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2 | 8802-3/802.3 REVISION REQUEST |
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4 DATE: November 9, 2020
5 NAME: Adee Ran
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8

9 REQUESTED REVISION:
10 STANDARD: 802.3
11 CLAUSE NUMBER: 120D.3.2.2, 120E.3.3.2.1
12 CLAUSE TITLE: Receiver jitter tolerance
13

14 PROPOSED REVISION TEXT:
15 In Table 120D-7, insert an additional column between the columns for
16 "Case A" and "Case B", with symbol error ratio 10^{-4} , Jitter frequency
17 0.4 MHz, and Jitter amplitude (pk-pk) 0.5 UI. Re-label the headings to
18 "Case A" through "Case F". Change the reference to "Case E" in
19 120D.3.2.2 item c accordingly.
20

21 Apply a similar change in Table 120E-6.
22

23 RATIONALE FOR REVISION:
24 The tables include receiver jitter tolerance test cases for 50 Gb/s per
25 lane AUIs, which are also used for 50GBASE-KR and 50GBASE-CR PHYs and
26 their multi-lane versions. The low frequency test cases are at 40 kHz and
27 1.333 MHz, but there is a wide range of frequencies in between with no
28 jitter tolerance requirements. This range includes typical frequencies of
29 switching power supplies, which are a significant source of jitter in
30 some implementations. Compliant transmitters can thus have jitter in this
31 spectrum that receivers are not required to tolerate. This has been
32 identified as a source of interoperability issues.
33

34 The addition of another frequency will create two frequency points per
35 decade which would improve the coverage of allowed transmitter jitter
36 spectrum in receiver jitter tolerance tests and provide better
37 interoperability between compliant devices.
38

39 A similar change has been accepted and applied for all 100 Gb/s
40 interfaces defined in P802.3ck, following comments 146 and 11033 against
41 D1.2. Prior to the change, jitter tolerance requirements referred to
42 Table 120D-7.
43

44 IMPACT ON EXISTING NETWORKS:
45 None; new devices will have additional requirements.
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2 |Please attach supporting material, if any
3 |Submit to:- David Law, Chair IEEE 802.3
4 |and copy:- Adam Healey, Vice-Chair IEEE 802.3
5 |
6 |At:- E-Mail: stds-802-3-maint-req@ieee.org
7 |
8 | +----- For official 802.3 use -----+
9 | | REV REQ NUMBER: 1385
10 | | DATE RECEIVED: 9 December 2020
11 | | EDITORIAL/TECHNICAL
12 | | ACCEPTED/DENIED
13 | | BALLOT REQ'D YES/NO
14 | | COMMENTS:
15 +-----+
16 | For information about this Revision Request see -
17 | http://www.ieee802.org/3/maint/requests/revision\_history.html#REQ1385
18 +-----+
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