

# Input on PMD decisions and Input to Connectors

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IEEE P802.3cz Multi-Gigabit Optical  
Automotive Ethernet Task Force

# Reflection on Goals

- IEEE 802.3 Criteria for Standards Development (CSD)

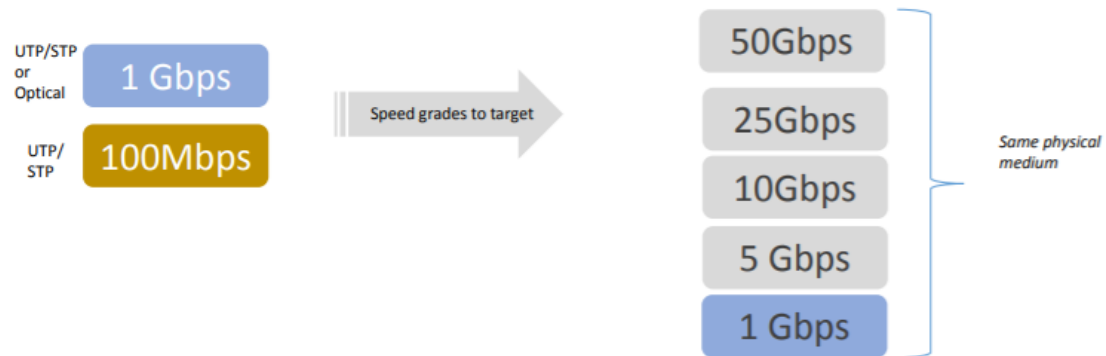
- *“The project may define multiple PHYs, but will define only a single PHY for each rate, media, and link reach combination.”*

- Objectives OMEGA

- *Objective 9-13: Define the performance characteristics of an automotive link segment and an optical PHY to support 2.5,5,10, 25 Gb/s point-to-point operation over this link segment supporting up to 4 inline connectors for at least 40 m on at least one type of automotive optical cabling.*
- *Objective 14: Define the performance characteristics of an automotive link segment and an optical PHY to support 50 Gb/s point-to-point operation over this link segment supporting up to 2 inline connectors for at least 15 m on at least one type of automotive optical cabling*

# Reminder – OEM input

- January, 2020, *Input - Automotive Use-cases and Requirements Multi Gigabit*



## Important:

- It shall be possible to use the same physical medium.
- PHY (Transceiver) support of multiple speed grades is interesting. However, cost optimization important.

# Decide PMD based on objective data

Make decision on objective data: technology, timing and cost

Ensure that all data is on the table...

Remember:

- One robust PMD for all speed grades.

# Input on connectors

- Standardize connectors?

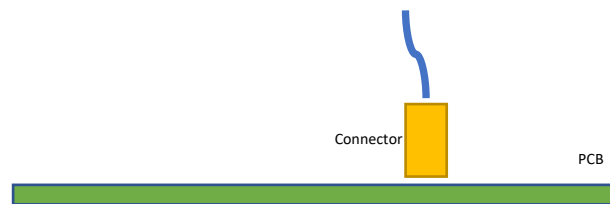
- Interesting:

- Single connector, multi connector and quad connectors.
    - Small form factor needed (compare with 1000BASE-T1 – IEEE 802.3bp connectors) to fit multiport switches or small sensors.

- 90-degrees



- 180-degrees



Interesting due to tight packaging space within vehicle and limited sizes on ECU's.

Thank you!