



FIBER OPTIC CABLE

CONVERGENT
CONNECTIVITY
TECHNOLOGY

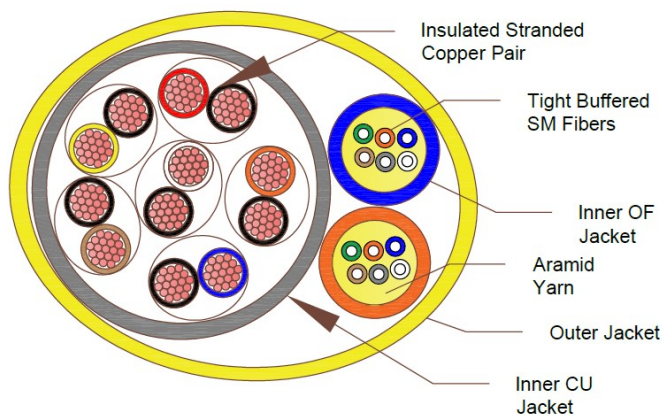
Product Specifications

Issue Date: 2/15/2022

Revision: New

60R-Series Composite Cable With Paired Copper Conductors and Singlemode Tight Buffered Fibers in a Jacketed Plenum Design

Cable Cross Section



Representative Drawing

Scope

This document establishes the specification requirements for a composite cable consisting of six (6) copper pairs along with twelve (12) OS2 tight buffered fibers in two subcomponents of 6, all under a plenum jacket.

Applications

Premise communication applications including in plenum spaces.

Applicable Documents & Standards

- TIA/EIA FOTP Standards 455
- Color Coding of Fiber Optic Cables TIA/EIA-598
- Compliant with ANSI/TIA-568-C.3 standard

Construction Details 6 Pairs (12 Conductors)

- Number of Conductors: 12, arranged as 6 Pairs
- Conductor: 16AWG, 14AWG or 12AWG stranded bare copper
- Insulation Material: Plenum-Rated Polymer
- Nominal Insulation Thickness: See table on page 2.
- Nominal Insulation Diameter: See table on page 2.
- Pair Color Code: Black & White, Black & Red, Black & Yellow, Black & Brown, Black & Blue, Black & Orange.
- Inner Jacket Color: Gray
- Surface Print: 3147706 CL2P/FPLP 6P XXAWG (ETL)US FT-6

Fiber Construction Details

- Tight Buffered Fiber
- Dimension: 900 μm
- Color Code: Blue, Orange, Green, Brown, Slate, White
- Cable Strength: Water swellable aramid yarns are pulled in with tight-buffered fibers under the jacket.
- Inner Jacket Material: Plenum-Rated Polymer
- Inner Jacket Color: Blue and Orange
- Surface Print: 99-SERIES FIBER OPTIC CABLE 6-SM OS2 INDOOR/OUTDOOR MM/YY (Month & Year of Mfg.) OFNP MADE IN THE USA (Lot #) + Sequential Footage Marking

Overall Construction Details

- Construction Type: Copper cable and fiber cables cabled together and jacketed.
- Jacket Material: Plenum-Rated Polymer
- Overall Sheath Color: UV-Yellow
- Surface Print: 60R-SERIES FIBER OPTIC CABLE 12-SM OS2 MM/YY (Month & Year of Mfg.) MADE IN THE USA (Lot #) + Sequential Footage Marking

Continued



Nominal Cable Dimensions & Weights											
Part Number	Number of Conductors and AWG	D.C.R. Ω /Mft	Nom. Insul. Thick (in)	Nom. Dia. Over Insul. (in.)	Nom Dia. Over Jkt. (Copper, in.)	Number of Fibers Ea. Leg	Nom Dia. Over Jkt. (Fiber, in.)	Nominal Overall Dimensions in.	Nominal Overall Dimensions mm	Weight lb/1000ft	Weight Kg/km
60R-2X9900676BRYO -16/6P	6P 16	4.39	0.007	0.072	0.440	6 (x2)	0.200 (x2)	0.750 x 0.610	19.1 x 15.5	200	298
60R-2X9900676BRYO -14/6P	6P 14	2.76	0.009	0.091	0.535	6 (x2)	0.200 (x2)	0.840 x 0.660	24.1 x 21.0	275	409
60R-2X9900676BRYO -12/6P	6P 12	1.74	0.010	0.114	0.650	6 (x2)	0.200 (x2)	0.950 x 0.825	21.3 x 16.8	370	551

**Cables printed in meters will have a "-MR" suffix on the part number.*

76B- Fiber Characteristics

Fiber Type	SM*
Maximum Attenuation @ 1310/1550nm	0.40/0.30 dB/km **
Cladding Diameter	125.0 \pm 0.7 μ m
Maximum Core/Clad Concentricity Error	0.5 μ m
Maximum Cladding Non-circularity	0.7 μ m
Primary Coating Diameter	242 \pm 7 μ m
Cabled Cutoff Wavelength	<1260nm
Mode Field Diameter	9.0 \pm 0.4 μ m @1310nm 10.1 \pm 0.5 μ m @1550nm
Temperature Dependence	\leq 0.05dB/km (-60°C to 85°C)
Zero Dispersion Slope	\leq 0.092ps/nm ² -km
Attenuation with Bending 1 Turn on a Mandrel Radius of 10mm@1550/1625nm	\leq 0.75/1.5dB
Attenuation with Bending 10 Turns on a Mandrel Radius of 15mm@1550/1625nm	\leq 0.25/1.0dB
Maximum PMD Link Design Value	0.06ps/ \sqrt km
Group Refractive Index @ 1310/1550nm	1.4676/1.468
Proof Test	100 kpsi

*According to ITU G.652d&G.657.A1

**Measured attenuation s on shipping wheels will not exceed the nominal values by 0.75dB/km

Continued



Issue Date: 2/15/2022

Revision: New

Mechanical & Environmental Performance

- Maximum Tensile Load
Installation : 1610N/362lbf
Long Term : 535N/120lbf
- Minimum Bending Radius
Loaded : 20 x Diameter
Unloaded : 10 x Diameter
- Crush Resistance
100 N/cm
- Impact Resistance (min.)
25 Impacts
- Flexing $\pm 90^\circ$ (min.)
25 Cycles
- Temperature Rating
Operation : -20°C to +85°C
Installation : 0°C to +75°C
Storage : -20°C to +85°C

Warranty Information

All warranty information can be viewed at www.cctcable.com. This product is RoHS compliant and is directive 2002/95/EC. It is the sole responsibility of the user to have the most current specification. Specifications are subject to change without notice.

Preparation for Shipment

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. Shipping containers shall be constructed as to eliminate any possible damage to the cables due to shipment.

Note: While CCT Cable has made every reasonable effort to ensure the accuracy of the information in this document, CCT Cable reserves the right to make any adjustments to the information contained herein at any time without notice. CCT Cable expressly disclaims all implied warranties regarding the information contained herein, including but not limited to, any implied warranties of merchantability or fitness for particular purpose. The dimensions in this documents are for reference purposes only and are subject to change without notice.

Spec Approval (Custom Designs Only)

Your signature constitutes that you have read and agreed to this specification sheet and upon confirmation of your order. The CCT Cable warranty is an integral part of this specification. This item may be non-cancelable and non-returnable.

Signature: _____ Date: _____