Comments on draft 0.8

Wayne Larsen

CommScope

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1. Page 168, line 38, table 98-17: The cabling entry should be ISO Class 1 / ISO Class 2 / TIA Category 8.
    a. Category 8.1 is an ISO designation of components. There is no such channel designation. The TIA is strictly Category 8 with no dots.
2. Insertion loss equations: I think we should simplify the IL equation. If Chris carries the flag that would be great, but I am more than willing to draft a contribution and a proposal.
3. RL, equation 98-15: let's make a comment to combine the last two rows, but make it editorial and not emphasize it.
4. Page 171: MDNEXT and PSNEXT:
    a. Use the title of 98.7.2.4.3 as the title of 98.7.2.4.2.
    b. Change the variable in equation 98-17 to PSNEXT.
    c. Fill in the right side of equation 98-17 with whatever we agree on.
    d. Delete section 98.7.2.4.3.
5. Page 172, ACRF
    a. Fill in what we agree on for the right side of equation 98-21.
    b. Equation 98-22 is a length scaling equation, and it's fine to leave it in, but it's not exactly right since the connector contribution should not be length scaled based on the cable length. If we leave it in, we should compare it with the equation for length scaling of ACRF in Annex D of the latest TIA draft. This equation breaks down the contributions of connectors and cables, and length scales only the cables, which would be correct.
6. Pages 172-173, MDACRF and PSACRF
    a. Use the title of the present 98.7.2.4.6 as the title of 98.7.2.4.5
    b. Change the variable in equation 98-23 to PSACRF.
    c. Fill in whatever we agree on in the right side of equation 98-23.
    d. Delete the present section 98.7.2.4.6.
7. Page 173, line 26, change delay to 176.
8. Page 173, line 32, change delay skew to 17.
9. Page 173, line 35, change the delay skew tolerance to 3 ns (from 10 ns. This is the same in both TIA and ISO, and in both class 1 and class 2.)
10. Try again to explain why the MDIX is needed, both here and in 10GBASE-T.
11. Page 176, line 42, change from "IEC 60603-7-4 (unscreened) or IEC 60603-7-5 (screened)" to "IEC 60603-7-82".
12. Page 177, line 37, change "500 MHz" to "2000 MHz".
13. Page 177, line 54, equation 98-33, add a new row to specify a plateau of 3 dB from 500 to 2000 MHz.
14. Page 177, line 50, equation 98-33, as an editorial point, move the dB to the left column, and add MHz as the units in the right column. This also applies to equation 98-34 on line 10 on page 178.

15. Page 178, line 12, equation 98-34, extend the frequency range to 2000.
16. Some issues with the test method in 98.8.2.2:
    a. Line 16 of page 178 states that this requirement applies when the transmitter is transmitting, but the test method details state that only the part of the voltage that is due to the injected common mode counts and the transmitter is to be disabled during the test.
    b. Page 178 line 41 change 500 MHz to 2000 MHz.
    c. The resistors in figure 98-436 should be matched to each other within 0.1 %, otherwise an error will arise in the calibration.
    d. Figure 98-42 describes Ediff and points to a location, and the requirement specifies this relative to Ecm which is shown in the figure, but there is no clarity as to what point in the MDI to connect to for detection of Ediff, or what kind of interconnection network. The test on page 178 lines 48-54 describes doing this with a network analyzer and measuring Scd11, which would imply the NA becomes the common mode source (should really then be Sdc11), in which case the common-mode coupling circuit would not be needed, but again there is no clarity as to where and how to connect it. The common mode impedances are not consistent. It is specified 75 ohms in this case, 50 Ohms in figure 98-42, and the circuit of figure 98-43 implies 24.95 Ohms.