



## TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX12DABNOOF

This document establishes the specification requirements for a distribution indoor/outdoor fiber optic cable. This cable construction consists of multimode fibers in a distribution tight-buffered design with a riser rated PVC 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 OVERALL CABLE CONSTRUCTION**

#### 1.1 Tight Buffered Fiber

Dimension: 900µm, 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.

#### 1.2 Cable strength

Aramid yarns with water swellable characteristics are pulled in with the tight-buffered fibers under the outer jacket.

#### 1.3 Outer Sheath

Pressure extruded black UV resistant riser rated PVC jacket (or color per customer request)

#### 1.4 Cable Markings

Indent printed: CCT GROUP77, FIBER OPTIC CABLE, # of fibers-50/125, MM/YY (month and year of manufacture), OFNR C(ETL)US, sequentially meter marked. Special print as required by customer.

#### 1.5 Nominal Cable Dimensions & Weights

<b>CCT Products Part Number</b>	<b>No. of Fibers</b>	<b>Cable OD (mm)</b>	<b>Cable OD (in.)</b>	<b>Weight KG/KM</b>	<b>Weight LB/1000ft</b>
7700212DABNOOF	2	4.6	.180	19	13
7700412DABNOOF	4	5.0	.195	22	15
7700612DABNOOF	6	5.3	.210	27	18
7700812DABNOOF	8	5.7	.225	31	21
7701212DABNOOF	12	6.6	.260	40	27



## **2.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)**

Fiber Type	Multimode*
Maximum Attenuation @ 850/1300nm**	3.0 /1.0 dB/km
Minimum Bandwidth @850/1300nm [Overfilled Launch, LED based sources]	750/500MHz-km
Transmission Link Lengths at 850nm & 1300nm(LX4) for 10Gb/s*	150/150mtrs
Core Diameter, nominal	50 ± 2.5 µm
Cladding Diameter	125.0 ± 1.0 µm
Primary Coating Diameter	245 ± 10 µm
Cladding Non-circularity	<1%
Core-Clad Concentricity	≤1.5 µm
Zero Dispersion Wavelength	1295-1320nm
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.483/1.478
Proof Test	100 kpsi
<i>*at 850nm operating wavelength with transmitters meeting encircled flux of ≤30% at radius 4.5µm and ≥86% at radius 19.0µm.</i>	
<i>**Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.</i>	

## **3.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE**

Maximum Tensile Load for:	
Installation: 2&4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf (min.)	Impact Resistance: 25 Impacts
12-fiber 2700N/600lbf	Flexing, ±90°: 25 Cycles (min.)
Long Term: 2&4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf	Temperature rating:
12-fiber 600N/135lbf	Operation: -40°C to +85°C
Minimum bending radius:	Installation: 0°C to +75°C
Loaded: 20 x diameter	Storage: -55°C to +85°C
Unloaded: 10 x diameter	Crush Resistance: 100N/cm

## **4.0 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.

## **5.0 APPLICABLE DOCUMENTS**

Reference Documents:	TIA/EIA FOTP Standards 455
	Color Coding of Fiber Optic Cables TIA/EIA-598
	UL 1666
	GR-409-CORE