Data-Glass®
optical fibers

Specification sheet D-Max 300

CERTIFIED SFS ORGANIZATION ISO 9001

D-max 300 multimode optical fibers are economical solution for next generation optical networking. D-Max 300 features a DMD- controlled core design to support 10 GB/s applications at 850 nm.
D-Max 300 guarantees data transmission rate of 10 GB/s up to 300 meters.

Data-Glass ® optical fibers has been producing optical fibers since 1988. Our advantages are commitment to produce quality optical fibers, trained personnel and modern state_of the_art equipment, which assures an unsurpassed competence to our customers.

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Optical characteristics of Data-Glass D-Max 300

Attennuation	850 nm		≤ 2.5	dB/km
	1300 nm		≤ 0.8	dB/km
Attennuation at waterpeak	1383 nm		≤ 2.0	dB/km
Attennuation discontinuities (OTDR 1300 nm)			≤ 0.05	dB
Macrobending loss				
Bending induced attennuation (100 turns)			≤ 0.5	dB
Bandwidth				
(Overfilled launch Led sources)	850 nm		> 1500	MHz·km
	1300 nm		> 500	MHz·km
EMB (Effective modal bandwidth)	850 nm		> 2000	MHz·km
DMD (Differential mode delay)	Laser source according to TIA/EIA 455-220			
		Inner mask	Outer mask	
	Template 1	≤ 23	≤ 70	ps/m
	Template 2	≤ 24	≤ 60	ps/m
	Template 3	≤ 25	≤ 50	ps/m
	Template 4	≤ 26	≤ 40	ps/m
	Template 5	≤ 27	≤ 35	ps/m
	Template 6	≤ 33	≤ 33	ps/m

Fibers meet any of the following templates.
5 µm ≤ Inner mask ≤ 18 µm, 0 µm ≤ Outer mask ≤ 23 µm.

Transmission link length at 10GB/s**		300	m
**Operating wavelenght 850 nm with transmitters meeting encircled flux at:			
	R= 4.5 µm	30	%
	R= 19 µm	86	%
Zero dispersion wavelenght		1295 ≤ λ_0 ≤ 1320	nm
Zero dispersion slope	1295 ≤ λ ≤1300	≤ 0.001	ps/nm²·km
	1300 ≤ λ ≤1320	≤ 0.11	ps/nm²·km
Numerical aperture	n.a.	0.200 ± 0.015	-

Geometrical characteristics of Data-Glass D-Max 300

Core diameter		50 ± 2.5	µm
Core non-circularity		≤ 5	%
Core /clad concentricity error		≤ 1,5	µm
Cladding diameter		125 ± 2.0	µm
Cladding non-circularity		≤ 1	%
Coating diameter (without ink)		245 ± 10	µm
Coating/Clad concentricity error		≤ 10	µm
Standard lenghts:	1.1, 1.4, 1.7, 2.2, 3.3, 4.4		km

Mechanical characteristics of Data-Glass D-Max 300

Proof test			100	kpsi
			8.8	N
Dynamic tensile strenght	Unaged fiber	Median	≥ 550	kpsi
		Weibull slope	≥ 30	
	Aged fiber	Median	≥ 440	kpsi
		Weibull slope	≥ 25	
Dynamic fatigue	Stress corrosion parameter		≥ 20	
Coating strip force (typical)			1.9	N
Operating temperature range			-60…+85	°C

Environmental characteristics of Data-Glass D-Max 300

Temperature induced attennuation (-60.. +85 °C)	850/1300 nm	≤ 0.2	dB/km
Temperature / humidity cycle induced attennuation (-10….+85 °C, 4….85% R.H.)	850/1300 nm	≤ 0.2	dB/km
Heat ageing after 30 days at +85°C/ 85% R.H	850/1300 nm	≤ 0.2	dB/km
Water immersion (Fiber soaked in water +23°C for 30 days	850/1300 nm	≤ 0.2	dB/km