

IEEE P802.3da D2.0 10 Mbps Multidrop Enhancements

Cl 188 SC 188.8.2 P89 L14 # 317

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Comment Type TR Comment Status A Mixing Segment

Channel Return Loss Limit and TCI Return Loss Limit crossing each other at 22.2 MHz and 36.9 MHz. Within this range, the Channel Return Loss Limit is higher than the TCI Return Loss Limit. This can lead to a case, where the TCI specification is met but the channel specification is not met caused by the TCI.

SuggestedRemedy

Change Return Loss Limit in the frequency range from 2.8 MHz <= f <= 40 MHz from: "-42.5-20\*log10(f)-(0.024/f)+47.5\*sqrt(f)-6.39\*f+0.0259\*f^2" to: "-45.8-20\*log10(f)-(4.3/f)+53\*sqrt(f)-8\*f+0.046\*f^2"

Response Response Status U

ACCEPT IN PRINCIPLE.

Change Mixing Segment Return Loss to:  
19.5 - Max (0, 25\*log10(F/12.5) dB for 40 MHz > F > 6.8 MHz  
0.65 + Max (0, .65+30\*log10(F/1.6)) dB for 0.3 < F < 6.8 MHz

Editorial license to reformat equation per other comments and 802.3 style.

## IEEE P802.3da D2.2 10 Mbps Multidrop Enhancements

Cl 189 SC 189.6.1 P153 L10 # 115

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Comment Type TR Comment Status R TCI

Equation 189-1 causes issues with sections 188.8 and 188.9. For high unit loads greater than 11, the channel return loss specified in 188.8 cannot be met because the MPI RL limit is more lenient than the channel RL limit. For lower unit loads, it is assumed that the channel return loss will also not be met and therefore needs to be verified. For unit loads greater than 3, the return loss limit, in conjunction with the TCI insertion loss, is not passive, contradicting the concept of making the return loss dependent on the unit load in order to reduce implementation effort. The limit line at frequencies above 26.5 MHz is stricter than the TCI return loss, impacting technical feasibility. In summary, the introduction of 189.6.1 and its dependency on the Unit Load Concept affects multiple sections in 188.8 and 188.9 and will require significant effort to resolve and align the affected requirements.

#### SuggestedRemedy

Insert a note: Impairments to sections 188.8 and 188.9 have been identified. Adaptations to sections 188.8, 188.9, and 189.6.1 might be necessary to maintain consistency and technical feasibility.

Response Response Status W

REJECT.

Commenter offers insufficient information for a remedy.

Note: Chair to charter an ad hoc to review return loss as well as TCI requirements for carrying power. Ad hoc to report by July - in preparation for comments to initial SA ballot.