



PRODUCT SPECIFICATION
63XXX76MZBCXSG

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1.0 SCOPE

This document establishes the specifications for an outdoor, direct burial, armored singlemode, 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

Cross Section	Components

5.0 OVERALL CABLE CONSTRUCTION

5.1 Buffer tube

High Modulus Polymeric material.

Dimension: 3.0 mm., nominal.

Tube color: Yellow

Fiber color code: per TIA/EIA-598

Filling compound: A non-toxic and dermatological safe antioxidant hydrocarbon based gel.

5.2 Cable Core:

The cable core consists of the buffer tube with a moisture resistant water-blocking tape applied over the tube to prevent water ingress and migration with a nominal of a 25% overlap.

5.3 Cable strength

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

5.4 Inner Sheath

UV Resistant Black Low Smoke Zero Halogen

Two dielectric rods are imbedded in the jacket wall 180° apart

5.5 Moisture Resistance

A moisture resistant water-blocking tape applied over the inner sheath to prevent water ingress and migration with a nominal of a 25% overlap.

5.6 Steel Armor Tape

Tape is 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 joint or 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 63, FIBER OPTIC CABLE, No. of Fibers-SM, CONVERGENT CONNECTIVITY TECHNOLOGY HANDSET SYMBOL, MM/YY (Month & Year of Manufacture), Sequentially meter marked.

5.9 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	Cable OD (in.)	Cable OD (mm)	Weight LB/MFT	Weight KG/KM
6300276MZBCBSG	2	.507	12.9	142	212
6300476MZBCDSG	4	.507	12.9	142	212
6300676MZBCFSG	6	.507	12.9	142	212
6300876MZBCHSG	8	.507	12.9	142	212
6301276MZBCLSG	12	.507	12.9	142	211

6.0 FIBER CHARACTERISTICS

6.1 Physical Parameters

Fiber Type	Singlemode
Maximum Attenuation @ 1310/1550nm	.40/.30 dB/km
Core Diameter, nominal	8.3 μ m
Cladding Diameter	125.0 \pm 1.0 μ m
Primary Coating Diameter	245 \pm 10 μ m
Maximum Dispersion Slope	0.092 ps/nm ² -km
Fiber Cutoff Wavelength	1150-1350nm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter @ 1310nm	9.2 \pm 0.4 μ m
Mode Field Diameter @ 1550nm	10.5 \pm 1.0 μ m
Cladding Non-circularity	<1%
Core/Clad Offset	<.80 μ m
Zero Dispersion Wavelength	1300-1322nm
Numerical Aperture	0.13
Group Refractive Index @ 1310/1550nm	1.467/1.4675
Proof Test	100 kpsi

*According to ITU G.652b

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.