Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7804LW Composite - SMPTE 311M HDTV Cable



For more Information please call

1-800-Belden1



General Description:

Light Duty SMPTE 311M Cable, 4 power conductors, SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PO insulation, TC braid shield (85% coverage), Belflex® jacket.

Usage (Overall)

Suitable Applications:

SMPTE 311M Camera Cable

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	Conductors AWG		Conductor Material	Dia. (in.)	
2	24	7x32	TC - Tinned Copper	0.024	
4	20	19x32	TC - Tinned Copper	0.037	

Insulation

Insulation Material:

Insulation Material	Dia. (in.)	AWG
PO - Polyolefin	0.062	20
PO - Polyolefin	0.048	24

Insulation Color Code Chart:

Number	Color	Description
1	Red	24 AWG
2	Gray	24 AWG
3	White	20 AWG
4	White	20 AWG
5	Black	20 AWG
6	Black	20 AWG

Individual Shield

Electrical Characteristics

Nom. Conductor DC Resistance:

Description	DCR @ 20°C (Ohm/1000 ft)		
24 AWG	23.300		
20 AWG	8.800		

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 3.500

Fiber

Physical Characteristics

Number of Fibers:2Mode Field Diameter @ 1310nm:9.5 +/-1 micronsClad Diameter:125 micronsCore-clad Concentricity Error:< to 1 micronPrimary Coating Material:AcrylateBuffer Tube Diameter:900 micronsBuffer Tube Material:PVC - Polyvinyl Chloride	Fiber Type:	Non-Dispersion Shifted, Single Mode/125/900 Micron		
Clad Diameter: 125 microns Core-clad Concentricity Error: < to 1 micron Primary Coating Material: Acrylate Buffer Tube Diameter: 900 microns Buffer Tube Material: PVC - Polyvinyl Chloride	Number of Fibers:	2		
Core-clad Concentricity Error: < to 1 micron Primary Coating Material: Acrylate Buffer Tube Diameter: 900 microns Buffer Tube Material: PVC - Polyvinyl Chloride	Mode Field Diameter @ 1310nm:	9.5 +/-1 microns		
Primary Coating Material: Acrylate Buffer Tube Diameter: 900 microns Buffer Tube Material: PVC - Polyvinyl Chloride	Clad Diameter:	125 microns		
Buffer Tube Diameter: 900 microns Buffer Tube Material: PVC - Polyvinyl Chloride	Core-clad Concentricity Error:	< to 1 micron		
Buffer Tube Material: PVC - Polyvinyl Chloride	Primary Coating Material:	Acrylate		
· · · · · · · · · · · · · · · · · · ·	Buffer Tube Diameter:	900 microns		
		PVC - Polyvinyl Chloride		

Buffer Tube Color Code Chart:

Number	Color
1	Blue
2	Yellow

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Optical Characteristics

Maximum Attenuation @ 1310nm: 0.8 dB/km

Physical Characteristics (Overall)

Conductor

Outer Shield

Outer Shield Material:

Type Outer Shield Material Coverage (%) Braid TC - Tinned Copper 85.000

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name Outer Jacket Material Belflex® PVC Blend - Polyvinyl Chloride Blend

Strength Member

Overall Strength Member Diameter: .085

Strength Member Material: 302 Stainless Steel

Overall Cable

Overall Nominal Diameter: 0.357 in.

Mechanical Characteristics (Overall)

-40°C To +75°C **Operating Temperature Range:** Bulk Cable Weight: 80 lbs/1000 ft. 450 lbs Max. Recommended Pulling Tension: Min. Bend Radius/Minor Axis: 2.500 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Rating: UL AWM Style 20907 (300V 60°C) EU Directive 2011/65/EU (ROHS II): Yes EU Directive 2000/53/EC (ELV): Yes EU Directive 2002/95/EC (RoHS): EU Directive 2002/96/EC (WEEE): Yes EU Directive 2003/11/EC (BFR): Yes CA Prop 65 (CJ for Wire & Cable): MII Order #39 (China RoHS): Yes SMPTE 311 Other Specification:

Flame Test

UL Flame Test: VW-1

Suitability

Suitability - Indoor: Yes Suitability - Outdoor: Yes Sunlight Resistance: SMPTE 304M Connectors **Suggested Connectors:**

Plenum/Non-Plenum

Plenum (Y/N): No Plenum Number: Non-Plenum Number: 7804C, 7804R, 7804WB

Electrical Characteristics (Overall)

Other Electrical Characteristic 1: Auxillary Conductors: DC Loop Resistance - 30 Ohms/km nom. (9.1 Ohms/1000ft.) Min. Insullation Resistance - 10, 000 Megaohms x km Dielectric Strength - 1750 V RMS. Signal Conductors: DC Loop Resistance - 150 Ohms/km nom. (45.7 Ohms/1000 ft.) Insulation Resistance - 10, 000 Megaohms/1000 ft.

Dielectric Strength: 1750 V RMS

Notes (Overall)

Notes: Bend Radius is based upon (FOTP-37) @ 20°C. Plenum version and other conductor counts/diameters available by special order.

Put Ups and Colors:

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Item #	Putup	Ship Weight	Color	Notes	Item Desc
7804LW 0101000	1,000 FT	73.000 LB	BLACK		COMPOSITE CABLE BRD PVC
7804LW 010500	500 FT	37.000 LB	BLACK		COMPOSITE CABLE BRD PVC

Revision Number: 0 Revision Date: 03-27-2015

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