Consistent Depiction of Connectors

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Associated with Comment 406 (and 396)

10 November 2025

Comment #406

Cl **176D** *SC* **176D.7.1** *P* **821** *L* **27** # 406

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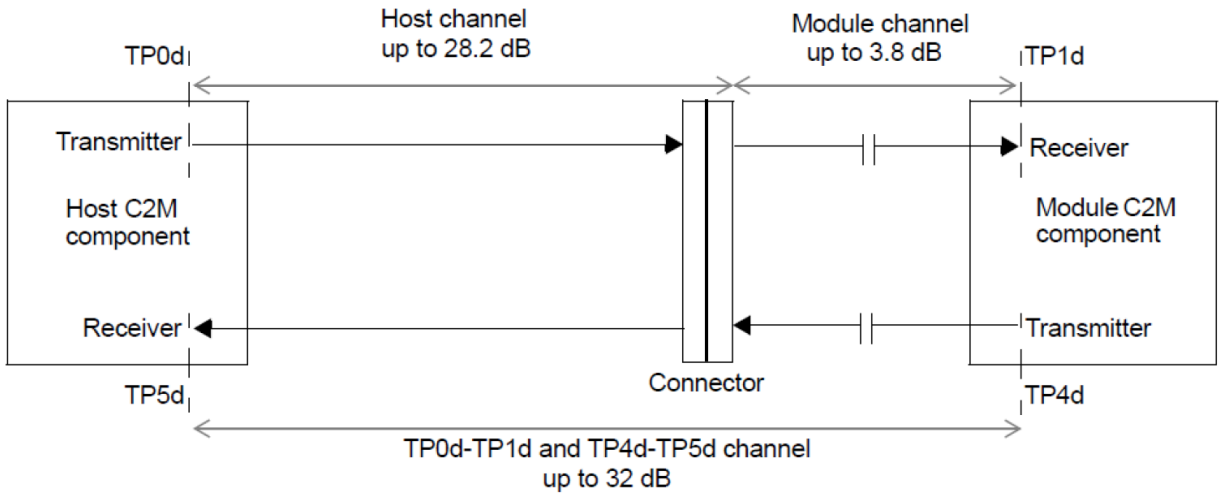
Comment Type **TR** *Comment Status* **X**

The depiction of the connector in Figure 176D-6 is inconsistent with the connector shown in other figures in the document (e.g., Figures 120C-2, 135E-2,135G-2, . The end point of the Host channel loss is ambiguous.

SuggestedRemedy

Change Figure 176D-6 to that shown to the right. Change the note under the figure to read: "NOTE—For loss budgeting purposes, the Host channel loss is from TP0d to the center of the edge connector of the module.

Proposed Response *Response Status* **O**



Connector Definition

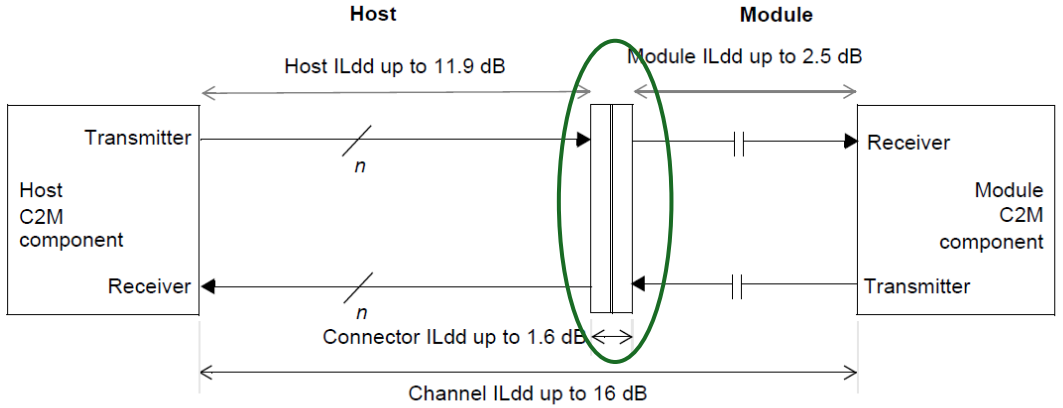
From Oxford Languages

con·nect·or

noun

- a thing which links ***two or more*** things together.
  "a pipe connector"
- a device for keeping ***two parts*** of an electric circuit in contact.
  "a cable connector"

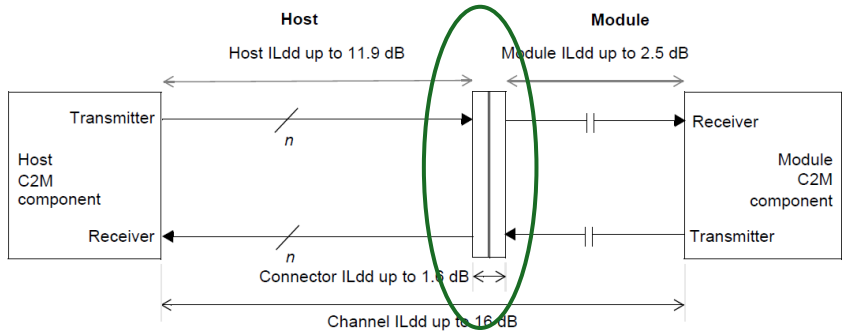
Connectors in 802.3 are Shown with Two Parts



NOTE—The number of lanes *n* is equal to 1 for 100GAUI-1, 2 for 200GAUI-2, and 4 for 400GAUI-4.

Figure 120G–2—100GAUI-1, 200GAUI-2, and 400GAUI-4 C2M insertion loss budget at 26.56 GHz

Change the title and NOTE in Figure 120G–2 (as modified by IEEE Std 802.3df-2024) as follows:



NOTE—The number of lanes *n* is equal to 1 for 100GAUI-1, 2 for 200GAUI-2, 4 for 400GAUI-4, ~~and~~ 8 for 800GAUI-8, and 16 for 1.6TAUI-16.

Figure 120G–3—100GAUI-1, 200GAUI-2, 400GAUI-4, ~~and~~ 800GAUI-8, and 1.6TAUI-16 C2M insertion loss budget at 26.56 GHz

Note typo!

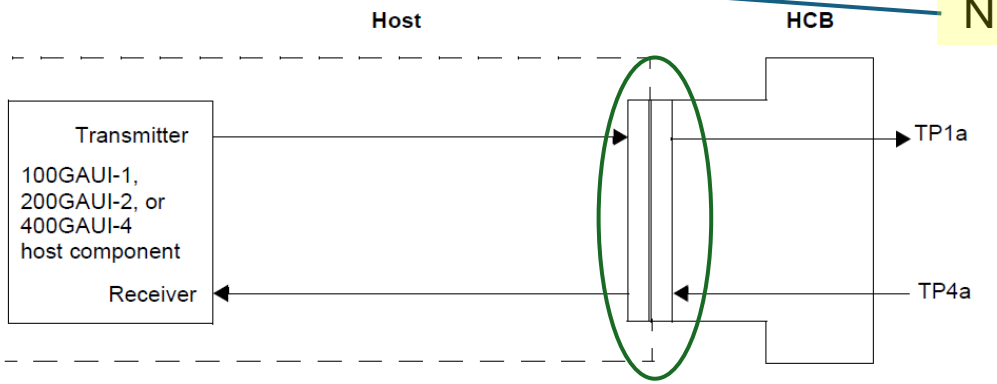


Figure 120G–3—Host compliance points

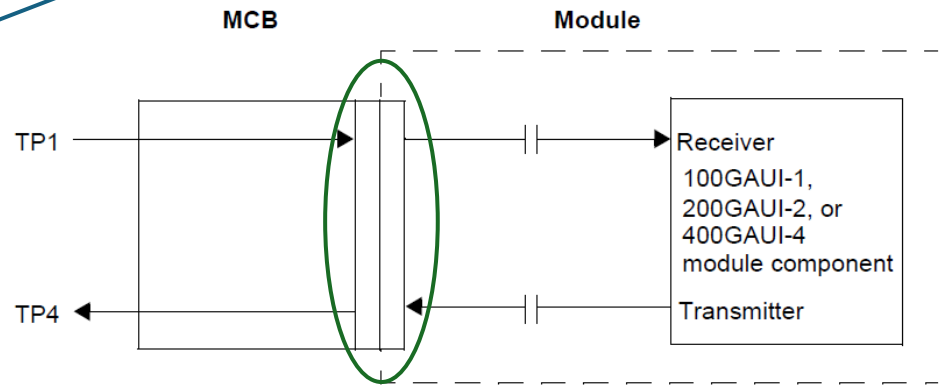
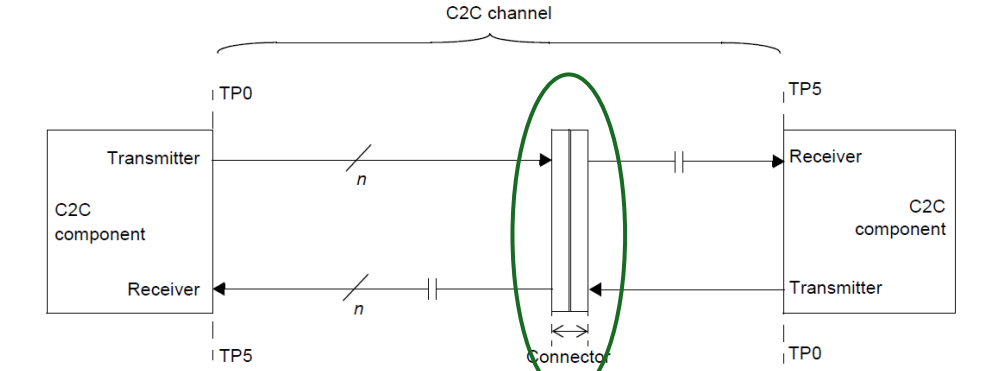


Figure 120G–4—Module compliance points



NOTE—The number of lanes *n* is equal to 1 for 100GAUI-1, 2 for 200GAUI-2, 4 for 400GAUI-4, ~~and~~ 8 for 800GAUI-8, and 16 for 1.6TAUI-16.

Figure 120F–2—Typical C2C application

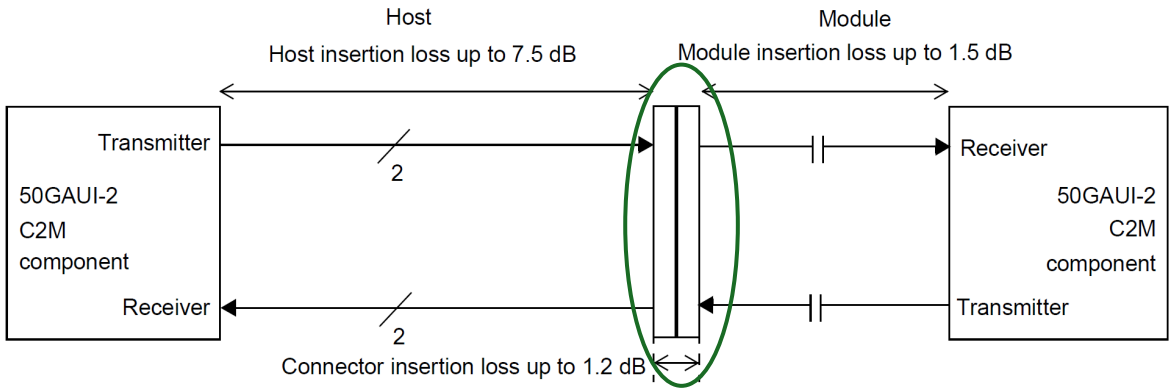


Figure 135E–2—50GAUI-2 C2M insertion loss budget at 13.28 GHz

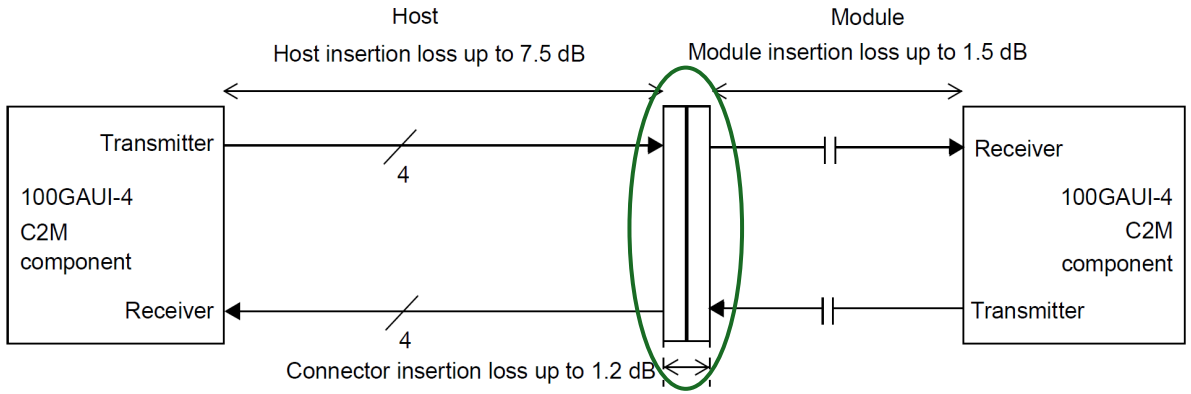


Figure 135E–3—100GAUI-4 C2M insertion loss budget at 13.28 GHz

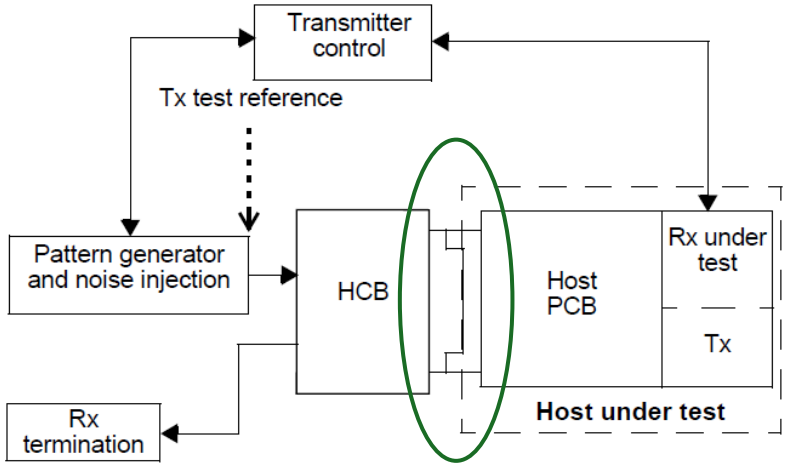


Figure 176D–7a—Host interference tolerance test setup

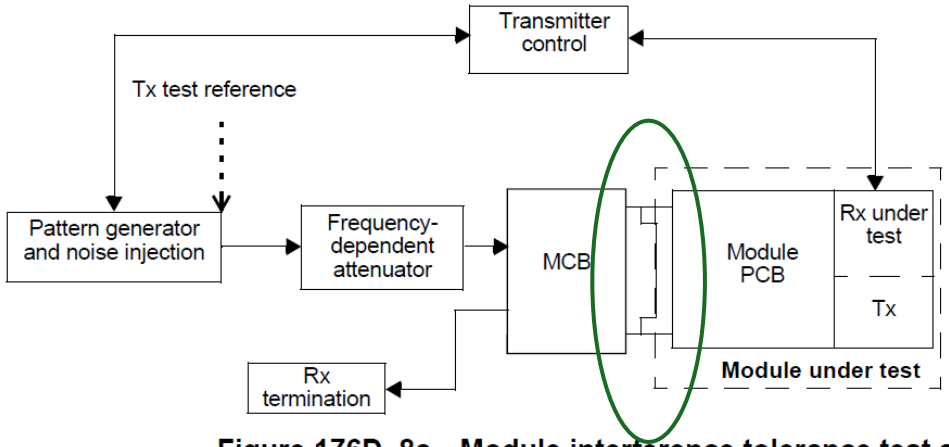


Figure 176D–8a—Module interference tolerance test setup

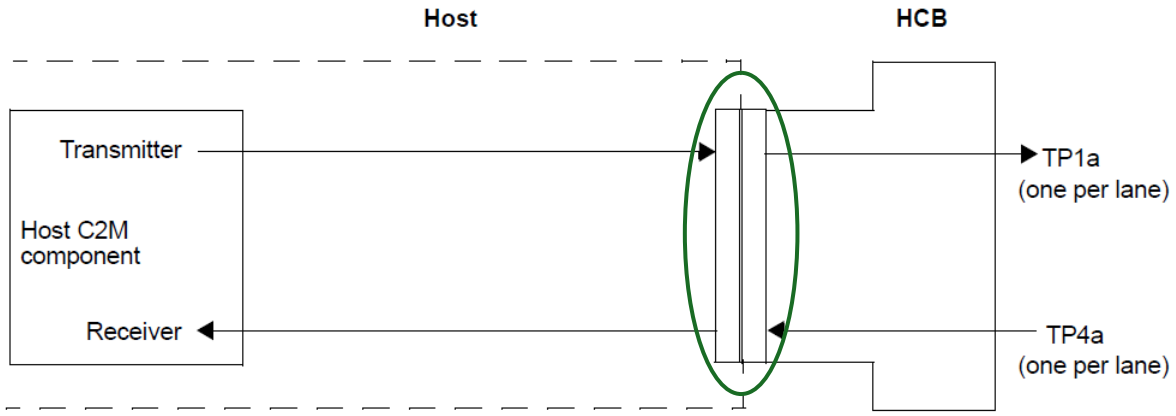


Figure 176D–4—Host compliance points

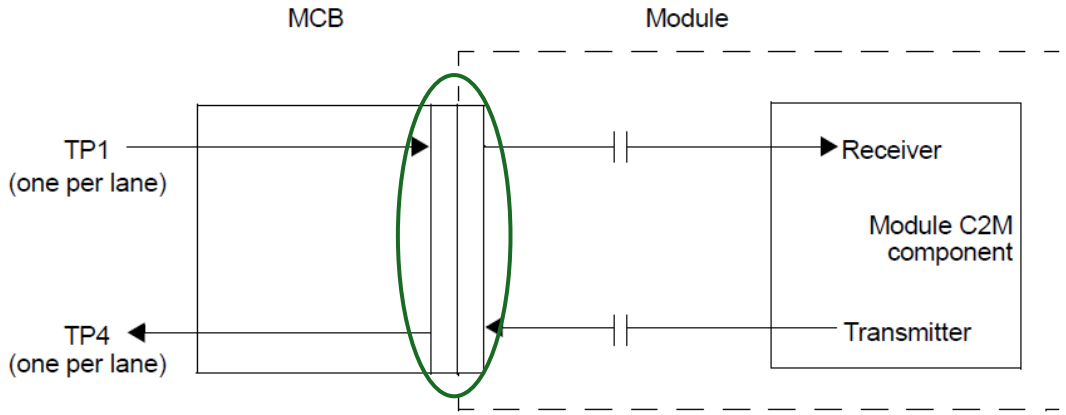
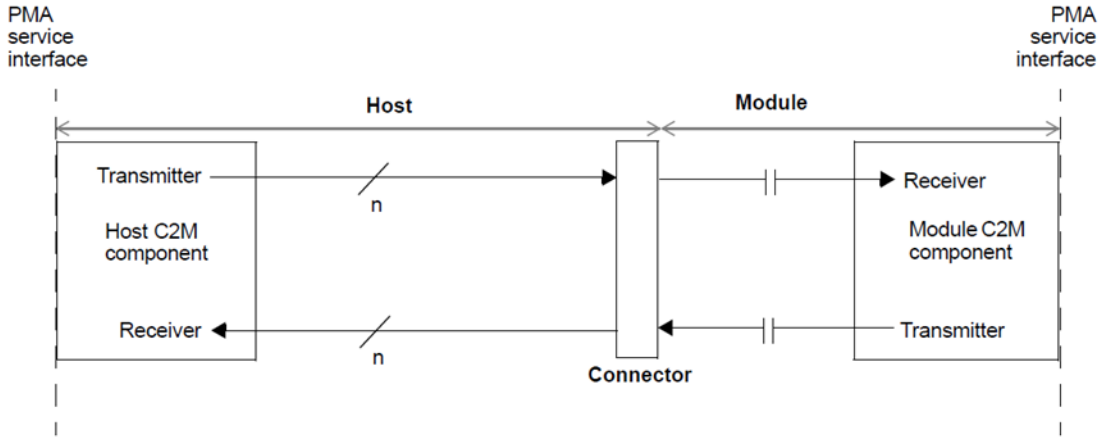


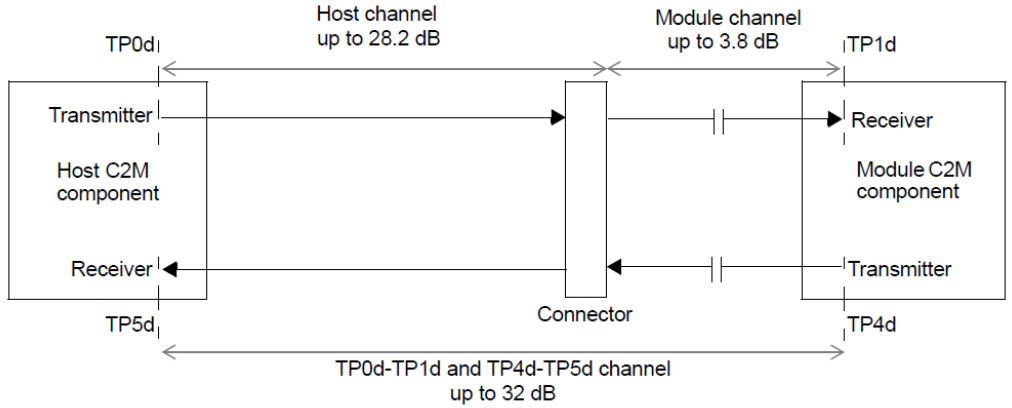
Figure 176D–5—Module compliance points

Why are we deviating from this precedent in Clause 176D?



NOTE—The number of lanes n is 1 for 200GAUI-1, 2 for 400GAUI-2, 4 for 800 GAUI-4, and 8 for 1.6TAUI-8.

Figure 176D–2—Components of a 200 Gb/s per lane AUI-C2M



NOTE—For loss budgeting purposes, the connector is considered part of the host.

Figure 176D–6—Reference insertion loss budget at 53.125 GHz

Changing the symbol for the connector creates confusion

- The figure looks wrong and raises questions
  - Where is the other half of the connector?
  - Where does the 28.2dB host allocation end?
- If the idea is to omit any part of the module connector in the host loss budget, then show the host loss terminating at the end of the host part of the connector
- If we ***really*** do not want to show two parts of the connector, then explain in the text why this is shown differently from all preceding depictions of connectors

And for the Connectors in Cl 179…

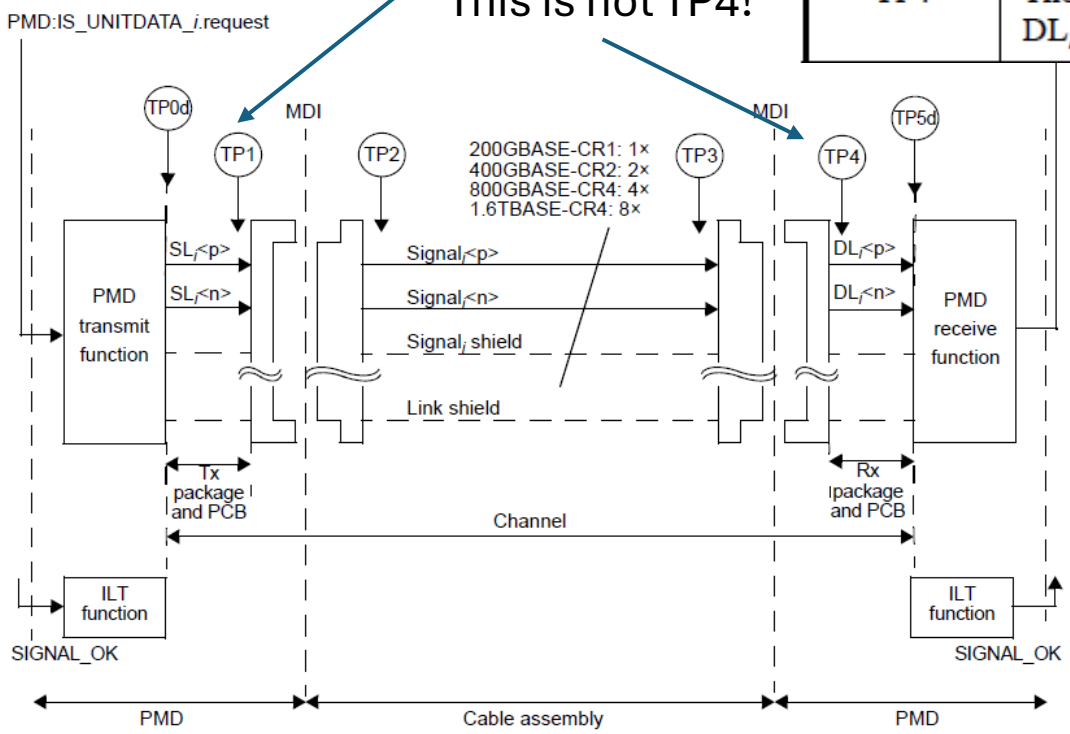
Comment #396

179.8.1:

The test points are illustrated in Figure 179–2

This is not TP1!

This is not TP4!



NOTE 1—The source lane (SL) signals SL_i<p> and SL_i<n> are the positive and negative sides of the transmitter's differential signal pair on lane *i* and the destination lane (DL) signals DL_i<p> and DL_i<n> are the positive and negative sides of the receiver's differential signal pair on lane *i*.
NOTE 2—The test points TP1, TP2, TP3, and TP4 are associated with test fixtures as described in Table 179–6.

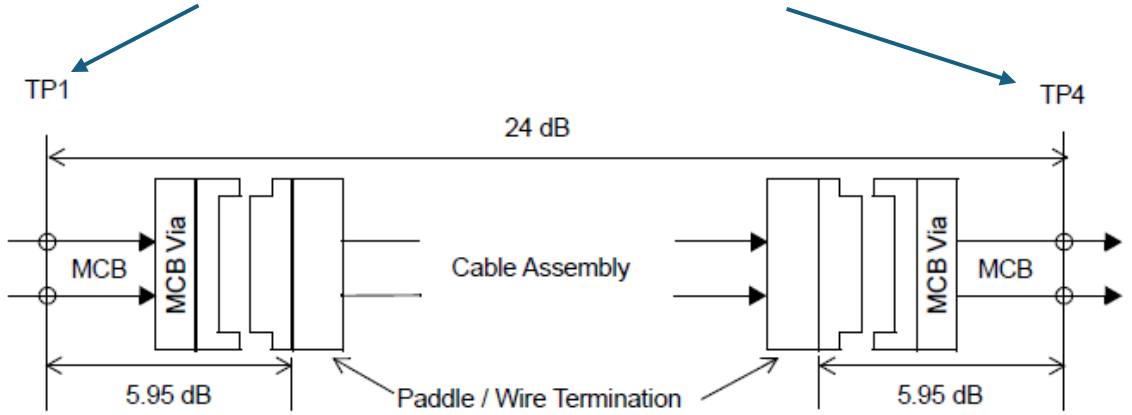
Figure 179–2—200GBASE-CR1, 400GBASE-CR2, 800GBASE-CR4 or 1.6TBASE-CR8 link diagram

Table 179–6—Test points

TP1	The input of a cable assembly test fixture (see 179B.3), corresponding to MDI signals SL_i<p> and SL_i<n>), used in cable assembly specifications.
TP4	The output of a cable assembly test fixture (see 179B.3), corresponding to MDI signals DL_i<p> and DL_i<n>, used in cable assembly specifications.

This is TP1

This is TP4



From Figure 179A-1

179B.3 Cable assembly test fixture

The cable assembly test fixture (also known as Module Compliance Board) is required for measuring the cable assembly specifications in 179.11 at TP1 and TP4. The TP1 and TP4 test points are illustrated in Figure 179–2.

And for the Connectors in Cl 179…

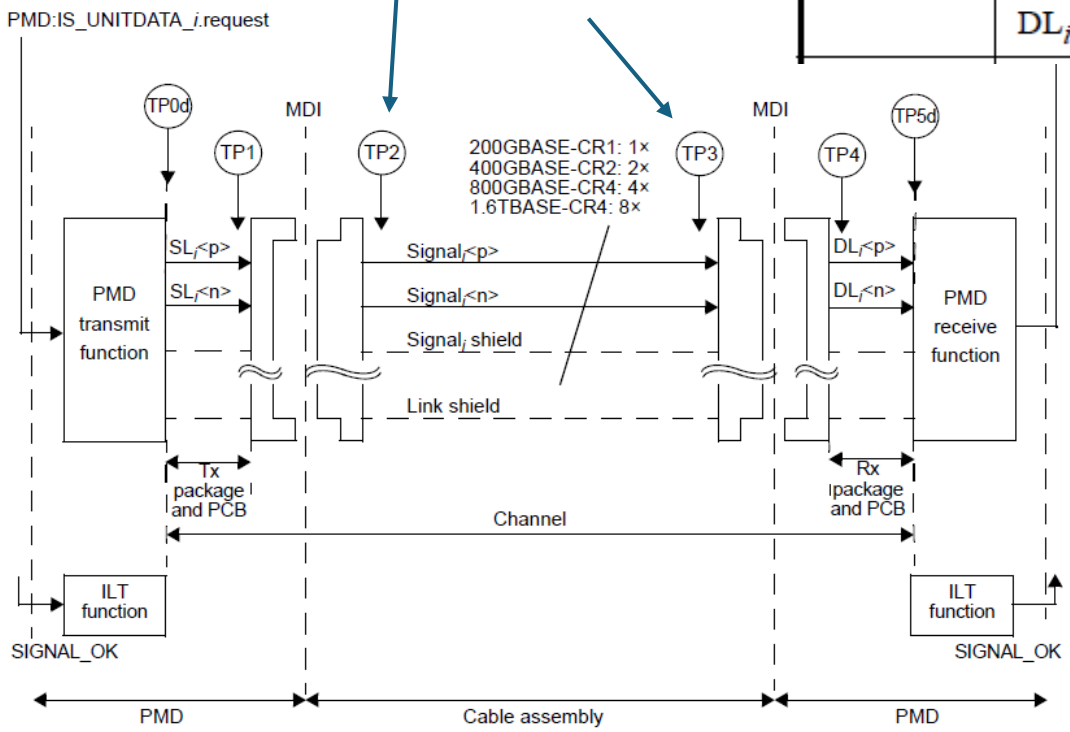
Comment #396

179.8.1:

The test points are illustrated in Figure 179–2

This is not TP2!

This is not TP3!



NOTE 1—The source lane (SL) signals SL_i<p> and SL_i<n> are the positive and negative sides of the transmitter's differential signal pair on lane *i* and the destination lane (DL) signals DL_i<p> and DL_i<n> are the positive and negative sides of the receiver's differential signal pair on lane *i*.
NOTE 2—The test points TP1, TP2, TP3, and TP4 are associated with test fixtures as described in Table 179–6.

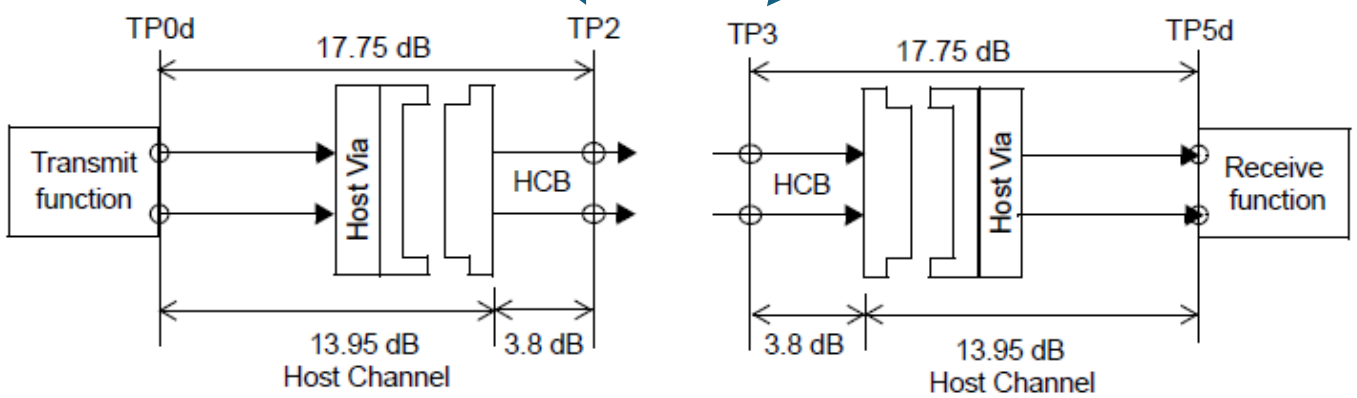
Figure 179–2—200GBASE-CR1, 400GBASE-CR2, 800GBASE-CR4 or 1.6TBASE-CR8 link diagram

Table 179–6—Test points

TP2	The output of a TP2 or TP3 test fixture (see 179B.2), corresponding to MDI signals SL_i<p> and SL_i<n>). Host output measurements and tests defined in 179.9.4 are made at this point.
TP3	The input of a TP2 or TP3 test fixture (see 179B.2), corresponding to MDI signals DL_i<p> and DL_i<n>). Host input measurements and tests defined in 179.9.5 are made at this point.

This is TP2

This is TP3



From Figure 179A-1

179B.2 TP2 or TP3 test fixture

The TP2 or TP3 test fixture (also known as Host Compliance Board) is required for measuring the transmitter and receiver specifications at TP2 and TP3. The TP2 and TP3 test points are illustrated in Figure 179A–1.

Thank you