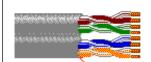


## 1872A Paired - Enhanced Category 6 Bonded-Pair Cable





For more information please call
1-800-Belden1

See Put-ups and Colors

Related Documents : No. 8 for DataTwist Cables (Modified Western Electric).pdf

#### **Description:**

23 AWG bonded-pairs, solid bare copper conductor, non-plenum, polyolefin insulation, rip cord, see color code chart (below), PVC jacket (blue, red, yellow, orange, green, gold, purple, white, black or gray..

#### **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, Noisy Environments

#### PHYSICAL CHARACTERISTICS:

#### **CONDUCTOR:**

| Number of Pairs            | 4                |
|----------------------------|------------------|
| Total Number of Conductors | 8                |
| AWG                        | 23               |
| 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                         | .365 x .165 in. |  |  |
|--|-----------------|--|--|
| MECHANICAL CHARACTERISTICS:                      |                 |  |  |
| Operating Temperature Range                      | -20°C To +80°C  |  |  |
| Bulk Cable Weight                                | 29 lbs/1000 ft. |  |  |
| Max. Recommended Pulling Tension                 | 45 lbs.         |  |  |
| Min. Bend Radius (Install)                       | 1 in.           |  |  |
| APPLICABLE SPECIFICATIONS AND AGENCY COMPLIANCE: |                 |  |  |

#### APPLICABLE STANDARDS:

| NEC/(UL) Specification                | CMR, UL444                |
|---------------------------------------|---------------------------|
| CEC/C(UL) Specification               | CMR                       |
| IEC Specification                     | 11801 Category 5          |
| EU CE Mark (Y/N)                      | No                        |
| EU RoHS Compliant (Y/N)               | Yes                       |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004                |
| TIA/EIA Specification                 | 568-B.2-1 Category 6      |
| Other Specification                   | UL verified to Category 6 |

#### FLAME TEST:

| UL Flame Test  | UL1666 Riser |
|----------------|--------------|
| CSA Flame Test | FT4          |

#### PLENUM/NON-PLENUM:

| Plenum (Y/N)  | N     |
|---------------|-------|
| Plenum Number | 1874A |

#### **ELECTRICAL CHARACTERISTICS:**

| Nom. Mutual Capacitance @ 1 KHz             | 15.0 pF/ft            |
|---|-----------------------|
| Maximum Capacitance Unbalance (pF/100 m)    | 49.2 pF/100 m         |
| Nominal Velocity of Propagation             | 70 %                  |
| Maximum Delay (ns/100 m)                    | 510 @ 100MHz 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:



# 1872A Paired - Enhanced Category 6 Bonded-Pair Cable

| Frequency (MHz) | Max.<br>Attenuation<br>(dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR<br>(dB) | Min. Return<br>Loss (dB) | Min.<br>Structural<br>Return Loss<br>(dB) |
|-----------------|-----------------------------------|----------------|------------------|---------------|--------------------|--------------------------|---|
| 1               | 1.9                               | 74.3           | 72.3             | 70            | 70                 | 20.0                     |   |
| 4               | 3.7                               | 65.3           | 63.3             | 59            | 59                 | 23.0                     |   |
| 8               | 5.3                               | 60.3           | 58.8             | 53            | 53                 | 24.5                     |   |
| 10              | 5.9                               | 59.3           | 57.3             | 51            | 51                 | 25.0                     |   |
| 16              | 7.5                               | 56.3           | 54.3             | 46            | 46                 | 25.0                     |   |
| 20              | 8.4                               | 54.8           | 52.8             | 44            | 44                 | 25.0                     |   |
| 25              | 9.5                               | 53.4           | 51.4             | 42            | 42                 | 24.3                     |   |
| 31.25           | 10.6                              | 51.9           | 49.9             | 39            | 39                 | 23.6                     |   |
| 62.5            | 15.4                              | 47.4           | 45.4             | 30            | 30                 | 21.5                     |   |
| 100             | 19.8                              | 44.3           | 42.3             | 25            | 25                 | 21.0                     |   |
| 155             | 25.1                              | 41.5           | 39.5             | 14            | 14                 | 21.0                     |   |
| 200             | 29.0                              | 39.8           | 37.8             | 10            | 10                 | 21.0                     |   |
| 250             | 32.8                              | 38.3           | 36.3             | 3             | 3                  | 18.0                     |   |
| 300             | 35.2                              | 37.2           | 34.2             | 0             | 0                  | 18.0                     |   |
| 310             | 37.1                              | 36.9           | 34.9             |               |                    | 18.0                     |   |
| 350             | 39.8                              | 36.2           | 34.2             |               |                    | 17.0                     |   |
| 400**           | 43.0                              | 35.3           | 33.3             |               |                    | 14.0                     |   |
| 500**           | 49.0                              | 33.8           | 31.8             |               |                    | 14.0                     |   |

#### Premise Cable Electricals Table 2:

| Frequency (MHz) | Input (Unfitted)<br>Impedance (Ohms) | Fitted Impedance<br>(Ohms) | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-----------------|--------------------------------------|----------------------------|------------------|--------------------|
| 1               | $100 \pm 12$                         | $100 \pm 15$               | 67.8             | 64.8               |
| 4               | $100 \pm 12$                         | $100 \pm 15$               | 55.7             | 52.8               |
| 8               | $100 \pm 12$                         | $100 \pm 15$               | 49.7             | 46.7               |
| 10              | $100 \pm 12$                         | $100 \pm 15$               | 47.8             | 44.8               |
| 16              | $100 \pm 12$                         | $100 \pm 8$                | 43.7             | 40.7               |
| 20              | $100 \pm 12$                         | $100 \pm 8$                | 41.7             | 38.7               |
| 25              | $100 \pm 15$                         | $100 \pm 8$                | 39.8             | 36.8               |
| 31.25           | $100 \pm 15$                         | $100 \pm 8$                | 37.9             | 34.9               |
| 62.5            | $100 \pm 15$                         | $100 \pm 8$                | 31.8             | 28.9               |
| 100             | $100 \pm 15$                         | $100 \pm 8$                | 27.8             | 24.8               |
| 155             | $100 \pm 15$                         | $100 \pm 8$                | 23.9             | 20.9               |
| 200             | $100 \pm 15$                         | $100 \pm 8$                | 21.7             | 18.8               |
| 250             | $100 \pm 20$                         | $100 \pm 8$                | 19.8             | 16.8               |
| 300             | $100 \pm 20$                         | $100 \pm 8$                | 18.2             | 15.2               |
| 310             | $100 \pm 20$                         | $100 \pm 8$                | 17.9             | 14.9               |
| 350             | $100 \pm 22$                         | $100 \pm 8$                | 16.9             | 13.9               |
| 400**           | $100 \pm 32$                         | $100 \pm 8$                | 15.7             | 12.7               |
| 500**           | $100 \pm 32$                         | $100 \pm 8$                | 13.8             | 10.8               |

NOTES:



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Notes

Belden IBDN. Jacket sequentially marked at 2 ft. intervals. US Patent #'s 5, 606, 151; 5, 734, 126; 5, 821, 467 \*\*Values above 350 MHz are information only. Third party verified to TIA/EIA-568-B.2-1, Category 6.

#### **PUT-UPS AND COLORS:**

| Item           | Description     | Put-Up (ft.) | Ship Weight (lbs.) | Jacket Color        | Notes |
|----------------|-----------------|--------------|--------------------|---------------------|-------|
| 1872A 0021000  | 4 PR #23 PP PVC | 1000         | 37                 | RED                 | С     |
| 1872A 002A1000 | 4 PR #23 PP PVC | A1000        | 37                 | RED                 |       |
| 1872A 0031000  | 4 PR #23 PP PVC | 1000         | 37                 | ORANGE              | С     |
| 1872A 003A1000 | 4 PR #23 PP PVC | A1000        | 37                 | ORANGE              |       |
| 1872A 0041000  | 4 PR #23 PP PVC | 1000         | 37                 | YELLOW              | С     |
| 1872A 004A1000 | 4 PR #23 PP PVC | A1000        | 37                 | YELLOW              |       |
| 1872A 0051000  | 4 PR #23 PP PVC | 1000         | 37                 | GREEN, DARK         | С     |
| 1872A 005A1000 | 4 PR #23 PP PVC | A1000        | 37                 | GREEN, DARK         |       |
| 1872A 0061000  | 4 PR #23 PP PVC | 1000         | 37                 | BLUE, LIGHT         | С     |
| 1872A 006A1000 | 4 PR #23 PP PVC | A1000        | 37                 | BLUE, LIGHT         |       |
| 1872A 0071000  | 4 PR #23 PP PVC | 1000         | 37                 | VIOLET              | С     |
| 1872A 007A1000 | 4 PR #23 PP PVC | A1000        | 37                 | VIOLET              |       |
| 1872A 0091000  | 4 PR #23 PP PVC | 1000         | 37                 | WHITE               | С     |
| 1872A 009A1000 | 4 PR #23 PP PVC | A1000        | 37                 | WHITE               |       |
| 1872A 0101000  | 4 PR #23 PP PVC | 1000         | 37                 | BLACK               | С     |
| 1872A F6H1000  | 4 PR #23 PP PVC | 1000         | 37                 | GRAY, DARK<br>PEARL | С     |
| 1872A F6HA1000 | 4 PR #23 PP PVC | A1000        | 37                 | GRAY, DARK<br>PEARL |       |
| 1872A X6G1000  | 4 PR #23 PP PVC | 1000         | 37                 | GOLD X6G            | С     |
| 1872A X6GA1000 | 4 PR #23 PP PVC | A1000        | 37                 | GOLD X6G            |       |

C = CRATE REEL PUT-UP.

Revision Number: 1 Revision Date: 04-11-2006

### Detailed Specifications & Technical Data



### **BELDEN**Cable\*\*

### 1872A Paired - Enhanced Category 6 Bonded-Pair Cable

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