

Detailed Specifications & Technical Data



1501A Paired - DataTwist® Enhanced Category 5e

	<p>For more information please call 1-800-Belden1</p> <p><u>See Put-ups and Colors</u></p> <p>Color Code Chart : No. 8 for DataTwist Cables (Modified Western Electric).pdf</p>
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Description:

4 Pair UTP, 350MHz Enhanced Category 5e, Plenum Rated, 24 AWG Solid Bare Copper, FEP Insulation, PVC Flamarrest Jacket, Rip Cord, 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
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PHYSICAL CHARACTERISTICS:

CONDUCTOR:

Number of Pairs	4
Total Number of Conductors	8
AWG	24
Stranding	Solid
Conductor Material	BC - Bare Copper

INSULATION:

Insulation Material	FEP - Fluorinated Ethylene Propylene
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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
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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**



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Overall Nominal Diameter	.195 in.
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MECHANICAL CHARACTERISTICS:

Operating Temperature Range	-20°C To +75°C
Bulk Cable Weight	29 lbs/1000 ft.
Max. Recommended Pulling Tension	25 lbs.
Min. Bend Radius (Install)	0.8 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	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	1500R, 1500A

ELECTRICAL CHARACTERISTICS:

Nom. Mutual Capacitance @ 1 KHz	15 pF/ft
Maximum Capacitance Unbalance (pF/100 m)	66 pF/100 m
Nominal Velocity of Propagation	70 %
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 :	
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**Detailed Specifications &
Technical Data**



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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			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 ± 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

PUT-UPS AND COLORS:

Item	Description	Put-Up (ft.)	Ship Weight (lbs.)	Jacket Color	Notes
1501A 002A1000	4 PR #24 FEP FLMRST	A1000	27	RED	
1501A 0031000	4 PR #24 FEP FLMRST	1000	24	ORANGE	

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1501A 003A1000	4 PR #24 FEP FLMRST	A1000	27	ORANGE	
1501A 0041000	4 PR #24 FEP FLMRST	1000	24	YELLOW	C
1501A 004A1000	4 PR #24 FEP FLMRST	A1000	27	YELLOW	
1501A 0051000	4 PR #24 FEP FLMRST	1000	24	GREEN, DARK	C
1501A 005A1000	4 PR #24 FEP FLMRST	A1000	27	GREEN, DARK	
1501A 0081000	4 PR #24 FEP FLMRST	1000	24	GRAY	C
1501A 008A1000	4 PR #24 FEP FLMRST	A1000	27	GRAY	
1501A 0091000	4 PR #24 FEP FLMRST	1000	24	WHITE	C
1501A 009A1000	4 PR #24 FEP FLMRST	A1000	27	WHITE	
1501A 8771000	4 PR #24 FEP FLMRST	1000	24	NATURAL	C
1501A 877A1000	4 PR #24 FEP FLMRST	A1000	27	NATURAL	
1501A D151000	4 PR #24 FEP FLMRST	1000	24	BLUE	C
1501A D15A1000	4 PR #24 FEP FLMRST	A1000	27	BLUE	

C = CRATE REEL PUT-UP.

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