

## 7852A 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, Plenum-CMP, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, FEP Insulation, Patented E-Spline, Ripcord, Flamarrest® Jacket

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, Gigabit Ethernet, POE, POE+, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, Noisy Environments

### 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
FEP - Fluorinated Ethylene Propylene

#### Outer Shield

Outer Shield Material:

Outer Shield Material
Unshielded

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	LS PVC - Low Smoke Polyvinyl Chloride

Outer Jacket Diameter:

Nom. Dia. (mm)
6.477

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Cabling Separator Material:** Patented E-Spline Center Member

**Overall Nominal Diameter:** 5.537 x 7.366 mm

#### Pair

Pair Color Code Chart:

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

### Mechanical Characteristics (Overall)

**Storage Temperature Range:** -20°C To +75°C

**Installation Temperature Range:** +5°C To +50°C

**Operating Temperature Range:** 0°C To +75°C

**Bulk Cable Weight:** 55.063 Kg/Km

**Max. Recommended Pulling Tension:** 200.169 N

**Min. Bend Radius/Minor Axis:** 12.700 mm

**Min. Bend/Installation:** 57.150 mm

## 7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP
NEC Articles:	800
CEC/C(UL) Specification:	CMP
EU Directive 2011/65/EU (ROHS II):	Yes
EU CE Mark:	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	07/01/2006
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
Telecommunications Standards:	Category 6 - TIA 568.C.2

#### Applicable Patents:

Country
www.belden.com/p

#### Flame Test

UL Flame Test:	NFPA 262 Plenum Flame Test (UL910)(FT6)
C(UL) Flame Test:	FT6
CSA Flame Test:	FT6

#### Plenum/Non-Plenum

Plenum (Y/N):	Yes
Non-Plenum Number:	7851A

### 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 - UL:

Voltage
300 V RMS

#### 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

## METRIC MEASUREMENT VERSION

### 7852A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable

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	21.600
250	31.200	46.3	44.3	15.2	13.2	20.500
300	34.500	43.2	43.2	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: Belden IBDN. Jacket sequentially marked at 2 ft./1m intervals. Third party verified to ANSI/TIA-568-C.2, Category 6.

#### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7852A D15A1000	1,000 FT	44.000 LB	BLUE		CAT6E+ 4PRB U/UTP CMP RIB
7852A D151000	1,000 FT	41.000 LB	BLUE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 0021000	1,000 FT	41.000 LB	RED		CAT6E+ 4PRB U/UTP CMP REEL
7852A 003A1000	1,000 FT	44.000 LB	ORANGE	C	CAT6E+ 4PRB U/UTP CMP RIB
7852A 0031000	1,000 FT	41.000 LB	ORANGE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 004A1000	1,000 FT	44.000 LB	YELLOW		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0041000	1,000 FT	41.000 LB	YELLOW	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 005A1000	1,000 FT	44.000 LB	GREEN, DARK		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0051000	1,000 FT	41.000 LB	GREEN, DARK	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 008A1000	1,000 FT	44.000 LB	GRAY		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0081000	1,000 FT	41.000 LB	GRAY		CAT6E+ 4PRB U/UTP CMP REEL
7852A 009A1000	1,000 FT	44.000 LB	WHITE		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0091000	1,000 FT	41.000 LB	WHITE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 0101000	1,000 FT	41.000 LB	BLACK		CAT6E+ 4PRB U/UTP CMP REEL

Notes:

C = CRATE REEL PUT-UP.

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