

Big Ticket Items for 1060 nm MMF

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IEEE P802.3ds 200 Gb/s per Wavelength MMF PHYs Task Force
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Supporters

- Jose Castro – Panduit
- Jeffery Maki – HPE
- Vipul Bhatt – Coherent
- Roberto Rodes – Coherent
- Chris Cole – Coherent
- Bill Simms – NVIDIA
- Ali Ghiasi – Ghiasi Quantum LLC
- Flavio Marques – Lightera
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Background

- The Task Force adopted baselines for 850 nm in March 2026 and for 1060 nm in May 2026
- As of 802.3ds D1.2 there are still several TBD values in both clauses
- Our adopted timeline [timeline 3ds 2601.pdf](#) calls for “last feature” in September, D1.3 after the Sept meeting and WG authorization of D2.0 for the November meeting with no or very few TBDs, to have a technically complete draft.
- There have been consensus building email discussions about fiber core diameter for the new 1060 nm fiber. There is potential for new test results from fiber experts at the September meeting.
- For now, the fiber experts are investigating a range of 27 +/- 2 um diameter.
- This presentation seeks to list the big-ticket items that need to happen for us to achieve our schedule.

Big Ticket Items – Possible Values

Table	Topic	Description	Possible values	Presentations to date	Comments
194-5	Transmit characteristics	TDECQ (max), TECQ (max)	4.2 dB	CFI_200GMMF_R4_250717 huang_3ds_01_2607	Compromise value after straw poll during interim call on 8th Sept.
		Optical return loss tolerance	17 dB	murty_3ds_01_260507	
		Encircled flux	>= 86% at 10 um <= 30% at 3 um		Scaled from 50 um core values. Need contributions on optical design and coupled modes.
194-6	Receive characteristics	Receiver reflectance (max)	-20 dB	murty_3ds_01_260507	
		TECQ (max) for Rx sensitivity (max)	4.2 dB		
		SRS (max)	- 0.9 dBm		Calculated from TECQ=4.2 dB
		SECQ for lane under test	4.2 dB		
194-7	Illustrative link power budget	Power budget (for max TDECQ)	6.1 dB		Sum of Ch IL (1.7 dB) and penalties (4.4 dB)
		Allocation for penalties (for max TDECQ)	4.4 dB		Same as 802.3db. 0.2 dB + TDECQ(max)
194-8	Optical channel characteristics	Cabling skew (max)	79 ns		Need inputs from fiber experts.
		Cabling skew variation (max)	2.4 ns		
194-9	Optical fiber and cable characteristics	Nominal core diameter	27 +/- 2 um	castro_3ds_01_2601 castro_3ds_01a_2603	Comment #1 against D1.2 by Mr. Ransford.

Next steps

- Presentations needed to verify proposed values on the previous page, as the TF project progresses.