



Description:

24 AWG bonded-pairs, solid bare copper conductors, FEP insulation, rip cord, Flamarrest® 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

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 Ripcord: Yes

Overall Cabling

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)

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 29 lbs/1000 ft.

Max. Recommended Pulling Tension: 40 lbs.

Min. Bend Radius (Install)/Minor Axis: 0.250 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMP, UL444
CEC/C(UL) Specification:	CMP
Other Standards:	11801 Category 5
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:	568-B.2 Category 5e
Other Specification:	NEMA WC-63.1 Category 5e, UL Verified to Category 5e

Flame Test

UL Flame Test:	NFPA 262
CSA Flame Test:	FT6

Plenum/Non-Plenum

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

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)
15

Nominal Velocity of Propagation:

VP (%)
72

Maximum Capacitance Unbalance (pF/100 m): 66

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
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 ± 20	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. U.S. Patents 5, 606, 151 and 5, 734, 126. Third party verified to TIA/EIA-568-B.2, Category 5e.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1701A B02U1000	1,000 FT	23.000 LB	PURPLE		4 TW PR DATATWIST
1701A B02I000	1,000 FT	24.000 LB	PURPLE	C	4 TW PR DATATWIST
1701A D15U1000	1,000 FT	23.000 LB	BLUE		4 TW PR DATATWIST
1701A D15I000	1,000 FT	24.000 LB	BLUE	C	4 TW PR DATATWIST
1701A D153000	3,000 FT	69.000 LB	BLUE	C	4 TW PR DATATWIST
1701A 002U1000	1,000 FT	23.000 LB	RED		4 TW PR DATATWIST
1701A 002I000	1,000 FT	24.000 LB	RED	C	TW PR DATATWIST
1701A 003U1000	1,000 FT	23.000 LB	ORANGE		4 TW PR DATATWIST
1701A 003I000	1,000 FT	24.000 LB	ORANGE	C	4 TW PR DATATWIST
1701A 004U1000	1,000 FT	23.000 LB	YELLOW		4 TW PR DATATWIST
1701A 004I000	1,000 FT	24.000 LB	YELLOW	C	4 TW PR DATATWIST
1701A 005U1000	1,000 FT	23.000 LB	GREEN, DARK		4 TW PR DATATWIST
1701A 005I000	1,000 FT	24.000 LB	GREEN, DARK	C	4 TW PR DATATWIST
1701A 008U1000	1,000 FT	23.000 LB	GRAY		4 TW PR DATATWIST

1701A Multi-Conductor - Data and Voice Cable

1701A 0081000	1,000 FT	24.000 LB	GRAY	C	4 TW PR DATATWIST
1701A 009U1000	1,000 FT	23.000 LB	WHITE		4 PR #24 DATATWIST PVC
1701A 0091000	1,000 FT	24.000 LB	WHITE	C	4 PR #24 DATATWIST PVC
1701A 010U1000	1,000 FT	23.000 LB	BLACK	C	4 TW PR DATATWIST
1701A 0101000	1,000 FT	24.000 LB	BLACK		4 TW PR DATATWIST
1701A 877U1000	1,000 FT	23.000 LB	NATURAL		4 TW PR DATATWIST
1701A 8771000	1,000 FT	24.000 LB	NATURAL	C	4 TW PR DATATWIST
1701A 8773000	3,000 FT	69.000 LB	NATURAL	C	4 TW PR DATATWIST

Notes:

C = CRATE REEL PUT-UP.

Data and Voice Cable

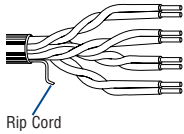
Enhanced Category 5e UTP Cables

Description	Part No.	UL NEC/C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		Max. DCR (Ω/100m)	Max. DCR Unbal. (%)	Max. Cap. Unbal. (pF/100m)	Freq. (MHz)	Max. Atten. (dB/100m)	Min. PSUM NEXT (dB)	Min. PSUM ACR (dB/100m)	Min. PSUM ELFEXT (dB/100m)	Input Imped. (Ω)	Min. RL (dB)
				Ft.	m	Lbs.	kg	Inch	mm										

24 AWG Bonded-Pairs Solid Bare Copper Conductors • Rip Cord • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • PVC Jacket (Red, Orange, White, Yellow, Green, Blue, Purple, or Gray)

80°C	1700R	NEC: 4	U-1000	U-304.8	21.0	9.5	.204	5.18	9.0	3.0	66.0	1	2.0	65.3	63.3	60.8	100±12	20.0
		CMR	1000	304.8	22.0	10.0						4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC: 3000 [▲]	914.4	63.0	28.6							8	5.7	51.8	46.1	42.7	100±12	24.5
		CMR FT4										10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±20	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0

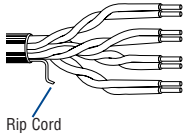


Jacket sequentially marked at 2 ft. intervals.
 Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126
[▲]3000 ft. put-up not available in Orange, Yellow nor Green.

Tested to 350 MHz.

Plenum • FEP Insulation • Flamarrest® Jacket (Red, Orange, Yellow, Green, Blue, Purple, Gray, White, Natural or Black)

75°C	1701A	NEC: 4	U-1000	U-304.8	23.0	10.5	.193	4.90	9.0	3.0	66.0	1	2.0	65.3	63.3	60.8	100±12	20.0
		CMR	1000	304.8	24.0	10.9						4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC: 3000 [♦]	914.4	69.0	31.3							8	5.7	51.8	46.1	42.7	100±12	24.5
		CMR FT6										10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±20	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0



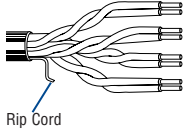
Jacket sequentially marked at 2 ft. intervals.
 Third party verified to TIA/EIA-568-B.2, Category 5e • U.S. Patents 5,606,151 and 5,734,126
[♦]3000 ft. put-up available in Blue or Natural only.

Tested to 350 MHz.

24 AWG Solid Bare Copper Conductors • Twisted Pairs • Rip Cord • See Color Code Chart (below)

Non-Plenum • Polyolefin Insulation • PVC Jacket (Available in Red, Orange, Yellow, Green, White, Blue or Gray)

80°C	1500R	NEC: 4	1000	304.8	24.0	10.9	.194	4.93	9.0	3.0	66.0	1	2.0	65.3	63.3	60.8	100±12	20.0
		CMR	A-1000	A-304.8	27.0	12.3						4	4.0	56.3	52.3	48.7	100±12	23.0
		CEC: 3000 [♦]										8	5.7	51.8	46.1	42.7	100±12	24.5
		CMR FT4										10	6.4	50.3	43.9	40.8	100±12	25.0
												16	8.1	47.3	39.1	36.7	100±12	25.0
												25	10.3	44.3	34.1	32.8	100±15	24.3
												31.25	11.6	42.9	31.3	30.9	100±15	23.6
												62.5	16.8	38.4	21.6	24.8	100±15	21.5
												100	21.7	35.3	17.1	20.8	100±15	20.1
												155	27.7	32.5	4.7	16.9	100±18	19.0
												200	32.0	30.8	3.0	14.7	100±20	19.0
												250	36.4	29.3	—	12.8	100±20	18.0
												350	44.3	27.2	—	9.9	100±22	17.0



Jacket sequentially marked at 2 ft. intervals.
 Third party verified to TIA/EIA-568-B.2, Category 5e

Tested to 350 MHz.

ACR = Attenuation Crosstalk Ratio • DCR = DC Resistance • ELFEXT = Equal Level Far-end Crosstalk • FEP = Fluorinated Ethylene-Propylene • NEXT = Near-end Crosstalk • PSUM = Power Sum • RL = Return Loss • UTP = Unshielded Twisted Pair(s)

For a complete selection of Belden® Data Cables, refer to the Commercial Networking: Copper section of this catalog.

Color Codes

Pair No.	Color Combination
1	White/Blue Stripe & Blue
2	White/Orange Stripe & Orange
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown