

## 1701LC 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, Limited Combustible FHC 25/50, Plenum-CMP, Premise Horizontal Cable, 24 AWG Solid Bare Copper Conductors, FEP Insulation, FEP 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 Trade Name	Insulation Material
Teflon®	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
Teflon	FEP - Fluorinated Ethylene Propylene

Outer Jacket Diameter:

Nom. Dia. (in.)
0.187

#### 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)

<b>Operating Temperature Range:</b>	-40°C To +150°C
<b>Bulk Cable Weight:</b>	25 lbs/1000 ft.
<b>Max. Recommended Pulling Tension:</b>	40 lbs.
<b>Min. Bend Radius/Minor Axis:</b>	1 in.
<b>Min. Bend/Installation:</b>	1.900 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

<b>NEC/(UL) Specification:</b>	CMP, FHC 25/50
<b>NEC Articles:</b>	800
<b>CEC/C(UL) Specification:</b>	CMP
<b>EU Directive 2011/65/EU (ROHS II):</b>	Yes
<b>Other Standards:</b>	ISO/IEC 11801 ed 2.1 (2008) Class D

## 1701LC Multi-Conductor - Enhanced Category 5e Bonded-Pair Cable

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):	01/01/2004
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 Plenum Flame Test (UL910)(FT6), UL723 (NFPA 255)
CSA Flame Test:	FT6

Plenum/Non-Plenum

Plenum (Y/N):	Yes
Plenum Number:	1701A
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:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min RL (dB)
1	2.0	65.3	65.3	63.3	63.3	20.0
4	4.0	56.3	56.3	52.3	52.3	23.0
8	5.7	51.8	51.8	46.1	46.1	24.5
10	6.4	50.3	50.3	43.9	43.9	25.0
16	8.1	47.3	47.3	39.1	39.1	25.0
20	9.2	45.8	45.8	35.2	35.2	25.0
25	10.3	44.3	44.3	34.1	34.1	24.3
31.25	11.6	42.9	42.9	31.3	31.3	23.6
62.5	16.8	38.4	38.4	21.6	21.6	21.5
100	21.7	35.3	35.3	17.1	17.1	20.1

## 1701LC Multi-Conductor - Enhanced Category 5e Bonded-Pair Cable

155	27.7	32.5	32.5	4.7	4.7	19.0
200	32.0	30.8	30.8	3.0	3.0	19.0
250	36.4	29.3	29.3	>0	>0	18.0
300	40.5	28.2	28.2			18.0
310	41.3	27.9	27.9			18.0
350	44.3	27.2	27.2			17.0

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	105 ± 10	63.8	60.8
4	100 ± 12	100 ± 10	51.7	48.8
8	100 ± 12	100 ± 10	45.7	42.7
10	100 ± 12	100 ± 10	43.8	40.8
16	100 ± 12	100 ± 10	39.7	36.7
20	100 ± 12	100 ± 10	37.7	34.7
25	100 ± 15	100 ± 10	35.8	32.8
31.25	100 ± 15	100 ± 10	33.9	30.9
62.5	100 ± 15	100 ± 10	27.8	24.9
100	100 ± 15	100 ± 10	23.8	20.8
155	100 ± 18	100 ± 10	19.9	16.9
200	100 ± 18	100 ± 10	17.7	14.7
250	100 ± 20	100 ± 10	15.8	12.8
300	100 ± 20	100 ± 10	14.2	11.2
310	100 ± 20	100 ± 10	13.9	10.9
350	100 ± 22	100 ± 10	12.9	9.9

### Notes (Overall)

**Notes:** Belden IBDN. Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 5e.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1701LC 006U1000	1,000 FT	23.000 LB	BLUE, LIGHT		CAT5E+ 4PRB U/UTP LC BOX
1701LC 006I000	1,000 FT	24.000 LB	BLUE, LIGHT	C	CAT5E+ 4PRB U/UTP LC REEL
1701LC 009U1000	1,000 FT	23.000 LB	WHITE		CAT5E+ 4PRB U/UTP LC BOX
1701LC 009I000	1,000 FT	24.000 LB	WHITE	C	CAT5E+ 4PRB U/UTP LC REEL

**Notes:**

C = CRATE REEL PUT-UP.

Revision Number: 5    Revision Date: 03-10-2014

© 2015 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.