

## 1701A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT5e+ (350MHz), 4-Bonded-Pairs, U/UTP-Unshielded, Plenum-CMP, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, FEP insulation, Ripcord, Flamarrest® PVC jacket.

### Usage (Overall)

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

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	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. (in.)
0.195

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Nominal Diameter:** 0.195 in.

#### 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:** -20°C To +75°C

**Bulk Cable Weight:** 22 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 40 lbs.

**Min. Bend Radius/Minor Axis:** 0.500 in.

**Min. Bend/Installation:** 2 in.

### Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

## 1701A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable

NEC/(UL) Specification:	CMP
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):	01/01/2005
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
Telecommunications Standards:	Category 5e - TIA 568.C.2
Other Specification:	NEMA WC-63.1 Category 5e, UL Verified to Category 5e

**Applicable Patents:**

**Country**

www.belden.com/p

**Flame Test**

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

**Suitability**

Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Aerial:	No
Suitability - Burial:	No
Sunlight Resistance:	No - Indoor

**Plenum/Non-Plenum**

Plenum (Y/N):	Yes
Non-Plenum Number:	1700A

**Electrical Characteristics (Overall)**

**Nom. Mutual Capacitance:**

**Capacitance (pF/ft)**

15

Maximum Capacitance Unbalance (pF/100 m):	66
---	----

**Nominal Velocity of Propagation:**

**VP (%)**

72

**Maximum Delay:**

**Delay (ns/100 m)**

510

**Max. Delay Skew:**

**Delay Skew (ns/100 m)**

25

**Maximum Conductor DC Resistance:**

**DCR @ 20°C (Ohm/100 m)**

9

**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:

## 1701A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. PSNEXT (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.000	69.3	67.3	20.000
4	4.000	60.3	56.3	23.000
8	5.700	55.8	50.1	24.500
10	6.400	54.3	47.9	25.000
16	8.100	51.2	43.1	25.000
20	9.100	49.8	40.7	25.000
25	10.200	48.3	38.2	25.000
31.25	11.400	46.9	35.5	25.000
62.5	16.400	42.4	26.0	25.000
100	21.000	39.3	18.3	25.000
155	26.600	36.4	9.8	19.000
200	30.400	34.8	4.4	19.000
250	34.400	32.3	>0	18.000
300	38.000	28.1		18.000
350	41.400	27.1		17.000
400	44.500	26.3		17.000
450	47.600	25.5		17.000

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. PSACRF (dB)
1	100 ± 12	105 ± 10	65.8
4	100 ± 12	100 ± 10	53.8
8	100 ± 12	100 ± 10	47.7
10	100 ± 12	100 ± 10	45.8
16	100 ± 12	100 ± 10	41.7
20	100 ± 12	100 ± 10	39.8
25	100 ± 15	100 ± 10	37.8
31.25	100 ± 15	100 ± 10	35.9
62.5	100 ± 15	100 ± 10	29.9
100	100 ± 15	100 ± 10	25.8
155	100 ± 18	100 ± 10	22.0
200	100 ± 20	100 ± 10	19.8
250	100 ± 20	100 ± 10	17.8
300	100 ± 20	100 ± 10	14.3
350	100 ± 22	100 ± 10	12.9
400	100 ± 22	100 ± 10	11.8
450	100 ± 22	100 ± 10	10.7

Premise Cable Electrical Table 4:

Frequency (MHz)	Min. TCL (dB)	Min. ELTCTL (dB)
1.000	40.000	35.000
4.000	40.000	23.000
8.000	40.000	16.900
10.000	40.000	15.000
16.000	38.000	10.900
20.000	37.000	9.000
25.000	36.000	7.000
31.250	35.100	
62.500	32.000	
100.000	30.000	
155.000	28.100	
200.000	27.000	
250.000	26.000	

### Notes (Overall)

**Notes:** Belden IBDN. Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 5e. Values above 350 MHz are for Engineering Information Only.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1701A B02U1000	1,000 FT	23.000 LB	PURPLE		CAT5E+ 4PRB U/UTP CMP BOX
1701A B021000	1,000 FT	24.000 LB	PURPLE	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A D15U1000	1,000 FT	23.000 LB	BLUE		CAT5E+ 4PRB U/UTP CMP BOX
1701A D151000	1,000 FT	24.000 LB	BLUE	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A D153000	3,000 FT	69.000 LB	BLUE	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 002U1000	1,000 FT	23.000 LB	RED		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0021000	1,000 FT	24.000 LB	RED	C	CAT5E+ 4PRB U/UTP CMP REEL

## 1701A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable

1701A 003U1000	1,000 FT	23.000 LB	ORANGE		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0031000	1,000 FT	24.000 LB	ORANGE	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 004U1000	1,000 FT	23.000 LB	YELLOW		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0041000	1,000 FT	24.000 LB	YELLOW	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 005U1000	1,000 FT	23.000 LB	GREEN, DARK		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0051000	1,000 FT	24.000 LB	GREEN, DARK	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 008U1000	1,000 FT	23.000 LB	GRAY		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0081000	1,000 FT	24.000 LB	GRAY	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 009U1000	1,000 FT	23.000 LB	WHITE		CAT5E+ 4PRB U/UTP CMP BOX
1701A 0091000	1,000 FT	24.000 LB	WHITE	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 010U1000	1,000 FT	23.000 LB	BLACK	C	CAT5E+ 4PRB U/UTP CMP BOX
1701A 0101000	1,000 FT	24.000 LB	BLACK		CAT5E+ 4PRB U/UTP CMP REEL
1701A 877U1000	1,000 FT	23.000 LB	NATURAL		CAT5E+ 4PRB U/UTP CMP BOX
1701A 8771000	1,000 FT	24.000 LB	NATURAL	C	CAT5E+ 4PRB U/UTP CMP REEL
1701A 8773000	3,000 FT	69.000 LB	NATURAL	C	CAT5E+ 4PRB U/UTP CMP REEL

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 11    Revision Date: 03-10-2014

© 2014 Belden, Inc  
All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described herein are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability. Belden provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein. All sales of Belden products are subject to Belden's standard terms and conditions of sale. Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor's inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product. Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.