

## 1351A Multi-Conductor - Category 6 Nonbonded-Pair ScTP Cable



For more Information please call

1-800-Belden1



### **General Description:**

CAT6 (350MHz), 4-Pair, F/UTP-Foil Shielded, Riser-CMR, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin and FEP Insulation, Polyester Separator, Overall Beldfoil Shield, PVC Jacket

| sage (Overall)  |  |
|---|--|
| Suitable Applications:  | Networking Horizontal Cable, 1000Base-T (Gigabit Ethernet), 100Base-T (Fast Ethernet), 10Base-<br>(Ethernet), 100BaseVG, ANYLAN, 155ATM, 622ATM, ANSLX3.263 FDDI TP-PMD, NTSC/PAL<br>Component or Composite Video, AES/EBU, Digital Video, RS-422, Noisy Environments, 250 MHz<br>Category 6 |
| hysical Characteristics (Overall)   |  |
| Conductor   |  |
| AWG:  |  |
| # Pairs         AWG         Stranding         Conductor M           4         23         Solid         BC - Bare Co |  |
| nsulation<br>Insulation Material:   |  |
| Insulation Material   |  |
| 3 x PO - Polyolefin   |  |
| 1 x FEP - Florinated Ethylene Propylene   |  |
| Outer Shield<br>Outer Shield Material:  |  |
| Outer Shield Trade Name Type Outer  | Shield Material Coverage (%)   |
|   | num Foil-Polyester Tape 100.000  |
| Outer Shield Drain Wire AWG:  |  |
| AWG Stranding Drain Wire Conducto   | r Material   |
| 24 Solid TC - Tinned Copper   |  |
| Duter Jacket  |  |
| Outer Jacket Material:  |  |
| Outer Jacket Material   |  |
| PVC - Polyvinyl Chloride  |  |
| Outer Jacket Diameter:  |  |
| Nom. Dia. (mm)  |  |
| 7.366   |  |
| Outer Jacket Ripcord:   | Yes  |
| -   | 165  |
| Overall Cable   |  |
| Overall Cabling Fillers:  | Patented Central Cross Web   |
| Overall Cabling Separator Material:   | Polyester  |
| Pair  |  |
| Pair Color Code Chart:  |  |
| Number Color  |  |
| White/Blue Stripe and Blue     White/Orange Stripe and Orange   |  |
|   |  |
| White/Green Stripe and Green     White/Brown Stripe and Brown   | _  |
| 4 White/Brown Surpe and Brown   |  |
| echanical Characteristics (Over   | all)   |
| Storage Temperature Range:  | -20°C To +75°C   |
| Installation Temperature Range:   | 0°C To +60°C   |
| Operating Temperature Range:  | -20°C To +75°C   |
|   |  |
| Bulk Cable Weight:  | 65.481 Kg/Km   |

# **Detailed Specifications & Technical Data**



# METRIC MEASUREMENT VERSION

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| Max. Recommended Pulling Tension:  | 111.205 N                           |
|--|-------------------------------------|
| Min. Bend Radius/Minor Axis:   | 76.200 mm                           |
| Min. Bend/Installation:  | 76.200 mm                           |
| Applicable Specifications and Agency Compliance (Ov<br>Applicable Standards & Environmental Programs<br>NEC/(UL) Specification:  | CMR, UL444                          |
| 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:  | Yes                                 |
| EU Directive 2000/53/EC (ELV):   | Yes                                 |
| EU Directive 2002/95/EC (RoHS):  | Yes                                 |
| EU RoHS Compliance Date (mm/dd/yyyy):  | 05/24/2007                          |
| 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:<br>Country<br>www.belden.com/p   |                                     |
| Flame Test   |                                     |
| UL Flame Test:   | UL1666 Vertical Riser               |
| C(UL) Flame Test:  | FT4                                 |
| CSA Flame Test:  | FT4                                 |
| Plenum/Non-Plenum Plenum (Y/N):  | Νο                                  |
| Plenum Number:   | 1352A                               |
| Electrical Characteristics (Overall)<br>Nom. Mutual Capacitance:<br>Capacitance (pF/m)         45.934         Maximum Capacitance Unbalance:         Capacitance (pF/m)         216.546         Nominal Velocity of Propagation:         VP (%)         68.000         Maximum Delay:         Description Delay (ns/100 m)         @ 100 MHz       537.000         Max. Delay Skew:         Delay Skew (ns/100 m)         30.000         Maximum Conductor DC Resistance:         DCR @ 20°C (Ohm/100 m)         8.200         Max. Operating Voltage - UL:         Voltage         300 V RMS         Maximum DCR Unbalanced:         DCR Unbalance @ 20°C (%) |                                     |



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#### **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           | 2.000                       | 74.3           | 72.3             | 72.3          | 70.3            | 20.000      |
| 4           | 3.800                       | 65.3           | 63.3             | 61.5          | 59.5            | 23.000      |
| 8           | 5.300                       | 60.8           | 58.8             | 55.5          | 53.5            | 24.500      |
| 10          | 6.000                       | 59.3           | 57.3             | 53.3          | 51.3            | 25.000      |
| 16          | 7.600                       | 56.2           | 54.3             | 48.6          | 46.6            | 25.000      |
| 20          | 8.500                       | 54.8           | 52.8             | 46.3          | 44.3            | 25.000      |
| 25          | 9.500                       | 53.3           | 51.3             | 43.8          | 41.8            | 24.300      |
| 31.25       | 10.700                      | 51.9           | 49.9             | 41.2          | 39.2            | 23.600      |
| 62.5        | 15.400                      | 47.4           | 45.4             | 32.0          | 30.0            | 21.500      |
| 100         | 19.800                      | 44.3           | 42.3             | 24.5          | 22.5            | 20.100      |
| 155         | 25.200                      | 41.5           | 39.5             | 16.2          | 14.2            | 18.800      |
| 200         | 29.000                      | 39.8           | 37.8             | 10.8          | 8.8             | 18.000      |
| 250         | 32.800                      | 38.3           | 36.3             | 5.5           | 3.5             | 17.300      |
| 300         | 36.400                      | 37.1           | 35.1             | 0.7           |                 | 16.800      |
| 350         | 39.800                      | 36.1           | 34.1             |               |                 | 16.300      |
| 400         | 43.000                      | 35.3           | 33.3             |               |                 | 16.000      |
| 500         | 48.900                      | 33.8           | 31.8             |               |                 | 15.200      |
| 650         | 57.200                      | 32.1           | 30.1             |               |                 | 14.400      |

#### Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 1           | 100 ± 15                     | 100 ± 15         | 70.0             | 68.0               |
| 4           | 100 ± 15                     | 100 ± 15         | 58.0             | 56.0               |
| 8           | 100 ± 15                     | 100 ± 15         | 51.9             | 49.9               |
| 10          | 100 ± 15                     | 100 ± 15         | 50.0             | 48.0               |
| 16          | 100 ± 15                     | 100 ± 15         | 45.9             | 43.9               |
| 20          | 100 ± 15                     | 100 ± 15         | 44.0             | 42.0               |
| 25          | 100 ± 15                     | 100 ± 15         | 42.0             | 40.0               |
| 31.25       | 100 ± 15                     | 100 ± 15         | 40.1             | 38.1               |
| 62.5        | 100 ± 15                     | 100 ± 15         | 34.1             | 32.1               |
| 100         | 100 ± 15                     | 100 ± 15         | 30.0             | 28.0               |
| 155         | 100 ± 22                     | 100 ± 15         | 26.2             | 24.2               |
| 200         | 100 ± 22                     | 100 ± 15         | 24.0             | 22.0               |
| 250         | 100 ± 32                     | 100 ± 15         | 22.0             | 20.0               |
| 300         | 100 ± 32                     | 100 ± 15         | 20.5             | 18.5               |
| 350         | 100 ± 32                     | 100 ± 15         | 19.1             | 17.1               |
| 400         |                              |                  | 18.0             | 16.0               |
| 500         |                              |                  | 16.0             | 14.0               |

#### Notes (Overall)

Notes: Jacket sequentially marked at 2 ft. intervals. Third party Verified to ANSI/TIA-568-C.2, Category 6. Values above 350 MHz are for Engineering Information Only

#### **Put Ups and Colors:**

| Item #        | Putup    | Ship Weight | Color       | Notes | Item Desc               |
|---------------|----------|-------------|-------------|-------|-------------------------|
| 1351A 0041000 | 1,000 FT | 45.000 LB   | YELLOW      | С     | CAT6 4PR F/UTP CMR REEL |
| 1351A 0061000 | 1,000 FT | 45.000 LB   | BLUE, LIGHT | С     | CAT6 4PR F/UTP CMR REEL |
| 1351A 0081000 | 1,000 FT | 45.000 LB   | GRAY        | С     | CAT6 4PR F/UTP CMR REEL |
| 1351A 0091000 | 1,000 FT | 45.000 LB   | WHITE       | С     | CAT6 4PR F/UTP CMR REEL |

Notes: C = CRATE REEL PUT-UP.

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METRIC MEASUREMENT VERSION

1351A Multi-Conductor - Category 6 Nonbonded-Pair ScTP Cable