

1.0 SCOPE

This document establishes the specifications for an outdoor, direct burial, armored multimode OM3 rodent deterrent fiberoptic cable, in a dry block loose buffer tube design with a Low Smoke Zero Halogen jacket. This cable design is suitable for harsh environments including subways and tunnels as well as its characteristics of resistance to chemicals, oils, gasses and water.

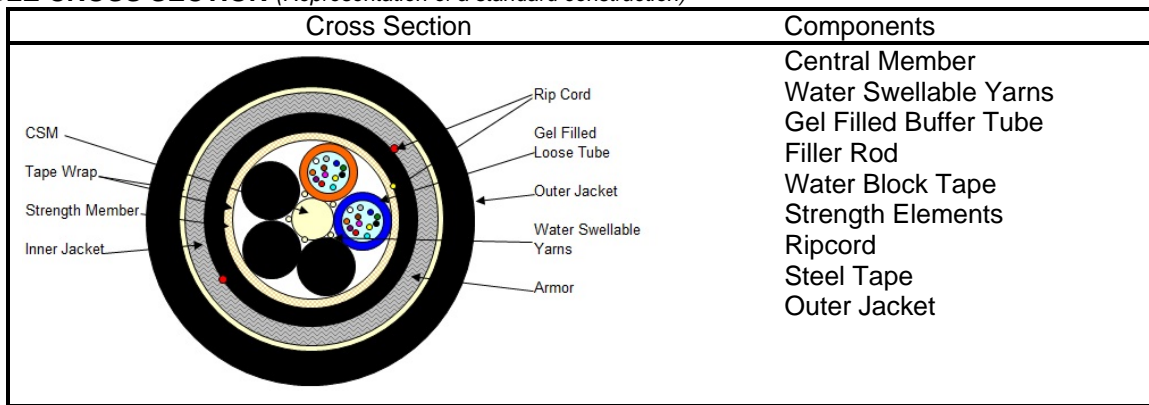
2.0 APPLICABLE DOCUMENTS

Reference Documents: TIA/EIA FOTP Standards 455
Color Coding of Fiber Optic Cables TIA/EIA-598
RUS 1755.900
GR-20-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 *(Representation of a standard construction)*



5.0 OVERALL CABLE CONSTRUCTION

5.1 Buffer tube

High Modulus Polymeric material.
Dimension: 2.8 mm., nominal.
Tube and fiber color code per EIA/TIA-598 or as specified by customer.
Filling compound: A non-toxic and dermatological safe antioxidant hydrocarbon based gel.

5.2 Dielectric Central strength member.

Epoxy glass rod with an up-coat of polymer (if necessary per construction).
Water swellable yarns are to be pulled in with the CSM.

5.3 Cable Core:

The cable elements are stranded around the CSM, using reverse oscillation.
Moisture Resistance: A water blocking tape is applied over the cable core to prevent water ingress and migration with a nominal of 25% overlap.
Non-wicking binder yarns are applied over the core tape.

5.4 Cable strength

Circumferential strength members are placed over the cable core and under the inner sheath.

5.5 Inner Sheath

UV Resistant Black Low Smoke Zero Halogen
A ripcord is applied under the inner sheath.

5.6 Steel Armor tape

Corrugated flexible steel with plastic coating for bonding to sheath. The armor of each length of cable shall be electrically continuous with no more than one splice allowed per kilometer of cable. The breaking strength of any section of an armor tape containing a factory splice joint, shall not be less than 80% of the breaking strength of an adjacent section of the armor of equal length without a joint.
A ripcord is applied under the armor tape.

5.7 Outer Sheath

UV Resistant Black Low Smoke Zero Halogen

5.8 Cable Markings

Indent printed- CCT GROUP 4, FIBER OPTIC CABLE, XX(No. of Fibers)-50/125 OM3, CONVERGENT CONNECTIVITY TECHNOLOGY., MM/YY (Month & Year of manufacture), Sequentially meter marked.
Special print as required by customer.

5.9 Nominal Cable Dimensions & Weights

CCT Part Number	No of Fibers	No. of Fibers per Tube	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
4300612SZBSFWN	6	6	15.7	.619	283	190
4302412SZBSLWN	24	12	15.7	.619	279	188
43036-2SZBSFWN	36	6	16.5	.649	298	200
4304812SZBSLWN	48	12	15.7	.619	273	184

6.0 FIBER CHARACTERISTICS

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 ± 3.0 µm
Cladding Diameter	125.0 ± 2.0 µm
Primary Coating Diameter	245 ± 5 µm
Cladding Non-circularity	<2%
Core-Clad Concentricity	≤3.0 µm
Zero Dispersion Wavelength	1300-1320nm
Maximum Zero Dispersion Slope	0.101 ps/nm ² -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.481/1.476
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.

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Data listed on this document are subject to normal manufacturing tolerances. CCT reserves the right to improve, enhance and/or modify the features and specifications of its' products without prior notification.

7.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:

Installation: 2700N / 607lbf

Long Term: 890N / 200lbf

Minimum bending radius:

Loaded: 20 x diameter

Unloaded: 10 x diameter

Crush Resistance: 440N/cm

Impact Resistance: 25 Impacts (min.)

Flexing, $\pm 90^\circ$: 25 Cycles (min.)

Temperature Rating:

Operation, -40°C to +85°C

Installation, -20°C to +80°C

Storage, -40°C to +85°C

Twist Test: 25 Cycles (min.)

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.