EWCAP
ELECTRICAL WIRING COMPONENT APPLICATION PARTNERSHIP

05/28/25

Subject: Revision #1 to Change #1 to SAE/USCAR-49 (Revision 1)

This letter describes a change to the USCAR-49 specification. Comments and questions can be sent to EWCAP@uscar.org.

Situation:

In USCAR-49 Section 4.2, the tolerances on the individual cable lengths in "Figure 3 – Structures for de-embedding in-line connectors", the "FIX-DUT-FIX" cable length tolerance is different between Figure 3B (250 +/- 10mm) and the cable length details as defined in Section 4.2.2 (250 +/- 5mm). This was a graphics mistake in Figure 3B.

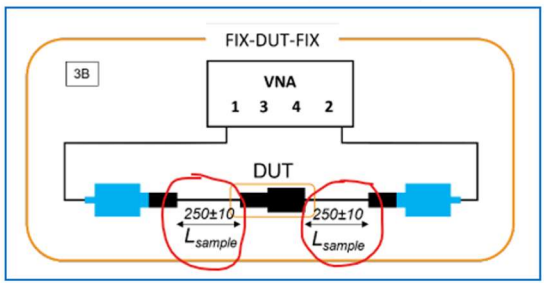
Resolution

Update Figure 3B, "FIX-DUT-FIX", to reflect a +/- 5mm tolerance for each cable length to match the tolerance as outlined in Sample Preparatoin, Section 4.2.2.

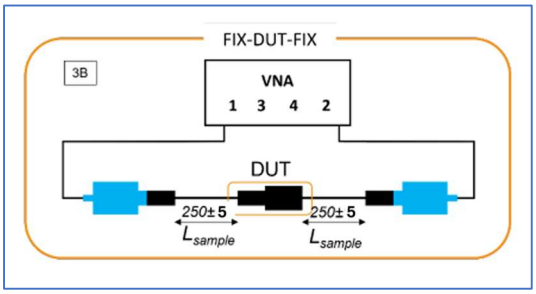
4.2.2 Sample Preparation

Board Mount Connector Ssample Ppreparation:

1. Prepare one FIX-FIX1 and one FIX-FIX-2 as shown in Figure 4.
2. Calculate the PCB trace length of FIX-FIX1 (see Figure 4Aa). It is two2 times the trace length of the board mount connector PCB shown in Figure 4Cc (see NOTE 4.2.3.G for trace length details).
3. The cable length for the FIX-FIX2 is 470 mm ± 10 mm (see Figure 4Bb), which is the same as FIX-FIX sample (see Figure 2Aa) from the iIn-lLine connector test.
4. The FIX-DUT-FIX structure for the board mount connector is shown in Figure 4Cc.
5. The PCB trace length should be half½ of the trace length used in FIX-FIX-1 as shown in Figure 4Aa.
6. The cable length for the FIX-DUT-FIX structure is 250 mm ± 5 mm, identical to the female iIn-lLine test sample depicted in Figure 3Bb. See NOTE 4.2.3.E for cable length details.



Existing Figure 3B.



Corrected Figure 3B.