TIGHT BUFFER OFNR CABLES
PRODUCT SPECIFICATION
77XXX76EGBSXXF

This document establishes the specification requirements for an indoor/outdoor distribution fiber optic cable. This cable construction consists of single mode 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-SM, MM/YY (month and year of manufacture), OFNR 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
7701876EGBSFXF	18	13.7	0.540	142	96
7702476EGBSFXF	24	13.7	0.540	142	96
7703676EGBSFXF	36	16.8	0.660	221	148
7704876EGBSLXF	48	16.0	0.628	198	133
7706076EGBSLXF	60	17.7	0.696	233	157

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

Fiber Type	Single mode*
Maximum Attenuation @ 1310/1550nm**	0.40/0.30 dB/km
Core Diameter	8.2 µm
Cladding Diameter	125.0 ± 0.7 µm
Maximum Core/Clad Concentricity Error	0.5 µm
Maximum Cladding Non-circularity	0.7%
Primary Coating Diameter	245 ± 5 µm
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.2 ± 0.4µm @1310nm 10.4 ± 0.5µm @1550nm
Temperature Dependence	≤0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	0.089ps/nm^2-km
Maximum PMD Link Design Value	0.06ps/√km
Group Refractive Index @ 1310/1550	1.4677 / 1.4682
Proof Test	100 kpsi

**According to ITU G.652.d*
***Measured attenuations on shipping reels will not exceed the nominal values by .75dB/km.*

3.0 **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, ±90°: 25 Cycles (min.)
Temperature Rating:

Operation:	-40°C to +85°C
Installation:	0°C to +75°C
Storage:	-55°C to +85°C

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