

TBDs in D1.2

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IEEE P802.3ds 200 Gb/s per Wavelength MMF PHYs Task Force
August 26, 2026

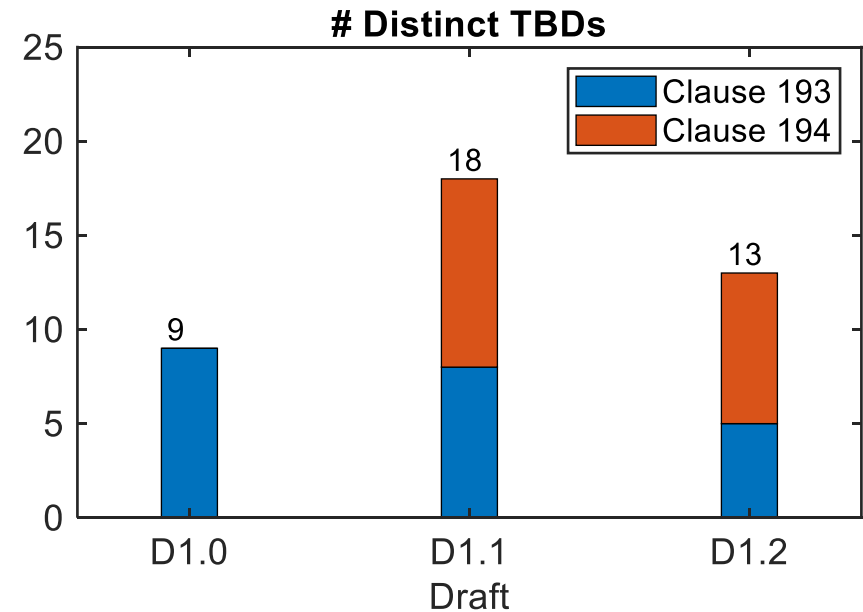
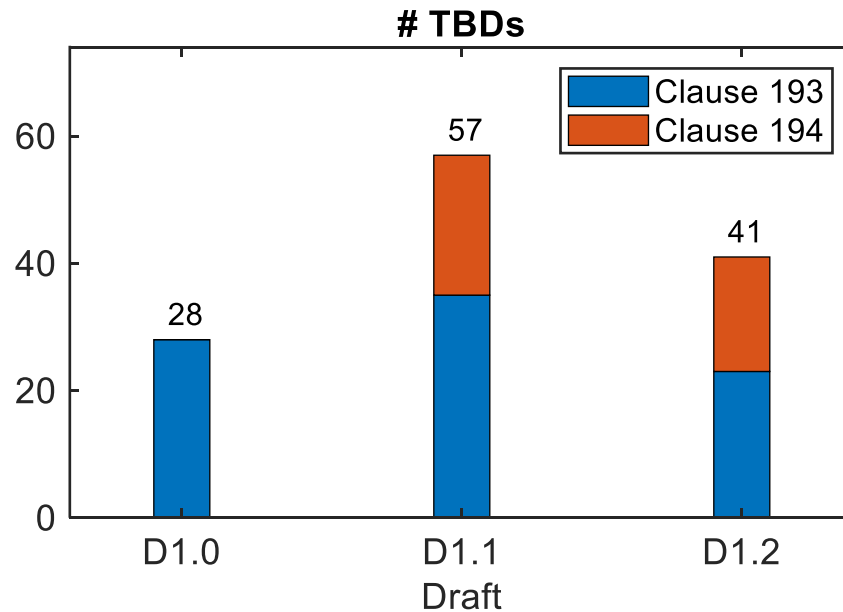
P802.3ds Drafts

1. P802.3ds Drafts

D1.0 Apr 2026
D1.1 Jun 2026
D1.2 Aug 2026

2. Timeline for P802.3ds indicates publishing D2.0 following the Nov meeting

3. TBDs in the Drafts



TBDs in D1.2

TBD	Clause 193	Clause 194
TDECQ (max)	✓	✓
Equalizer DC gain calculation	✓	✓
Cabling skew (max)	✓	✓
Cabling skew calculation (max)	✓	✓
OMz fiber type	✓	—
MMF core diameter	—	✓
Encircled flux	—	✓
Receiver reflectance (max)	—	✓
Optical return loss tolerance (max)	—	✓

TDECQ

TDECQ (max)

- Comments 74 , 83 (and related) against D1.1 ([ghiasi_3ds_01_2607](#), slide 8)

Proposed TDECQ (max) of 4.4 dB along with a specification for $K = \text{TDECQ} - 10\log_{10}(\text{Ceq})$

Straw poll did not indicate support for adding a K specification

- Proposal for TDECQ (max) of 4.6 dB in baseline proposal ([murty_3ds_01a_2603](#))
- TDECQ measurements: [bernier_3ds_01a_2601](#), [murty_3ds_02b_2603](#), [rodes_200gmmf_01_2511](#)

Equalizer DC Gain

- Reference equalizer is a T-spaced, discrete-time equalizer with 15 feed-forward taps and a single decision feedback tap in both P802.3ds and P802.3dj, Clause 180.

The equalizer DC gain is defined as the sum of all 15 feed-forward tap coefficients in P802.3dj, Clause 180.

- There has been discussion on restricting the sum to that of main tap and three pre- and post-cursors

Comment 42 (Piers Dawe) against D1.0

Cabling Skew and Skew Variation

- OMz is similar to OM3, OM4 and OM5
- Proposed values for 1060 nm link
[lewis_3ds_adhoc_01_260303](#)

Table Cl#-aa Fiber optic cabling (channel) characteristics

Description	OM4	OM4+	OM1060	Unit
Operating distance (max)		50		m
Cabling skew (max)		39.5		ns
Cabling skew variation (max)		1.2		ns
Channel insertion loss (max)		1.7		dB
Channel insertion loss (min)		0		dB

Table 193–8—Optical channel characteristics from P820.3ds D1.2

Description	200GBASE-SR1-30 400GBASE-SR2-30 800GBASE-SR4-30 1.6TBASE-SR8-30				200GBASE-SR1-50 400GBASE-SR2-50 800GBASE-SR4-50 1.6TBASE-SR8-50				Unit
	OM3	OM4	OM5	OMz	OM3	OM4	OM5	OMz	
Operating distance (max)	15	30			20	40	45	50	m
Cabling Skew ^a (max)	79			TBD	79			TBD	ns
Cabling Skew Variation ^{a,b} (max)	2.4			TBD	2.4			TBD	ns
Channel insertion loss ^c (max)	1.6				1.6	1.7			dB
Channel insertion loss (min)	0				0				dB

^a Applies only to 400GBASE-SR2-30, 800GBASE-SR4-30, 1.6TBASE-SR8-30, 400GBASE-SR2-50, 800GBASE-SR4-50, and 1.6TBASE-SR8-50.

^b An additional 400 ps of Skew Variation could be caused by wavelength changes, which are attributable to the transmitter not the channel.

^c These channel insertion loss values include cable loss plus 1.5 dB allocated for connection and splice loss, over the wavelength range 844 nm to 868 nm for SR-30 and over the wavelength range 852 nm to 868 nm for SR-50.

OMz Fiber Type: 850 nm

1.6TBASE-SR8-50 PMDs are defined in Table 193–4. A compliant PMD operates on 50/125 μm multimode fibers, type A1a.2 (OM3), type A1a.3 (OM4), type A1a.4 (OM5), or type *TBD*, according to the specifications defined in Table 193–4. A PMD that exceeds the operating range requirement while meeting

MMF for 1060 nm Link

- MMF core diameter

Comparison of 50 and 26 μm core diameter: [castro_3ds_01a_2603](#)

Bandwidth of 50 μm core MMF: [lewis_3ds_01a_2603](#), [rodes_3ds_01a_2603](#)

Fiber transmission on 50 μm core (OM2) MMF: [huang_3ds_01_2607](#)

1060 nm VCSEL S21 measurements with 50, 36 and 24 μm core: [lewis_3ds_01a_2601](#)

- Encircled flux for 1060 nm MMF

No presentations

Receiver Reflectance and ORL for 1060 nm Link

- Clause 194

Receiver reflectance (max)	TBD
Optical return loss tolerance (max)	TBD

- Values in Clause 193

Receiver reflectance (max)	–20 dB
Optical return loss tolerance (max)	–17 dB