

# TIGHT BUFFER PLENUM FIBER OPTIC CABLES PRODUCT SPECIFICATION 99XXX12SRANOOP

This document establishes the specification requirements for an indoor/outdoor multimode OM3 distribution fiber optic cable. This cable construction consists of 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 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

Water swellable aramid yarns are pulled in with the tight-buffered fibers under the outer jacket.

#### 1.3 Outer Sheath

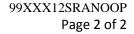
Aqua UV Resistant plenum rated jacket (or color per customer request)

### 1.4 Cable Markings

Indent printed: CCT GROUP99, FIBER OPTIC CABLE, # of fibers-50/125, 10GIG OM3, MM/YY (month and year of manufacture), OFNP C(ETL)US sequentially meter marked. Special print as required by customer.

#### 1.5 Nominal Cable Dimensions & Weights

CCT	No. of	Cable	Cable	Weight	Weight
Part Number	Fibers	OD (mm)	OD (in.)	KG/KM	LB/1000ft
9900212SRANOOP	2	4.3	.170	18	12
9900412SRANOOP	4	4.4	.185	21	14
9900612SRANOOP	6	4.6	.200	27	18
9900812SRANOOP	8	5.0	.215	31	20
9901212SRANOOP	12	5.8	.250	39	26





## 2.0 FIBER CHARACTERISTICS

#### 2.1 Physical Parameters (nominal)

Fiber Type Multimode\*

Maximum Attenuation @ 850/1300nm\*\* 3.0 /1.0 dB/km

LED Performance (Overfilled Launch Bandwidth) 1500/500MHz-km@850/1300 Laser EMB Performance 2000/500MHz-km@850/1300

Core Diameter, nominal  $50 \pm 3.0 \,\mu m$  $125.0 \pm 2.0 \, \mu m$ Cladding Diameter **Primary Coating Diameter**  $245 \pm 5 \mu m$ Cladding Non-circularity <2% Core-Clad Concentricity  $\leq 3.0 \, \mu m$ Zero Dispersion Wavelength 1300-1320nm Maximum Zero Dispersion Slope  $0.101 \text{ ps/nm}^2\text{-km}$  $0.20 \pm .015$ Numerical Aperture Group Refractive Index @ 850/1300nm 1.481/1.476 **Proof Test** 100 kpsi

### 3.0 MECHANICAL & ENVIRONMENTAL PERFORMANCE

Maximum Tensile Load for: Impact Resistance: 25 Impacts

(min.)

Installation: 4-fiber 1405N/315lbf, 6&8-fiber 1610N/362lbf Flexing,  $\pm 90^{\circ}$ : 25 Cycles (min.) 12-fiber 2700N/600lbf Crush Resistance: 100N/cm

Long Term: 4-fiber 455N/102lbf, 6&8-fiber 535N/120lbf Temperature rating:

12-fiber 600N/135lbf Operation:  $-20^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  Minimum bending radius: Installation:  $0^{\circ}\text{C}$  to  $+75^{\circ}\text{C}$  Loaded: 20 x diameter Storage:  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ 

Unloaded: 10 x diameter

## 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 910 GR-409-CORE

<sup>\*</sup>Guaranteed Gigabit Ethernet Distance of 300mtr at 850nm for 10 Gb/s per IEEE802.3ae and 1000mtr at 850nm for 1 Gb/s per IEEE802.3z.

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