



TIGHT BUFFER OFNR CABLES PRODUCT SPECIFICATION 77XXX12AGBSXXF

This document establishes the specification requirements for a distribution 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 Sub-unit consists of water swellable aramid yarns that are pulled in with the tight-buffered fibers under a sub-unit jacket. The subunits are colored per TIA/EIA-598 or orange and are numbered for identification.

1.3 Cable strength Member

Fiberglass Epoxy Rod (dielectric)

An up coat of PVC (if necessary per construction for symmetry)

1.4 Cable Core

Sub-units and fillers (if needed) are stranded around the CSM, using reverse oscillation.

Binder yarns are applied over the cable core.

1.5 Outer Sheath

UV Resistant Black riser rated PVC jacket (or color per customer request)

1.6 Cable Markings

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

1.7 Nominal Cable Dimensions & Weights

CCT Part Number	No. of Fibers	Cable OD (mm)	Cable OD (in.)	Weight KG/KM	Weight LB/1000ft
7701812AGBSFXF	18	13.7	0.540	142	96
7702412AGBSFXF	24	13.7	0.540	142	96
7703612AGBSFXF	36	16.8	0.660	221	148
7704812AGBSLXF	48	16.0	0.628	198	133
7706012AGBSLXF	60	17.7	0.696	233	157



2.0 FIBER CHARACTERISTICS - Physical Parameters (nominal)

<u>Fiber Type</u>	<u>Multimode Graded Index</u>
Attenuation @ 850/1300nm*	≤3.0 /1.0 dB/km
Bandwidth @850/1300nm	≥400/400MHz-km
Core Diameter, nominal	50 ± 3 μm
Cladding Diameter	125.0 ± 2.0 μm
Primary Coating Diameter	245 ± 10 μm
Cladding Non-circularity	<2%
Core-Clad Concentricity	≤3 μm
Zero Dispersion Wavelength	1297-1316nm
Zero Dispersion Slope	≤0.101 ps/nm ² -km
Numerical Aperture	0.20 ± .015
Group Refractive Index @ 850/1300nm	1.490/1.486

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

3.0 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: -40°C to +85°C
Loaded: 20 x diameter	Installation: 0°C to +75°C
Unloaded: 10 x diameter	Storage: -55°C to +85°C
Crush Resistance: 220N/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