

Input required for wavelength plan decision

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Power budgets and distances under consideration

Power budgets:

- 10-24 dB
- 15-29 dB

Distances:

- 10 km
- 20 km

Required information: General

1. TDM vs. WDM co-existence with 10G EPON
2. Receiver sensitivity with DML source
3. Dispersion tolerance improvement that may be obtained with EDC
 - a. Downstream
 - b. Upstream: must support burst mode and ONUs at maximum differential distances

Required information: affecting 25G

1. How important to use O-band lasers (cost, time-to-market) ?
2. For 1+3, feasibility and cost impact of increased dynamic range of 25G ONU (2.5 dB more).
3. Consensus is required on the cost of the ONU BOSA diplexer vs. US/DS gap .
3. Consensus is required on required DS0/DS1 gap for low cost WBF in ONU BOSA for all plans:

Required information: affecting 100G

1. How important to use O-band lasers (cost, time-to-market) ?
2. For 1+3, feasibility and cost impact of increased dynamic range of 100G OLT receivers
3. 100G OLT optical pre-amplification. Do SOAs provide adequate performance, or will EDFAs be required?
4. 100G OLT optical post-amplification. Which architecture, per-channel or shared post-amp? Do SOAs provide sufficient power or will EDFAs be required?