Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



7804R Composite - SMPTE 311M HDTV Cable

For more Information please call

1-800-Belden1



General Description:

Industry Standard SMPTE 311M Cable, 4 power conductors, 2 SM fibers w/24 and 20 AWG stranded (7x32 and 19x32) TC conductors, PVC insulation, TC braid shield (95% coverage), PVC jacket.

Usage (Overall)

Suitable Applications:

SMPTE 311M Camera Cable

Multi Conductor

Physical Characteristics

Conductor

AWG:

# Conductors	AWG	Stranding	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
PVC - Polyvinyl Chloride	0.063	20
PVC - Polyvinyl Chloride	0.050	24

Insulation Color Code Chart:

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

Fiber Type:	Single Mode/125/900 Micron
Number of Fibers:	2
Mode Field Diameter @ 1310nm:	9.5 +/-1 microns
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

Buffer Tube Color Code Chart:

Number	Color
1	Blue
2	Yellow

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Optical Characteristics

Maximum Attenuation @ 1310nm: 0.5 dB/km Maximum Attenuation @ 1550nm: 0.5 dB/km

Physical Characteristics (Overall)

Conductor

Outer Shield

Outer Shield Material:

Type Outer Shield Material Coverage (%) Braid TC - Tinned Copper 95.000

Outer Jacket

Outer Jacket Material:

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

Strength Member

Overall Strength Member Diameter: Strength Member Material: 302 Stainless Steel

Overall Cable

Overall Nominal Diameter: 0.362 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C Max. Recommended Pulling Tension: 450 lbs. Min. Bend Radius/Minor Axis: 2.500 in. Flex Cycle Rating: UL1581, Sec. 1582: 15,000 Cycles @ 3.6 Crush Resistance: Compression, FOTP-41: 397 lbs. Impact Resistance: FOTP-25: 20 Cycles @ 1.32 lbs.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
UL Rating:	CMR-OF
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	07/01/2005
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Other Specification:	SMPTE 311
ame Test	
UL Flame Test:	UL1666 Vertical Shaft

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	UL Flame Test:	UL1666 Vertical Shaft
	CSA Flame Test:	FT4
	IEEE Flame Test:	1202
Sui	tability	
	Suitability - Indoor:	Yes
	Suitability - Outdoor:	Yes

SMPTE 304M Connectors

Plenum/Non-Plenum

Suggested Connectors:

Plenum (Y/N): 7804P Plenum Number:

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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:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7804R B591000	1,000 FT	96.000 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B591640	1,640 FT	152.520 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B593280	3,280 FT	314.880 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE
7804R B59500	500 FT	47.500 LB	BLACK, MATTE	С	COMPOSITE CAMERA CABLE

Notes:

C = CRATE REEL PUT-UP.

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