



PRODUCT SPECIFICATION
63XXX12SZBCXSG

Issued By: Fiberoptic Engineering
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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

Cross Section	Components

5.0 OVERALL CABLE CONSTRUCTION

5.1 Buffer tube

High Modulus Polymeric material.
Dimension: 3.0 mm., nominal.
Tube color: Aqua
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.

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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 53 FIBER OPTIC CABLE, No. of Fibers-50/125 OM3, CONVERGENT CONNECTIVITY TECHNOLOGY, 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
6300212SZBCBSG	2	.507	12.9	142	212
6300412SZBCDSG	4	.507	12.9	142	212
6300612SZBCFSG	6	.507	12.9	142	212
6300812SZBCHSG	8	.507	12.9	142	212
6301212SZBCLSG	12	.507	12.9	142	211

6.0 FIBER CHARACTERISTICS**6.1 Physical Parameters**

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' 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.

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