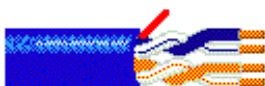


## 1590A Paired - Category 5e Unbonded-Pair Cable

|                                                                                                                                                                      |                                                                                                                                                                                                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>For more information please call<br/><b>1-800-Belden1</b></p> <p><u>See Put-ups and Colors</u></p> <p><b>Related Documents : No. 8 for DataTwist Cables (Modified Western Electric).pdf</b></p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Description:

24 AWG solid bare copper conductors, plenum, FEP Teflon® insulation, twisted pairs, rip cord, see color code chart (below), Flamarrest® jacket (natural or blue).

### 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            | 2                |
| Total Number of Conductors | 4                |
| 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 | 2      | White/Orange Stripe & Orange |

#### 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:

|                          |          |
|--------------------------|----------|
| Overall Nominal Diameter | .165 in. |
|--------------------------|----------|

## 1590A Paired - Category 5e Unbonded-Pair Cable

### MECHANICAL CHARACTERISTICS:

|                                  |                 |
|----------------------------------|-----------------|
| Operating Temperature Range      | -20°C To +75°C  |
| Bulk Cable Weight                | 21 lbs/1000 ft. |
| Max. Recommended Pulling Tension | 13 lbs.         |
| Min. Bend Radius (Install)       | 0.7 in.         |

### APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE:

#### APPLICABLE STANDARDS:

|                                       |                                                      |
|---------------------------------------|------------------------------------------------------|
| NEC/(UL) Specification                | CMP, UL444                                           |
| CEC/C(UL) Specification               | CMP                                                  |
| EU CE Mark (Y/N)                      | Yes                                                  |
| EU RoHS Compliant (Y/N)               | Yes                                                  |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2005                                           |
| 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  | NFPA 262 |
| CSA Flame Test | FT4, FT6 |

### PLENUM/NON-PLENUM:

|                   |              |
|-------------------|--------------|
| Plenum (Y/N)      | Y            |
| Non-Plenum Number | 1588A, 1588R |

### ELECTRICAL CHARACTERISTICS:

|                                             |                       |
|---------------------------------------------|-----------------------|
| Nom. Mutual Capacitance @ 1 KHz             | 14 pF/ft              |
| Maximum Capacitance Unbalance (pF/100 m)    | 330 pF/100 m          |
| Nominal Velocity of Propagation             | 72 %                  |
| Maximum Delay (ns/100 m)                    | 538 @ 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           | 5 %                   |
| Max. Operating Voltage - UL                 | 300 V RMS             |

### ELECTRICAL CHARACTERISTICS - PREMISE:

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

## 1590A Paired - Category 5e Unbonded-Pair Cable

| 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          | 60.3            | 20.0                  | 23.0                             |
| 4               | 4.1                         | 56.3           | 53.3             | 51.0          | 49.2            | 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          | 40.8            | 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          | 28.2            | 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          | 10.3            | 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             | 24.9               |
| 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               |

### NOTES:

Notes

Jacket sequentially marked at 2 ft. intervals. Third party verified to TIA/EIA-568-B.2, Category 5e.

### PUT-UPS AND COLORS:

| Item          | Description         | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color | Notes |
|---------------|---------------------|--------------|--------------------|--------------|-------|
| 1590A 8771000 | 2 PR #24 FEP FLMRST | 1000         | 16                 | NATURAL      | C     |
| 1590A D151000 | 2 PR #24 FEP FLMRST | 1000         | 16                 | BLUE         |       |

C = CRATE REEL PUT-UP.

Revision Number: 2

Revision Date: 04-18-2006

---

## 1590A Paired - Category 5e Unbonded-Pair Cable

---

© Copyright 2006 Belden, Inc  
All Rights Reserved.

Although Belden ("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.

Belden believes this product to be in compliance with the following environmental regulations: California Proposition 65 Consent Judgment For Wire & Cable Mfgs. (San Francisco Superior Court Nos. 312962 And 320342); EU RoHS (Directive 2002/95/EC, 27-Jan-2003); Material manufactured prior to the compliance date may still be in stock at Belden facilities and in our Distributor's inventory. EU ELV (Directive 2000/53/EC, 18-Sept-2000); EU WEEE (Directive 2002/96/EC, 27-Jan-2003); And EU BFR (Directive 2003/11/EC, 6-Feb-2003). The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden's knowledge, information and belief at the date of its publication. The information provided in the Product Disclosure is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. This Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.