

TDD Link Monitor State Diagram

D0.a Comment #408

IEEE P802.3dm Task Force

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Background

202.4.2.5 Link Monitor function

- Link Monitor determines the status of the underlying receive channel and communicates it via the variable link status.
- Failure of the underlying receive channel causes the PMA to set link status to FAIL, which in turn causes the PMA's clients to stop exchanging frames and restart the link.
- The Link Monitor function shall comply with the state diagram of Figure 202–28.

202.4.2.6 TDD monitor function

- The TDD monitor shall comply with the state diagram of Figure 200-34 (TBD).
- The TDD monitor sets the PMA TDD status variable, which forces a link retrain if a TDD signal is not reliably detected within a moving time window equivalent to 10 (TBD) complete TDD cycles (nominally equal to 96 μ s (TBD)).

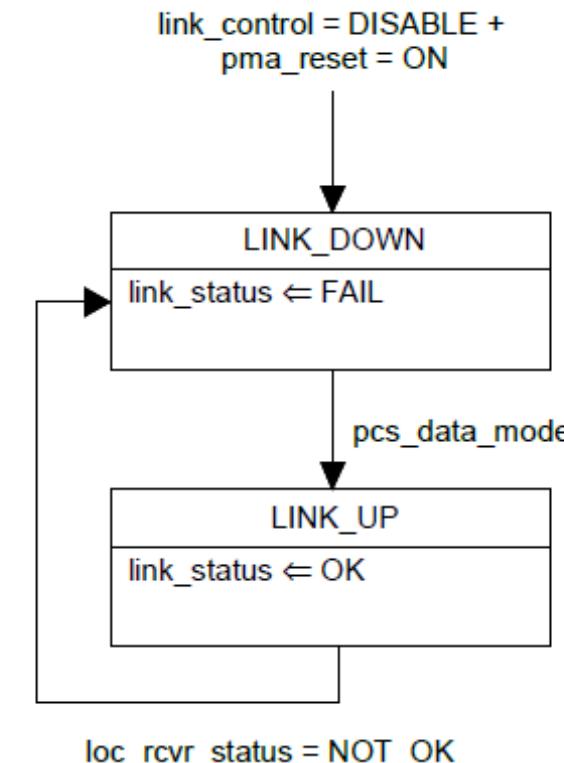


Figure 202–28—Link Monitor state diagram

Suggested Remedy

- A new variable “TDD_watchdog_status” is introduced in 202.4.4.1 and Figure 202–28.

TDD_watchdog_status

Variable indicating the status of the TDD monitor.

Values:

OK: TDD burst is detected reliably

NOT_OK: TDD burst is not detected reliably

During normal operation, NOT_OK is assigned when a TDD signal is not reliably detected within a moving time window equivalent to 10 complete TDD cycles.

- For the variable “link_control” in 202.4.4.1, the definition in 96.4.7.1 is adopted:

link_control

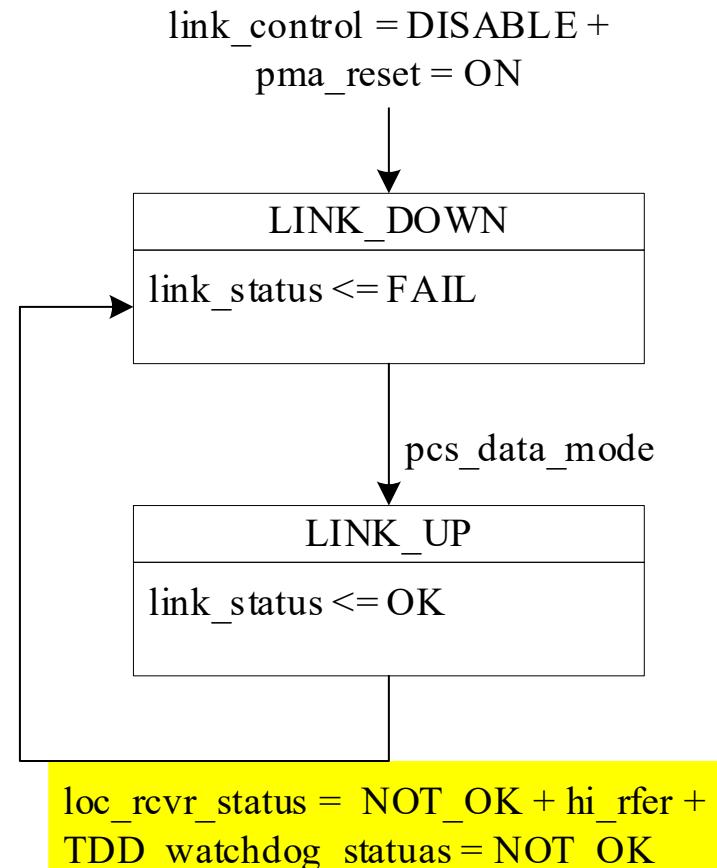
This variable is generated by management or set by default..

Values: ENABLE or DISABLE.

- Remove “pma_tdd_status” in 202.4.4.1.
- Remove “tdd_rx_monitor_timer” in 202.4.4.2.
- Remove “The TDD Monitor state diagram is show in Figure 202–29 (TBD).” in 25 line, page 210.
- Remove Figure 202–29.
- Remove subclause 202.4.2.6 TDD monitor function.

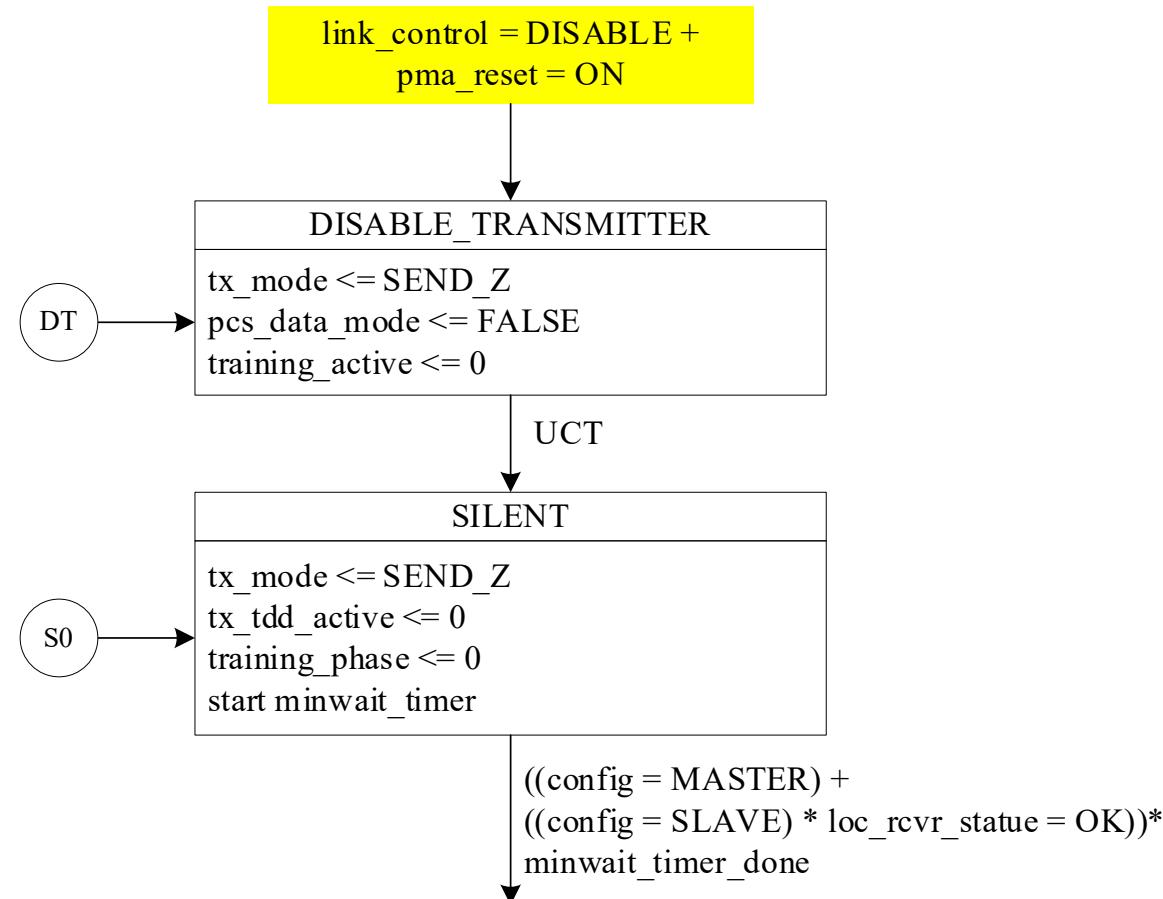
Suggested Remedy

- Update the bottom of Figure 202–28: $\text{loc_rcvr_status} = \text{NOT_OK} + \text{hi_rfer} + \text{TDD_watchdog_statyes} = \text{NOT_OK}$



Suggested Remedy

- Update the top of Figure 202–26: $\text{link_control} = \text{DISABLE} + \text{pma_reset} = \text{ON}$



THANK YOU!