

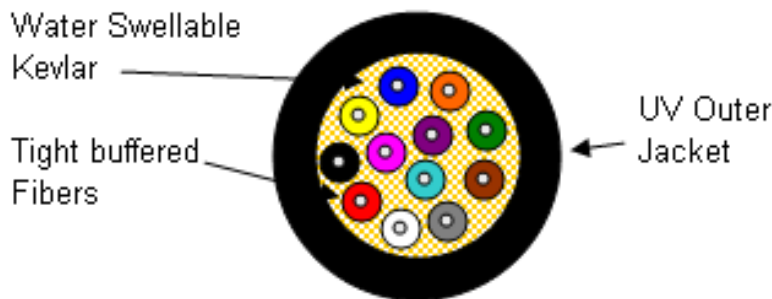


TIGHT BUFFER PLENUM FIBER OPTIC CABLES PRODUCT SPECIFICATION 99XXX12HRBNOOP

This document establishes the specification requirements for an indoor/outdoor multimode OM4 distribution fiber optic cable. This cable construction consists of a distribution tight-buffered design with a plenum rated jacket.

This document contains test values for all-important mechanical, optical, and environmental parameters and as such, is the basis for all-incoming inspection and acceptance.

1.0 CABLE CROSS SECTION (*representation of standard construction of 12 fibers*)



2.0 OVERALL CABLE CONSTRUCTION

2.1 Tight Buffered Fiber

Dimension: 900 μ m, nominal.

Tight buffered fiber color code: 1-blue, 2-orange, 3-green, 4-brown, 5-slate, 6-white, 7-red, 8-black, 9-yellow, 10-violet, 11-rose, and 12-aqua.

2.2 Cable strength

Water swellable aramid yarns are pulled in with the tight-buffered fibers under the outer jacket.

2.3 Outer Sheath

Black UV Resistant plenum rated jacket (or color per customer request)

2.4 Cable Markings

Indent printed: CCT GROUP99, FIBER OPTIC CABLE, # of fibers-50/125, 10GIG OM4, MM/YY (month and year of manufacture), OFNP C(ETL)US sequentially meter marked. Special print as required by customer.



2.5 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
9900212HRBNOOP	2	4.3	.170	18	12
9900412HRBNOOP	4	4.4	.185	21	14
9900612HRBNOOP	6	4.6	.200	27	18
9900812HRBNOOP	8	5.0	.215	31	20
9901212HRBNOOP	12	5.8	.250	39	26

3.0 FIBER CHARACTERISTICS

3.1 Physical Parameters (nominal)

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
LED Performance (Overfilled Launch)	3500/500MHz-km@850/1300
Laser EMB Performance	4700/500MHz-km@850/1300
Core Diameter, nominal	50 ± 2.5 μm
Cladding Diameter	125.0 ± 1.0 μm
Primary Coating Diameter	245 ± 10 μm
Cladding Non-circularity	<1%
Core-Clad Concentricity	≤1.5 μm
Zero Dispersion Wavelength	1295-1320nm
Maximum Zero Dispersion Slope	0.11 ps/nm ² -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi

*Guaranteed Gigabit Ethernet Distance of 550mtr at 850nm for 10 Gb/s per IEEE802.3ae and 1000mtr at 850nm for 1 Gb/s per IEEE802.3z.

**Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.

4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:	Impact Resistance: 25 Impacts (min.)
Installation: 4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf	Flexing, ±90°: 25 Cycles (min.)
12-fiber 2700N/600lbf	Crush Resistance: 100N/cm
Long Term: 4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf	Temperature rating*:
12-fiber 600N/135lbf	Operation: -20°C to +85°C
Minimum bending radius:	Installation: 0°C to +75°C
Loaded: 20 x diameter	Storage: -40°C to +85°C
Unloaded: 10 x diameter	



5.0 PREPARATION FOR DELIVERY

The cable shall be packaged to preclude the inducement of damage due to handling and transportation, and shall be in accordance with the best commercial practices available.

6.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455
 Color Coding of Fiber Optic Cables TIA/EIA-598
 UL 910
 GR-409-CORE