

# Selecting 10GbE PMDs

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# Basis

- We should support a 10 GbE Standard that includes 850 nm PMD solutions
  - Provides the lowest cost solution
  - Including 850 nm solutions will result in less proprietary PMDs, further lowering costs and increasing interoperability
  - Unified, low-cost solutions will accelerate market acceptance of 10 GbE

# PMD Options

PMD Technology	5 PMD set	4 PMD set A	4 PMD set B	4 PMD set C	4 PMD set D	3 PMD set A	3 PMD set B	3 PMD set C	3 PMD set D
850 nm Serial	■	■	■	■					■
850 nm CWDM	■	■	■		■	■	■		
1310 Serial	■	■		■	■	■		■	
1310 WWDM	■		■	■	■		■	■	■
1550 Serial	■	■	■	■	■	■	■	■	■

There are at least 9 PMD sets that will meet all distance objectives

Only one does not include an 850nm solution

# PMD Technology

<b>PMD Technology</b>
850 nm Serial
850 nm CWDM
1310 Serial
1310 WWDM
1550 Serial

5 PMD proposals have gained critical support during the development process

All 5 carry some risk and need additional work

All 5 will meet the technical feasibility criteria

# 3 PMD Sets

PMD Technology	3 PMD set A	3 PMD set B	3 PMD set C	3 PMD set D
850 nm Serial				■
850 nm CWDM	■	■		
1310 Serial	■		■	
1310 WWDM		■	■	■
1550 Serial	■	■	■	■

→ Set C, recommended in the Blue Book, excludes 850 nm technology

→ Sets A, B, and D require eliminating a long wavelength option

# 4 PMD Sets

PMD Technology	4 PMD set A	4 PMD set B	4 PMD set C	4 PMD set D
850 nm Serial	■	■	■	
850 nm CWDM	■	■		■
1310 Serial	■		■	■
1310 WWDM		■	■	■
1550 Serial	■	■	■	■

- All four sets include 850 nm options
- Everybody has a different set that they think is best
- Equal split between supporting A or B vs. C or D

# 5 PMD Set

PMD Technology	5 PMD set
850 nm Serial	■
850 nm CWDM	■
1310 Serial	■
1310 WWDM	■
1550 Serial	■

- Inclusive set that meets 802.3ae objectives
- Will NOT delay the standard in any way
- Significant vendor support leading to consensus

# Recommendation

- **Support 5 PMDs and lets get on with it**
- **In the end, standardizing 5 will result in less PMDS**
- **The bulk of the work is done - delay only occurs by blocking 5**
- **All have the choice to support a subset of the 5 in the Standard**