

# Moving forward 802.3cz

**PMD selection**

Carlos Pardo personal view

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# Three PMD proposals

- VCSEL 850/980 nm + OM<sub>3</sub>
  - Covers all objectives
  - Support from the industry
  - Lowest cost
- VCSEL 850/980 nm + GI-POF
  - Covers some objectives
  - Some support
- SI-Photonics (1310 nm) + OM<sub>x</sub>
  - Relative cost might be high
  - Automotive qualification pending

# Si-photonics + OMx

- Based on the data presented, selecting non qualified Si-photonics with higher cost makes no sense:
  - Being the only PMD option compared with low cost VCSEL ...
  - No PHY compatibility with other PMDs due to different wave-length
    - Makes it very difficult to be included as a second PMD

# Gi-POF

- SI-POF has a good history in Automotive, and is well perceived by the industry.
- But:
  - Are GI-POF fibers independently tested and qualified ?
  - Why should we add a second fiber which can not fulfill all objectives ?
  - Is there enough market support ?
- Having a second PMD or integrate in the same PMD, may make sense, but ...
  - Further technical work is needed
  - Larger market support is required

# VCSEL + OM3

- PMD is mostly ready
  - Wavelength selection will be based in reliability data & cost
  - Lowest cost solution

# Should we stop PMD writing?

- 802.3cz calendar requires D1.1 to be technically complete up to 25 Gb/s
  - D1.2 & D1.3 will be fixing document and adding 50 Gb/s before submitting to WG
- We can not wait until GI-POF data is ready
- **I encourage the group to adopt a PMD baseline based on VCSEL & OM<sub>3</sub>**
- I encourage the group to keep PMD work open in order to add a second PMD or extend it if:
  - GI-POF technical and market data support it. All required data should be available for D1.2

# **Comments & Questions**

**Thanks**