

P802.3z Draft 3.0 Comments

Comment ID 160 **Topic**
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CI 41 **SC** 41.2.1.6 **P** 41.7 **L** 13

Comment Type T **Comment Status** A

Description does not mention that the partition function is reset in response to transmit activity as well as receive activity.

SuggestedRemedy

Add the following sentence after bullet b) on line 13 of page 41.7: "c) The repeater has transmitted on the port for more than the number of bits specified for no_collision_timer (see 41.2.2.1.4) without incurring a collision."

Proposed Response **Response Status** C
 Accepted.

Comment ID 159 **Topic**
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CI 41 **SC** 41.2.1.6 **P** 41.7 **L** 2

Comment Type T **Comment Status** A

Description of partition function does not mention that a port is partitioned due to a jabber_timer expiration during a carrier event in which a collision occurred.

SuggestedRemedy

Add the following sentence after line 2 of page 41.7: "The partition condition is additionally detected due to a carrier event of duration in excess of jabber_timer in which a collision has occurred."

Proposed Response **Response Status** C
 Accepted.

Comment ID 165 **Topic**
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CI 41 **SC** 41.2.2.1.4 **P** 41.9 **L** 34

Comment Type T **Comment Status** A

The values for idle_timer are the same values used in clause 27 for 100 Mb/s repeaters. These values were based on empirical data of the duration of noise resulting from power cycling 100 Mb/s PHYs. It is likely that the actual duration of these events will be similar at 1000 Mb/s and will not occur ten times faster due to the increased bit rate. To maintain the timer values to be the same duration, they must be increased by a factor of 10 when measured in bit times.

SuggestedRemedy

Change the idle_timer done values from "24000 - 40000 BT" to "240000 - 400000 BT."

Proposed Response **Response Status** C
 Accepted.

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Comment ID 164 **Topic**
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CI 41 **SC** 41.2.2.1.4 **P** 41.9 **L** 34

Comment Type T **Comment Status** A

The values for false_carrier_timer, valid_carrier timer, and no_collision_timer are the same values used in clause 27 for 100 Mb/s repeaters. These values are derived from calculations that consider bit budgets, slot time, and minimum valid frame sizes, and must be modified to accomodate changes made to slot time in 1000 Mb/s operation.

SuggestedRemedy

Change the false_carrier_timer and valid_carrier_timer done values from "450 - 500 BT" to "3600 - 4000 BT."

Change the no_collision_timer done values from "450 - 560 BT" to "3600 - 4144 BT."

Proposed Response **Response Status** C

Accepted. The lower bound of the all three timers must be large enough for the round trip propogation of a transmission from the repeater to the most remote MAC. This corresponds to the repeater core processing delay, plus the round trip delay through a repeater PHY, plus the cable round trip delay, plus the worst case response (MDI to MDI) of the MAC, plus jam size. Assuming a topology with one very long repeater link, and all other repeater lengths virtually zero, the worst case round trip delay on the long link is: $320 + 328 + 2224 + 440 + 32 = 3344$ BT. Scaling the clause 27 value by a factor of 8 (corresponding to the factor of 8 increase in slot time) results in a lower bound value of 3600 which accomodates the worst case round trip with a generous margin.

The upper bound of the false_carrier_timer in clause 27 needed to be less than a minimum valid frame size, since the 100 Mb/s jam pattern could be data and a jam longer than the minimum frame size could conceivably be converted to a valid frame. The 1000 Mb/s repeater jam pattern is void symbols which is highly unlikely to be converted to a valid frame, however it seems the prudent way to proceed is to also scale the upper bound of the false_carrier_timer

and the valid_carrier_timer by a factor of 8. This results in an upper bound of 4000 BT.

The upper bound of the no_collision_timer cannot be longer than the duration of a minimum size frame including preamble. For 100 Mb/s operation this is a 512 bit frame plus 48 bits (minimum) of preamble. The corresponding calculation of the minimum valid carrier event at 1000 Mb/s is 4096 bits (512 bytes) plus 48 bits of preamble = 4144 BT.

Comment ID 161 **Topic**

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CI 41 **SC** 41.6.4.8 **P** 41.24 **L** 11

Comment Type T **Comment Status** A

PICS should have an item for partitioning port when a collision occurs during a carrier event with a duration exceeding jabber_timer_done.

SuggestedRemedy

Insert a new item between PA2 and PA3 (and renumber items accordingly) for "Excessive receive duration with collision for entry into partition state." with comment "Reception duration in excess of jabber_timer with collision."

Proposed Response **Response Status** C

Accepted.

P802.3z Draft 3.0 Comments

Comment ID 162 **Topic**
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CI 41 **SC** 41.6.4.8 **P** 41.24 **L** 15

Comment Type T **Comment Status** A

PICS item PA4 comment is inaccurate.

SuggestedRemedy

Replace "successful collision" with "successful transmission or reception"

Proposed Response **Response Status** C

Accepted.

Comment ID 163 **Topic**
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CI 41 **SC** Figure 41-2 **P** 41.11 **L** 33

Comment Type T **Comment Status** A

A false carrier event should cause jam to be transmitted on all ports including the port that received the false carrier.

SuggestedRemedy

Add a variable "force_jam" that is:
a) defined in subclause 41.2.2.1.2,
b) set in the Carrier Integrity Monitor state machine,
c) and tested in the Repeater Unit state machine.

The definition should be:
"Flag from Carrier Integrity state diagram for port X which causes the Repeater Unit to enter the Jam state.

Values: true; port is in the False Carrier state.
false; port is not in the False Carrier state."

In the Carrier Integrity Monitor state diagram (Figure 41-4):
a) set force_jam(X) to True in the False Carrier state.
b) set force_jam(X) to False in the Link Unstable and the Link Wait states.

In the Repeater Unit state diagram (Figure 41-2):
Add a open transition into the Jam state upon the condition
(ResetRepeater = false) * (PowerOn = false) *
(force_jam(ANYXJIP) = true)

Proposed Response **Response Status** C

Accepted.

P802.3z Draft 3.0 Comments

Comment ID 17 **Topic**

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CI 41 **SC** 41.1 **P** 41.2 **L** 14

Comment Type E **Comment Status** A

Brackets in figure 41-1 show funny little boxes

SuggestedRemedy

Copy good-looking brackets from fig. 2-1

Proposed Response **Response Status** C

Accepted.

Comment ID 156 **Topic**

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CI 41 **SC** 41.1 **P** 41.2 **L** 26

Comment Type E **Comment Status** A

GMIl acronym expansion incorrect.

SuggestedRemedy

Add the word "Gigabit" to the acronym expansion.

Proposed Response **Response Status** C

Accepted.

Comment ID 158 **Topic**

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CI 41 **SC** 41.2.1.6 **P** 41.6 **L** 48

Comment Type E **Comment Status** A

First sentence says the partition function "may be desirable" but it is a required function.

SuggestedRemedy

Replace "In large multisegment networks it may be desirable" with "It is desirable"

Proposed Response **Response Status** C

Accepted.

Comment ID 168 **Topic**

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CI 41 **SC** 41.2.2.1.2 **P** 41.9 **L** 1

Comment Type E **Comment Status** A

Link Configuration has been renamed Auto-Negotiation.

SuggestedRemedy

Replace the definition of the link_status variable with:

"Indication from the Auto-Negotiation process (see clause 37) that Auto-Negotiation has completed and the priority resolution function has determined that the link will be operated in half duplex mode.

values: OK; the link is operational in half duplex mode.
 FAIL; the link is not operational in half duplex mode."

Proposed Response **Response Status** C

Accepted.

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CI 41 **SC** 41.2.2.1.2 **P** 41.8 **L** 34

Comment Type E **Comment Status** A
RX_EN(X) is not the correct signal name.

SuggestedRemedy
Change "RX_EN(X)" to "RX_DV(X)".

Proposed Response **Response Status** C
Accepted