

400G CFP8 Form Factor Proposal

CFP MSA Member Companies:

Avago Technologies

Finisar Corp.

Fujitsu Optical Components

JDS Uniphase Corp.

NeoPhotonics Corp.

Oclaro, Inc.

Sumitomo Electric Industries

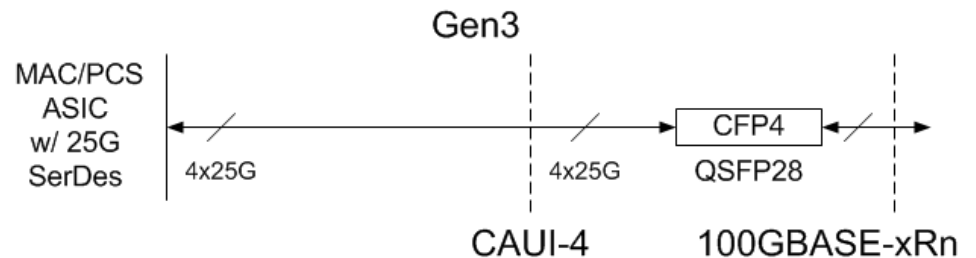
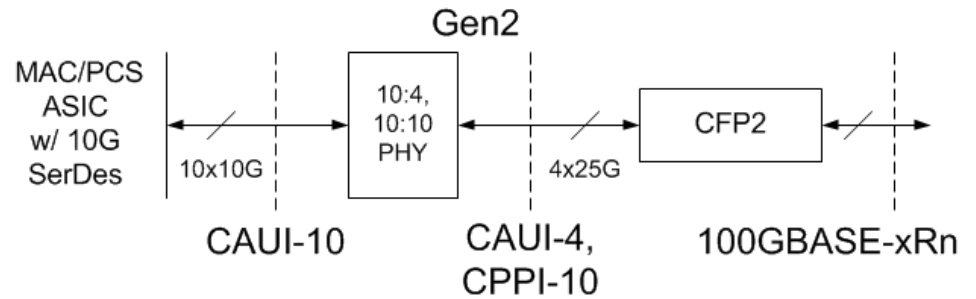
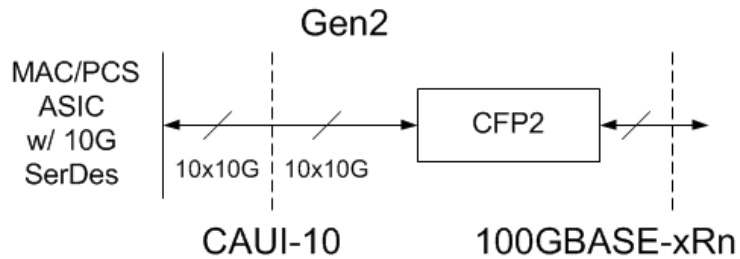
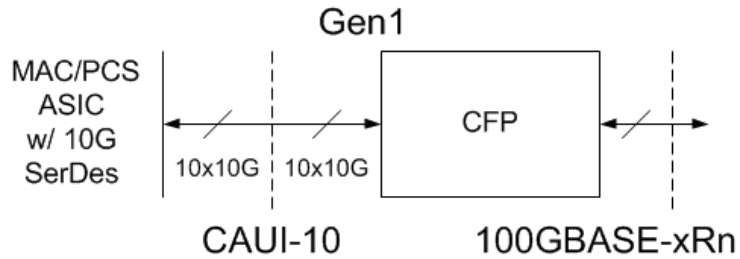
21 July 2015



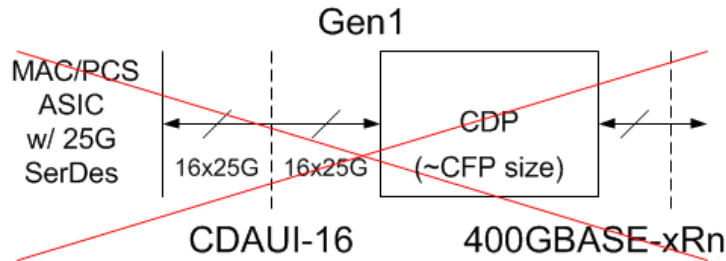
Introduction

- This is a proposal for a new 400G Form Factor: CFP8
- The proposed CFP8 form factor is ~CFP2 size but supports 4x100G and 400G, i.e. 4x the CFP2's 1x100G
- The CFP8 name follows the CFP2 and CFP4 naming convention of suffix designating relative bandwidth density
- The CFP8 uses a new 16x25G electrical I/O connector
- CFP8 Electrical I/O and Optical specifications are deferred to other standards organizations like IEEE and ITU-T
- Example IEEE specifications supported by CFP8:
 - 400GBASE-SR16 parallel MMF (16x25G NRZ)
 - 400GBASE-FR8/LR8 duplex SMF (8x50G PAM4 WDM)
 - 400GBASE-DR4 parallel SMF (4x100G PAM4)
 - CDAUI-16, CDAUI-8
- CFP8 will support other specifications

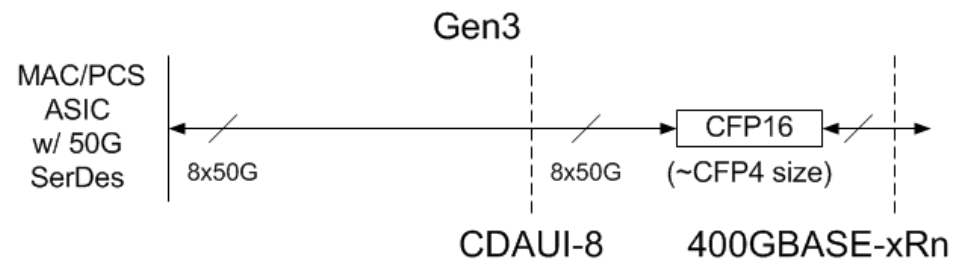
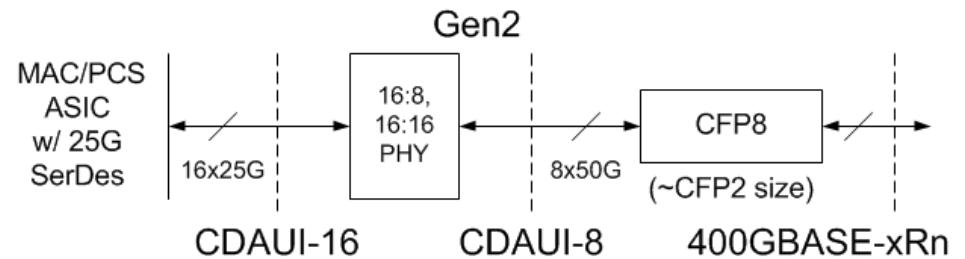
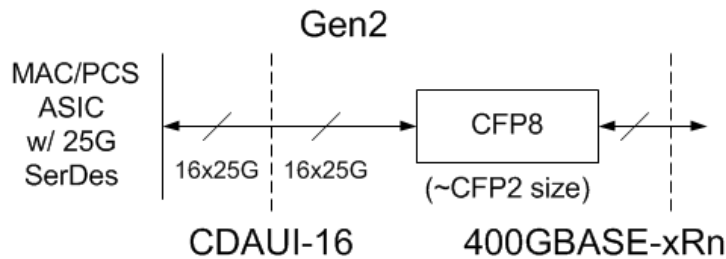
100G Form Factor Roadmap



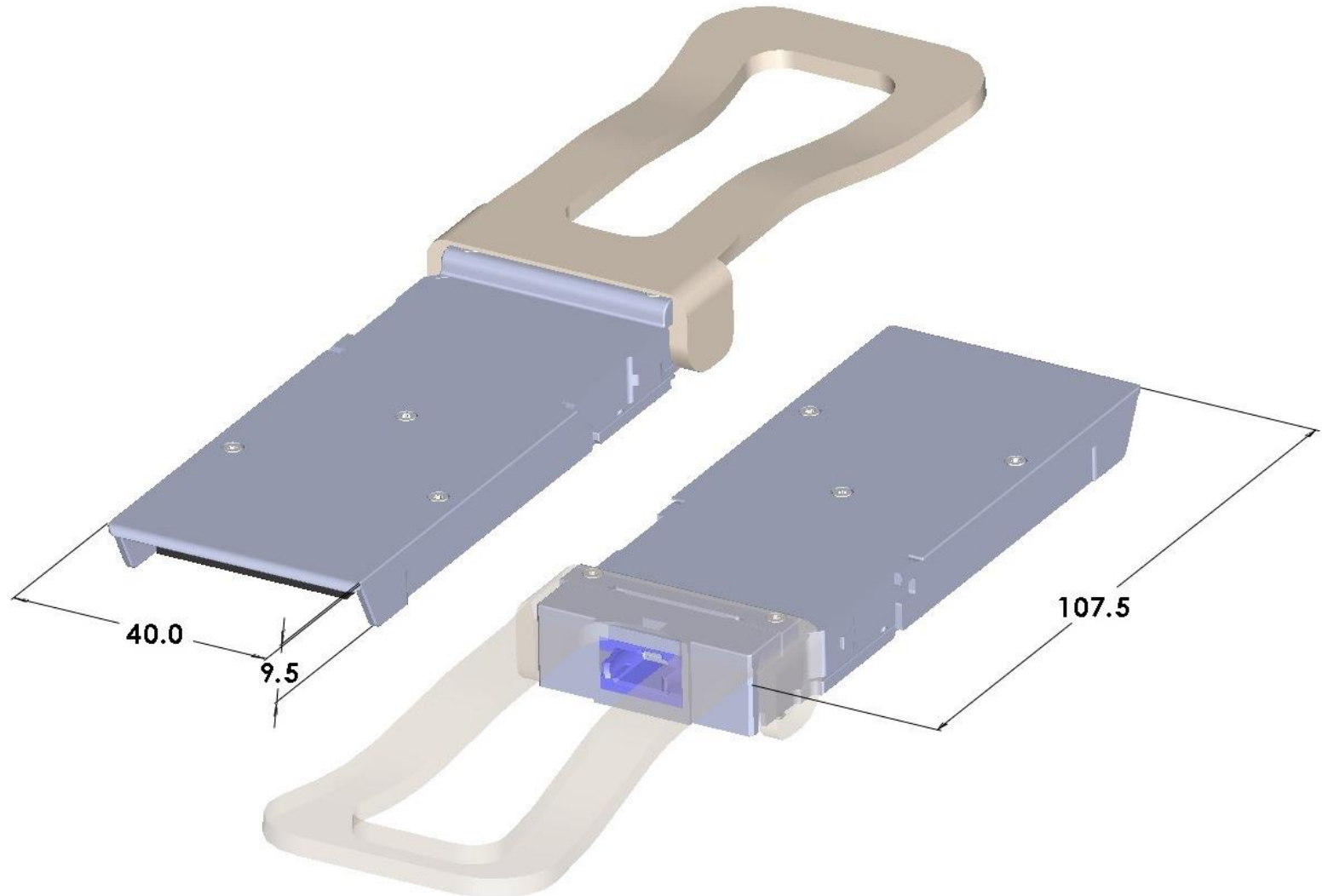
Proposed 400G Form Factor Roadmap



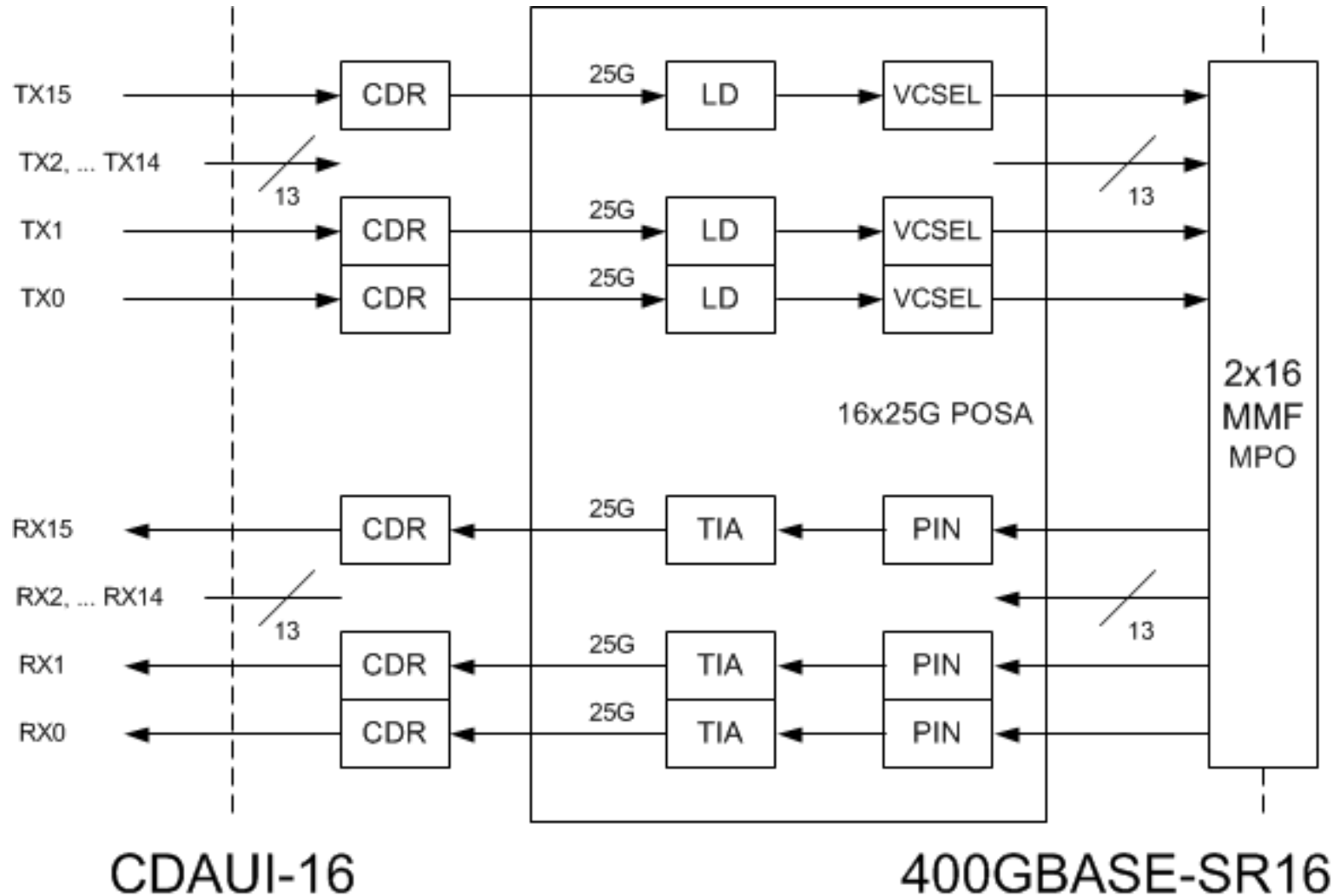
Proposed in May'14 by the CFP MSA



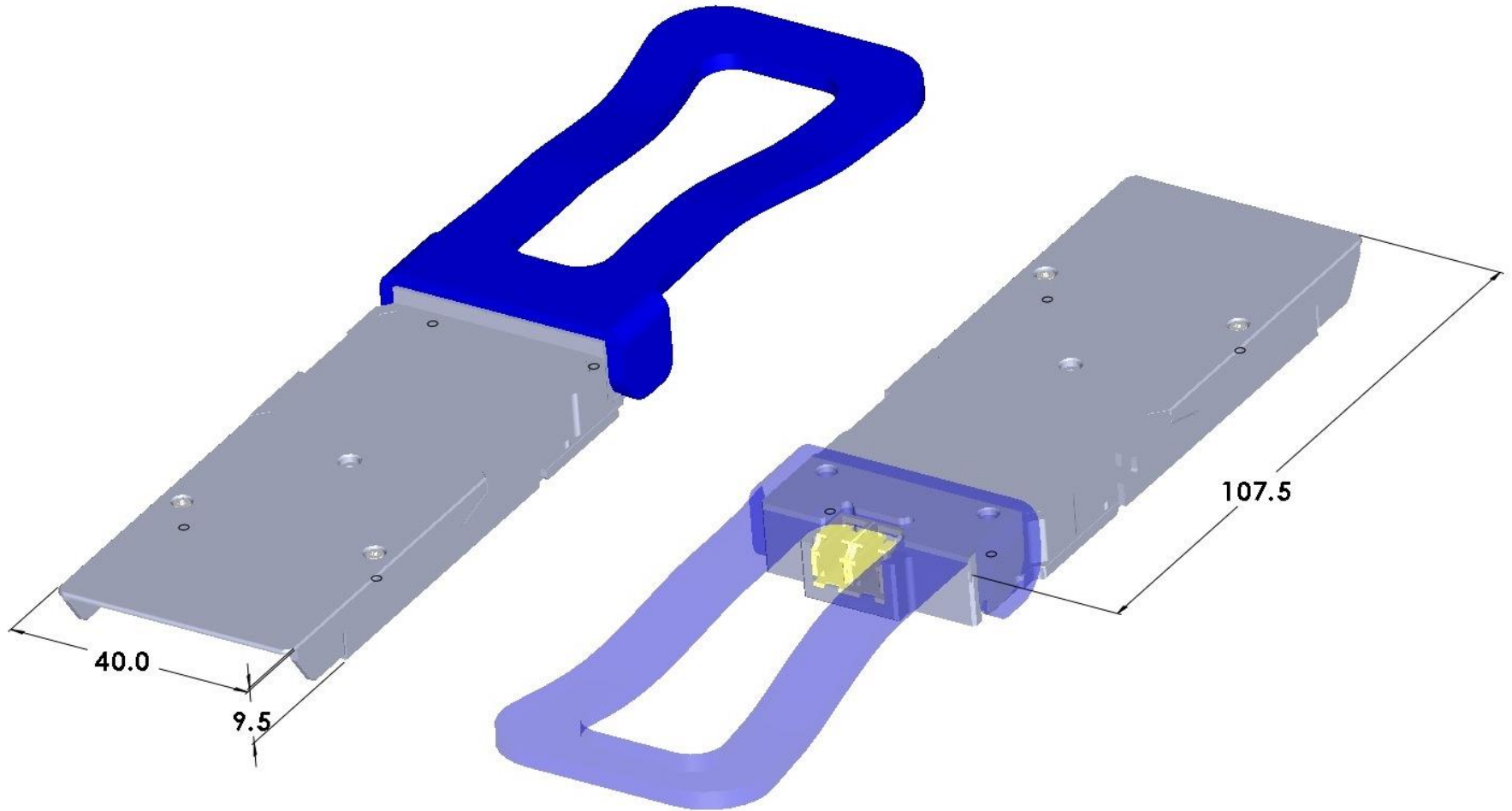
400GBASE-SR16 MMF MPO CFP8 Module



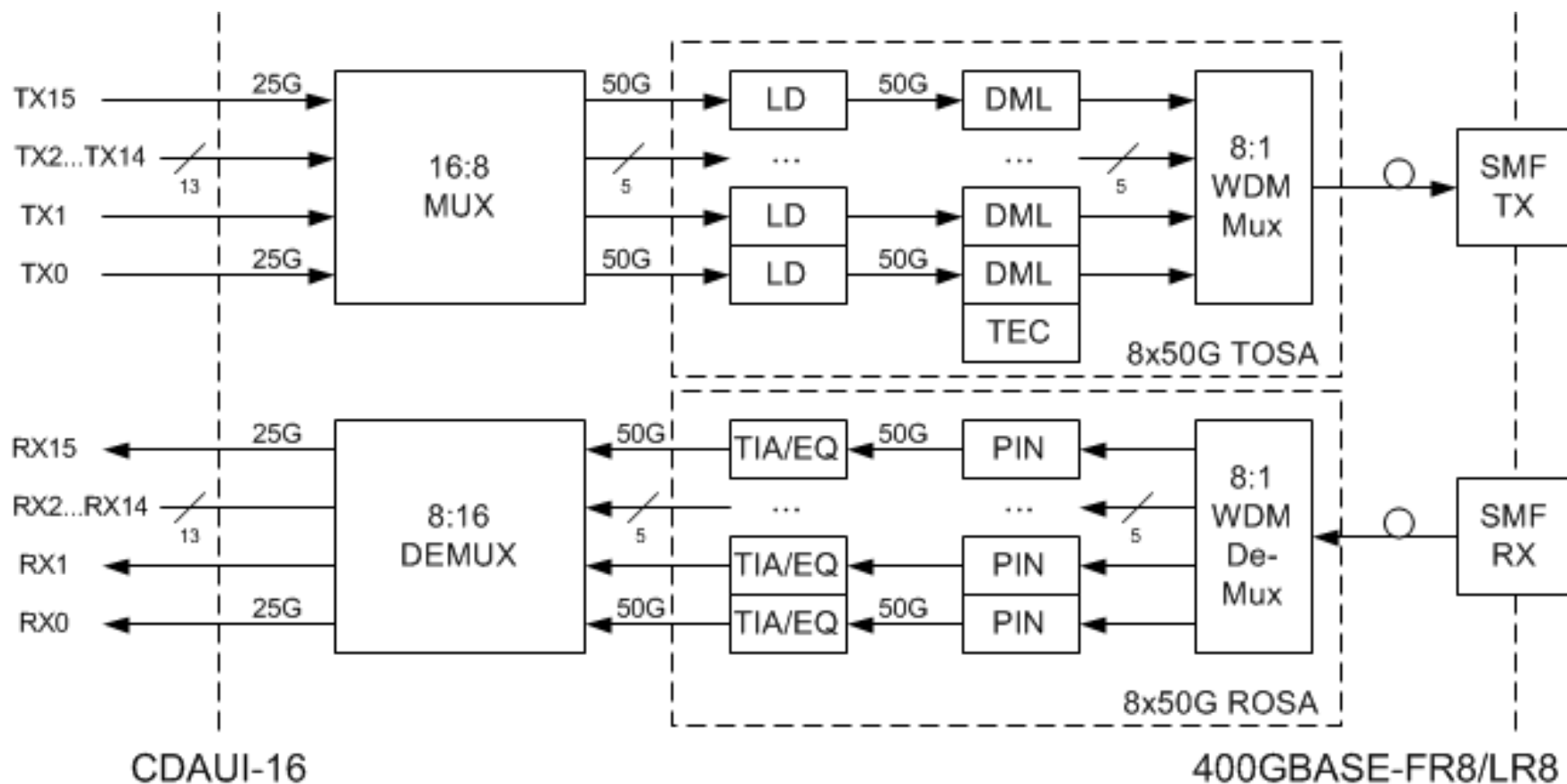
400GBASE-SR16 CFP8 Generic Diagram



400GBASE-FR8/LR8 SMF Duplex LC CFP8

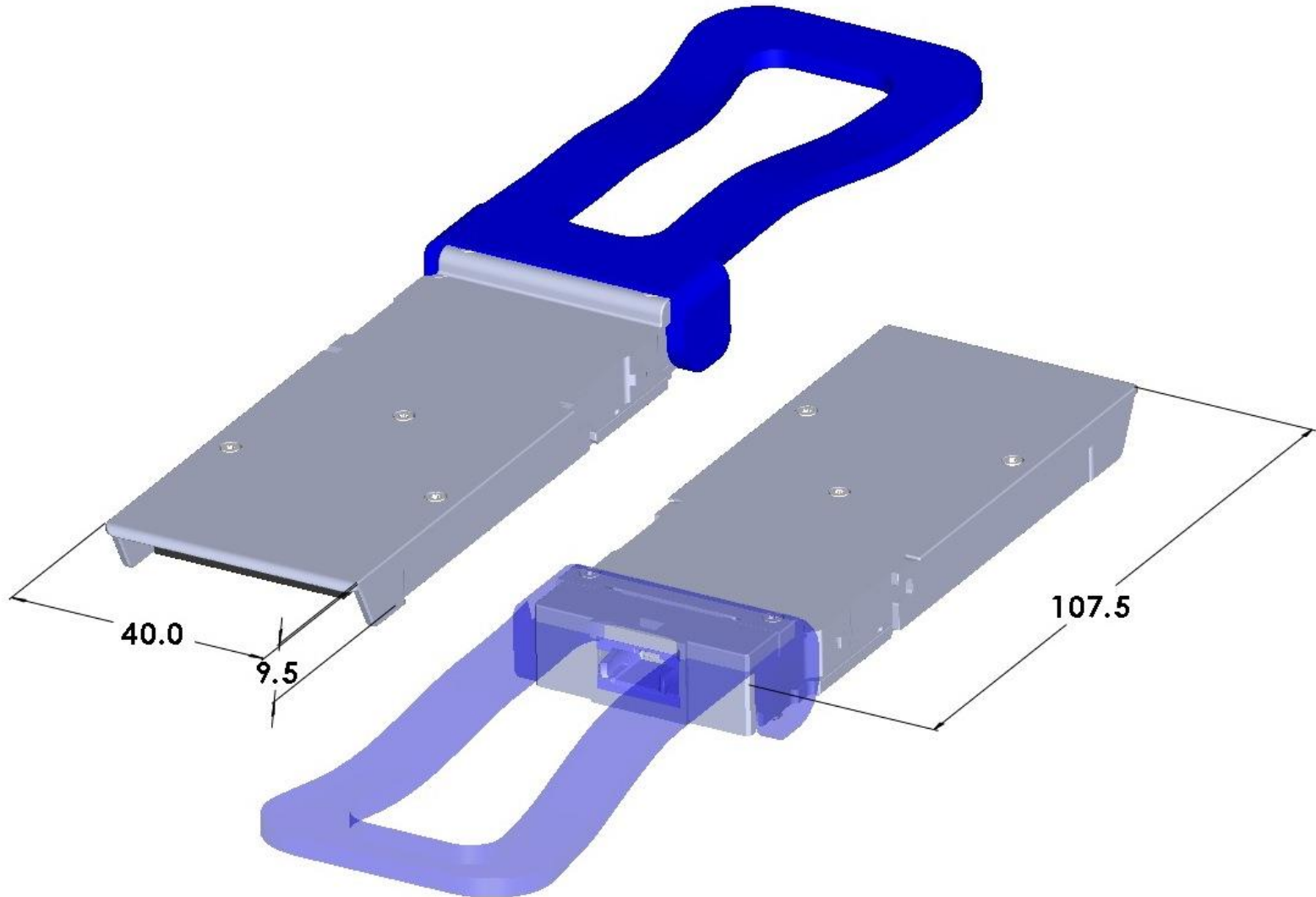


400GBASE-FR8/LR8 CFP8 Generic Diagram

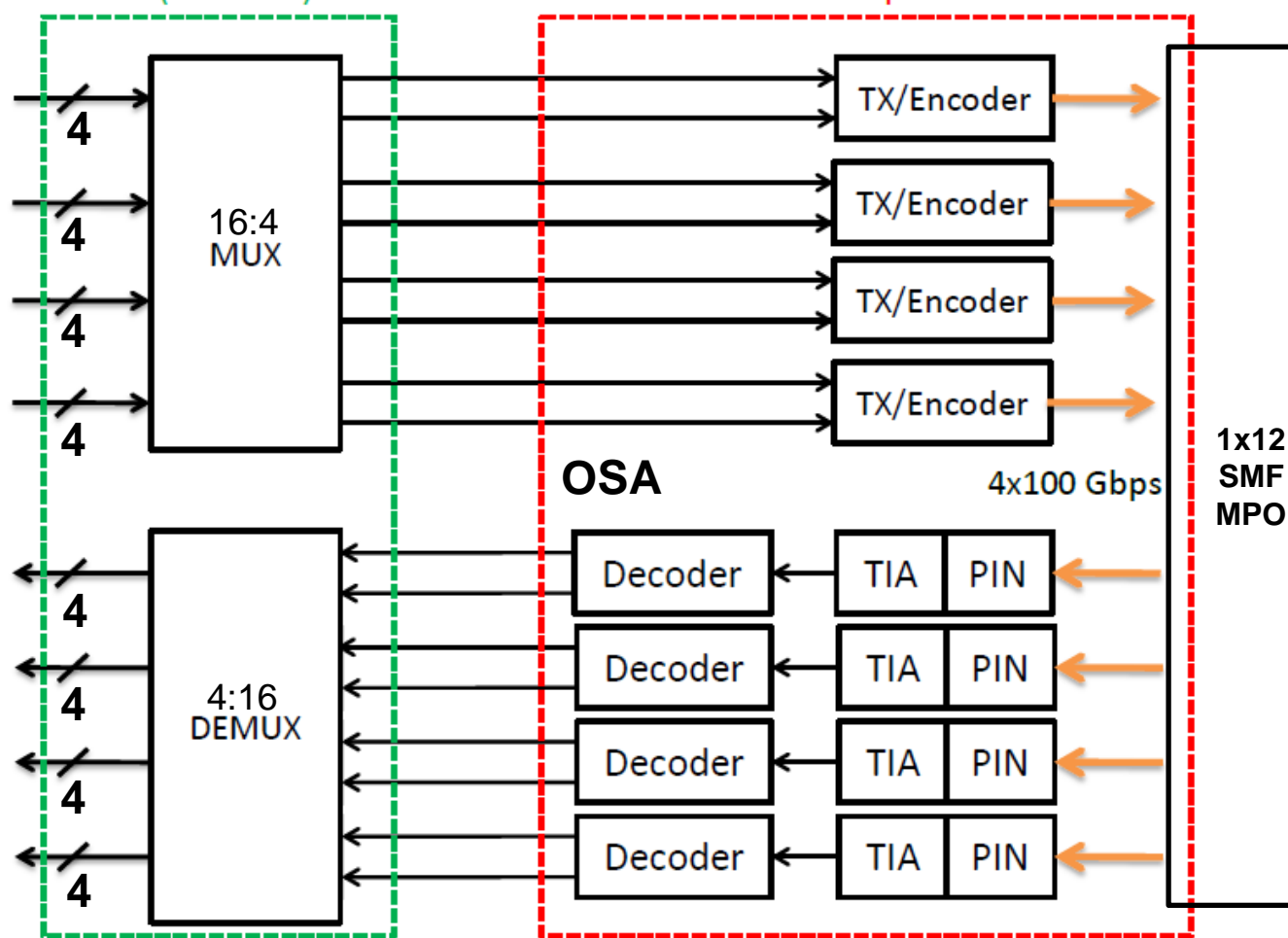


TOSA DML alternatives are EML and CW laser + MZ Mod.

400GBASE-DR4 SMF MPO CFP8 Module



400GBASE-DR4 CFP8 Generic Diagram



CDAUI-16

(welch_3bs_01a_0715, p.6)

400GBASE-DR4

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Thank you