

American National Standard

for information systems –

supplement to Fibre Channel – Physical and Signaling Interface (FC-PH)

Approved ????, 199x

Secretariat: Information Technology
Industry Council (ITI)

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Amendments to ANSI X3.230:1994

- On page 12,* Add a new item to the Glossary - 3.1.188 Acknowledged Class: Any class of service in which a transfer is acknowledged."
- On page 33,* Add the following bullet item after the third bullet item from the beginning "- The FC-2 protocol is designed to operate across connections having a Bit Error Rate (BER) detected at the receiving node of 10^{-12} . It shall be the combined responsibility of the component vendors and the system integrator to ensure that this level of service is provided in a given Fibre Channel installation."
- On page 60,* Delete the heading "single mode keying" and the following paragraph which begins "As a safety feature..." and ends "... of the standard referenced in "clause 10.1.1".
- On page 60,* Delete Figure 34 in its entirety
- On page 62,* Delete section 10.3.2, and Figure 37 in their entirety, leaving this page blank.
- On page 106,* In the last column of Table 38, delete the M in the first, third and fourth rows (i.e. leave the M for "last frame of Seq" only).
- On page 117,* In the last line of 19.6.1, change "Security_Expiration_Header" to "Expiration_Security_Header".
- On page 122,* Change last sentence of the second bullet item of subclause 20.3.2 (Link_contine function) from "ACK_0 shall be applicable only to Class 1 and Class 2 Sequences." to "ACK_0 shall be applicable only to Acknowledged Class Sequences."

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- On page 122,* Change last sentence of the third bullet item from "ACK_1 shall be applicable only to Class 1 and Class 2 Sequences." to "ACK_1 frame is transmitted on receipt of acknowledged class frames."
- On page 123,* Change the last sentence of the second paragraph from "Following N_Port Login, the decision to use ACK_0, ACK_1 or ACK_N is made based on the results of N_Port Login." to "Following N_Port Login, the decision to use ACK_0, ACK_1 or ACK_N shall be made based on the results of N_Port Login."
- On page 123,* Change the first sentence under ACK_1 from "The ACK_1 form of ACK shall be supported by all N_Ports as the default." to the following two sentences "The ACK_1 form of ACK shall be supported by all N_Ports as the default, prior to Login. The SEQ_CNT of the ACK_1 shall match the single Data frame being acknowledged. If a port can only support ACK_0 it shall Logout any port which attempts to Login which does not support ACK_0."
- On page 155,* Change the last two lines of the second paragraph of 21.5.1 from "Sequence Initiative, Establish Streaming, and Advise Credit request Sequences" to "Sequence Initiative, Establish Streaming, Advise Credit, and Echo request Sequences".
- On page 155,* Change the last line of the third paragraph of 21.5.2 from "Extended Link Service request excluding ESTC." to "Extended Link Service request excluding ESTC and TEST."
- On page 156,* Change the first entry in the second column from "Invalid LA_Command code" to "Invalid LS_Command code".
- On page 157,* Change the third column in the next to last row (encoded value 0010 1100) from "ADVC, ESTS, ESTC" to "ADVC, ESTS".
- On page 181,* Change the eighth row of Table 98 from "Reserved | 1 | 29 |" to "Valid Vendor Version Level (V) | 1 | 29 | y | y | y | n | n | n |".
- On page 182,* Delete the last paragraph of 23.6.2.2 Buffer-to-buffer Credit which reads "Values in the buffer-to-buffer Credit field have the same format as in Class end-to-end Credit Service Parameters."
- On page 191,* Change the next to last sentence of the first paragraph under Word 0, Bit 11 - ACK_0 capability from "ACK_0 support is applicable to Class 1 and 2, but not Class 3." to "ACK_0 support is applicable to Acknowledged Class Sequences", and delete the last sentence which reads "ACK_1 support is mandatory, whereas support for the ACK_0 form of ACK is optional."
- On page 192,* Change the next to last sentence of the first paragraph under Word 0, Bit 10 - ACK_N capability from "ACK_N support is applicable to Class 1 and 2, but not Class 3." to "ACK_N support is applicable to Acknowledged Class Sequences" and delete the last sentence which reads "ACK_1 support is mandatory, whereas support for the ACK_N form of ACK is optional."
- On page 193,* Change the next to last sentence of the first paragraph under Word 1, Bit 31 - ACK_0 capability from "ACK_0 support is applicable to Class 1 and 2, but not Class 3." to "ACK_0 support is applicable to Acknowledged Class Sequences", and delete the last sentence which reads "ACK_1 support is mandatory, whereas support for the ACK_0 form of ACK is optional."
- On page 193,* Change the next to last sentence of the first paragraph under Word 1, Bit 30 - ACK_N capability from "ACK_N support is applicable to Class 1 and 2, but not Class 3." to "ACK_N support is applicable to Acknowledged Class Sequences", and delete the last sentence which reads "ACK_1 support is mandatory, whereas support for the ACK_N form of ACK is optional."
- On page 203,* After the first sentence under 23.8.2.2 Estimate Credit Sequence which reads "This Sequence shall be performed immediately following the completion of the Establish Streaming Sequence.", add the following sentence "This Sequence requires the use of the ACK_1 or ACK_N, and may not be able to be executed by all N_Ports"
- On page 210,* Change item j) (part of 24.3.6 Sequence Count) at the top of the page by from "The sequence count shall only wrap to (but not including) an unacknowledged frame in Class 2." to "Within an acknowledged class of service, the Sequence Count of any frame shall not be reused until that frame is acknowledged."
- On page 210,* In item a) of 24.3.7 Normal Ack Processing, delete the sentence reading "ACK_1 shall be the default if no other ACK form is supported."
- On page 210,* Change item g) of 24.3.7 Normal Ack Processing from "g) ACK_N or ACK_1 frames with an ACK_CNT of 1 shall be transmitted during X_ID interlock (see 25.3.1 and 24.5.4) and in response to a connect-request (see 28.4.1)." to "g) ACK_N or ACK_1 frames with an ACK_CNT of 1, or an ACK_0 frame, shall be transmitted during X_ID interlock (see 25.3.1 and 24.5.4) and in response to a connect-request (see 28.4.1)."
- On page 250,* Change the fifth line of item d) of 28.4.1.1 Source of connect-request from "- an ACK_1 or ACK_N frame with" to "- an ACK_1, ACK_N or ACK_0 frame with".

- On page 253*, Change Table 111, event 6 column 5 from "ACK_1 or ACK_N" to "ACK_1, ACK_N or ACK_0".
- On page 256*, Change the first sentence of 28.5.4 Destination of connect- request from "... appropriate ACK frame (ACK_1 or ACK_N)...." to "... appropriate ACK frame (ACK_1, ACK_0 or ACK_N)...."
- On page 271*, Change the last item in the left-hand column from "ACK_1, ACK_N frame errors" to "ACK_1, ACK_N or ACK_0 frame errors".
- On page 300*, Change the last sentence of the second paragraph of Annex H from "Such safety features are provided by by the Link Control block of figure H.1." to "Such safety features are provided by the Link Control block of figure H.1."
- On page 322*, Change the first line of the first paragraph of K.4.4 Effect on receipt from "Receipt of the FC-1_Data_path_Width.Indication" to "Receipt of the FC-1_Data_path_Width.Confirm".
- On page 330*, Change the first line of the first paragraph of K.11.4 Effect on receipt from "Receipt of the FC-1_Loopback_Control.Indication" to "Receipt of the FC-1_Loopback_Control.Confirm".
- On page 342*, In the last row of the upper part of figure O.3, change "3 4 4 1 1" to "3 4 4 1 2".
- On page 342*, In the first row of the lower part of figure O.3, change "| a | 0 | 3 | 2 | 0,1,2 and 3 |" to "| a | 0 | 3 | 2 | 0,1 and 2 |".
- On page 342*, In the last row of the lower part of figure O.3, change "| e | 0 | 1 | 13 | 13 |" to "| e | 0 | 2 | 13 | 12 and 13 |".
- On page 344*, In the next to last line of Annex P.1.1, item b), change "ia" to "is".
- On page 356*, Change the beginning of Notes 1 in Table Q.6 from "Depending of Laser safety" to "Depending on Laser safety".
- On page 362*, Change the first line of R.1.6 Operation Termination from "When the operation is to terminated," to "When the operation is to be terminated,"
- On page 367*, Change the third paragraph from the bottom in the right-hand column from ".. that are be included .." to ".. that are to be included ..".
- On page 370*, Change the second full paragraph from the top in the left-hand column from ".. that are be included .." to ".. that are to be included ..".
- On page 377*, Change the second paragraph of S.2.12.1 Semantics of the Primitive from "The My_ID will own address used in the N_Port Login." to "The My_ID will specify my own address used in the N_Port Login."
- On page 377*, Change the first paragraph of S.2.12.2 When Generated from "N_PORT_LOGIN.response is generated by FC-PH in response to an N_PORT_LOGIN.request." to "N_PORT_LOGIN.confirmation is generated by FC-PH in response to an N_PORT_LOGIN.request."
- On page 377*, Change the third paragraph of S.2.13.1 Semantics of the Primitive from "The My_ID will specify the N_Port Login destination address." to "The Other_ID will specify the N_Port Login destination address."