Comments on IEEE Draft P802.3cg/D1.0

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January, 2018

"ELSE" Transition Condition

- Where
  - page 95, figure 146-4, Clause 146.3.3.1
  - Many other figures

- Comment
  - The transition condition "STD * ELSE" for the State "SEND_IDLE" and "TRANSMIT DATA" is not expressed explicitly. The same comment applies to other figures. Task Force needs to discuss this and determine whether this "ELSE" style is OK or not before taking any action

- Proposed change
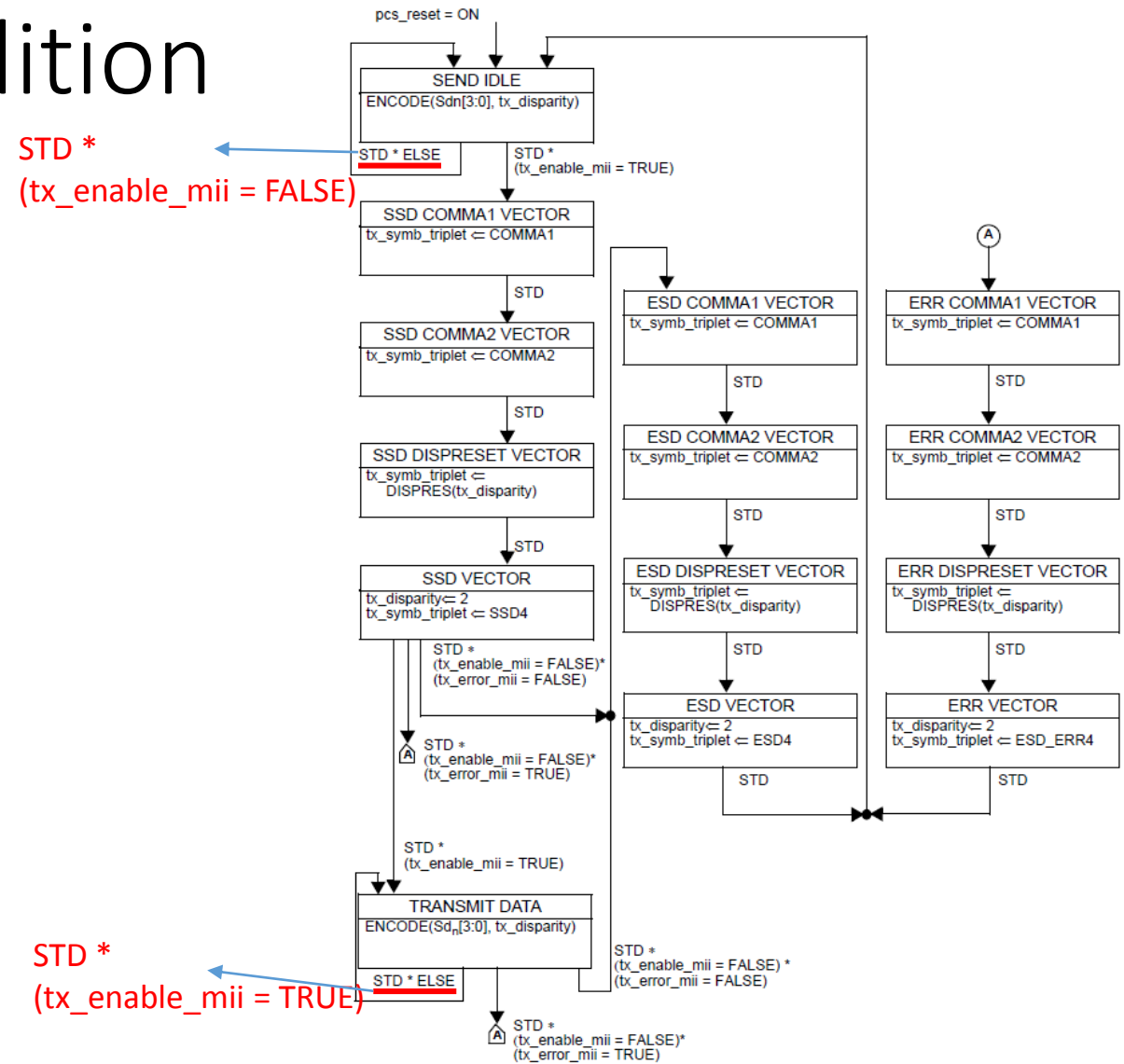 - Change all "ELSE" condition to explicit expression

Figure 146–4—PCS transmit state diagram

10BASE-T1S Description

- Where
  - Page 139, line 47, Clause 147.1.2

- Comments
  - The description is not consistent with the project objectives. Point-point and mixing link segments should be described separately

Original text

The 10BASE-T1S PHY can operate using full-duplex or half-duplex point-to-point communications over a single twisted-pair copper cable with an effective rate of 10 Mb/s in each direction simultaneously.

Additionally, the 10BASE-T1S PHY can operate using half-duplex multidrop communications over a single twisted-pair copper cable interconnecting up to at least eight in-line PHYs with up to 10cm stubs, achieving an overall effective rate of 10 Mb/s, shared among the nodes.

In any operating mode the 10BASE-T1S PHY supports operation on a link segment or mixing segment sup-porting up to four in-line connectors using a single twisted-pair copper cable for up to at least 15 meters to support low cost applications requiring short physical reach, such as industrial, automotive and automation controls.

Proposed changes

The 10BASE-T1S PHY can operate using full-duplex or half-duplex point-to-point communications on a point-to-point link segment over using a single balancedtwisted-pair copper cable and supporting up to four in-line connectors and up to at least 15 meters with an effective rate of 10 Mb/s in each direction simultaneously.

Additionally, the 10BASE-T1S PHY can operate using half-duplex multidrop communications on a mixing link segment over using a single balancedtwisted-pair copper cable interconnecting up to at least eight TBD in-line PHYs with up to 10cm stubs and supporting up to at least TBD meters, achieving an overall effective rate of 10 Mb/s, shared among the nodes.

In any operating mode the 10BASE-T1S PHY supports operation on a link segment or mixing segment sup-porting up to four in-line connectors using a single twisted-pair copper cable for up to at least 15 meters to supports low cost applications requiring short physical reach, such as industrial, automotive and automation controls.

147.3.2 PMA Transmit Function

- Where: Page 152, Line 48, Clause 147.3.2
- Comment: The description is not logically correct.

Original text

If the tx_sym parameter value is the special 5B symbol 'I' and the PHY is operating in multidrop mode, the PMD shall be put into high impedance state. When the PHY is operating in point-to-point mode a differential voltage of 0V (BI_DA+ = BI_DA-) shall be driven instead.

Proposed changes

If the tx_sym parameter value is the special 5B symbol 'I' and , the PHY is operating in multidrop mode, the PMD shall be put into high impedance state when the PHY is operating in multidrop mode. and When the PHY is operating in point-to-point mode the PMD shall drive a differential voltage of 0V (BI_DA+ = BI_DA-) shall be driven instead when the PHY is operating in point-to-point mode.

Thank You