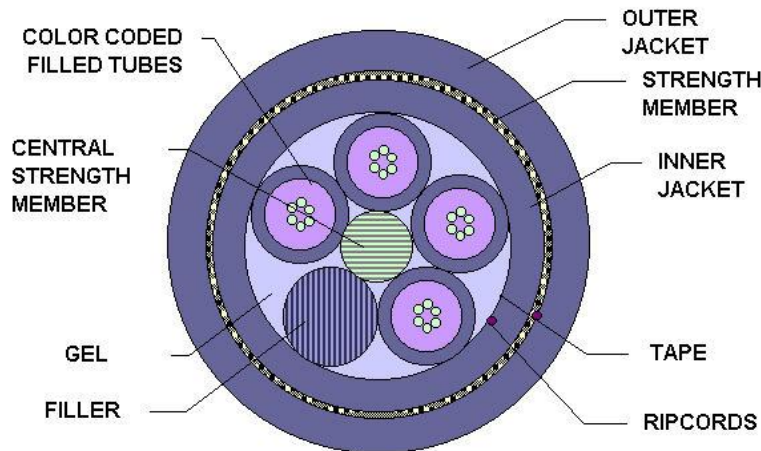


OSP LOOSE TUBE HEAVY DUTY FIBER OPTIC CABLE PRODUCT SPECIFICATION 45XXX22JMBSXNN

This document establishes the specifications for an outdoor, heavy duty, all dielectric, flooded, multimode, fiber optic cable in a loose buffer tube design. It contains test values for all-important mechanical, optical, and environmental parameters and as such, is the basis for all-incoming inspection and acceptance.

1.0 CABLE CROSS SECTION (Representation of standard construction)



2.0 OVERALL CABLE CONSTRUCTION

2.1 Buffer tube

High Modulus Polymeric material

Dimension: 2.8 mm. nominal for ≥ 6 fibers per tube, 2.2mm nominal for 4 fibers per tube and 1.98mm nominal for 1&2 fibers per tube.

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.

2.2 Dielectric Central strength member

Epoxy fiberglass rod with an up-coat of polymer (if necessary per construction).

2.3 Cable Core

The cable elements are stranded around the CSM, using reverse oscillation.

Moisture Resistance: The interstices are flooded with a homogeneous, non-hygroscopic, non-conductive and non-toxic, dermal safe polyolefin based compound to prevent water ingress and migration of moisture through the cable core.

Then a non-wicking and non-hygroscopic polypropylene tape is applied longitudinally with a nominal 25% overlap.

Binder yarns are applied over the core tape.



2.4 Inner sheath

UV Resistant Black Polyethylene. (or color per customer request)

A ripcord is applied under the sheath.

2.5 Cable strength

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

2.6 Outer Sheath

UV Resistant Black Polyethylene. (or color per customer request)

A ripcord is applied under the outer sheath.

2.7 Cable Markings

Indent printed: CCT GROUP45, FIBER OPTIC CABLE, # of fibers-62.5/125, MM/YY (month and year of manufacture), sequentially meter marked. Special print as required by customer.

2.8 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	No. of Fibers per Tube	Cable OD (in.)	Cable OD (mm)	Weight LB per 1000ft	Weight KG/KM
4500222JMBSANN	2	1	.431	10.9	65	97
4500222JMBSBNN	2	2	.431	10.9	65	97
4500422JMBSDNN	4	4	.438	11.1	67	100
4500622JMBSFNN	6	6	.495	12.6	83	123
4501222JMBSFNN	12	6	.495	12.6	83	124
4501222JMBSLNN	12	12	.495	12.6	83	124
4501822JMBSFNN	18	6	.495	12.6	84	125
4502422JMBSFNN	24	6	.495	12.6	85	126
4502422JMBSLNN	24	12	.495	12.6	83	124
4503022JMBSFNN	30	6	.495	12.6	85	126
4503622JMBSFNN	36	6	.525	13.3	98	145
4503622JMBSLNN	36	12	.495	12.6	84	125
4504822JMBSLNN	48	12	.495	12.6	84	125
4506022JMBSLNN	60	12	.495	12.6	85	126
4507222JMBSLNN	72	12	.525	13.3	97	145
4508422JMBSLNN	84	12	.565	14.4	109	162
4509622JMBSLNN	96	12	.600	15.2	122	182
4510822JMBSLNN	108	12	.655	16.6	145	215
4512022JMBSLNN	120	12	.690	17.5	163	242
4514422JMBSLNN	144	12	.770	19.6	204	304
4528822JMBSLNN	288	12	.888	22.6	267	397



3.0 FIBER CHARACTERISTICS

Fiber Type

Maximum Attenuation @ 850/1300nm

Minimum Bandwidth @850/1300nm

Core Diameter, nominal

Cladding Diameter

Primary Coating Diameter

Cladding Non-circularity

Core/Clad Offset

Zero Dispersion Wavelength

Numerical Aperture

Group Refractive Index @ 850/1300nm

Proof Test

Multimode Graded Index

3.2 /1.0 dB/km

200/600MHz-km

62.5 $\pm$ 3 μ m

125.0 $\pm$ 1.0 μ m

245 $\pm$ 10 μ m

<2%

3 μ m

1320-1365nm

0.275 $\pm$.015

1.496/1.491

100 kpsi

**Guaranteed Gigabit Ethernet Distance
of 300/550mtr per IEEE802.3z.*

4.0 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: 220N/cm

Impact Resistance: 25 Impacts (min.)

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

Temperature Rating:

Operation: -40°C to +70°C

Installation: -40°C to +55°C

Storage: -50°C to +70°C

Twist Test: 25 Cycles (min.)

5.0 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.

6.0 APPLICABLE DOCUMENTS

Reference Documents:

TIA/EIA FOTP Standards 455

Color Coding of Fiber Optic Cables TIA/EIA-598

RUS 1755.900

GR-20-CORE