40GBASE-T
98.7 Link Segment Specifications

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Purpose

- **Development of baseline for 802.3bq Link Segment.**
- **Proposal for Link Segment specifications in Clause 98.**

Clause 55.7 Link segment characteristics

55.7 Link segment characteristics
55.7.1 Cabling system characteristics
55.7.2 Link segment transmission parameters
55.7.2.1 Insertion loss
55.7.2.2 Differential characteristics impedance
55.7.2.3 Return loss
55.7.2.4 Coupling parameters between duplex channels comprising one link segment
55.7.2.4.1 Differential near-end crosstalk
55.7.2.4.2 Multiple disturber near-end crosstalk (MDNEXT) loss
55.7.2.4.3 Multiple disturber power sum near-end crosstalk (PSNEXT) loss
55.7.2.4.4 Equal level far-end crosstalk (ELFEXT)
55.7.2.4.5 Multiple disturber equal level far-end crosstalk (MDELFEXT)
55.7.2.4.6 Multiple disturber power sum equal level far-end crosstalk (PS ELFEXT)
55.7.2.5 Maximum link segment delay
55.7.2.6 Link delay skew
55.7.3 Coupling parameters between link segments
55.7.3.1 Multiple disturber alien near-end crosstalk (MDANEXT) loss
55.7.2.1.1 Multiple disturber power sum alien near-end crosstalk (PSANEXT) loss
55.7.2.1.2 PSANEXT loss to insertion loss ratio requirements
>>PSANEXT average
55.7.3.2 Multiple disturber alien far-end crosstalk (MDAFEXT) loss
55.7.3.2.1 Multiple disturber power sum alien equal level far-end crosstalk (PSAELFEXT)
55.7.3.3 PSAELFEXT to insertion loss ratio requirements
>>PSAELFEXT average
55.7.3.3 Alien crosstalk margin computation

Clause 98.7 Link segment characteristics

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98.7.2.4.4 Equal level far-end crosstalk (ELFEXT)
98.7.2.4.5 Multiple disturber equal level far-end crosstalk (MDELFEXT)
98.7.2.4.6 Multiple disturber power sum equal level far-end crosstalk (PS ELFEXT)
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98.7.3.2 Multiple disturber alien far-end crosstalk (MDAFEXT) loss
98.7.3.2.1 Multiple disturber power sum alien equal level far-end crosstalk (PSAELFEXT)

Use ACRF and AACRF for ELFEXT and AELFEXT add note(s) to explain changes.

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55.7.3.2 Multiple disturber alien far-end crosstalk (MDAFEXT) loss - Page 143

NOTE—The computation of PSAELFEXT in Equation (55–28) is consistent with the computation of power sum alien attenuation to crosstalk ratio far end (PS AACR-F).
The term PS AACR-F is used in ISO/IEC TR24750 and in the 1st amendment to the second edition of ISO/IEC 11801; both documents are under development in ISO/IEC JTC 1/SC 25/ WG 3.

Proposal

•Baseline text for 802.3bq Clause 98 Link Segment utilizing text of 802.3an Clause 55 and TBD's for specification equations.

- –Use ACRF and AACRF for ELFEXT and AELFEXT add note(s) to explain basis for changes.
- – NOTE – ELFEXT in 802.3an is changed to ACRF in 98.7.2.4.4, 98.7.2.4.5 , 98.7.2.4.6 and 98.7.3.2.1 to align with TIA and ISO cabling standards definitions.

•Motion #xx

Move that the IEEE P802.3bp Task Force adopt proposal in diminico_3bq_01_0714.pdf slide 4 as the baseline text for IEEE P802.3bq draft standard and give editorial license to implement.

•M: Chris DiMinico S:

•Y: N: A: