

**Detailed Specifications &  
Technical Data**



**1500R 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>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, Riser Rated, 24 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Flexible PVC 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	PO - Polyolefin
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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	PVC - Polyvinyl Chloride
Outer Jacket Ripcord	Yes

**OVERALL NOMINAL DIAMETER:**

Overall Nominal Diameter	.194 in.
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**MECHANICAL CHARACTERISTICS:**

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Operating Temperature Range	-20°C To +80°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	CMR, UL444
CEC/C(UL) Specification	CMR
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	UL1666 Riser
CSA Flame Test	FT4

##### PLENUM/NON-PLENUM:

Plenum (Y/N)	N
Plenum Number	1501A
Non-Plenum Number	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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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

Revision Number: 1

Revision Date: 11-16-2004

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