



**Product:** [1700A](#)

CAT5E+ Horizontal Bonded-Pair, 4pr, UTP, LS-PVC Jkt, CMR

## Product Description

CAT5e+ (350MHz), 4-Bonded-Pair, U/UTP-unshielded, Riser-CMR, Premise Horizontal cable, 24 AWG solid bare copper conductors, polyolefin insulation, ripcord, PVC 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 ^ US Patent #'s 5606151; 5734126, CMR, Riser
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### Physical Characteristics (Overall)

#### Conductor

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

Conductor Count:	8
Total Number of Pairs:	4

#### Insulation

Material	Polyolefin
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 Jacket Material

Material	Nominal Diameter	Ripcord
PVC - Polyvinyl Chloride	0.202 in	Yes

### Electrical Characteristics

#### Conductor DCR

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

#### Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
66 pF/100m	15 pF/ft

#### Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nominal Velocity of Propagation (VP) [%]
100 MHz	537.6 ns/100m	25 ns/100m	70 %

## High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. PSNEXT [dB]	Min. PSACR [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2.0 dB/100m	69.3 dB	67.3 dB	65.8 dB	20.0 dB	100 ± 12 Ohm	105 ± 10 Ohm	40.0 dB	35.0 dB
4 MHz	4.0 dB/100m	60.3 dB	56.3 dB	53.8 dB	23.0 dB	100 ± 12 Ohm	100 ± 10 Ohm	40.0 dB	23.0 dB
8 MHz	5.7 dB/100m	55.8 dB	50.1 dB	47.7 dB	24.5 dB	100 ± 12 Ohm	100 ± 10 Ohm	40.0 dB	16.9 dB
10 MHz	6.4 dB/100m	54.3 dB	47.9 dB	45.8 dB	25.0 dB	100 ± 12 Ohm	100 ± 10 Ohm	40.0 dB	15.0 dB
16 MHz	8.1 dB/100m	51.2 dB	43.1 dB	41.7 dB	25.0 dB	100 ± 12 Ohm	100 ± 10 Ohm	38.0 dB	10.9 dB
20 MHz	9.1 dB/100m	49.8 dB	40.7 dB	39.8 dB	25.0 dB	100 ± 12 Ohm	100 ± 10 Ohm	37.0 dB	9.0 dB
25 MHz	10.2 dB/100m	48.3 dB	38.2 dB	37.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	36.0 dB	7.0 dB
31.25 MHz	11.4 dB/100m	46.9 dB	35.5 dB	35.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	35.1 dB	
62.5 MHz	16.4 dB/100m	42.4 dB	26.0 dB	29.9 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	32.0 dB	
100 MHz	21.0 dB/100m	39.3 dB	18.3 dB	25.8 dB	25.0 dB	100 ± 15 Ohm	100 ± 10 Ohm	30.0 dB	
155 MHz	26.6 dB/100m	36.4 dB	9.8 dB	22.0 dB	19.0 dB	100 ± 18 Ohm	100 ± 10 Ohm	28.1 dB	
200 MHz	30.4 dB/100m	34.8 dB	4.4 dB	19.8 dB	19.0 dB	100 ± 18 Ohm	100 ± 10 Ohm	27.0 dB	
250 MHz	34.4 dB/100m	32.3 dB		17.8 dB	18.0 dB	100 ± 20 Ohm	100 ± 10 Ohm	26.0 dB	
300 MHz	38.0 dB/100m	28.1 dB		14.3 dB	18.0 dB	100 ± 20 Ohm	100 ± 10 Ohm		
350 MHz	41.4 dB/100m	27.1 dB		12.9 dB	17.0 dB	100 ± 20 Ohm	100 ± 10 Ohm		
400 MHz	44.5 dB/100m	26.3 dB		11.8 dB	17.0 dB	100 ± 22 Ohm	100 ± 10 Ohm		
450 MHz	47.6 dB/100m	25.5 dB		10.7 dB	17.0 dB	100 ± 22 Ohm	100 ± 10 Ohm		

Segregation class according EN50174-2:

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## Voltage

UL Voltage Rating

300 V RMS

## Temperature Range

Installation Temp Range:	0°C To +50°C
UL Temp Rating:	75°C
Storage Temp Range:	-20°C To +75°C
Operating Temp Range:	-20°C To +75°C

## Mechanical Characteristics

Bulk Cable Weight:	22 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius During Installation:	2.0 in
Min Bend Radius/Minor Axis:	0.5 in

## Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMR
ISO/IEC Compliance:	11801 ed 2.1 (2008) Class D
CPR Euroclass:	Eca
Data Category:	Category 5e
ANSI Compliance:	S-90-661-2012 Category 5e, ANSI/NEMA WC-63.1 Category 5e
Telecommunications Standards:	ANSI/TIA-568-C.2 Category 5e
IEEE Specification:	IEEE 802.3bt Type 1, Type 2, Type 3
Third Party Performance Verification:	Category 5e

## Applicable Environmental and Other Programs

Environmental Space:	Riser
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes

EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2017-07-10
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

## Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	No
Suitability - Oil Resistance:	No
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

## Flammability, LSOH, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL 1666 Riser
ISO/IEC Flammability:	60332-1
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1701A

## Part Number

### Variants

Item #	Color	Putup Type	Length	UPC/EAN
1700A 0101000	Black	Reel	1,000 ft	612825121589
1700A 010U1000	Black	UnReel	1,000 ft	612825121572
1700A 006U1000	Blue	UnReel	1,000 ft	612825121503
1700A 0061640	Blue	Reel	1,640 ft	612825121527
1700A 0063000	Blue	Reel	3,000 ft	
1700A.00305	Gray	Reel	305 m	8719605003881
1700A 008U1000	Gray	UnReel	1,000 ft	612825121534
1700A F2V1000	Gray	Reel	1,000 ft	612825121398
1700A F2VU1000	Gray	UnReel	1,000 ft	612825121381
1700A F2V3000	Gray	Reel	3,000 ft	612825121404
1700A 0051000	Green	Reel	1,000 ft	612825121497
1700A 005U1000	Green	UnReel	1,000 ft	612825121480
1700A 0031000	Orange	Reel	1,000 ft	612825121459
1700A 003U1000	Orange	UnReel	1,000 ft	612825121442
1700A B021000	Purple	Reel	1,000 ft	612825121374
1700A B02U1000	Purple	UnReel	1,000 ft	612825121367
1700A 0021000	Red	Reel	1,000 ft	612825121428
1700A 002U1000	Red	UnReel	1,000 ft	612825121411
1700A 0023000	Red	Reel	3,000 ft	612825121435
1700A 0091000	White	Reel	1,000 ft	612825121558
1700A 009U1000	White	UnReel	1,000 ft	612825121541
1700A 0093000	White	Reel	3,000 ft	612825121565
1700A 004U1000	Yellow	UnReel	1,000 ft	612825121466

Footnote:	C - CRATE REEL PUT-UP.
Patent:	<a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a>

## Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 350 MHz are for Engineering Information Only. Print Includes Descending Footage Markings from Max. Put-Up Length to 0.
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## History

Update and Revision:	Revision Number: 0.364 Revision Date: 04-28-2020
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