

List of items needed to complete IEEE 802.3ck C2M reference receiver baseline Proposals

Kent Lusted, Intel @ 12-November-2019 11:40 a.m. Hawaii Time

Note: This is a list of items that at least one individual participant in the meeting wanted to see in order to complete the C2M reference receiver baseline. The list does not represent the consensus of the participants.

List of channels that we all want to include -> Revisit the channel grading list.

DFE-based architecture (e.g. sun_3ck_01b_1119)

- Step by step measurement process at TP1a and TP4.
- Correlation between scope measurement (EH/EW) to slicer performance
- Criteria for optimizing CTLE selection
- Method of preventing DFE from qualifying bad signals.
- Check out the error from the MM phase detector in COM.
- How to determine EW
- Correlation of DFE measurement @ TP1a to the slicer value
- Quantify impact of the burst error(s) and tap constraints.
- Consider changing measurement reference point to a reference slicer by defining a reference package/channel.

FFE-based architecture (e.g. ghiasi_3ck_01a_1119)

- Step by step measurement process at TP1a and TP4.
- Correlation between scope measurement (EH/EW) to slicer performance
- Criteria for optimizing CTLE selection
- More information on the Constraints on FFE
- Check out the error from the MM phase detector in COM.
- Study that shows optimization is not affected by measurement instrument noise.
- Waveform simulation to propose thresholds
- ERL
- Need to run simulation with proposal constraints
- Method and data to support the short and long channels (contributed)
- VEC value (12.5dB) is ok for actual implementation
- Consider changing measurement reference point to a reference slicer by defining a reference package/channel.