Baseline Proposal
Cable assembly, Host, MTF, and Channel Insertion Loss

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Purpose

- **Baseline proposal for cable assembly, Host, MTF, and Channel Insertion loss budgets**

Supporting presentations

- **Cable assembly - palkert_3ck_01a_0519.pdf**
- **Host - lim_3ck_CR_0303.pdf**
- **Baseline specifications - diminico_3ck_01a_0319.pdf**
- **MTF - diminico_3ck_01_0519.pdf**

Overview

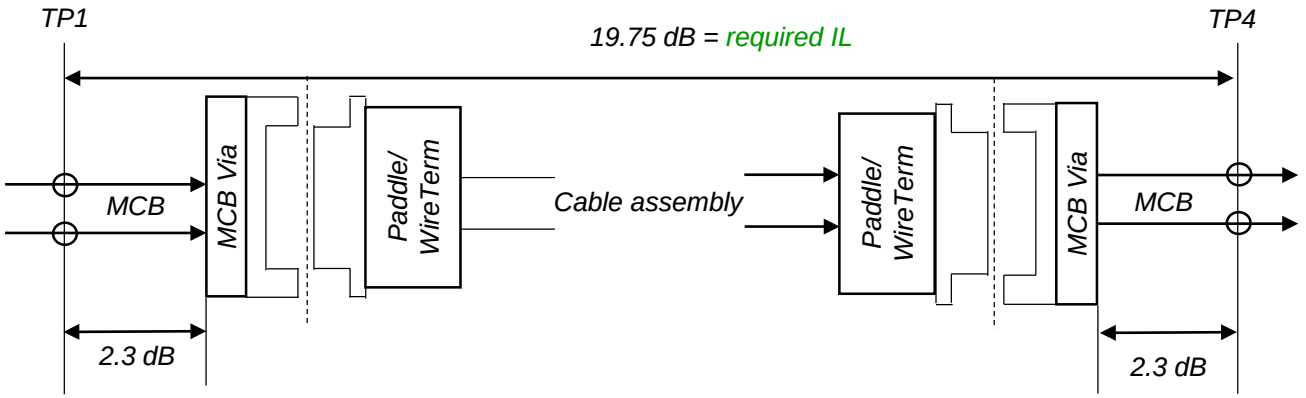
Component	802.3cd Insertion Loss dB @ 13.28 GHz	802.3ck Insertion Loss dB @ 26.56 GHz (proposed)	Comment
Module Compliance Board (MCB) PCB	1.2	2.3	
Host Compliance Board (HCB) PCB	1.38	2.5	
Host	7	6.875	cd-The 7 dB did not include explicit allowances for BGA and connector footprint ck-The 7 dB includes allowance of 1.34 dB for BGA (0.73) via and connector footprint via (0.61)
Host Connector	1.07+0.62	1.6	cd-The host connector is allocated 0.62 dB of additional margin ck- The host connector mating interface is allocated 0.3 dB variation allowance (not including via)
Mated Test Fixture (MTF)	3.65	6.6	
MTF connector	1.07	1.6	ck-includes 0.2 dB via allowance
Bulk cable and wire attachment	12.62	11.55	cd(3m), ck(2m)
Channel	30	28.5	

- Host and Mated test fixture connector mating interfaces are the same >>1.3 dB + variation 0.3 dB = 1.6 dB.
- Variation is to account for multiple MDIs and other factors other than implementation or margin.

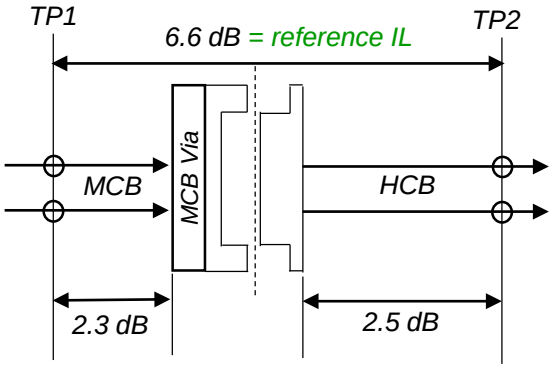
MTF IL = 2.3(MCB PCB)+1.6(conn)+0.2(via)+2.5(HCB PCB) =6.6 dB
Host Channel IL =6.875(Host PCB and via's)+1.6(conn)+2.5(HCB PCB) = 10.975 dB
Channel IL =2*6.875(Host PCB and via's)+2*1.6(conn)+11.55(cable and wire termination) = 28.5 dB

802.3ck Figure XX–1—28.5 dB channel insertion loss budget at 26.56 GHz

Cable Assembly

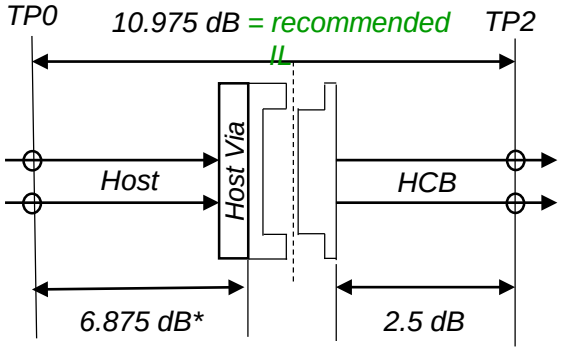


Mated Test Fixture



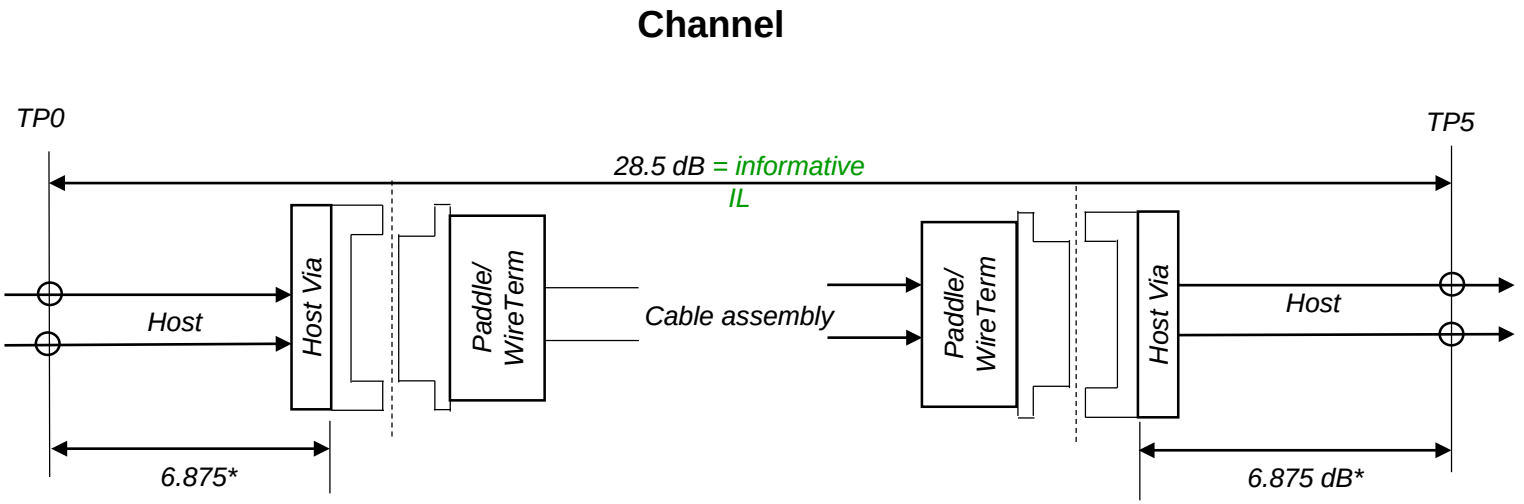
Note: 2.3 dB MCB PCB includes test point IL and MCB Via allowance is 0.2 dB

Host



Note: The 6.875 dB includes via allowances for BGA and connector footprint

802.3ck Figure XX–1—28.5 dB channel insertion loss budget at 26.56 GHz



Channel IL = 28.5 dB @26.56 GHz =2*(6.875+1.6)+11.55

Note: Channel IL derived from cable assembly host, and mated test fixture IL=28.5 dB @26.56 GHz =2*(6.875+1.6)+11.55

Summary

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