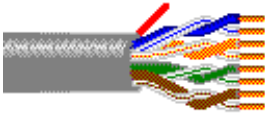


**Detailed Specifications &
Technical Data**



1583ANH Paired - DataTwist® 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, 24 AWG solid bare copper conductors, polyolefin insulation, LSNH 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, 200MHz Category 5e, Vertical Tray Rated |
|-----------------------|---|

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 & Blue | 3 | White/Green & Green |
| 2 | White/Orange & Orange | 4 | White/Brown & Brown |

OUTER SHIELD:

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

OUTER JACKET:

| | |
|----------------------------------|------------------------------|
| Outer Jacket Material Trade Name | Haloarrest® |
| Outer Jacket Material | LSNH - Low Smoke Non-Halogen |
| Outer Jacket Ripcord | Yes |

OVERALL NOMINAL DIAMETER:

**Detailed Specifications &
Technical Data**



1583ANH Paired - DataTwist® Category 5e

| | |
|--------------------------|----------|
| Overall Nominal Diameter | .195 in. |
|--------------------------|----------|

MECHANICAL CHARACTERISTICS:

| | |
|----------------------------------|-----------------|
| Operating Temperature Range | -20°C To +80°C |
| Bulk Cable Weight | 24 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 41 lbs. |
| Min. Bend Radius (Install) | 2.25 in. |

APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

APPLICABLE STANDARDS:

| | |
|-------------------------|---|
| NEC/(UL) Specification | CM |
| CEC/C(UL) Specification | CM |
| IEC Specification | 11801 Category 5e, 754-2 Acid Gas Evolution |
| TIA/EIA Specification | ANSI/TIA/EIA-568-B.2 Category 5e |
| Other Specification | NEMA WC-63.1 Category 5e |

FLAME TEST:

| | |
|----------------|---|
| UL Flame Test | UL1581 Vertical Tray (VW-1) |
| IEC Flame Test | 332-3 Flammability, 754-2 Smoke Density |

PLENUM/NON-PLENUM:

| | |
|---------------|---------------|
| Plenum (Y/N) | N |
| Plenum Number | 1585A, 1585LC |

ELECTRICAL CHARACTERISTICS:

| | |
|---|-----------------------|
| Nom. Mutual Capacitance @ 1 KHz | 15 pF/ft |
| Maximum Capacitance Unbalance (pF/100 m) | 330 pF/100 m |
| Nominal Velocity of Propagation | 70 % |
| Maximum Delay (ns/100 m) | 510 @ 100MHz ns/100 m |
| Maximum Delay Skew (ns/100m) | 45 ns/100 m |
| Maximum Conductor DC Resistance @ 20 Deg. C | 9.38 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**



1583ANH Paired - DataTwist® 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 | 62.3 | 63.0 | 60.0 | 20.0 | 23.0 |
| 4 | 4.1 | 56.3 | 53.3 | 51.0 | 49.0 | 23.0 | 23.0 |
| 8 | 5.8 | 51.8 | 48.8 | 46.0 | 43.0 | 24.5 | 24.5 |
| 10 | 6.5 | 50.3 | 47.3 | 43.0 | 41.0 | 25.0 | 25.0 |
| 16 | 8.2 | 47.3 | 44.3 | 39.0 | 36.0 | 25.0 | 25.0 |
| 20 | 9.3 | 45.8 | 42.8 | 36.5 | 33.5 | 25.0 | 25.0 |
| 25 | 10.4 | 44.3 | 41.3 | 33.9 | 30.9 | 24.3 | 24.3 |
| 31.25 | 11.7 | 42.9 | 39.9 | 31.0 | 28.0 | 23.6 | 23.6 |
| 62.5 | 17.0 | 38.4 | 35.4 | 22.0 | 19.0 | 21.5 | 21.5 |
| 100 | 22.0 | 35.3 | 32.3 | 14.0 | 11.0 | 20.1 | 20.1 |
| 155 | 28.1 | 32.5 | 29.5 | 4.4 | 1.4 | 15.8 | |
| 200 | 32.0 | 30.8 | 27.8 | 4.0 | 1.0 | 15.0 | |

Premise Cable Electricals Table 2 :

| Frequency (MHz) | Input (Unfitted) Impedance (Ohms) | Fitted Impedance (Ohms) | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-----------------|-----------------------------------|-------------------------|------------------|--------------------|
| 1 | 100 ± 15 | 100 ± 15 | 63.8 | 60.8 |
| 4 | 100 ± 15 | 100 ± 15 | 51.7 | 48.7 |
| 8 | 100 ± 15 | 100 ± 15 | 45.7 | 42.7 |
| 10 | 100 ± 15 | 100 ± 15 | 43.8 | 40.8 |
| 16 | 100 ± 15 | 100 ± 15 | 39.7 | 36.7 |
| 20 | 100 ± 15 | 100 ± 15 | 37.7 | 34.7 |
| 25 | 100 ± 15 | 100 ± 15 | 35.8 | 32.8 |
| 31.25 | 100 ± 15 | 100 ± 15 | 33.9 | 30.9 |
| 62.5 | 100 ± 15 | 100 ± 15 | 27.8 | 24.8 |
| 100 | 100 ± 15 | 100 ± 15 | 23.8 | 20.8 |
| 155 | 100 ± 25 | 100 ± 15 | 19.9 | 16.9 |
| 200 | 100 ± 25 | 100 ± 15 | 17.7 | 14.7 |

PUT-UPS AND COLORS:

| Item | Description | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|-----------------|------------------------|--------------|--------------------|------------------|-------|
| 1583ANH F6H1000 | 4 PR #24 PP NH LS/FRPO | 1000 | 25 | GRAY, DARK PEARL | C |

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 08-06-2004

**Detailed Specifications &
Technical Data**



1583ANH Paired - DataTwist® Category 5e

© 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.