

**Detailed Specifications &
Technical Data**



1500A 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> |
|---|--|

Description:

4 Pair UTP, 350MHz Enhanced Category 5e, Vertical Tray Rated, 24 AWG Solid Bare Copper, Polyolefin Insulation, 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 |
|-----------------------|--|

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 |
|---------------------|-----------------|

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 | PVC - Polyvinyl Chloride |
| Outer Jacket Ripcord | Yes |

OVERALL NOMINAL DIAMETER:

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|--------------------------|-----------|
| Overall Nominal Diameter | 0.200 in. |
|--------------------------|-----------|

MECHANICAL CHARACTERISTICS:

| | |
|----------------------------------|-----------------|
| 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 | CM |
| CEC/C(UL) Specification | CM |
| 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 | UL1581 Vertical Tray |
| CSA Flame Test | FT1 |

PLENUM/NON-PLENUM:

| | |
|-------------------|-------|
| Plenum (Y/N) | N |
| Plenum Number | 1501A |
| Non-Plenum Number | 1500R |

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 |

PUT-UPS AND COLORS:

| Item | Description | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|----------------|--------------------|--------------|--------------------|--------------|-------|
| 1500A 0021000 | 4 PR #24 PP FR PVC | 1000 | 23 | RED | C |
| 1500A 002A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | RED | |

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|----------------|--------------------|-------|----|------------------|---|
| 1500A 0031000 | 4 PR #24 PP FR PVC | 1000 | 23 | ORANGE | C |
| 1500A 003A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | ORANGE | |
| 1500A 0041000 | 4 PR #24 PP FR PVC | 1000 | 23 | YELLOW | |
| 1500A 004A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | YELLOW | |
| 1500A 0051000 | 4 PR #24 PP FR PVC | 1000 | 23 | GREEN, DARK | |
| 1500A 005A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | GREEN, DARK | |
| 1500A 0061000 | 4 PR #24 PP FR PVC | 1000 | 23 | BLUE, LIGHT | C |
| 1500A 006A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | BLUE, LIGHT | |
| 1500A 0091000 | 4 PR #24 PP FR PVC | 1000 | 23 | WHITE | C |
| 1500A 009A1000 | 4 PR #24 PP FR PVC | A1000 | 26 | WHITE | |
| 1500A F6H1000 | 4 PR #24 PP FR PVC | 1000 | 23 | GRAY, DARK PEARL | C |
| 1500A F6HA1000 | 4 PR #24 PP FR PVC | A1000 | 26 | GRAY, DARK PEARL | |

C = CRATE REEL PUT-UP.

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