802.3ck D1.4
162.11.3 Cable Assembly Comments

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Purpose

- **162.11.3 Cable Assembly Comments ERL**

  - **Comment #103 and #94 proposes 7.4 dB.**
  - **Comment#25 proposes a value or equation.**
  - **Comment#120 and #113 proposes 9 dB.**
  - **Update PICS with accepted value.**

Supporters

Proposal Cable Assembly ERL

- **162.11 Cable assembly characteristics – P163, L18, TBD = ?**

Table 162–16—Cable assembly characteristics summary

Description	Reference	Value	Unit
Maximum insertion loss at 26.56 GHz	162.11.2	19.75	dB
Minimum insertion loss at 26.56 GHz	162.11.2	11	dB
Minimum cable assembly ERL[a]	162.11.3	TBD	dB
Differential to common-mode return loss	162.11.4	Equation (162–9)	dB
Differential to common-mode conversion loss	162.11.5	Equation (162–10)	dB
Common-mode to common-mode return loss	162.11.6	Equation (162–11)	dB
Minimum COM	162.11.7	3	dB

[a]Cable assemblies with a COM greater than 4 dB are not required to meet minimum ERL.

- **162.11.3 Cable assembly ERL**

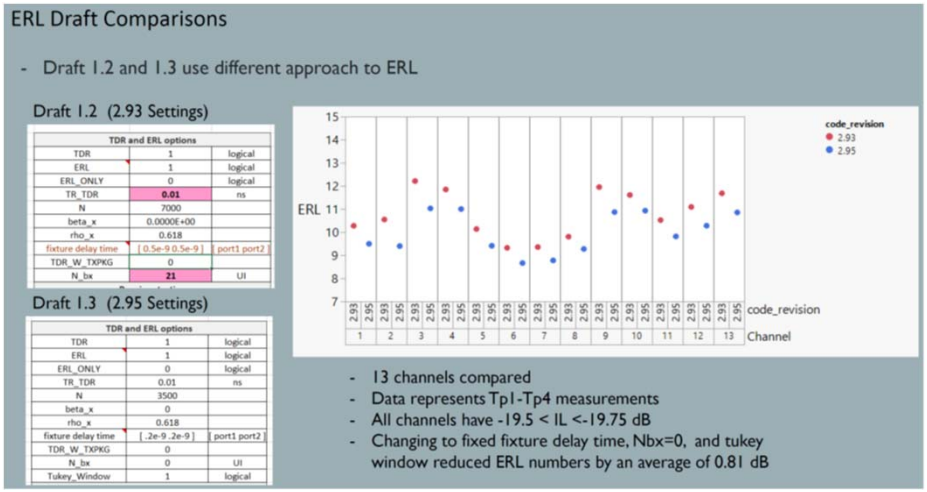
162.11.3 Cable assembly ERL

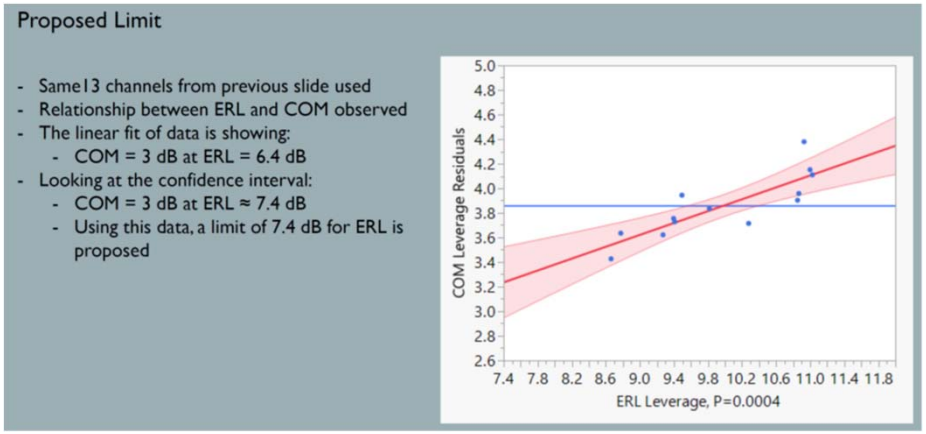
The values of cable assembly ERL at TP1 and at TP4 are computed using the procedure in 93A.5 with the values in Table 162–17. Parameters that do not appear in Table 162–17 take values from Table 162–18.

The values of cable assembly ERL at TP1 and at TP4 shall meet the requirement specified in Table 162–16 for cable assemblies that have a COM less than 4 dB.

Proposals Cable Assembly ERL

- **162.11.3 Cable Assembly Comments ERL**
  - **Comment #103 and #94 proposes 7.4 dB.**
  - **https://www.ieee802.org/3/ck/public/20_10/champion_3ck_02_1020.pdf**





Proposals Cable Assembly ERL

- 162.11.3 Cable Assembly Comments ERL
  - Comment#120 and #113 proposes 9 dB
  - Adee: >>The host min ERL is 7.3 dB, a cable assembly is supposed to have significantly lower reflections than a host, and the measurement is through an MCB which should be better than a minimal host.
  - The alternative value 9 dB has a justification based on the MTF proposal in comment #131 (10.3 dB).
  - https://www.ieee802.org/3/ck/public/20_10/champion_3ck_02_1020.pdf page 5 shows all but 2 channels meet this specification.