



# MULTIMODE FIBER OM1-OM5 SPECS

Fiber cable type ISO/IEC 11801	Glass fiber specification TIA-492AAAx	Core diameters ( $\mu\text{m}$ )	Max refractive index difference $\Delta n$	Minimum modal bandwidth (MHz-km)					Maximum glass fiber attenuation (dB/km) TIA-492AAAx IEC 60793-2-10			Maximum fiber cable attenuation (dB/km) TIA 568-3-D ISO/IEC 11801			IEEE 802.3 link distance				
				Overfilled launch (OFL) bandwidth			Effective modal bandwidth		850nm	953nm	1300nm	850nm	953nm	1300nm	1000-SR	10G-SR	40G-SR4 & 100G-SR10	100G-SR4 & 400G-SR16	50G-SR & 200G-SR4*
				850nm	953nm	1300nm	850nm	953nm											
OM1	TIA-492AAAA	62.5	0.02	200	/	500	/	/	3.2	/	0.9	3.5	/	1.5	275m	33m	/	/	/
OM2	TIA-492AAAB	50	0.01	500	/	500	/	/	3	/	1	3.5	/	1.5	550m	82m	/	/	/
OM3	TIA-492AAAC	50	0.01	1500	/	500	2000	/	2.5	/	0.8	3.0	/	1.5	/	300m	100m	70m	70m
OM4	TIA-492AAAD	50	0.01	3500	/	500	4700	/	2.5	/	0.8	3.0	/	1.5	/	400m	150m	100m	100m
OM5	TIA-492AAAE (WBMMF)	50	0.01	3500	1850	500	4700	2470	2.5	1.8	0.8	3.0	2.3	1.5	no spec	400m	150m	100m	100m

	OM4	OM5
Standard TIA	TIA-492AAAD	TIA-492AAAE
ISO/IEC Draft standard	IEC 60793-2-10 A1a.3	IEC 60793-2-10 A1a.4
EMB bandwidth at 850nm	4700MHz.km	4700MHz.km
EMB bandwidth at 953nm	NA	2470MHz.km
Fiber count required at 40Gbits	8	2
Backward compatibility	OM3	OM4 / OM3

OM5 specifications are the same as OM4 and include operation at a second wavelength of 953 nm.

QSFP 40-Gb BiDi transceivers have two 20-Gb channels that transmit and receive simultaneously on two wavelengths.

The result is a 40-Gb link over a LC duplex patch cord.