

802.5t/Draft 2.1B comment resolution: Abort Sequence

The standard (802.5t/draft 2.1B) mandates that:

- An abort sequence shall be transmitted on an octet boundary (9.1.1.1)
- An abort sequence shall be received on any nybble octet boundary (Frame properties).

Q: On what boundary (nybble or octet) can an abort sequence be transmitted?

A: There is an implementation that may abort a frame on a nybble boundary, although it would normally abort on an octet boundary.

Q: For each boundary (nybble or octet) on which an abort sequence can be received, what frame classification is used?

A: An abort sequence received on either boundary indicates an aborted frame. Implementation may optionally count frames received with non-octet aligned abort sequences as line errors.

Q: What frame classification is used for the received sequence .../H/H/H/T/R/ (3 or more /H/ prior to /T/R/)?

A: It is an aborted frame, and not classified as FR_WITH_ERR.

Q: What frame classification is used for a frame that is terminated with an abort sequence, but contains a violation elsewhere in the frame?

A: It is an aborted frame, and not classified as FR_WITH_ERR.

Q: When a frame is received and classified as FR_WITH_ERR, and the last symbol received is a violation, what is the value of the E bit? Is it forced to 0, 1, or read from corrupted data?

A: Count this frame as a line error.

Q: When a frame is not terminated by a /T/R/ sequence (e.g. the frame stream reverts to /I/), what would a receiver classify this as?

A: In 4/16, this “frame” would be ignored. At 100 Mbit/s, it is classified as a FR_WITH_ERR, because above the MII, this symbol sequence will appear as a single cycle of RX_ER, prior to RX_DV being de-asserted.

These questions and answers have led to new words for standard:

An abort sequence shall be transmitted on an octet boundary, but may optionally be transmitted on any nybble boundary in the case of a STATION_ERR or PORT_ERR.

An implementation shall be capable of receiving an abort sequence on any nybble boundary. An implementation may optionally count a frame received with an abort sequence on a non-octet boundary as a line error, but the frame shall not be classified as a FR_WITH_ERR.