



**Product:** [1701LC](#)

CAT5e+ Horizontal Bonded-Pair, 4pr, UTP, FEP Jkt, CMP-LC

## Product 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.

## Technical Specifications

### Product Overview

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
Patent:	This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> .

### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4

Conductor Count: 8

#### Insulation

Material	Material Trade Name	Nominal Wall Thickness
FEP - Fluorinated Ethylene Propylene	Teflon®	0.008 in

Bonded-Pair: Yes

#### Color Chart

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

#### Outer Shield

Material
No Shield

#### Outer Jacket

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	Teflon®	0.187 in

### Electrical Characteristics

#### Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
90 Ohm/km	3 %

#### Capacitance

Nom. Mutual Capacitance
15 pF/ft

## Delay

Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
510 ns/100m	25 ns/100m	72%

## High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2 dB/100m	65.3 dB	65.3 dB	63.3 dB	63.3 dB	63.8 dB	60.8 dB	20 dB	100 ± 12 Ohm	105 ± 10 Ohm
4 MHz	4 dB/100m	56.3 dB	56.3 dB	52.3 dB	52.3 dB	51.7 dB	48.8 dB	23 dB	100 ± 12 Ohm	100 ± 10 Ohm
8 MHz	5.7 dB/100m	51.8 dB	51.8 dB	46.1 dB	46.1 dB	45.7 dB	42.7 dB	24.5 dB	100 ± 12 Ohm	100 ± 10 Ohm
10 MHz	6.4 dB/100m	50.3 dB	50.3 dB	43.9 dB	43.9 dB	43.8 dB	40.8 dB	25 dB	100 ± 12 Ohm	100 ± 10 Ohm
16 MHz	8.1 dB/100m	47.3 dB	47.3 dB	39.1 dB	39.1 dB	39.7 dB	36.7 dB	25 dB	100 ± 12 Ohm	100 ± 10 Ohm
20 MHz	9.2 dB/100m	45.8 dB	45.8 dB	35.2 dB	35.2 dB	37.7 dB	34.7 dB	25 dB	100 ± 12 Ohm	100 ± 10 Ohm
25 MHz	10.3 dB/100m	44.3 dB	44.3 dB	34.1 dB	34.1 dB	35.8 dB	32.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 10 Ohm
31.25 MHz	11.6 dB/100m	42.9 dB	42.9 dB	31.3 dB	31.3 dB	33.9 dB	30.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 10 Ohm
62.5 MHz	16.8 dB/100m	38.4 dB	38.4 dB	21.6 dB	21.6 dB	27.8 dB	24.9 dB	21.5 dB	100 ± 15 Ohm	100 ± 10 Ohm
100 MHz	21.7 dB/100m	35.3 dB	35.3 dB	17.1 dB	17.1 dB	23.8 dB	20.8 dB	20.1 dB	100 ± 15 Ohm	100 ± 10 Ohm
155 MHz	27.7 dB/100m	32.5 dB	32.5 dB	4.7 dB	4.7 dB	19.9 dB	16.9 dB	19 dB	100 ± 18 Ohm	100 ± 10 Ohm
200 MHz	32 dB/100m	30.8 dB	30.8 dB	3 dB	3 dB	17.7 dB	14.7 dB	19 dB	100 ± 18 Ohm	100 ± 10 Ohm
250 MHz	36.4 dB/100m	29.3 dB	29.3 dB	0 dB	0 dB	15.8 dB	12.8 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
300 MHz	40.5 dB/100m	28.2 dB	28.2 dB			14.2 dB	11.2 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
310 MHz	41.3 dB/100m	27.9 dB	27.9 dB			13.9 dB	10.9 dB	18 dB	100 ± 20 Ohm	100 ± 10 Ohm
350 MHz	44.3 dB/100m	27.2 dB	27.2 dB			12.9 dB	9.9 dB	17 dB	100 ± 22 Ohm	100 ± 10 Ohm

## Voltage

UL Voltage Rating
300 V RMS

## Temperature Range

Operating Temp Range:	-40°C To +150°C
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## Mechanical Characteristics

Bulk Cable Weight:	25 lbs/1000ft
Max. Pull Tension:	40 lbs
Min. Bend Radius During Installation:	1.9 in
Min. Bend Radius/Minor Axis:	1 in

## Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CMP, FHC 25/50
CEC/C(UL) Compliance:	CMP
ISO/IEC Compliance:	11801 ed 2.1 (2008) Class D
CPR Euroclass:	Fca
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA/EIA 568 C.2 Category 5e
Other Specification:	NEMA WC-63.1 Category 5e, UL Verified to Category 5e

## Applicable Environmental and Other Programs

Environmental Space:	Plenum
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
MII Order #39 (China RoHS):	Yes

## Flammability, LS0H, Toxicity Testing

UL Flammability:	NFPA 262 Plenum Flame Test (UL910),UL723 (NFPA 255)
CSA Flammability:	FT6
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

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

## Part Number

Non-Plenum Number:	1700A
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## Variants

Item #	Color	Put-Up Type	Length	UPC
1701LC 006U1000	Blue	UnReel	1,000 ft	612825121909
1701LC 0061000	Blue	Reel	1,000 ft	612825121916
1701LC 009U1000	White	UnReel	1,000 ft	612825121923
1701LC 0091000	White	Reel	1,000 ft	612825121930

Footnote:	C - CRATE REEL PUT-UP.
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## Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2, Category 5e.
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## History

Update and Revision:	Revision Number: 0.299 Revision Date: 12-15-2021
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