10GBASE-CX4 Working Paper 2.0 Issues

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Tx Issues

- **Peak amplitude minimum < 800mVppd? or ?**
  - **unambiguous illustration, description**
- **Absolute output voltage limits, what is ground?**
- **Output load and return loss limits specified up to 2.5GHz or 100MHz - 2.0GHz?**
- **Output template**
  - **eye or step (Roseville said step)**
  - **step values? (forces de-emphasis min & max)**
- **Output jitter**
  - **Deterministic include ISI or not?**
  - **Hard Random limit, current soft is 4-8ps rms.**
  - **Total limit?**
- **Skew within a differential pair?**

Rx Issues

- Rx Specs vs. TX plus Cable specs
- Input sensitivity: 100mV != -19.42dB X 800mV = 85.5mV!!!
- Return loss should have real values!
- Jitter tolerance
  - need exact method to measure, with closed eye this becomes different than clause 47!
  - ISI not in deterministic jitter?
- Signal Detect noise susceptibility
- Open eye or closed eye implying equalization

Cable Issues

- **Loss & jitter budget table, keep?**
- **S-parameters defined with amplitude and phase?**
- **Worst case insertion loss limit**
- **Return loss specification**
- **NEXT & MDNEXT specifications**
- **FEXT & MDFEXT specifications**
- **Parameters specified 100MHz-2.0GHz or up to 2.5GHz?**
- **Cable reference number**

Connector Issues

- Short description
- Reference number
- Without slot or with key?

System Issues

- Consistent frequency range limits: up to 2.5GHz or 100MHz - 2.0GHz or ?
- ISI / equalization budget
  - Forced levels for Tx, Rx, Cable
  - Allowed levels for Tx, Rx, Cable
- System specification
  - Forwards, defining Tx & Cable like most of 802.3
  - Backwards, defining Rx & Cable

END