

# SMF Ad Hoc report

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# Introduction

The 40 Gb/s and 100 Gb/s Fiber Optic Task Force SMF Ad Hoc has:

- Held four conference calls since the Victoria meeting:
  - 28 May, 11 June, 18 June, 25 June 2013
- Reviewed 11 presentations:
  - 40GBASE-ER4 proposed revision to receive power max spec [king\\_01\\_0513\\_smf](#)
  - SMF Straw polls and motions [anslow\\_01\\_0513\\_smf](#)
  - 40GBASE-ER4 proposed revision to receive power max spec [king\\_01\\_0613\\_smf](#)
  - SMF Link Costs over Time [welch\\_01\\_0613\\_smf](#)
  - 100GE 500m SMF Parallel and WDM links [shrikhande\\_01\\_0613\\_smf](#)
  - 40GBASE-ER4 proposed revision to receive power max spec [king\\_02\\_0613\\_smf](#)
  - SMF PMD naming [anslow\\_01a\\_0613\\_smf](#)
  - SMF Link Costs over Time [welch\\_02\\_0613\\_smf](#)
  - 40GBASE-LR4/ER4 inter-working and XLPPI for ER4 [anslow\\_02a\\_0613\\_smf](#)
  - 100GBASE-CWDM Baseline Proposal Update [zheng\\_01\\_0613\\_smf](#)
  - 100G CWDM Link Model for DM DFB Lasers with KR4 FEC [petrilla\\_01\\_0613\\_smf](#)
- Meeting minutes and presentations can be found at:
  - <http://www.ieee802.org/3/bm/public/smfadhoc/meetings/index.html>

# Proposals

[king\\_01\\_0513\\_smf](#), [king\\_01\\_0613\\_smf](#), and [king\\_02\\_0613\\_smf](#) contained successive versions of a proposal to increase the minimum channel insertion loss for 40GBASE-ER4. This proposal is contained in Comment #80 against D1.0.

[anslow\\_01\\_0513\\_smf](#) analysed the straw polls and motions from the previous meetings.

[welch\\_01\\_0613\\_smf](#) contained net present value analysis of total SMF link costs for LR4 and PSM4. [welch\\_02\\_0613\\_smf](#) contained an updated version with additional fiber life assumptions.

[shrikhande\\_01\\_0613\\_smf](#) contained analysis of the relative costs of WDM and parallel solutions to the 500m SMF objective.

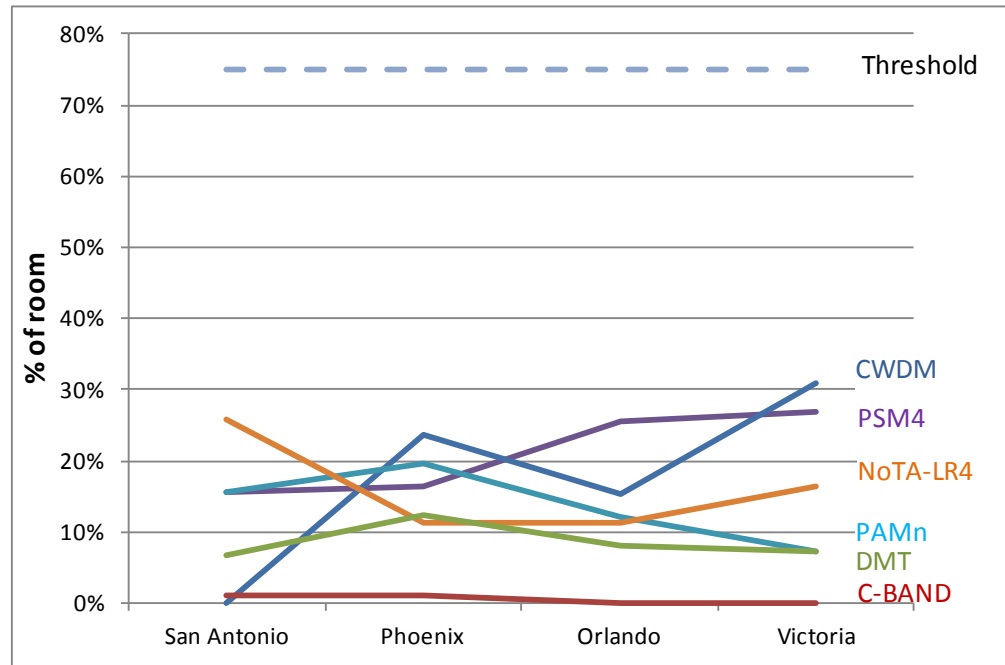
[anslow\\_01a\\_0613\\_smf](#) reviewed possibilities for 500m PMD naming with the options for the letter after the hyphen of D, M, and V getting 6, 7, and 1 votes respectively in a straw poll.

[anslow\\_02a\\_0613\\_smf](#) discussed inter-working and XLPPI for 40GBASE-ER4.

[zheng\\_01\\_0613\\_smf](#) contained an updated power budget for the CWDM SMF proposal and [petrilla\\_01\\_0613\\_smf](#) contained details of a CWDM link model for DM DFB Lasers.

# Consensus?

I would support a baseline proposal for a SMF PMD based on:



There was still no consensus on a new PMD proposal in Victoria (this was tested via a series of motions which all failed).

Have the presentations in the four SMF Ad Hoc meetings helped to build sufficient consensus to allow a decision on how the 500m over SMF objective will be met?

# Task Force decision

The Task Force has an objective:

Define a 100 Gb/s PHY for operation up to at least 500 m of SMF

The Distinct Identity response contains:

6. The amendment will enable new PHY types over SMF which consist of the existing 100GBASE-LR4 and 100GBASE-ER4 optical PMDs with four electrical interconnect lanes in each direction.  
The amendment will define a new 100 Gb/s SMF PMD in addition to these if it can be shown that a SMF PMD with a shorter reach than 100GBASE-LR4 has sufficient cost, density, or power difference to justify an additional SMF PMD type.

If the Task Force does not adopt a new PMD to satisfy the 500m over SMF objective in this meeting, then the objective will have to be satisfied by 100GBASE-LR4 with CAUI-4 unless the adopted timeline is changed.

Thanks!