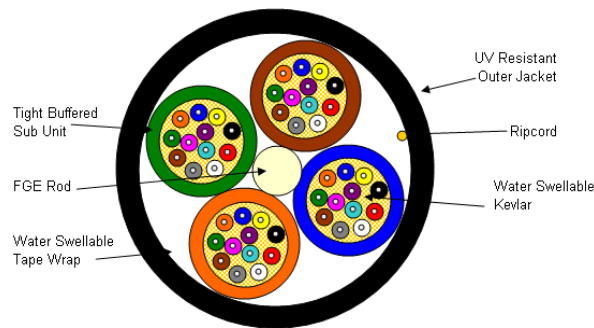




## TIGHT BUFFER PLENUM FIBER OPTIC CABLE PRODUCT SPECIFICATION 99XXX22JKBSXOP

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



### 2.0 OVERALL CABLE CONSTRUCTION

- 2.1 Tight Buffered Fiber  
Dimension: 900 $\mu$ m, 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-violet, 11-rose, and 12-aqua.
- 2.2 Sub-unit consists of water swellable aramid yarns that are pulled in with the tight-buffered fibers under a sub-unit jacket that is uniquely identified.
- 2.3 Cable strength Member  
Fiberglass Epoxy Rod (dielectric)  
An up coat of plenum material (if necessary per construction for symmetry)
- 2.4 Cable Core  
Sub-units and fillers (if needed) 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.
- 2.5 Outer Sheath  
UV Resistant black plenum rated PVDF jacket (or color per customer request)
- 2.6 Cable Markings  
Indent printed: CCT GROUP99, FIBER OPTIC CABLE, # of fibers-62.5/125, MM/YY (month and year of manufacture), OFNP C(ETL)US sequentially meter marked. Special print as required by customer.



2.7 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
9902422JKBSFOP	24	13.2	0.521	142	95
9903622JKBSFOP	36	15.9	0.626	216	145
9904822JKBSLOP	48	15.5	0.609	195	131
9907222JKBSLOP	72	18.6	0.731	295	198
9909622JKBSLOP	96	22.6	0.891	457	307

3.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)

<u>Fiber Type</u>	<u>Multimode Graded Index*</u>
Maximum Attenuation @ 850/1300nm**	3.2 /1.0 dB/km
Minimum Bandwidth @850/1300nm	200/600MHz-km
Core Diameter, nominal	62.5 ± 3 µm
Cladding Diameter	125.0 ± 1.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<2%
Core/Clad Offset	3 µm
Zero Dispersion Wavelength	1320-1365nm
Numerical Aperture	0.275 ± .015
Group Refractive Index @ 850/1300nm	1.496/1.491
Proof Test	100 kpsi

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

\*\*Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.

4.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for:	Impact Resistance: 25 Impacts (min.)
Installation: 2700N / 607lbf	Flexing, ±90°: 25 Cycles (min.)
Long Term: 890N / 200lbf	Temperature Rating:
Minimum bending radius:	Operation: -20°C to +85°C
Loaded: 20 x diameter	Installation: 0°C to +75°C
Unloaded: 10 x diameter	Storage: -40°C to +85°C
Crush Resistance: 220N/cm	

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
	UL 910
	GR-409-CORE