

1.0 SCOPE

This document establishes the specification requirements for a multimode OM2 distribution fiberoptic cable. This cable construction consists of multimode fibers in a distribution tight-buffered design with a riser rated PVC jacket suitable for indoors in the riser and also acceptable in tray installation as well..

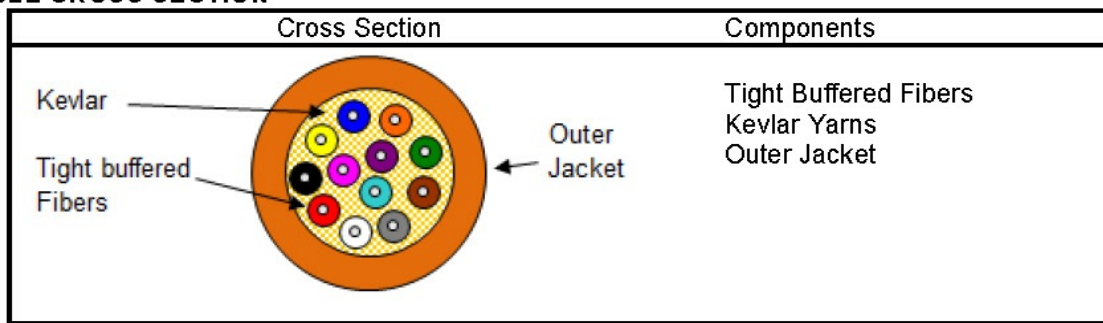
2.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455
Color Coding of Fiber Optic Cables TIA/EIA-598
UL 1666
GR-409-CORE

3.0 REQUIREMENTS

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.

4.0 CABLE CROSS SECTION



5.0 OVERALL CABLE CONSTRUCTION

5.1 Tight Buffered Fiber

Dimension: 900µm, 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.

5.2 Cable strength

Aramid yarns are pulled in with the tight-buffered fibers under the outer jacket.

5.3 Outer Sheath

Orange riser rated PVC jacket (or color per customer request)

5.4 Cable Markings

FIBER OPTIC CABLE. XX (No. of fibers)-50/125. 10GIG OM2.

MM/YY (month & year of manufacture), OFNR C(ETL)US, Sequentially meter marked.

Special print as required by customer.

5.5 Nominal Cable Dimensions & Weights

Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
7700212DAZNONF	2	4.3	.170	16	11
7700412DAZNONF	4	4.7	.185	19	13
7700612DAZNONF	6	5.1	.200	24	16
7700812DAZNONF	8	5.3	.210	27	18
7701212DAZNONF	12	6.4	.250	34	23

6.0 FIBER CHARACTERISTICS

6.1 Physical Parameters (nominal)

Fiber Type	Multimode OM2*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
Minimum Bandwidth @850/1300nm [Overfilled Launch, LED based sources]	750/500MHz-km
Transmission Link Lengths at 850nm & 1300nm(LX4) for 10Gb/s*	150/150mtrs
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
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi

*At 850nm operating wavelength with transmitters meeting encircled flux of ≤30% at radius 4.5µm and ≥86% at radius 19.0µm.

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

7.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:

Installation: 2&4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf
12-fiber 2700N/600lbf

Long Term: 2&4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf
12-fiber 600N/135lbf

Minimum bending radius:

Loaded: 20 x diameter
Unloaded: 10 x diameter

Impact Resistance: 25 Impacts (min.)

Flexing, ±90°: 25 Cycles (min.)

Temperature rating:

Operation, -40°C to +85°C

Installation, 0°C to +75°C

Storage, -55°C to +85°C

Crush Resistance: 100N/cm

8.0 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.