

## 1702A Multi-Conductor - Enhanced Category 5e Dual 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 5, 606, 151; 5, 734, 126

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

| # Pairs | AWG | Stranding | Conductor Material |
|---------|-----|-----------|--------------------|
| 8       | 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 Ripcord:**

Yes

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

0.200 x 0.415 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:**

45 lbs/1000 ft.

**Max. Recommended Pulling Tension:**

50 lbs.

**Min. Bend Radius (Install)/Minor Axis:**

0.800 in.

## 1702A Multi-Conductor - Enhanced Category 5e Dual Bonded-Pair Cable

## Applicable Specifications and Agency Compliance (Overall)

## Applicable Standards &amp; Environmental Programs

|                                       |  |
|---------------------------------------|--|
| NEC/(UL) Specification:               | CM, UL444  |
| CEC/C(UL) Specification:              | CM   |
| Other Standards:                      | 11801 Category 5                                     |
| 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:         | 568-B.2 Category 5e                                  |
| Other Specification:                  | NEMA WC-63.1 Category 5e, UL verified to Category 5e |

## Flame Test

|                 |                   |
|-----------------|-------------------|
| UL Flame Test:  | UL1685 UL Loading |
| CSA Flame Test: | FT1               |

## Plenum/Non-Plenum

|                |       |
|----------------|-------|
| Plenum (Y/N):  | No    |
| Plenum Number: | 1703A |

## 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:

Voltage

300 V RMS

## Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)

3

## 1702A Multi-Conductor - Enhanced Category 5e Dual Bonded-Pair Cable

## 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           | 2.0                         | 65.3           | 65.3             | 63.3          | 63.3            | 20.0        |
| 4           | 4.0                         | 56.3           | 56.3             | 52.3          | 52.3            | 23.0        |
| 8           | 5.7                         | 51.8           | 51.8             | 46.1          | 46.1            | 24.5        |
| 10          | 6.4                         | 50.3           | 50.3             | 43.9          | 43.9            | 25.0        |
| 16          | 8.1                         | 47.3           | 47.3             | 39.1          | 39.1            | 25.0        |
| 20          | 9.2                         | 45.8           | 45.8             | 35.2          | 35.2            | 25.0        |
| 25          | 10.3                        | 44.3           | 44.3             | 34.1          | 34.1            | 24.3        |
| 31.25       | 11.6                        | 42.9           | 42.9             | 31.3          | 31.3            | 23.6        |
| 62.5        | 16.8                        | 38.4           | 38.4             | 21.6          | 21.6            | 21.5        |
| 100         | 21.7                        | 35.3           | 35.3             | 17.1          | 17.1            | 20.1        |
| 155         | 27.7                        | 32.5           | 32.5             | 4.7           | 4.7             | 19.0        |
| 200         | 32.0                        | 30.8           | 30.8             | 3.0           | 3.0             | 19.0        |
| 250         | 36.4                        | 29.3           | 29.3             | >0            | >0              | 18.0        |
| 300         | 40.5                        | 28.2           | 28.2             |               |                 | 18.0        |
| 310         | 41.3                        | 27.9           | 27.9             |               |                 | 18.0        |
| 350         | 44.3                        | 27.2           | 27.2             |               |                 | 17.0        |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1           | 100 ± 12                     | 105 ± 10         | 63.8             | 60.8               |
| 4           | 100 ± 12                     | 100 ± 10         | 51.7             | 48.8               |
| 8           | 100 ± 12                     | 100 ± 10         | 45.7             | 42.7               |
| 10          | 100 ± 12                     | 100 ± 10         | 43.8             | 40.8               |
| 16          | 100 ± 12                     | 100 ± 10         | 39.7             | 36.7               |
| 20          | 100 ± 12                     | 100 ± 10         | 37.7             | 34.7               |
| 25          | 100 ± 15                     | 100 ± 10         | 35.8             | 32.8               |
| 31.25       | 100 ± 15                     | 100 ± 10         | 33.9             | 30.9               |
| 62.5        | 100 ± 15                     | 100 ± 10         | 27.8             | 24.9               |
| 100         | 100 ± 15                     | 100 ± 10         | 23.8             | 20.8               |
| 155         | 100 ± 18                     | 100 ± 10         | 19.9             | 16.9               |
| 200         | 100 ± 18                     | 100 ± 10         | 17.7             | 14.7               |
| 250         | 100 ± 20                     | 100 ± 10         | 15.8             | 12.8               |
| 300         | 100 ± 20                     | 100 ± 10         | 14.2             | 11.2               |
| 310         | 100 ± 20                     | 100 ± 10         | 13.9             | 10.9               |
| 350         | 100 ± 22                     | 100 ± 10         | 12.9             | 9.9                |

## Notes (Overall)

**Notes:** Belden IBDN. Jacket sequentially marked at 2 ft. intervals. U.S. Patents 5, 606, 151 and 5, 734, 126. Third party verified to TIA/EIA-568-B.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                    |
|---------------|----------|-------------|-------------|-------|------------------------------|
| 1702A F2V1000 | 1,000 FT | 45.000 LB   | GRAY, DEC   | C     | CAT5E+ 2X4PRB U/UTP CMR REEL |
| 1702A F2V1640 | 1,640 FT | 73.800 LB   | GRAY, DEC   | C     | CAT5E+ 2X4PRB U/UTP CMR REEL |
| 1702A 0061000 | 1,000 FT | 44.000 LB   | BLUE, LIGHT | C     | CAT5E+ 2X4PRB U/UTP CMR REEL |
| 1702A 0061640 | 1,640 FT | 72.160 LB   | BLUE, LIGHT | C     | CAT5E+ 2X4PRB U/UTP CMR REEL |

**Notes:**

C = CRATE REEL PUT-UP.

## 1702A Multi-Conductor - Enhanced Category 5e Dual Bonded-Pair Cable

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