

## 1700A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable



For more Information  
please call

1-800-Belden1

**Description:**

24 AWG Bonded-Pairs Solid Bare Copper Conductors, Non-Plenum, Polyolefin Insulation, Rip Cord, See Color Code Chart (Below), PVC Jacket (Red, Orange, White, Black, Yellow, Green, Blue, Purple, Light Gray or Gray).

**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 ^ US Patent #'s 5606151; 5734126, CMR, Riser

**Physical Characteristics (Overall)****Conductor****AWG:**

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 4       | 24  | Solid     | BC - Bare Copper   |

**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.) |
|-----------------|
| 0.202           |

**Outer Jacket Ripcord:**

Yes

**Overall Cable****Overall Nominal Diameter:**

0.202 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)****Bulk Cable Weight:**

21 lbs/1000 ft.

**1700A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable**

|                                   |         |
|-----------------------------------|---------|
| Max. Recommended Pulling Tension: | 40 lbs. |
|-----------------------------------|---------|

|                                        |       |
|----------------------------------------|-------|
| Min. Bend Radius (Install)/Minor Axis: | 1 in. |
|----------------------------------------|-------|

**Applicable Specifications and Agency Compliance (Overall)****Applicable Standards & Environmental Programs**

|                         |     |
|-------------------------|-----|
| NEC/(UL) Specification: | CMR |
|-------------------------|-----|

|                          |     |
|--------------------------|-----|
| CEC/C(UL) Specification: | CMR |
|--------------------------|-----|

|             |     |
|-------------|-----|
| EU CE Mark: | Yes |
|-------------|-----|

|                                |     |
|--------------------------------|-----|
| 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 5e - TIA 568.C.2 |
|-------------------------------|---------------------------|

|                      |                                                      |
|----------------------|------------------------------------------------------|
| Other Specification: | NEMA WC-63.1 Category 5e, UL Verified to Category 5e |
|----------------------|------------------------------------------------------|

**Applicable Patents:**

| Country | Patent  |
|---------|---------|
| US      | 5606151 |
| US      | 5734126 |

**Flame Test**

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

|                   |     |
|-------------------|-----|
| C(UL) Flame Test: | FT4 |
|-------------------|-----|

|                 |                         |
|-----------------|-------------------------|
| IEC Flame Test: | 60332-3-24 (Category C) |
|-----------------|-------------------------|

|                  |      |
|------------------|------|
| IEEE Flame Test: | 1202 |
|------------------|------|

**Plenum/Non-Plenum**

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

|                |       |
|----------------|-------|
| Plenum Number: | 1701A |
|----------------|-------|

**Electrical Characteristics (Overall)****Nom. Mutual Capacitance:**

|                     |
|---------------------|
| Capacitance (pF/ft) |
|---------------------|

|    |
|----|
| 15 |
|----|

|                                           |    |
|-------------------------------------------|----|
| Maximum Capacitance Unbalance (pF/100 m): | 66 |
|-------------------------------------------|----|

**Nominal Velocity of Propagation:**

|        |
|--------|
| VP (%) |
|--------|

|    |
|----|
| 70 |
|----|

**Maximum Delay:**

|                  |
|------------------|
| Delay (ns/100 m) |
|------------------|

|     |
|-----|
| 510 |
|-----|

**Max. Delay Skew:**

|                       |
|-----------------------|
| Delay Skew (ns/100 m) |
|-----------------------|

|    |
|----|
| 25 |
|----|

**Maximum Conductor DC Resistance:**

|                        |
|------------------------|
| DCR @ 20°C (Ohm/100 m) |
|------------------------|

|   |
|---|
| 9 |
|---|

**Max. Operating Voltage - UL:**

## 1700A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable

### 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. PSNEXT (dB) | Min. PSACR (dB) | Min RL (dB) |
|-------------|-----------------------------|------------------|-----------------|-------------|
| 1           | 2.000                       | 68.3             | 66.3            | 20.000      |
| 4           | 4.000                       | 59.3             | 55.3            | 23.000      |
| 8           | 5.700                       | 54.8             | 49.1            | 24.500      |
| 10          | 6.400                       | 53.3             | 46.9            | 25.000      |
| 16          | 8.100                       | 50.3             | 42.2            | 25.000      |
| 20          | 9.100                       | 48.8             | 39.7            | 25.000      |
| 25          | 10.200                      | 47.3             | 37.1            | 25.000      |
| 31.25       | 11.400                      | 45.9             | 34.5            | 25.000      |
| 62.5        | 16.400                      | 41.4             | 25.0            | 25.000      |
| 100         | 21.000                      | 38.3             | 17.3            | 25.000      |
| 155         | 26.600                      | 35.4             | 8.8             | 19.000      |
| 200         | 30.500                      | 33.8             | 3.3             | 19.000      |
| 250         | 34.300                      | 32.3             | >0              | 18.000      |
| 300         | 38.000                      | 28.2             |                 | 18.000      |
| 350         | 41.400                      | 27.2             |                 | 17.000      |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. PSACRF (dB) |
|-------------|------------------------------|------------------|------------------|
| 1           | 100 ± 12                     | 105 ± 10         | 64.8             |
| 4           | 100 ± 12                     | 100 ± 10         | 52.8             |
| 8           | 100 ± 12                     | 100 ± 10         | 46.7             |
| 10          | 100 ± 12                     | 100 ± 10         | 44.8             |
| 16          | 100 ± 12                     | 100 ± 10         | 40.7             |
| 20          | 100 ± 12                     | 100 ± 10         | 38.8             |
| 25          | 100 ± 15                     | 100 ± 10         | 36.8             |
| 31.25       | 100 ± 15                     | 100 ± 10         | 34.9             |
| 62.5        | 100 ± 15                     | 100 ± 10         | 28.9             |
| 100         | 100 ± 15                     | 100 ± 10         | 24.8             |
| 155         | 100 ± 18                     | 100 ± 10         | 21.0             |
| 200         | 100 ± 18                     | 100 ± 10         | 18.8             |
| 250         | 100 ± 20                     | 100 ± 10         | 16.8             |
| 300         | 100 ± 20                     | 100 ± 10         | 11.2             |
| 350         | 100 ± 22                     | 100 ± 10         | 9.9              |

Premise Cable Electrical Table 4:

| Frequency (MHz) | Min. TCL (dB) | Min. ELTCTL (dB) |
|-----------------|---------------|------------------|
| 1.000           | 40.000        | 35.000           |
| 4.000           | 40.000        | 23.000           |
| 8.000           | 40.000        | 16.900           |
| 10.000          | 40.000        | 15.000           |
| 16.000          | 38.000        | 10.900           |
| 20.000          | 37.000        | 9.000            |
| 25.000          | 36.000        | 7.000            |
| 31.250          | 35.100        |                  |
| 62.500          | 32.000        |                  |
| 100.000         | 30.000        |                  |
| 155.000         | 28.100        |                  |
| 200.000         | 27.000        |                  |
| 250.000         | 26.000        |                  |

## Notes (Overall)

**1700A Multi-Conductor - Enhanced Category 5E Bonded-Pair Cable**

**Notes:** Belden IBDN. Jacket sequentially marked at 2 ft. intervals. Third party verified to ANSI/TIA-568-C.2 Category 5e

**Related Documents:**

No related documents are available for this product

**Put Ups and Colors:**

| Item #         | Putup    | Ship Weight | Color       | Notes | Item Desc                  |
|----------------|----------|-------------|-------------|-------|----------------------------|
| 1700A B02U1000 | 1,000 FT | 21.000 LB   | PURPLE      |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A B021000  | 1,000 FT | 22.000 LB   | PURPLE      | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A F2VU1000 | 1,000 FT | 21.000 LB   | GRAY, DEC   |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A F2V1000  | 1,000 FT | 22.000 LB   | GRAY, DEC   | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A F2V3000  | 3,000 FT | 63.000 LB   | GRAY, DEC   | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 002U1000 | 1,000 FT | 21.000 LB   | RED         |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0021000  | 1,000 FT | 22.000 LB   | RED         | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 0023000  | 3,000 FT | 63.000 LB   | RED         | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 003U1000 | 1,000 FT | 21.000 LB   | ORANGE      |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0031000  | 1,000 FT | 22.000 LB   | ORANGE      | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 004U1000 | 1,000 FT | 21.000 LB   | YELLOW      |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 005U1000 | 1,000 FT | 21.000 LB   | GREEN, DARK |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0051000  | 1,000 FT | 22.000 LB   | GREEN, DARK | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 006U1000 | 1,000 FT | 21.000 LB   | BLUE, LIGHT |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0061640  | 1,640 FT | 36.080 LB   | BLUE, LIGHT | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 0063000  | 3,000 FT | 63.000 LB   | BLUE, LIGHT | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 008U1000 | 1,000 FT | 21.000 LB   | GRAY        |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 009U1000 | 1,000 FT | 21.000 LB   | WHITE       | C     | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0091000  | 1,000 FT | 22.000 LB   | WHITE       | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 0093000  | 3,000 FT | 63.000 LB   | WHITE       | C     | CAT5E+ 4PRB U/UTP CMR REEL |
| 1700A 010U1000 | 1,000 FT | 21.000 LB   | BLACK       |       | CAT5E+ 4PRB U/UTP CMR BOX  |
| 1700A 0101000  | 1,000 FT | 22.000 LB   | BLACK       | C     | CAT5E+ 4PRB U/UTP CMR REEL |

**Notes:**

C = CRATE REEL PUT-UP.

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