

Table 193-11: Optical Fiber and Cable Characteristics (in support of comment 66)

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P802.3ds Interim

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Table 193-11 in D1.1

Table 193–11—Optical fiber and cable characteristics

Add IEC document reference

Description	OM3 ^a	OM4 ^b	OM5 ^c	OMz	Unit
Nominal core diameter	50				μm
Nominal fiber specification wavelength	850		850 and 953	TBD	nm
Effective modal bandwidth at 850 nm (min) ^d	2000	4700		TBD	MHz · km
Effective modal bandwidth at 953 nm (min)	Not specified ^e		2470 ^e	TBD	MHz · km
Effective modal bandwidth at 860 nm (min)				5200	MHz · km
Cabled optical fiber attenuation (max)	3.0				dB/km
Zero dispersion wavelength (λ_0) ^f	1297 ≤ λ_0 ≤ 1328				nm
Chromatic dispersion slope (max) (S_0) ^f	− 412/(840(1 − (λ_0 /840) ⁴))				ps/nm ² km

EMB for OMz is specified at 852 and 868 nm

^a IEC 60793-2-10 type A1a.2.

^b IEC 60793-2-10 type A1a.3.

^c IEC 60793-2-10 type A1a.4.

^d When measured with the launch conditions specified in Table 193–7.

^e Guidance is provided for effective modal bandwidth at all wavelengths in the 840 nm to 953 nm range in IEC 60793-2-10.

^f These limits are consistent with IEC 60793-2-10/AMD1 ED7. For OM5, they are the same as previous versions of IEC 60793-2-10. OM3 and OM4 fibers compliant to previous versions of IEC 60793-2-10 are considered compliant for 200GBASE-SR1-30, 400GBASE-SR2-30, 800GBASE-SR4-30, 1.6TBASE-SR8-30, 200GBASE-SR1-50, 400GBASE-SR2-50, 800GBASE-SR4-50, and 1.6TBASE-SR8-50 Physical Layer types.

Update IEC document reference to include OMz.

Proposed Table 193-11

Changes highlighted.

Description	OM3 ^a	OM4 ^b	OM5 ^c	OMz ^d	Unit
Nominal core diameter	50				μm
Nominal fiber specification wavelength	850		850 and 953	852 and 868	nm
Effective modal bandwidth at 850 nm (min) ^e	2000	4700		Not specified ^f	MHz·km
Effective modal bandwidth at 953 nm (min)	Not specified ^f		2470 ^f	Not specified ^f	MHz·km
Effective modal bandwidth at 852 nm (min)	Not specified ^f			5200	MHz·km
Effective modal bandwidth at 868 nm (min)	Not specified ^f			5200	MHz·km
Cabled optical fiber attenuation (max)	3.0				dB/km
Zero dispersion wavelength (λ_0) ^g	$1297 \leq \lambda_0 \leq 1328$				nm
Chromatic dispersion slope (max) (S_0) ^g	$-412/(840(1 - (\lambda_0/840)^4))$				ps/nm ² ·km

^a IEC 60793-2-10 type A1a.2.

^b IEC 60793-2-10 type A1a.3.

^c IEC 60793-2-10 type A1a.4.

^d [IEC reference](#)

^e When measured with the launch conditions specified in Table 193–7.

^f Guidance is provided for effective modal bandwidth at all wavelengths in the 840 nm to 953 nm range in IEC 60793-2-10.

^g These limits are consistent with IEC 60793-2-10/AMD1 ED7. For OM5, they are the same as previous versions of IEC 60793-2-10.

OM3 and OM4 fibers compliant to previous versions of IEC 60793-2-10 are considered compliant for 200GBASE-SR1-30, 400GBASE-SR2-30, 800GBASE-SR4-30, 1.6TBASE-SR8-30, 200GBASE-SR1-50, 400GBASE-SR2-50, 800GBASE-SR4-50, and 1.6TBASE-SR8-50 Physical Layer types.

[Editors' note: IEC document references for fiber type and EMB guidance need to be provided for OMz in footnotes d, f and g.]