40km Link budget suggestion

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Attenuation coefficient value suggestion

- The minimum and maximum attenuation coefficient values defined in Annex I of G.695 are 0.406 and 0.473 dB/km for 1264.5 nm wavelength respectively.
- Measurement shows that attenuation coefficient values of quiet a few fibers in field is even more than 0.43 dB/km. More than 20% fibers of attenuation coefficient values can reach around 0.42 dB/km.
- We suggest that we need use 0.42 dB/km for the link budget at least.

Connectors number estimation

- In Metro area, 40km span is often combined by more than one sectors of fibers, the connectors are used between those sectors.
- In the Node site, ODF(optical fiber distribution frame) are often used, Each ODF will introduce 2 connectors.
- The number of connecter between two nodes are more than 4 (2 for near node+ 1 or 2 for sectors connectors + 2 for remote node).

Link budget baseline suggestion

- Taking 40*0.42 + 2 dB (for connectors) gives 18.8 dB. Increasing this value to 19 dB channel loss for some margin.

Thank you

Q&A