IEEE P802.3dj
200 Gb/s, 400 Gb/s, 800 Gb/s, and 1.6 Tb/s Ethernet Task Force
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Update – Optical MDI's Normative Connector Position(s)

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Introduction

- **D2.0 Comment #523 was rejected due to "No consensus to make a change."**
- **Current language in D2.1 (180A.4.1 and 180A.4.2) shown to right.**
- **In general, the text addresses a fully populated connector, then addresses a non fully utilized MDI connector.**

- **Based on real world fiber plant implications - two key applications the text needs to address:**
  - **Single PMDs (optical connector position(s) needs to be normative)**
  - **Combinations of PMDs**

- **It is unclear if the same approach for Cu cabling is appropriate.**

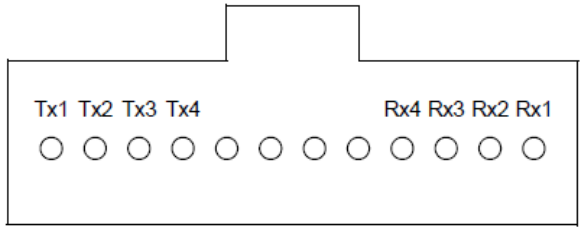

Figure 180A–2—Optical lane assignments for a single-row 12-position connector

Table 180A–2 shows the mapping of PMD signals to optical connector positions for single-row 12-position optical interfaces. Such interfaces support a single 4-lane optical PMD, such as 800GBASE-DR4 or 800GBASE-DR4-2, or alternatively four single lane optical PMDs, such as 200GBASE-DR1 or 200GBASE-DR1-2, or two 2-lane optical PMDs, such as 400GBASE-DR2 or 400GBASE-DR2-2. When an MDI connector is not fully utilized the lower PMD numbers in Table 180A–2 should be used.

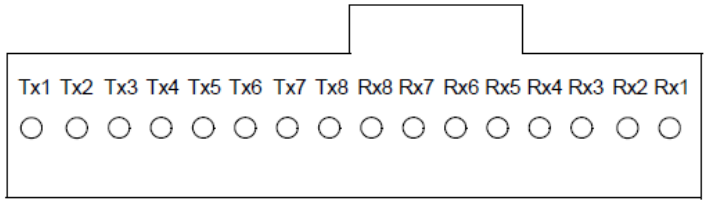

Figure 180A–3—Optical lane assignments for a single-row 16-position connector

Table 180A–4 shows the mapping of PMD signals to positions for a single-row, 16-position optical connector. Such connectors support a single 8-lane optical PMD, such as 1.6TBASE-DR8 or 1.6TBASE-DR8-2, or alternatively eight single lane optical PMDs, such as 200GBASE-DR1 or 200GBASE-DR1-2, four 2-lane optical PMDs, such as 400GBASE-DR2 or 400GBASE-DR2-2, or two 4-lane optical PMDs such as 800GBASE-DR4. When an MDI connector is not fully utilized the lower PMD numbers in Table 180A–4 should be used.

Proposed Language

Replace paragraphs after Fig 180A-2 and Table 180A-2 with the following:

Table 180A–2 shows the mapping of PMD signals to optical connector positions for single-row 12-position optical interfaces.

Such interfaces support a single one, two, or four lane optical PMD, such as 200GBASE-DR1, 200GBASE-DR1-2, 400GBASE-DR2, 400GBASE-DR2-2, 800GBASE-DR4, or 800GBASE-DR4-2. Alternatively, combinations of one lane optical PMDs, such as 200GBASE-DR1 or 200GBASE-DR1-2, or two lane optical PMDs, such as 400GBASE-DR2 or 400GBASE-DR2-2, are permissible.

For implementations where the eight connector positions are not fully utilized, the lower connector positions in Table 180A–2 shall be used. Table 180A–3 shows an example of a combination of the mapping of several optical PMDs to a fully utilized, single row, 12-position optical connector.

Replace paragraphs after Fig 180A-3 and Table 180A-4 with the following:

Table 180A–4 shows the mapping of PMD signals to positions for a single-row, 16-position optical connector.

Such interfaces support a single one, two, four, or eight lane optical PMD, such as 200GBASE-DR1, 200GBASE-DR1-2, 400GBASE-DR2, 400GBASE-DR2-2, 800GBASE-DR4, 800GBASE-DR4-2, 1.6TBASE-DR8, or 1.6TBASE-DR8-2. Alternatively, combinations of one lane optical PMDs, such as 200GBASE-DR1 or 200GBASE-DR1-2, two lane optical PMDs, such as 400GBASE-DR2 or 400GBASE-DR2-2, or four lane optical PMDs 800GBASE-DR4 or 800GBASE-DR4-2, are permissible.

For implementations where the 16 connector positions are not fully utilized, the lower connector positions in Table 180A–4 shall be used. Table 180A–5 shows an example of a combination of the mapping of several optical PMDs to a fully utilized, single row, 16-position optical connector.