optics

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What distances must be supported?

Overhead cable management system

0.5 m

0.5 m

0.5 m

0.5 m

0.5 m

2.2m rack height
0.1m bend radius
0.1m bend radius
0.1m bend radius
0.5m rack depth
0.5m rack width
0.7m raised floor

.5 m depth per

4.2m total cable depth per rack, including bend radi

.5 m depth

2.2 m

2.2 m

1.6m

.7m   Raised Floor   .7m
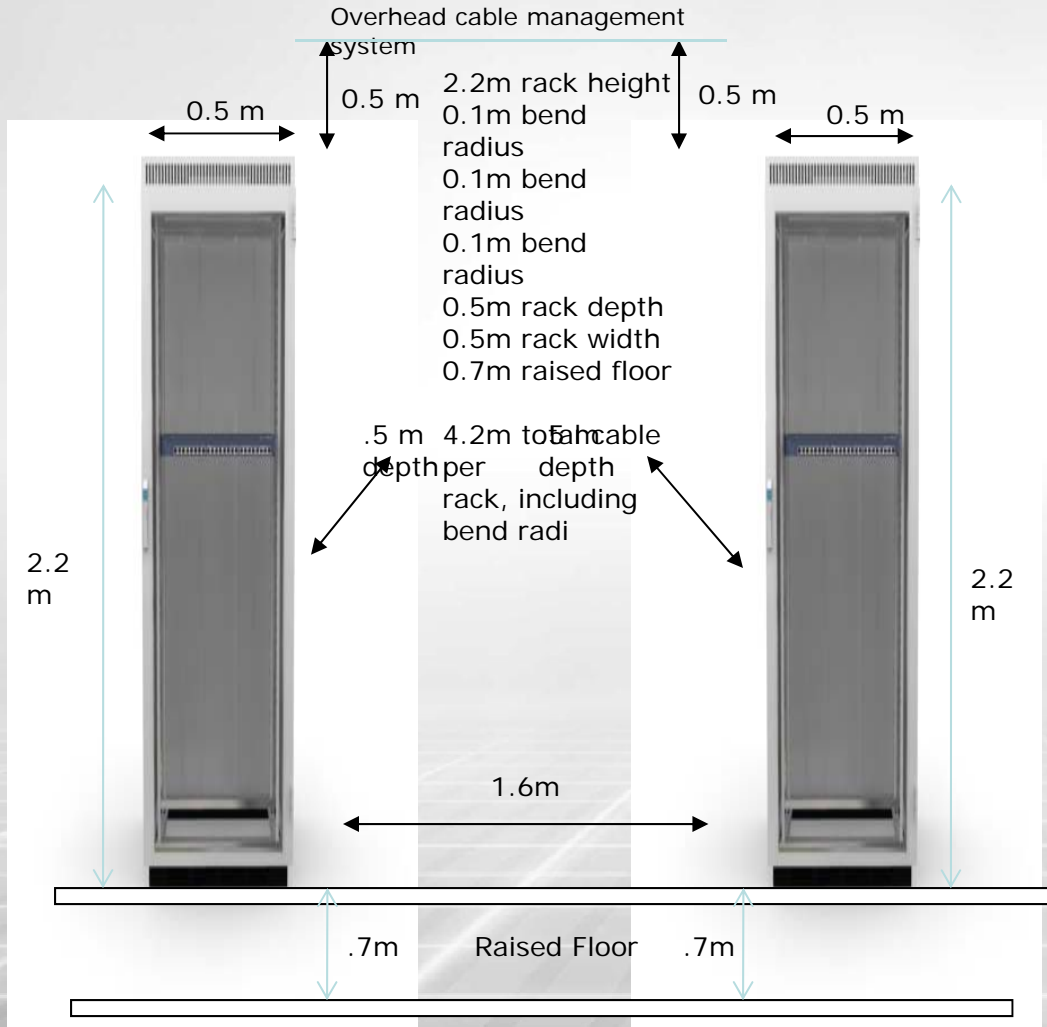
Intra Rack and Rack to Rack

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Must support up to 1km for data center applications
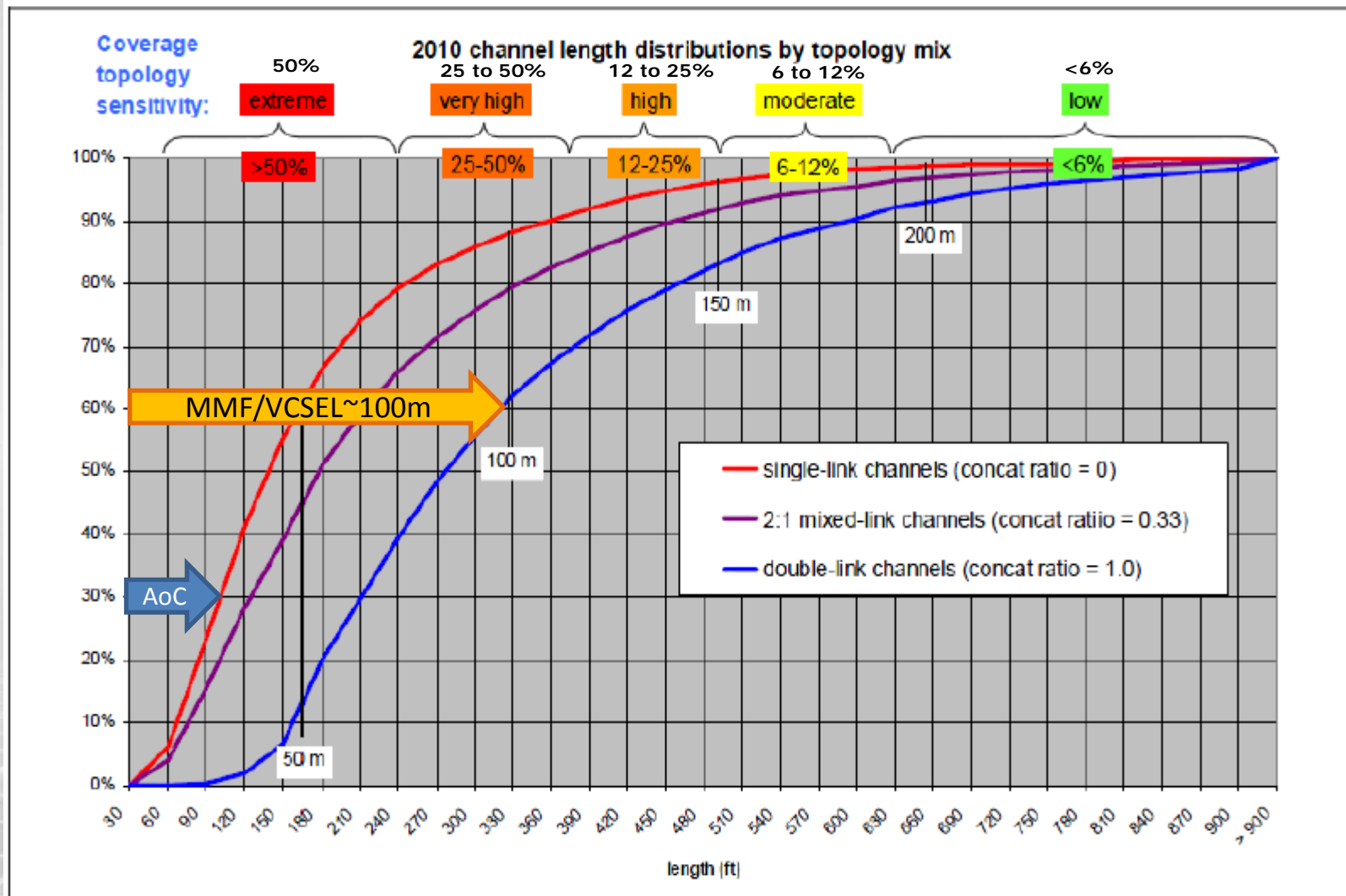
Coverage topology sensitivity = (single-link coverage - double-link coverage) / single-link coverage

Why have a common MDI?

> **Allows multiple variants to be used in a single port.**

– Links can be optimized based on distance, thermals, cost, size etc.

- i.e. a 30 AWG 3m copper cable could be used for lowest cost or an MR optical module could be used if all ports need the same I/O type for max interop.

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What does it mean for bj and the optical study group

› **Common host trace loss, connector loss, S parameters should be defined for both non-retimed copper (bj) and retimed optical (SR4, PSM4, LR)**

- – i.e. nAUI should have the same host characteristics that are used to specify 100GBASE-CR4
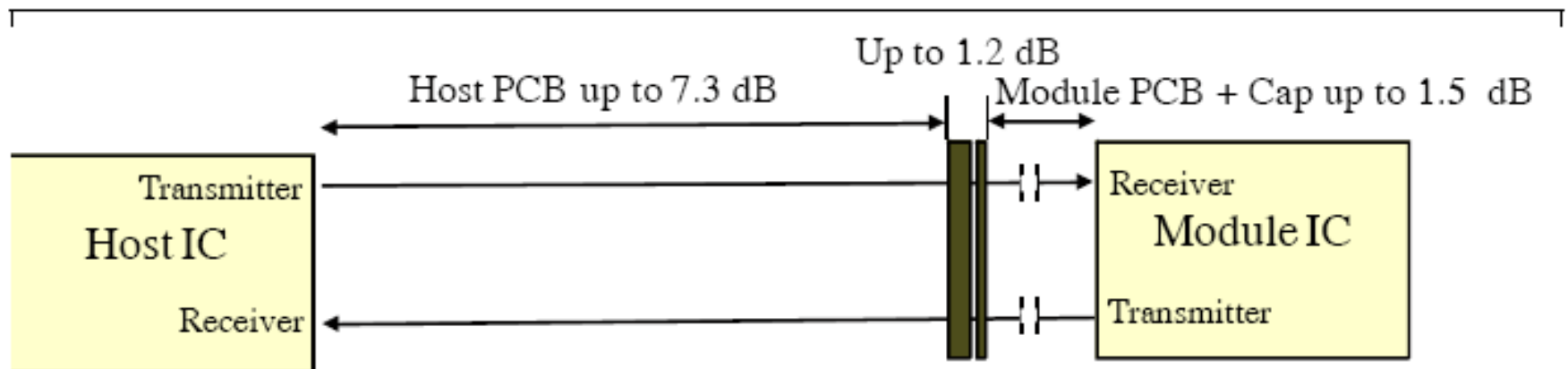
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OIF VSR reference channel

Figure 1-17.CEI-28G-VSR full Channel Reference Model