



Discussion

“FEC Bypass” topic

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FEC Modes

P802.3dj has identified two different FEC modes for optical PMDs that have interest to the Task Force participants

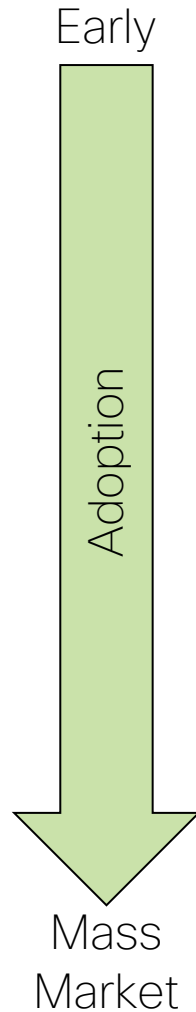
1. Inner code FEC mode (adopted)
2. RS544 only FEC mode* (adopted a direction)

*generally referred to as “FEC Bypass” but refer to it as a different FEC mode here.

Three lenses to look at how to handle the co-existence of two FEC modes:

- 1) Product/Market/User
- 2) Technical/Implementation
- 3) Technical/Standards definition

Different markets for 200G/ λ technologies



Early adopter Webscale Switch and Server interconnect

- Early adoption
- Highly managed networks
- Cost/power/interop priorities

AI/ML data network architecture

- Early adoption
- Highly managed networks
- Latency sensitive

Broad mass-market adoption of 200G/ λ technologies

- Later adoption
- Broader applications (Enterprise etc.)
- Plug and play

P802.3dj needs to address all of these

Different focus topics

Product / Market / User	Technical & Implementation	Technical & Standards
<ul style="list-style-type: none"> • Are there market needs for both FEC modes? • Which SMF media would users need an RS544-only FEC mode? (duplex/parallel) • Does the market need an RS544-only FEC mode for a PMD to have same reach? • For users, do those RS544-only FEC mode reaches need to be specified in standard? • Is there a market need to be able to identify/name these modes differently? • Is there are future market need (early adopters vs later adopters) to be able to build implementations that would <u>only</u> support RS544-only mode? 	<ul style="list-style-type: none"> • Latency improvement • Mechanism to detect/switch between modes • Technical feasibility • PMD definition(s) 	<ul style="list-style-type: none"> • One PHY vs two PHY • Distinct identity • New objectives? • Naming/Nomenclature • Editorial considerations • Informative/Normative/Engineered Link

Lots of discussion here so far

Less discussion here

Options for TF going forward

Possible within our current objectives – existing adopted PHYs

1. Only support Inner FEC mode
2. Support Inner FEC mode and RS544 FEC mode – same reach

Requires new objectives to create new PHYs

3. Support Inner FEC mode and additional RS544 FEC mode with shorter reach than current objectives
4. Support Inner FEC mode as unique PHY and support RS544 FEC mode as unique PHY