

**Detailed Specifications &  
Technical Data**



**1703A Paired - DataTwist® Enhanced Category 5e**

<p><b>Picture Not Available</b></p>	<p>For more information please call <b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Color Code Chart : No. 8 for DataTwist Cables (Modified Western Electric).pdf</b></p>
---	---

**Description:**

Premise Horizontal Cable, 2x4 Siamese Pair UTP, 350MHz Enhanced Category 5e, Plenum Rated, 24 AWG Solid Bare Copper, FEP Insulation, Bonded Pairs, PVC Flamarrest Jacket, Rip Cord in Both Legs, Sequential Marking at Two Foot Intervals

**SUITABLE APPLICATIONS:**

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:**

**CONDUCTOR:**

Number of Pairs	8
Total Number of Conductors	16
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

**INSULATION:**

Insulation Material	FEP - Fluorinated Ethylene Propylene
---------------------	--------------------------------------

**Pair Color Code Chart :**

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

**OUTER SHIELD:**

Outer Shield Material	Unshielded
-----------------------	------------

**OUTER JACKET:**

Outer Jacket Material Trade Name	Flamarrest®
Outer Jacket Material	LS PVC - Low Smoke Polyvinyl Chloride
Outer Jacket Ripcord	Yes

**OVERALL NOMINAL DIAMETER:**

**Detailed Specifications &  
Technical Data**



**1703A Paired - DataTwist® Enhanced Category 5e**

Overall Nominal Diameter	.195 x .405 in.
--------------------------	-----------------

**MECHANICAL CHARACTERISTICS:**

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)	1.9 in.

**APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:**

**APPLICABLE STANDARDS:**

NEC/(UL) Specification	CMP, UL444
CEC/C(UL) Specification	CMP
IEC Specification	11801 Category 5
TIA/EIA Specification	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	UL910 Plenum
CSA Flame Test	FT6

**PLENUM/NON-PLENUM:**

Plenum (Y/N)	Y
Non-Plenum Number	1702A

**ELECTRICAL CHARACTERISTICS:**

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	66 pF/100 m
Nominal Velocity of Propagation	72 %
Maximum Delay (ns/100 m)	510 ns/100 m
Maximum Delay Skew (ns/100m)	25 ns/100 m
Maximum Conductor DC Resistance @ 20 Deg. C	9 Ohms/100 m
Maximum DCR Unbalance @ 20 Deg. C	3 %
Max. Operating Voltage - UL	300 V RMS

**ELECTRICAL CHARACTERISTICS - PREMISE:**

Premise Cable Electricals Table 1 :	
-------------------------------------	--

**Detailed Specifications & Technical Data**



**1703A Paired - DataTwist® Enhanced Category 5e**

Frequency (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. PSNEXT (dB)	Min. ACR (dB)	Min. PSACR (dB)	Min. Return Loss (dB)	Min. Structural Return Loss (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 Electricals Table 2 :

Frequency (MHz)	Input (Unfitted) Impedance (Ohms)	Fitted Impedance (Ohms)	Min. ELFEXT (dB)	Min. PSELFEXT (dB)
1	100 ± 12	105 ± 10	63.8	60.8
4	100 ± 12	100 ± 10	51.7	48.7
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	24.8
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:**

Notes US Patent #'s 5, 606, 151; 5, 734, 126

**PUT-UPS AND COLORS:**

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
------	-------------	--------------	--------------------	--------------	-------

**Detailed Specifications &  
Technical Data**



**1703A Paired - DataTwist® Enhanced Category 5e**

1703A 8771000	2 X 4 #24 DUAL DATATWIST	1000	48	NATURAL	C
1703A D151000	2 X 4 #24 DUAL DATATWIST	1000	48	BLUE	C

C = CRATE REEL PUT-UP.

Revision Number: 1      Revision Date: 06-02-2004

© 2003 Belden Wire & Cable Company  
All Rights Reserved.

Although Belden Electronics Division ("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.