

## 1872A Multi-Conductor - Enhanced Category 6 Bonded-Pair Cable



For more Information  
please call

1-800-Belden1



### General Description:

CAT6+ (350MHz), 4-Bonded-Pairs, U/UTP-Unshielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductor, Polyolefin Insulation, Ripcord, PVC Jacket

### Usage (Overall)

**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 (Overall)

#### Conductor

AWG:

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4       | 23  | Solid     | BC - Bare Copper   |

**Total Number of Conductors:** 8

#### Insulation

Insulation Material:

| Insulation Material |
|---------------------|
| PO - Polyolefin     |

#### Outer Shield

Outer Shield Material:

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

#### Outer Jacket

Outer Jacket Material:

| Outer Jacket Material    |
|--------------------------|
| PVC - Polyvinyl Chloride |

Outer Jacket Diameter:

| Nom. Dia. (in.) |
|-----------------|
| 0.365           |
| 0.165           |

**Outer Jacket Ripcord:** Yes

#### Overall Cable

**Overall Nominal Diameter:** 0.365 x 0.165 in.

#### Pair

Pair Color Code Chart:

| Number | Color                        |
|--------|------------------------------|
| 1      | White/Blue Stripe & Blue     |
| 2      | White/Orange Stripe & Orange |
| 3      | White/Green Stripe & Green   |
| 4      | White/Brown Stripe & Brown   |

### Mechanical Characteristics (Overall)

**Operating Temperature Range:** -20°C To +80°C

**Bulk Cable Weight:** 29 lbs/1000 ft.

**Max. Recommended Pulling Tension:** 45 lbs.

**Min. Bend Radius/Minor Axis:** 0.500 in.

**Min. Bend/Installation:** 1.500 in.

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

**NEC/(UL) Specification:** CMR

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|                                       |                                     |
|---------------------------------------|-------------------------------------|
| CEC/C(UL) Specification:              | CMR                                 |
| EU Directive 2011/65/EU (ROHS II):    | Yes                                 |
| Other Standards:                      | ISO/IEC 11801 ed 2.1 (2008) Class E |
| EU CE Mark:                           | No                                  |
| EU Directive 2000/53/EC (ELV):        | Yes                                 |
| EU Directive 2002/95/EC (RoHS):       | Yes                                 |
| EU RoHS Compliance Date (mm/dd/yyyy): | 01/01/2004                          |
| EU Directive 2002/96/EC (WEEE):       | Yes                                 |
| EU Directive 2003/11/EC (BFR):        | Yes                                 |
| CA Prop 65 (CJ for Wire & Cable):     | Yes                                 |
| MII Order #39 (China RoHS):           | Yes                                 |
| Telecommunications Standards:         | Category 6 - TIA 568.C.2            |

Applicable Patents:

Country

www.belden.com/p

### Flame Test

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

### Plenum/Non-Plenum

|                |       |
|----------------|-------|
| Plenum (Y/N):  | No    |
| Plenum Number: | 1874A |

## Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

Capacitance (pF/ft)

15.0

Maximum Capacitance Unbalance (pF/100 m): 49

Nominal Velocity of Propagation:

VP (%)

70

Maximum Delay:

Delay (ns/100 m)

510 @ 100MHz

Max. Delay Skew:

Delay Skew (ns/100 m)

25

Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)

7.500

Max. Operating Voltage - UL:

Voltage

300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

## Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

| Freq. (MHz) | Max. Attenuation (dB/100 m) | Min. NEXT (dB) | Min. PSNEXT (dB) | Min. ACR (dB) | Min. PSACR (dB) | Min RL (dB) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|
| 1           | 1.900                       | 75.3           | 75.3             | 73.4          | 73.4            | 20.000      |
| 4           | 3.700                       | 66.3           | 66.3             | 62.6          | 62.6            | 23.000      |
| 8           | 5.300                       | 61.8           | 61.8             | 56.5          | 56.5            | 24.500      |
| 10          | 5.900                       | 60.3           | 60.3             | 54.4          | 54.4            | 25.000      |
| 16          | 7.500                       | 57.2           | 57.2             | 49.7          | 49.7            | 25.000      |
| 20          | 8.400                       | 55.8           | 55.8             | 47.3          | 47.3            | 25.000      |
| 25          | 9.500                       | 54.3           | 54.3             | 44.9          | 44.9            | 24.300      |
| 31.25       | 10.600                      | 52.9           | 52.9             | 42.2          | 42.2            | 23.600      |
| 62.5        | 15.400                      | 48.4           | 48.4             | 33.0          | 33.0            | 21.500      |
| 100         | 19.800                      | 45.3           | 45.3             | 25.5          | 25.5            | 21.000      |

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|     |        |      |      |      |      |        |
|-----|--------|------|------|------|------|--------|
| 155 | 25.100 | 42.4 | 42.4 | 17.3 | 17.3 | 21.000 |
| 200 | 29.000 | 40.8 | 40.8 | 11.8 | 11.8 | 21.000 |
| 250 | 32.800 | 39.3 | 39.3 | 6.5  | 6.5  | 18.000 |
| 300 | 36.400 | 38.1 | 38.1 | 1.7  | 1.7  | 18.000 |
| 350 | 39.800 | 37.1 | 37.1 | -2.6 | -2.6 | 17.000 |
| 400 | 43.000 | 36.3 | 36.3 |      |      | 14.000 |
| 450 | 46.000 | 35.5 | 35.5 |      |      | 14.000 |
| 500 | 48.900 | 34.8 | 34.8 |      |      | 14.000 |
| 550 | 51.800 | 34.2 | 34.2 |      |      | 14.000 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ACRF (dB) | Min. PSACRF (dB) |
|-------------|------------------------------|------------------|----------------|------------------|
| 1           | 100 ± 12                     | 100 ± 15         | 67.8           | 64.8             |
| 4           | 100 ± 12                     | 100 ± 15         | 55.7           | 52.8             |
| 8           | 100 ± 12                     | 100 ± 15         | 49.7           | 46.7             |
| 10          | 100 ± 12                     | 100 ± 15         | 47.8           | 44.8             |
| 16          | 100 ± 12                     | 100 ± 8          | 43.7           | 40.7             |
| 20          | 100 ± 12                     | 100 ± 8          | 41.8           | 38.8             |
| 25          | 100 ± 15                     | 100 ± 8          | 39.8           | 36.8             |
| 31.25       | 100 ± 15                     | 100 ± 8          | 37.9           | 34.9             |
| 62.5        | 100 ± 15                     | 100 ± 8          | 31.8           | 28.9             |
| 100         | 100 ± 15                     | 100 ± 8          | 27.8           | 24.8             |
| 155         | 100 ± 15                     | 100 ± 8          | 24.0           | 21.0             |
| 200         | 100 ± 15                     | 100 ± 8          | 21.7           | 18.8             |
| 250         | 100 ± 20                     | 100 ± 8          | 19.8           | 16.8             |
| 300         | 100 ± 20                     | 100 ± 8          | 18.3           | 15.3             |
| 350         | 100 ± 22                     | 100 ± 8          | 16.9           | 13.9             |
| 400         | 100 ± 32                     | 100 ± 8          | 15.8           | 12.8             |
| 450         | 100 ± 32                     | 100 ± 8          | 14.7           | 11.7             |
| 500         | 100 ± 32                     | 100 ± 8          | 13.8           | 10.8             |
| 550         | 100 ± 32                     | 100 ± 8          | 13.0           | 10.0             |

### Notes (Overall)

**Notes:** Belden IBDN. Jacket sequentially marked at 2 ft. intervals. Values above 350 MHz are engineering information only. Third party verified to ANSI/TIA-568-C.2, Category 6.

### Put Ups and Colors:

| Item #         | Putup    | Ship Weight | Color            | Notes | Item Desc                 |
|----------------|----------|-------------|------------------|-------|---------------------------|
| 1872A F6HA1000 | 1,000 FT | 36.000 LB   | GRAY, DARK PEARL |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A F6H1000  | 1,000 FT | 34.000 LB   | GRAY, DARK PEARL | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A X6GA1000 | 1,000 FT | 36.000 LB   | GOLD X6G         |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A X6G1000  | 1,000 FT | 34.000 LB   | GOLD X6G         | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 002A1000 | 1,000 FT | 36.000 LB   | RED              |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0021000  | 1,000 FT | 34.000 LB   | RED              | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 003A1000 | 1,000 FT | 36.000 LB   | ORANGE           |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0031000  | 1,000 FT | 34.000 LB   | ORANGE           | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 004A1000 | 1,000 FT | 36.000 LB   | YELLOW           |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0041000  | 1,000 FT | 34.000 LB   | YELLOW           | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 005A1000 | 1,000 FT | 36.000 LB   | GREEN, DARK      |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0051000  | 1,000 FT | 34.000 LB   | GREEN, DARK      | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 006A1000 | 1,000 FT | 36.000 LB   | BLUE, LIGHT      |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0061000  | 1,000 FT | 34.000 LB   | BLUE, LIGHT      | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 007A1000 | 1,000 FT | 36.000 LB   | VIOLET           |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0071000  | 1,000 FT | 34.000 LB   | VIOLET           | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 009A1000 | 1,000 FT | 36.000 LB   | WHITE            |       | CAT6+ 4PRB U/UTP CMR RIB  |
| 1872A 0091000  | 1,000 FT | 34.000 LB   | WHITE            | C     | CAT6+ 4PRB U/UTP CMR REEL |
| 1872A 0101000  | 1,000 FT | 34.000 LB   | BLACK            | C     | CAT6+ 4PRB U/UTP CMR REEL |

**Notes:**

C = CRATE REEL PUT-UP.

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