

1.0 SCOPE

This document establishes the specification requirements for an indoor/outdoor distribution fiberoptic cable. This cable construction consists of multimode OM3 fibers in a distribution tight-buffered design with an interlocking armor and a plenum rated jacket.

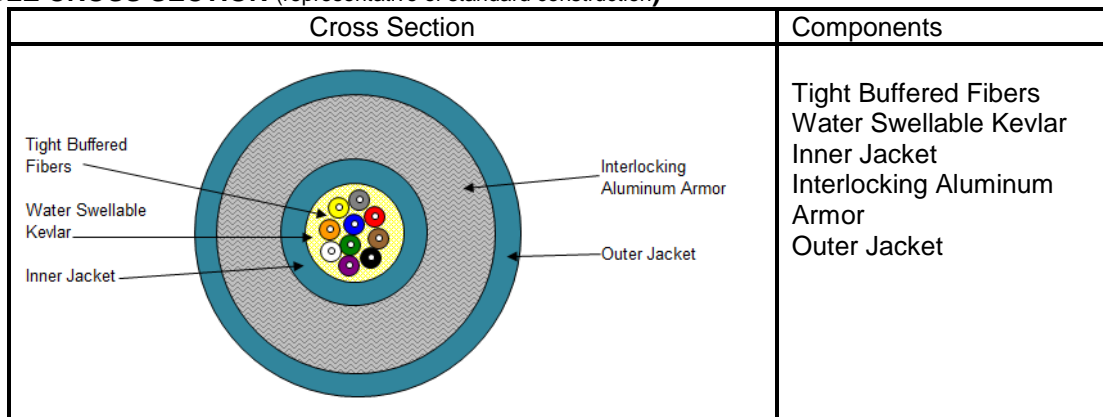
2.0 APPLICABLE DOCUMENTS

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

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 (representative of standard construction)



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-purple, 11-pink and 12-aqua

5.2 Cable strength

Water swellable aramid yarns are pulled in with the tight-buffered fibers under the inner sheath.

5.3 Inner Sheath

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

5.4 Cable Markings

CCT GROUP 99, FIBER OPTIC CABLE, XX(No. of fibers)-50/125 OM3 10GIG, CONVERGENT CONNECTIVITY TECHNOLOGY, MM/YY (Month & Year of Manufacture), OFNP C(ETL)US SEQUENTIAL METER MARKINGS

5.5 Armor

Aluminum Interlocking Armor Tape

5.6 Outer Sheath

Aqua plenum rated jacket (or color per customer request)

5.7 Cable Markings

GROUP AJ99, FIBER OPTIC CABLE, XX(No. of Fibers)-50/125 OM3 10GIG, CONVERGENT CONNECTIVITY TECHNOLOGY., MM/YY (month & year of manufacture), Made in the USA, OFCP C(ETL)US, Sequentially meter marked.
Special print as required by customer.

5.8 Nominal Cable Dimensions without the armor:

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

Dimensions and weights including the armored jacket

CCT Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
AJ9900212NAIALR	2	15.4	0.605	185	124
AJ9900412NAIALR	4	15.4	0.605	188	126
AJ9900612NAIALR	6	15.4	0.605	193	130
AJ9900812NAIALR	8	15.4	0.605	196	132
AJ9901212NAIALR	12	15.4	0.605	205	138

5.0 FIBER CHARACTERISTICS

5.1 Physical Parameters (nominal)

Fiber Type:	Multimode*
Maximum Attenuation @ 850/1300nm:	3.0/1.0 dB/km**
LED Performance (Overfilled Launch Bandwidth):	1500/500MHz-km@850/1300
Laser EMB Performance:	2000/500MHz-km@850/1300
Core Diameter, nominal:	50 ± 2.5µm
Cladding Diameter:	125.0 ± 1.0µm
Primary Coating Diameter:	242 ± 5µm
Cladding Non-circularity:	<0.7%
Core-Clad Concentricity:	≤1.0µm
Zero Dispersion Wavelength:	1295-1340
Maximum Zero Dispersion Slope:	0.105 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 300mtr 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 (Tight Buffered Cables Only)

6.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Cable only without armor:

Maximum Tensile Load for:

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

12-fiber 2700N/600lbf

Long Term: 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.)

Crush Resistance: 100N/cm

Temperature rating:

Operation, -20°C to +85°C

Installation, 0°C to +75°C

Storage, -40°C to +85°C

Overall over armor:

Maximum Tensile Load for the Interlock Armored Jacket: Temperature rating:

600N / 150lbf

Crush Resistance (Over Armor): 1000N/cm

7.0 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.

Customer Signature of Approval for Acceptance of this Custom Cable Design

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order; this item may be non-cancelable and non-returnable.

Signature: _____

Company: _____

Date: _____