

## 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, Flammarrest® Jacket

### Usage (Overall)

**Suitable Applications:** Premise Horizontal Cable, Gigabit Ethernet, 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
Flammarrest®	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

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

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

### 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	Patent
US	5606151
US	6064503
US	6885889
US	7663061
US	7838773
US	7977575
US	8536455

#### 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

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

**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
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

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

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	305 MT	19.958 KG	BLUE		CAT6E+ 4PRB U/UTP CMP RIB
7852A D151000	305 MT	18.597 KG	BLUE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 0021000	305 MT	18.597 KG	RED		CAT6E+ 4PRB U/UTP CMP REEL
7852A 003A1000	305 MT	19.958 KG	ORANGE	C	CAT6E+ 4PRB U/UTP CMP RIB
7852A 0031000	305 MT	18.597 KG	ORANGE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 004A1000	305 MT	19.958 KG	YELLOW		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0041000	305 MT	18.597 KG	YELLOW	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 005A1000	305 MT	19.958 KG	GREEN, DARK		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0051000	305 MT	18.597 KG	GREEN, DARK	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 008A1000	305 MT	19.958 KG	GRAY		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0081000	305 MT	18.597 KG	GRAY		CAT6E+ 4PRB U/UTP CMP REEL
7852A 009A1000	305 MT	19.958 KG	WHITE		CAT6E+ 4PRB U/UTP CMP RIB
7852A 0091000	305 MT	18.597 KG	WHITE	C	CAT6E+ 4PRB U/UTP CMP REEL
7852A 0101000	305 MT	18.597 KG	BLACK		CAT6E+ 4PRB U/UTP CMP REEL

**Notes:**

C = CRATE REEL PUT-UP.

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