

IEEE P1802.3Rev D3.0 Sponsor Ballot comments

commentID = 1
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 7
line = 35
subclause = 1.6
comment_type = Editorial

comment = The example test case number is from a AUI test that has now been removed.

suggested_remedy = Update the example to use a 10BASE-T test.

response = **Accept**

commentID = 2
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 8
line = 21
subclause = 1.8
comment_type = Editorial

comment = The references to IEEE Std 802.3-1992 [ISO/IEC 8802-3, DAM17] need to be updated as this supplement is now included in the base Standard.

suggested_remedy = Update the references.

response = **Accept**. The reference will be changed to the current edition and in addition the Scope statement will be updated to correctly reflect the scope of this Conformance test in relation to the current edition of IEEE Std802.3-1998 (ie no support for Auto-Negotiation, Full Duplex). Include statement that the value of the test is for the MDI testing. In addition a general review and clean up of all references will be performed.

commentID = 3
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 8
line = 11
subclause = 1.8
comment_type = Editorial

comment = The references to [3] ISO/IEC 8802-3 :1993 [ANSI/IEEE Std 802.3, 1993 Edition] need to be updated to reference the current edition of the Standard.

suggested_remedy = Update 802.3/8802-3 reference.

response = **Accept**. See comment #2

commentID = 4
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 88
line =

subclause = 6.3.3.11
comment_type = Editorial

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

The NOTE that the value is under review should be removed. Additionally, the review should be completed and the test value, if necessary, revised. No suggested text for a revision is provided.

suggested_remedy = Remove note or provide correct value(s).

response: **Accept.** The conformance test matches the standard (Subclause 7.4.1.3) and the note will be removed (as it appears the review did not result in any change to the specification).

commentID = 5
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 69
line =
subclause = 6.3.1
comment_type = Editorial

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Test signal 22m

The text on the last line is spread out to match the full width of the column, and looks real odd.

This also applies to test signals 23b, 24b.

suggested_remedy = Remove full column width justification.

response: **Accept.** See test signal 23b for an example of the problem.

commentID = 6
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 66
line =
subclause = 6..1
comment_type = Technical
comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Signal Number 7a

If the intent of test signal 7a is to provide a series of valid Manchester signals from the MAU-RD input to the AUI-DI input as is implied in the note: [Note: this signal is equivalent to 60 cycles of a maximally jittered 5 MHz signal (30 cycles of maximum jitter in each direction)], then the described patterns are not legal Manchester, and can not be decoded by a conformant Manchester decoder.

Pattern descriptions:

Pattern A is 73 ns high, 127 ns low
Pattern C is 127 ns high, 73 ns low

When pattern A is concatenated with pattern C, the result is not valid manchester. A transition pattern B, with a period of 173 ns, between the end of pattern A and the start of pattern B is required. To meet mid cell transition, the following is suggested:

a pattern B of 100 ns high, 73 ns low.

When pattern C is concatenated with pattern A, the result is not valid manchester. A transition pattern D, with a period of 227 ns, between the end of pattern C and the start of pattern A is required. To meet mid cell transition, the following is suggested:

a pattern D of 100 ns high, 127 ns low.

Thus the 5 MHz repeating pattern is (AAAAAA)(B)(CCCCC)(D).

The same situation occurs for the 10 MHz repeating pattern. For Pattern descriptions of:

Pattern E is 23 ns high, 77 ns low

Pattern F is 77 ns high, 23 ns low

When pattern E is concatenated with pattern F, the result is not valid manchester. A transition pattern B, with a period of 173 ns, between the end of pattern E and the start of pattern F is required.

When pattern F is concatenated with pattern E, the result is not valid manchester. A transition pattern D, with a period of 227 ns, between the end of pattern F and the start of pattern E is required.

Thus the 10 MHz repeating pattern is (EEEEEE)(B)(FFFFFF)(D).

Note: My arithmetic says that no transition pattern from end of pattern D to start of pattern E is necessary.

suggested_remedy = SuggestedRemedy: If the intent of test signal 7a is that the signals are not intended to represent valid Manchester encodings, then the comment will be withdrawn.

Other than add the transition pattern and reorganize the description for clarity, there is no intent to add, change, or remove the technical requirements. Suggested text may be revised as the committee sees fit. Otherwise, replace existing text for test pattern 7a with the following:

---- Start replacement text -----

A MAU-RD signal consisting of multiple sets of alternating polarity pulses with a peak amplitude of 585 mV, when measured at the MDI, with a rising edge described by $585 \text{ mV} * \sin(2\pi * t/PW)$, and a falling edge described by $585 \text{ mV} * \sin(2\pi(t - PW/2)/PW)$, where PW is described by pattern A, B, C, D, E, or F.

Two sets of sequences are provided. The first set consists of:

Pattern A: The first pattern has a pulse width of 73 ns on the positive polarity and 127 ns on the negative polarity.

Pattern B: The second pattern has a pulsewidth of 100 ns on the positive polarity and 73 ns on the negative polarity.

Pattern C: The third pattern has a pulse width of 127 ns on the positive polarity and 73 ns on the negative polarity.

Pattern D: The fourth pattern has a pulsewidth of 100 ns on the positive polarity and 127 ns on the negative polarity.

The second set of sequences consists of:

Pattern E: The fifth pattern has a pulse width of 23 ns (+1,-0 ns) on the positive polarity and 77 ns on the negative polarity.

Pattern F: The sixth pattern has a pulsewidth of 77 ns on the positive polarity and 23 ns (+1,-0 ns) on the negative polarity.

Pattern E and F are alternating polarity one-half cycle sine-wave pulses (see Fig 6-3 and Fig 14-16 of ISO/IEC 8802-3 : 1993 [3]).

The test sequence consists of five sets of the patterns [(AAAAAA)(B)(CCCCC)(D)], followed by a continuous series of patterns [(EEEEEE)(B)(FFFFFF)(D)]

[Note: this signal is equivalent to multiple cycles of a maximally jittered 5 MHz signal (multiple cycles of maximum jitter in each direction) followed by a maximally jittered 10 MHz signal, all at minimum amplitude.]

response = **Comment withdrawn.**

commentID = 7
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 66
line =
subclause = 6..1
comment_type = Technical
comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Signal Number 7b

See previous comment for Signal Number 7a.

suggested_remedy = Similar to previous comment for Signal Number 7a. Test 7b differs from 7a in that the wide pulses are sent first, then the narrow pulses. Caution, the submitter has not validated where the transition cells need to be placed.

response = **Comment withdrawn.**

commentID = 8
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060

fax = +44 1442 438333

org = 3Com

page = 67

line =

subclause = 6..1

comment_type = Technical

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Signal Number 8a

See previous comment for Signal Number 7a.

suggested_remedy = Similar to previous comment for Signal Number 7a. Test 8a differs from 7a in that only the narrow pulses are sent. Thus test pattern [(EEEEEE)(B)(FFFFFF)(D)] should be ok.

response = **Comment withdrawn.**

commentID = 9

name = David Law

email = David_Law@3Com.com

phone = +44 1442 438060

fax = +44 1442 438333

org = 3Com

page = 67

line =

subclause = 6.1

comment_type = Technical

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

See previous comment for Signal Number 8a.

suggested_remedy = Similar to previous comment for Signal Number 8a. Test 8b differs from 7a in that only the wide pulses are sent. Thus test pattern [(FFFFFF)(D)(EEEEEE)(B)] should be ok.

response = **Comment withdrawn.**

commentID = 10
 name = David Law
 email = David_Law@3Com.com
 phone = +44 1442 438060
 fax = +44 1442 438333
 org = 3Com
 page = 67
 line =
 subclause = 6..1
 comment_type = Technical

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Signal Number 10

See previous comment for Signal Number 8a.

suggested_remedy = Similar to previous comment for Signal Number 7a to 8b.

response = **Comment withdrawn.**

commentID = 11
 name = David Law
 email = David_Law@3Com.com
 phone = +44 1442 438060
 fax = +44 1442 438333
 org = 3Com
 page = 49

line =

subclause = 6.2.1.13

comment_type = Technical

comment = This comment is submitted by the editor on behalf of Thomas Mathey.

Test Case ID 1411.13, Test Procedure (1)

This comment is placed against the conformance document in the hope that the base document is correct, and only the conformance document needs to be changed.

The value for T2 of BT plus/minus 4 ns does not agree with the value shown in 802.3 Figure 7-11. This figure is also shown on page 10 of 1802.3d-1993. The figure shows a value of plus/minus 3.5 ns ($t = 3.5$ ns). I believe that the figure 7-11 is incorrect, and the value in 1411.13 of 4 ns, derived from 2×2 ns, is correct.

A value of $t = 2$ ns can be supported by the sum of terms in 802.3-1998, Appendix B.1.4, System jitter budgets as:

Encoder	0.5 ns
AUI Cable	1.0 ns (transmit end)
SNR on AUI	0.5 ns (SNR = 5:1, transmit end)

and by the sum of terms in 802.3-1998, Appendix B.4.1, System jitter budget for 10BASE-T as:

Encoder	0.5	0.5
AUI cable including SNR (DO pair)	1.5	1.5

suggested_remedy = Revise 802.3 Figure 7-11 as follows:

Change $t = 3.5$ ns to $t = 2.0$ ns

Change $T1 = T2 - 7.0$ ns to $T1 = T2 - 4.0$ ns

response = **Comment withdrawn.**

IEEE P1802.3Rev D3.0 Sponsor Ballot comments

commentID = 12
name = David Law
email = David_Law@3Com.com
phone = +44 1442 438060
fax = +44 1442 438333
org = 3Com
page = 44
line =
subclause = 6.2.1.11
comment_type = Editorial
comment = The NOTE that test signals 7a and 7b are under review should be removed.
Additionally, the review should be completed and the test signals, if necessary, revised. Suggested text for a revision is in a following comment.

suggested_remedy = Remove note.

response = **Accept.**

commentID = 13
name = Forrest Wright
email = don@lexmark.com
phone = 859-232-4808
fax = 603-963-8352
org = Lexmark
page = 9
line = 3
subclause = 4
comment_type = Editorial

comment = Clauses 2, 3 and 5 state "No further work is planned on this standard." Should that statement be included for Clause 4 as well.
suggested_remedy = Correct if necessary

response = **Accept.** We will add the text 'No further work is planned on this standard.'

commentID = 14
name = Forrest Wright
email = don@lexmark.com
phone = 859-232-4808
fax = 603-963-8352
org = Lexmark
page = 61
line = 26
subclause = 6.3.1
comment_type = Technical

comment = Figure 6-3 states: "This pattern repeats 5 times" with arrows pointing to 2 places within the waveform. Does the repeating 5 times statement apply only to the part of the pattern between the two arrows or to the entire waveform in the figure?

suggested_remedy = Clarify

response = **Accept.** This is trying to show that the entire slow part of the pattern repeats. The arrow will be changed to a bracket to illustrate this more clearly.

commentID = 15
name = Robert Grow
email = bob.grow@intel.com
phone = 858-391-4622
fax = 858-391-4580
org = Intel
page = 5
line = 19
subclause = 1.3
comment_type = Editorial

IEEE P1802.3Rev D3.0 Sponsor Ballot comments

comment = The capitalization is inconsistent. The style in IEEE Std. 802.3 favors not capitalizing.

suggested_remedy = Change the acronym expansions for all items that are not proper names to lower case. I believe the subject acronyms are: AWG, BAL, BT, CSMA/CD, DIS, HDP, IDL, IUT, LTPG, MDI, PICS, PIXIT, RD, SFD, SOI, TD, TPG, TPM, VP, and VC

response = **Accept**

commentID = 16
name = Robert Grow
email = bob.grow@intel.com
phone = 858-391-4622
fax = 858-391-4580
org = Intel
page = 8
line = 11
subclause = 1.8
comment_type = Technical
comment = It is probably not appropriate to reference a document that is no longer available.
suggested_remedy = Change the reference to 2000 edition.

response = **Accept.** See comment #2

commentID = 17
name = Robert Grow
email = bob.grow@intel.com
phone = 858-391-4622
fax = 858-391-4580
org = Intel
page = General
line =

subclause =
comment_type = Editorial

comment = If the reference is updated to the current 802.3 standard, than citations of that reference need to also be updated.

suggested_remedy = To eliminate the broader update problem if in a subsequent maintence the reference is again updated by replacing citations with something generic, e.g., "802.3 [3]".

Citations found in cursory manual search are: p.6 l.50, p.9 l.22, p.9 l.41, p.80 l.12, p.80 l.17, p.82 l.9, p.84 l.15.

response = **Accept.**
