802.3cy test fixture measurement result

October 5th 2021

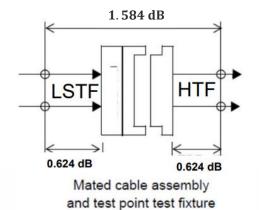
Thomas Müller (Rosenberger)

802.3cy test fixture measurement results

Scope

 Concept and IL requirements on test fixtures presented in diminico_et_al_3cy_01_9_28.pdf including IL of the mated test fixture to be:

 $IL \leq 1.584 \, dB @ 7031.25 \, MHz$



Link Segment Test Fixture (LSTF) Host Test Fixture (HTF)

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PCB IL @ 7031.25 MHz for 25.4 mm (1 in) = 0.624 dB

PCB IL @ 7031.25 MHz for 76.2 mm (3 in) = 1.871 dB

MDI IL @ 7031.25 MHz = 0.168 dB

Plug IL @ 7031.25 MHz = 0.168 dB

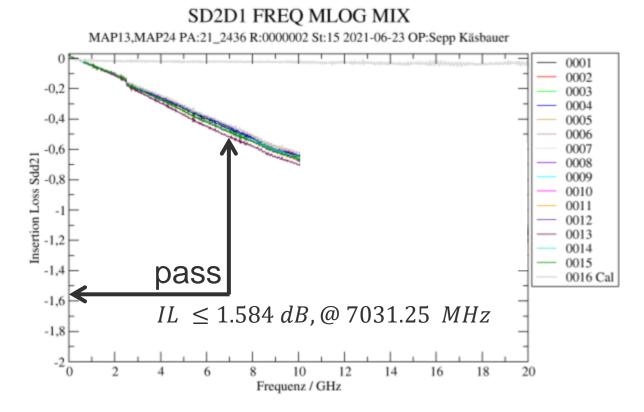
Mated Test Fixture @ 7031.25 MHz = 2*0.624 dB+2*0.168 dB = 1.584 dB
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Measured data

- Pair of mated HTF and LSTF based on automotive H-MTD interface passes the proposed IL requirement.
- Test fixtures are solid metal, no PCB is needed.





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Measured data and summary

Mated Fixture 2 x Type A
LSTF + HTF

Mated Fixture 2 x Type A
LSTF + HTF

- Results previously shown in mueller_3cy_01_0920.pdf
- Fixture Type A not using PCB
- Fixture Type B based on PCB

 All fixtures within the proposed mated test fixture IL limit.

