25 Gb/s Editorial Considerations

IEEE 802.3 25 Gb/s Ethernet Study Group

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Introduction

• Propose a tentative structure for the new amendment.
• Review hierarchical architectures.
• Identify topics to address to move forward.
## New Clauses/Annexes

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*** indicates Clauses/Annexes that need significant work
# Amended Clauses/Annexes

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MAC device with PMD

Backplane PHY and MAC

Note:
XXVAUI is a single lane 25 Gb/s interface.
Other implementations to be discussed and could be put in an Annex similar to Annex 83C.
Cable 25GBASE-CR

MAC
RS
XXVMII
PCS
FEC
PMA
PMD
AN
MDI
Medium

MAC device with PMD and host board

CR PHY and MAC

Connector
Cable

MAC
RS
XXVMII
PCS
PMA
FEC
PMD
AN
MDI
Medium

C2C interface

CR PHM device and host board

Connector
Cable

MAC device without PMD

XXVAUI

PMA

PMA

PMA

Note:
XXVAUI is a single lane 25 Gb/s interface. Other implementations to be discussed and could be put in an Annex similar to Annex 83C.
Optical 25GBASE-SR

**Note:**
XXVAUI is a single lane 25 Gb/s interface.
* Add cases with chip to chip.
Big Ticket Items to Resolve

• As evidenced by the ad hoc summary slides presented at the interim there are two areas that need to be addressed in order for work to proceed.

• PCS/AM/FEC selection
  – Based on CL49 or CL82?
  – Using AMs? If so, what form?
  – How to map into CL91 transcoder?
  – CL91 RS-FEC only? CL74 FEC also?

• Copper host/cable/FEC combinations
  – Channel budget allocations? How many? No-FEC mode viable?
  – How to manage host/cable/FEC combinations?
Consensus topics?

• PCS/FEC architecture.
• Cable/host budgetary permutations and considerations.
• Cable/host management considerations.
• Other topics?