Inter-channel Crosstalk Summary

Eric Maniloff (Ciena) IEEE P802.3cw

Dec 14, 2020

Ad Hoc Presentations Summary

- Inter-channel crosstalk analysis requires information on the power spectral density of the crosstalk from disturbing channels
 - Disturbing channels can be considered as Alien Channels to align with previous 802.3 analysis
- Background information on crosstalk analysis is presented
- Transfer functions for the Black Link capturing both signal and crosstalk paths is shown to be a viable method for specification
- Transfer functions are defined from TP2 to TP3 this approach removes the requirement to specify components inside the Black Link
- Details are presented in:

https://www.ieee802.org/3/cw/public/adhoc/20_1209/maniloff_3cw_01_201209.pdf

Future Work

- Consider impact of adding floors rather than having perfect filters
- Impact of filter offsets
- Channel power differences
- Impacts of bidirectional transmission

Thanks!