Optical connector types for 800GBASE-VR8, 800GBASE-SR8, 800GBASE-DR8 and 800GBASE-DR8-2

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Introduction

- At 50G/lane, 400GBASE-SR8 has two optical connector options:
  - Option A, a dual-row twelve-fiber interface (24 fiber positions),
  - Option B, a single-row sixteen-fiber interface
    - This was new when chosen, but TIA specs were available, and it seems to have market traction
  - Each in a single MPO
  - Both "flat" (not angled) interface
- At 100G/lane MMF, up to 4 lanes, there are two options:
  - a single-row twelve-fiber interface, flat or angled interface
  - Early adopters prefer the angled interface for signal integrity
- There are no 8-lane SMF parallel optics Ethernet PMDs before this project
- SMF MPOs are always angled

800G modules

- 8 x 100G parallel optics modules are made with these connector formats:

- Two single-row 12-fiber MPOs (4 lanes in each)
  - Suitable for breakout

- One single-row 16-fiber MPO (8 lanes)

- SMF and MMF

- Angled

- Question 1: as these options seem to have market acceptance, is there a need to add a two-row twelve-fiber (24 fiber positions) variant?

- Question 2: if there is, should the MMF version be flat or angled?

Thanks!

Multiplexing rules and impairments