

7851NH Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable



For more Information
please call

1-800-Belden1

**General Description:**

CAT6+ (600MHz), 4-Bonded-Pairs, U/UTP-Unshielded, Zero Halogen, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Patented E-Spline, Ripcord, Haloarrest® II Jacket.

Usage (Overall)**Suitable Applications:**

Premise Horizontal Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155 ATM, 622 ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments, 600MHz Enhanced Category 6

Physical Characteristics (Overall)**Conductor****AWG:**

# Pairs	AWG	Stranding	Conductor Material
4	23	Solid	BC - Bare Copper

Total Number of Conductors:

8

Insulation**Insulation Material:**

Insulation Material
PO - Polyolefin

Outer Shield**Outer Shield Material:**

Outer Shield Material
Unshielded

Outer Jacket**Outer Jacket Material:**

Outer Jacket Trade Name	Outer Jacket Material
Haloarrest®	LSNH - Low Smoke Non-Halogen

Outer Jacket Diameter:

Nom. Dia. (mm)
6.731

Outer Jacket Ripcord:

Yes

Overall Cable**Overall Cabling Separator Material:**

Patented E-Spline Center Member

Overall Nominal Diameter:

5.766 x 8.001 mm

Pair**Pair Color Code Chart:**

Number	Color
1	White/Green & Green
2	White/Orange & Orange
3	White/Blue & Blue
4	White/Brown & Brown

Mechanical Characteristics (Overall)

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Operating Temperature Range:	-20°C To +75°C
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Bulk Cable Weight:	52.087 Kg/Km
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Max. Recommended Pulling Tension:	200.169 N
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Min. Bend Radius/Minor Axis:	12.700 mm
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Min. Bend/Installation:	57.150 mm
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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II):	Yes
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Other Standards:	ISO/IEC 11801 ed 2.1 (2008) Class E
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EU CE Mark:	Yes
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EU Directive 2000/53/EC (ELV):	Yes
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EU Directive 2002/95/EC (RoHS):	Yes
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EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
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EU Directive 2002/96/EC (WEEE):	Yes
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EU Directive 2003/11/EC (BFR):	Yes
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CA Prop 65 (CJ for Wire & Cable):	Yes
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MII Order #39 (China RoHS):	Yes
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Telecommunications Standards:	Category 6 - TIA 568.C.2
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Applicable Patents:

Country

www.belden.com/p

Flame Test

IEC Flame Test:	60332-1
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Plenum/Non-Plenum

Plenum (Y/N):	No
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Plenum Number:	7852A
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Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/m)

50.8555

Maximum Capacitance Unbalance (pF/100 m):	90
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Nominal Velocity of Propagation:

VP (%)

67

Maximum Delay:

Delay (ns/100 m)

538 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

38

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

8.2

Max. Operating Voltage - Non-UL:

Voltage

300 V RMS

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Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
1	1.900	82.3	80.3	80.5	78.5	20.000
4	3.600	73.3	71.3	69.7	67.7	23.000
8	5.100	68.8	66.8	63.7	61.7	24.500
10	5.700	67.3	65.3	61.6	59.6	25.000
16	7.200	64.3	62.3	57.0	55.0	25.000
20	8.100	62.8	60.8	54.7	52.7	25.000
25	9.100	61.3	59.3	52.3	50.3	25.000
31.25	10.200	59.9	57.9	49.7	47.7	25.000
62.5	14.700	55.4	53.4	40.7	38.7	25.000
100	18.900	52.3	50.3	33.4	31.4	25.000
155	23.900	49.5	47.5	25.5	23.5	22.800
200	27.500	47.8	45.8	20.3	18.3	21.700
250	31.200	46.3	44.3	15.2	13.2	20.500
300	34.500	43.1	43.1	8.6	8.6	20.200
350	37.700	42.1	42.1	4.4	4.4	19.800
400	40.600	41.3	41.3	0.7	0.7	19.500
450	43.500	40.5	40.5	0	0	18.900
460	44.000	40.4	40.4	0	0	18.800
500	46.200	39.8	39.8			18.400
550	48.800	39.2	39.2			18.000
600	51.400	38.6	38.6			17.600

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)	Min. PSACRF (dB)
1	100 ± 12	100 ± 15	74.8	72.8
4	100 ± 12	100 ± 10.4	62.8	60.8
8	100 ± 12	100 ± 8	56.7	54.7
10	100 ± 12	100 ± 7.3	54.8	52.8
16	100 ± 12	100 ± 5.7	50.7	48.7
20	100 ± 12	100 ± 5	48.8	46.8
25	100 ± 15	100 ± 5	46.8	44.8
31.25	100 ± 15	100 ± 5	44.9	42.9
62.5	100 ± 15	100 ± 5	38.9	36.9
100	100 ± 15	100 ± 5	34.8	32.8
155	100 ± 15	100 ± 5	31.0	29.0
200	100 ± 15	100 ± 5	28.8	26.8
250	100 ± 20	100 ± 5	26.8	24.8
300	100 ± 20	100 ± 5	25.3	23.3
350	100 ± 22	100 ± 5	23.9	21.9
400	100 ± 22	100 ± 5	22.8	20.8
450	100 ± 22	100 ± 5	21.7	19.7
460	100 ± 22	100 ± 5	21.5	19.5
500	100 ± 22	100 ± 5	20.8	18.8
550	100 ± 22	100 ± 5	20.0	18.0
600	100 ± 22	100 ± 5	19.2	17.2

Notes (Overall)

Notes: Jacket Sequentially marked at 1 meter intervals. Third party verified to ANSI/TIA-568-C.2, Category 6.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7851NH E4XA1000	1,000 FT	41.000 LB	GRAY, LIGHT DEC		CAT6E+ 4PRB U/UTP LSZH RIB

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