

2424 Multi-Conductor - Enhanced Category 6 Nonbonded-Pair Cables



For more Information
please call

1-800-Belden1



Description:

23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, Twisted Pairs, Tape Separator, Ripcord, LSZH 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

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 |
|-------------------------------|
| LSZH - Low Smoke Zero Halogen |

Outer Jacket Diameter:

| Nom. Dia. (mm) |
|----------------|
| 5.613 |

Outer Jacket Ripcord: Yes

Overall Cable

Overall Cabling Separator Material: Dielectric Tape

Pair

Pair Color Code Chart:

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

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

Bulk Cable Weight: 47.622 Kg/Km

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| | |
|--|-----------|
| Max. Recommended Pulling Tension: | 177.928 N |
| Min. Bend Radius/Minor Axis: | 22.860 mm |
| Min. Bend/Installation: | 55.880 mm |

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

| | |
|--|-------------------------------------|
| 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): | 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 |
| Other Specification: | Third party verified to Category 6 |

Applicable Patents:

| Country | Patent |
|---------|---------|
| US | 6570095 |
| US | 6998537 |
| US | 7179999 |
| US | 7977575 |

Flame Test

| | |
|------------------------|---------|
| IEC Flame Test: | 60332-1 |
|------------------------|---------|

Suitability

| | |
|-------------------------------|-----|
| Suitability - Indoor: | Yes |
| Suitability - Outdoor: | No |
| Sunlight Resistance: | No |
| Non-halogenated: | Yes |

Plenum/Non-Plenum

| | |
|-----------------------|------|
| Plenum (Y/N): | No |
| Plenum Number: | 2413 |

Electrical Characteristics (Overall)

Nom. Mutual Capacitance:

| |
|---------------------------|
| Capacitance (pF/m) |
| 55.777 |

| | |
|--|-----|
| Maximum Capacitance Unbalance (pF/100 m): | 330 |
|--|-----|

Nominal Velocity of Propagation:

| |
|---------------|
| VP (%) |
| 70 |

Maximum Delay:

| |
|-------------------------|
| Delay (ns/100 m) |
| 537 @ 100MHz |

Max. Delay Skew:

| |
|------------------------------|
| Delay Skew (ns/100 m) |
| 45 |

METRIC MEASUREMENT VERSION

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Maximum Conductor DC Resistance:

| |
|-------------------------------|
| DCR @ 20°C (Ohm/100 m) |
| 9.380 |

Max. Operating Voltage - UL:

| |
|----------------|
| Voltage |
| 300 V RMS |

Maximum DCR Unbalanced:

| |
|---------------------------------|
| DCR Unbalance @ 20°C (%) |
| 5 |

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) |
|-------------|-----------------------------|----------------|------------------|---------------|-----------------|-------------|
| 0.772 | 1.800 | 77.0 | 75.0 | 75.2 | 73.2 | |
| 1 | 2.000 | 75.3 | 73.3 | 73.3 | 71.3 | 20.000 |
| 4 | 3.700 | 66.3 | 64.3 | 62.6 | 60.6 | 23.000 |
| 8 | 5.200 | 63.3 | 61.3 | 58.1 | 56.1 | 24.500 |
| 10 | 5.800 | 61.8 | 59.8 | 56.0 | 54.0 | 25.000 |
| 16 | 7.400 | 58.6 | 56.6 | 51.2 | 49.2 | 25.000 |
| 20 | 8.300 | 57.1 | 55.1 | 48.8 | 46.8 | 25.000 |
| 25 | 9.300 | 55.5 | 53.5 | 46.3 | 44.3 | 24.300 |
| 31.25 | 10.400 | 54.0 | 52.0 | 43.6 | 41.6 | 23.600 |
| 62.5 | 15.000 | 49.1 | 47.1 | 34.1 | 32.1 | 21.500 |
| 100 | 19.300 | 45.8 | 43.8 | 26.5 | 24.5 | 20.800 |
| 155 | 24.500 | 42.7 | 40.7 | 18.2 | 16.2 | 19.500 |
| 200 | 28.300 | 40.9 | 38.9 | 12.6 | 10.6 | 18.700 |
| 250 | 32.100 | 39.3 | 37.3 | 7.2 | 5.2 | 18.000 |
| 300 | 35.600 | 38.1 | 36.1 | 2.5 | -0.5 | 17.500 |
| 350 | 38.900 | 37.1 | 35.1 | -1.7 | -3.7 | 17.000 |
| 400 | 42.000 | 36.3 | 34.3 | -5.7 | -7.7 | 16.600 |
| 450 | 45.000 | 35.5 | 33.5 | -9.5 | -11.5 | 16.200 |
| 500 | 47.900 | 34.8 | 32.8 | -13.0 | -15.0 | 15.900 |
| 550 | 50.600 | 34.2 | 32.2 | -16.4 | -18.4 | 15.600 |

Premise Cable Electrical Table 2:

| Freq. (MHz) | Input (Unfitted) Imp. (Ohms) | Fitted Impedance | Min. ELFEXT (dB) | Min. PSELFEXT (dB) |
|-------------|------------------------------|------------------|------------------|--------------------|
| 0.772 | | 102 ± 15 | 73.0 | 70.0 |
| 1 | 100 ± 15 | 102 ± 15 | 70.8 | 67.8 |
| 4 | 100 ± 15 | 100 ± 15 | 58.8 | 55.8 |
| 8 | 100 ± 15 | 100 ± 15 | 52.7 | 49.7 |
| 10 | 100 ± 15 | 100 ± 15 | 50.8 | 47.8 |
| 16 | 100 ± 15 | 100 ± 15 | 46.7 | 43.7 |
| 20 | 100 ± 15 | 100 ± 15 | 44.8 | 41.8 |
| 25 | 100 ± 15 | 100 ± 15 | 42.8 | 39.8 |
| 31.25 | 100 ± 15 | 100 ± 15 | 40.9 | 37.9 |
| 62.5 | 100 ± 15 | 100 ± 15 | 34.9 | 31.9 |
| 100 | 100 ± 15 | 100 ± 15 | 30.8 | 27.8 |
| 155 | 100 ± 22 | 100 ± 15 | 27.0 | 24.0 |
| 200 | 100 ± 22 | 100 ± 15 | 24.8 | 21.8 |
| 250 | 100 ± 32 | 100 ± 15 | 22.8 | 19.8 |
| 300 | 100 ± 32 | 100 ± 15 | 21.3 | 18.3 |
| 350 | | | 19.9 | 16.9 |
| 400 | | | 18.8 | 15.8 |
| 450 | | | 17.7 | 14.7 |
| 500 | | | 16.8 | 13.8 |
| 550 | | | 16.0 | 13.0 |

Notes (Overall)

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Notes: Jacket sequentially printed with dual footage and meter markings. Third party verified to ANSI/TIA-568-C.2, Category 6.
Values above 300 MHz are for Engineering Information Only.

Reference (Overall)

Previous Part Number: 24568005

Put Ups and Colors:

| Item # | Putup | Ship Weight | Color | Notes | Item Desc |
|--------------|--------|-------------|-------------|-------|---------------------------|
| 2424 0061000 | 305 MT | 11.340 KG | BLUE, LIGHT | | CAT6+ 4PR U/UTP LSZH REEL |
| 2424 0071000 | 305 MT | 11.340 KG | VIOLET | | CAT6+ 4PR U/UTP LSZH REEL |
| 2424 0091000 | 305 MT | 11.340 KG | WHITE | | CAT6+ 4PR U/UTP LSZH REEL |

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