

## 1703A Multi-Conductor - Enhanced Category 5e Bonded-Pair Cable



### Description:

24 AWG bonded-pairs, solid bare copper conductors, plenum, FEP Teflon® Insulation, rip cord, see color code chart (below), PVC jacket (red, orange, gray, yellow, green, blue, purple, natural or black).

### 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
8	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 x 0.405 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:** 0°C To +75°C

**Bulk Cable Weight:** 50 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 50 lbs.

**Min. Bend Radius (Install)/Minor Axis:** 1.900 in.

## 1703A Multi-Conductor - Enhanced Category 5e Bonded-Pair Cable

### 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:	ANSI/TIA/EIA-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:	1702A

### 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

## 1703A Multi-Conductor - Enhanced Category 5e Bonded-Pair Cable

### 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 ± 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. 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
1703A D151000	1,000 FT	47.000 LB	BLUE	C	2 X 4 #24 DUAL DATATWIST
1703A 8771000	1,000 FT	47.000 LB	NATURAL	C	2 X 4 #24 DUAL DATATWIST

**Notes:**

C = CRATE REEL PUT-UP.

