

Accurately Defining the CR4/CR10 Test Points

IEEE 802.3 Interim Meeting
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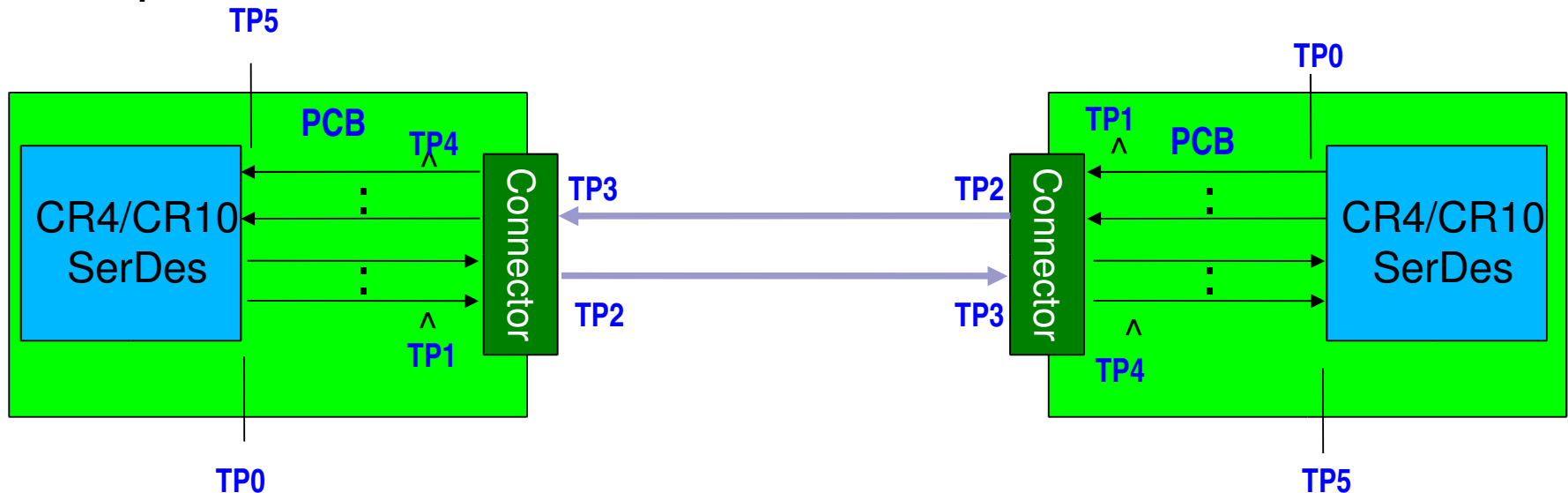
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All of CR4/CR10 Test Point Shown on One Diagram

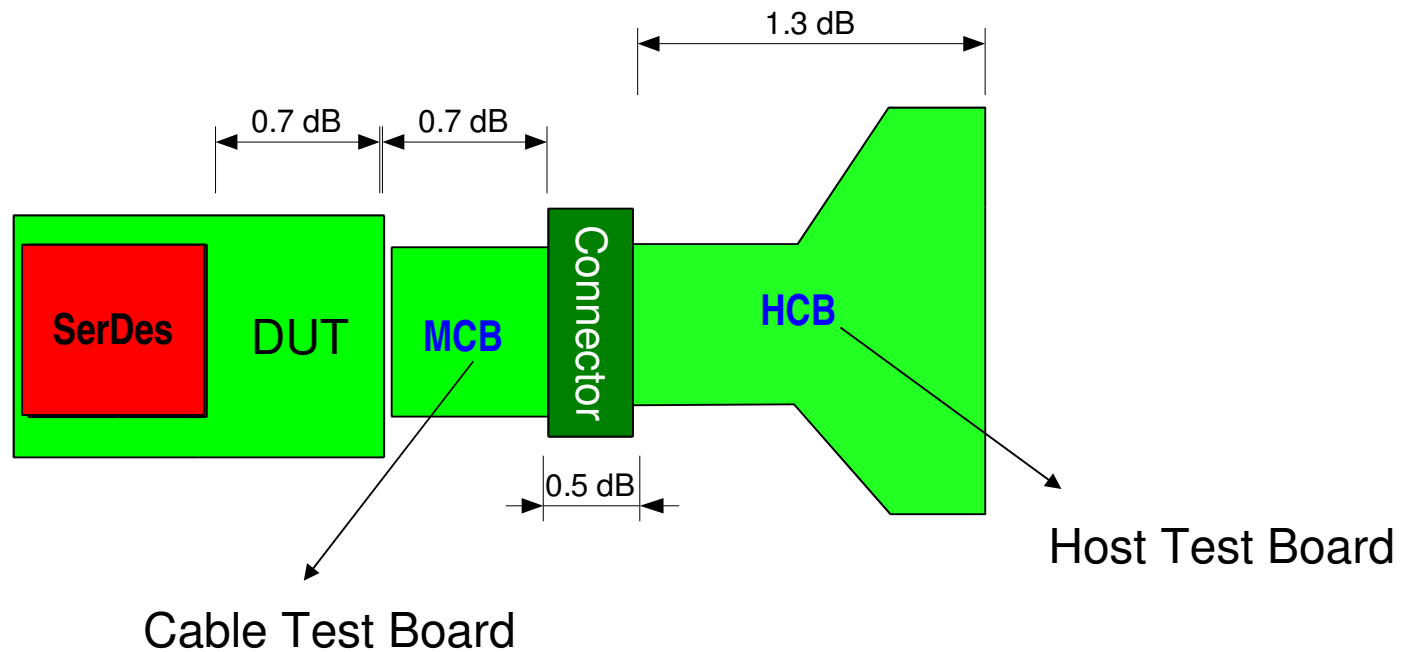
- Test point definition

- DUT Board - Chip ball to TP0/TP5 loss 0.7 dB loss at Nyquist
- Cable Test Board - TP1/TP4 to the style 1 or 2 connector pads loss 0.7 dB at Nyquist
- Host Test Board – From TP2/TP3 to the mating interface of style 1 or 2 connector with loss of 1.3 dB at Nyquist.
- Host Channel – From the SerDes chip ball to the style 1 or 2 connector pads defined by Eq 85-3.



Graphical Representations of Test Boards

- Definition the same as 86.7.1.1

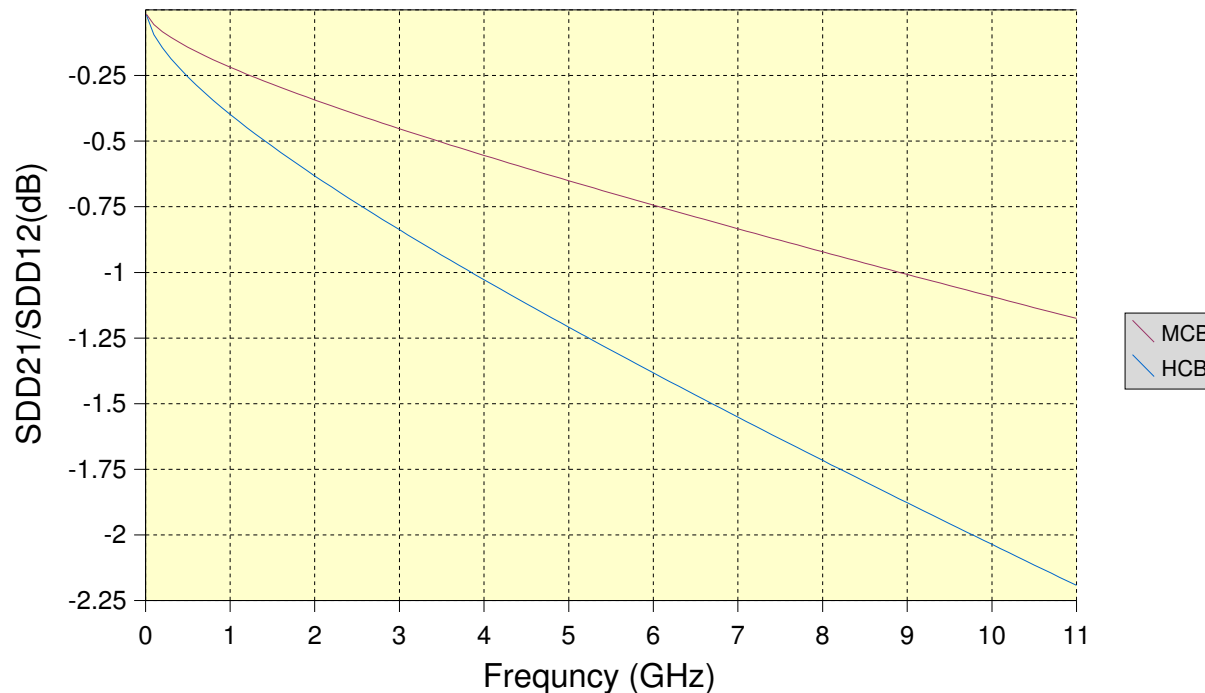


Propose Definition of Test Boards

- Cable Test Board and DUT Board loss are designated by MCB.
- Host Test Board is designated by HCB.

$$SDD21(dB)_{MCB} = (-0.0006 - 0.1600 \times \text{sqrt}(f) - 0.0587 \times f)$$

$$SDD21(dB)_{HCB} = (-0.01 - 0.30 \times \text{sqrt}(f) - 0.11 \times f)$$



Summary

- **TP0 and TP5 require definition of DUT board.**
- **TP2 and TP3 require definition of host test board**
- **II_{camax} , ILD, and return loss for the cable must be measured with cable test board which has min loss.**
- **Cable test board and host test board B2B response definition further will improve test results**
 - **Figure 86-6 provide B2B IL and ILD**
 - **Figure 86-7 provide B2B Return loss**