

100G-EPON Power Budget Proposal

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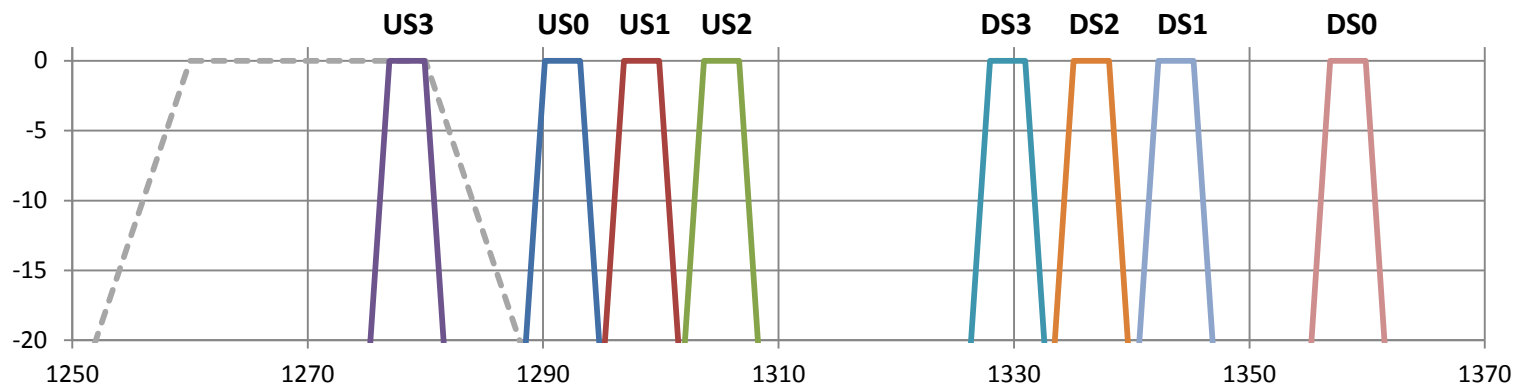
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Introduction

This contribution presents 100G-EPON optical module architecture and power budgets based on the common wavelength plan Option #1 proposed in guo_3ca_1_0317.

Common 100G-EPON wavelength plan Option #1



	Center freq	Center WL
US0	232.100	1291.652
US1	230.900	1298.365
US2	229.700	1305.148
US3	234.500	1278.433
DS3	225.500	1329.457
DS2	224.300	1336.569
DS1	223.100	1343.758
DS0	220.700	1358.371

3nm pass band for all channels in both DS and US

- Achieves better yields, burst tolerances, good SOA performance and less spectrum usage.

65nm DS/US gap for 25G-EPON

- Reversed DS channel order where DS0 is in the longest side reduces diplexer penalty.

WDM coexistence between 25G-EPON US0 and 10G-EPON US

- No capacity loss for 25G, capacity loss only occurs in 100G.

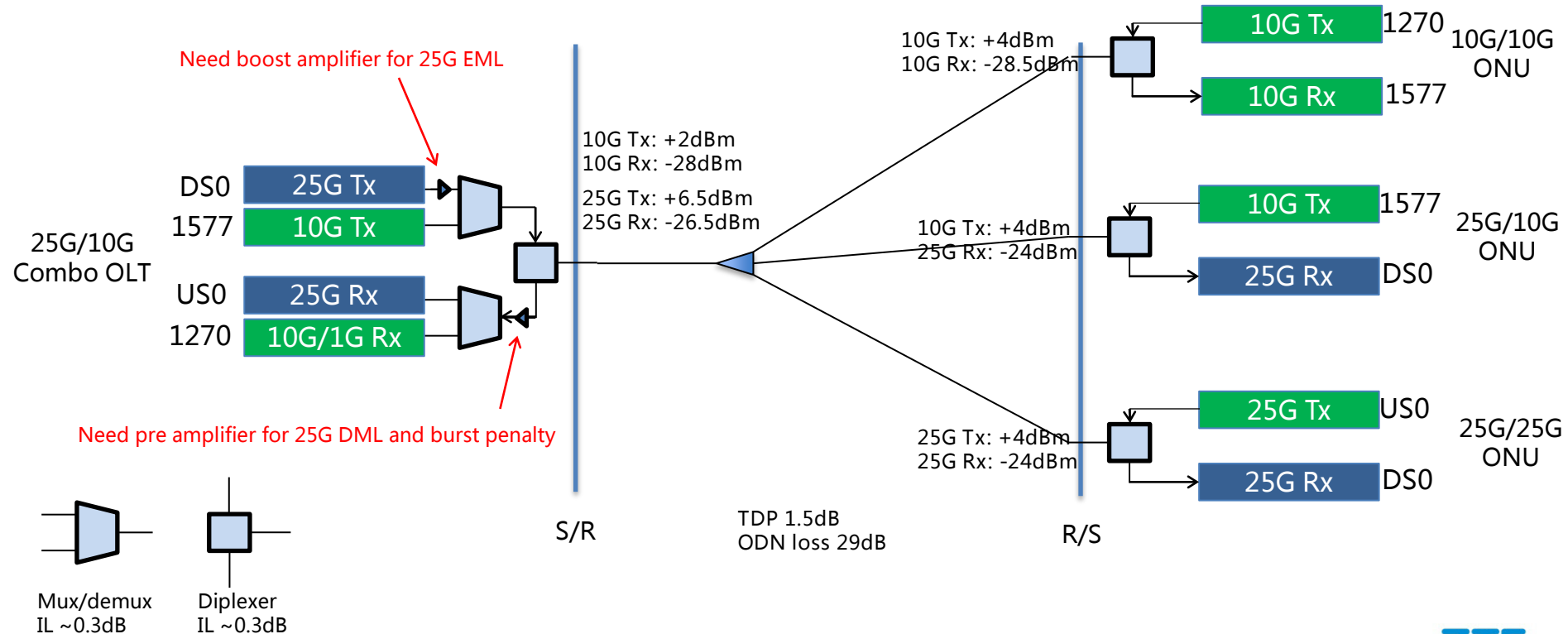
TDM coexistence between 100G-EPON US3 and 10G-EPON US

- Removes FWM impact

1200GHz channel spacing and 2400GHz for DS1/DS0 and US3/US0

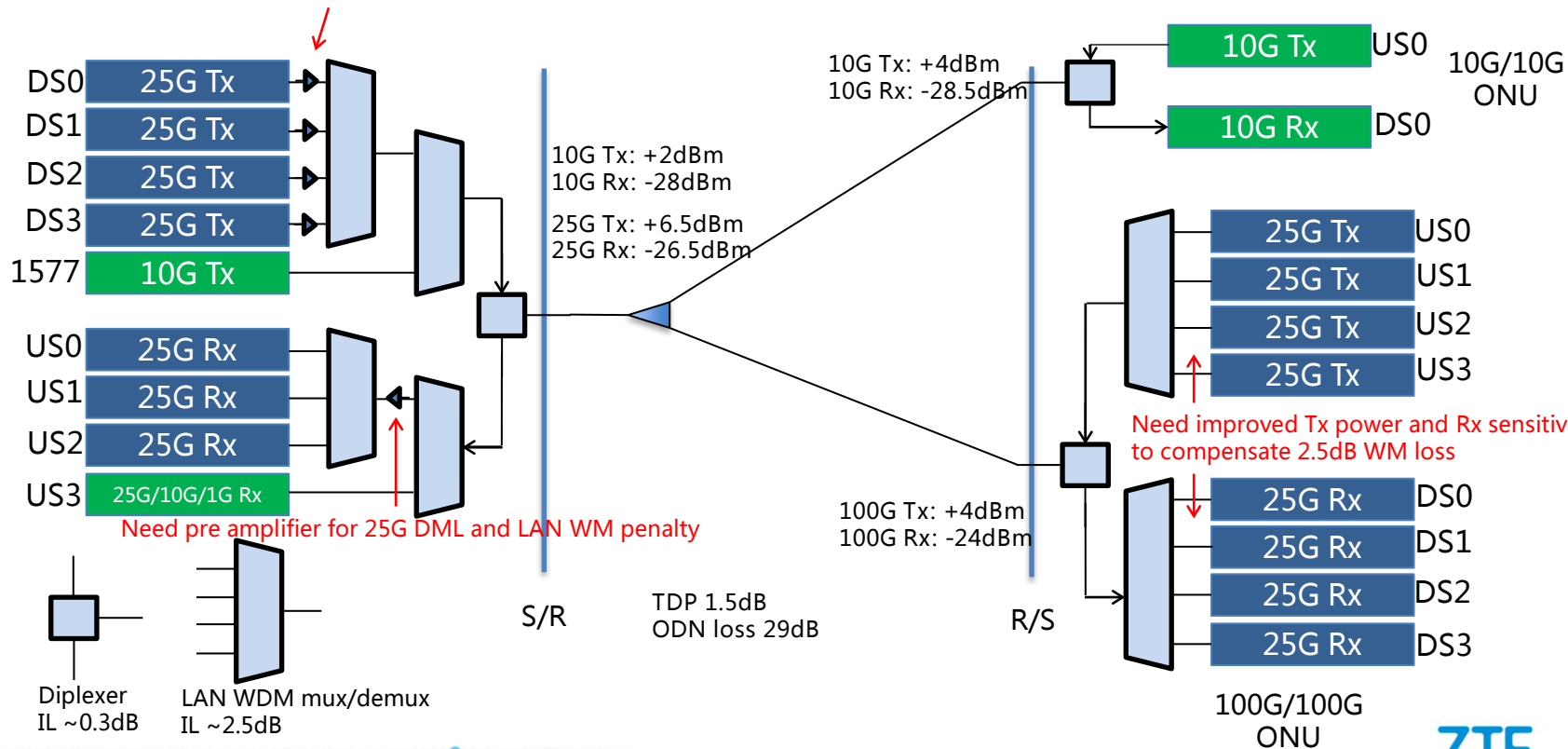
- Integral number of 400G Hz does not prevent AWG implementation.

25G-EPON architecture and reference points



100G-EPON architecture and reference points

Need boost amplifiers for 25G EML and LAN WM penalty



Summary

This contribution presents example of 100G-EPON optical module architecture and power budget based on the common wavelength plan Option#1 proposed in guo_3ca_1_0317.

Thank you



Tomorrow never waits

