

Berk-Tek Description:	Enhanced ¹ Single-mode (AB)	62.5/125 Standard* (CB)	50/125 GIGALite * (LB)	50/125 GIGALite10 * (EB)	50/125 GIGALite10-FB * (FB)	50/125 GIGALite10-XB * (XB)	50/125 GIGALite10-WB * (WB)**
ISO/IEC	OS2	OM1	Exceeds OM2	OM3	OM4	Exceeds OM4	OM5
Mode Field or Core Diameter	9.2 ± 0.4 μm @ 1310 nm	62.5 ± 2.5 μm	50 ± 2.5 μm	50 ± 2.5 μm	50 ± 2.5 μm	50 ± 2.5 μm	50 ± 2.5 μm
Cladding Diameter	125 ± 0.7 μm	125.0 ± 2.0 μm	125.0 ± 1.0 μm	125.0 ± 1.0 μm	125.0 ± 1.0 μm	125.0 ± 1.0 μm	125.0 ± 1.0 μm
Numerical Aperture	0.14	0.275 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015	0.200 ± 0.015
Max. Cable Attenuation (dB/km) @ 850/1300 nm	N/A	3.5/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0	3.0/1.0
Max. Cable Attenuation (dB/km) @ 1310/1550 nm	Loose Tube: 0.4/0.3 ₂	N/A	N/A	N/A	N/A	N/A	N/A
	Tight Buffer: 0.5/0.5						
Minimum Bandwidth (MHz•km) @ 850/1300 nm	N/A	200 ₃ /500 ₃	950 ₄ /500 ₃	2000 ₄ /500 ₃	4700 ₄ /500 ₃	4900 ₄ /500 ₃	4700 ₄ /500 ₃
100 Mb Transmission distance (meters) @ 850/1300 nm	> 5000 @ 1310 nm	300/2000	300/2000	300/2000	300/2000	300/2000	300/2000
1 GbE Transmission distance (meters) @ 850/1300 nm	> 5000 @ 1310 nm	300/600	750/600	1000/600	1040/600	1210/600	1040/600
10 GbE Transmission distance (meters) @ 850/1300 nm	> 10,000 @ 1310 nm	36/300 ₅	150/300 ₅	300/300 ₅	550/300 ₅	600/300 ₅	550/300 ₅
40/100 GbE Transmission distance (meters) @ 850 nm	10k ₆ @ 1310 nm	N/A	N/A	100 ₆	150 ₆	300 ₇	190 ₆
100G-SR4 Transmission distance (meters) @ 850 nm	N/A	N/A	N/A	70 ₈	100 ₈	TBD	100 ₈
Fiber Specifications		Doc #: PS 0309.W			Date: 1/18/17		

¹ Enhanced SMF-improved performance across 1260 nm to 1625 nm wavelength spectrum. Low dispersion @ 1310 nm and low attenuation in 1383 nm water-peak region allows use of extended band (1360 nm to 1460 nm). Complies with ITU-T G.652.D, ITU-T G.657.A1, and IEC 60793-2-50 Annex C.

² Optional Maximum Attenuation values 0.3/0.2 dB/km @ 1310/1550 nm are available for certain Loose Tube cables. Contact Berk-Tek for further information.

³ Overfilled launch per TIA/EIA-455-204.

⁴ Effective Modal Bandwidth (EMB) as characterized by Differential Mode Delay (DMD) measurement per TIA/EIA-455-220. Minimum OFL bandwidth @ 850 nm per TIA/EIA-455-204 is 700 MHz•km for GIGALite, 1500 MHz•km for GIGALite10, 3500 MHz•km for GIGALite10-FB and GIGALite10-WB, and 3675 MHz•km for GIGALite10-XB fiber. GIGALite10-WB minimum EMB @ 953 nm is 2470 MHz•km per TIA/EIA-455-220.

⁵ 10GbE Transmission distance @ 1300 nm applies to 10GBASE-LX4 (CWDM) only.

⁶ 40/100 GbE Transmission distance per IEEE 802.3ba

⁷ The enhanced performance of XB fiber provides 300 m reach that far exceeds the distance specified in the 40G/100G per IEEE 802.3ba standard of 150 m on OM4 fiber. The reach calculation is based on cable attenuation ≤ 3.0 dB/km at 850 nm, 1.0 dB of connector loss, and a VCSEL spectral width of ≤ 0.45 nm.

⁸ 100G-SR4 transmission distance per IEEE 802.3bm

* No Mode Conditioning Patch Cord required. All 10GbE Transmission distances (except GIGALite-10XB) @ 850 nm assume a maximum cable attenuation of 3.0 dB/km and a connection and splice loss of 0.8 dB. For GIGALite-10XB, a maximum cable attenuation of 3.0 dB/km and a connection and/or splice loss of 0.65 dB is assumed.

** WB OM5 fiber is designed and specified per TIA 492-AAAE to support at least four WDM channels at a minimum speed of 28 Gbps per channel through the 850-953 nm window.

NOTE 1: Berk-Tek will support legacy system designs. Contact Customer Service for special glass code designs.

NOTE 2: All fibers are bend optimized and are compliant to the fiber requirements of the current issue of Telcordia GR-20-CORE.

MANUFACTURING RELEASE. IMPORTANT NOTICE:

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