



Product: [1633ES](#)

Category 5e Cable, 4 Pair, SF/UTP, PVC Indoor CPR Eca

Product Description

Category 5e Premise Horizontal Cable (100MHz), 4-Pair, 24 AWG solid bare copper conductors, SF/UTP, Polyethylene insulation, Beldfoil® shield, AWG 26 solid tinned copper drainwire, tinned copper braid (30% coverage), PVC jacket

Technical Specifications

Product Overview

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|------------------------|---|
| Suitable Applications: | Horizontal and building backbone cable; Support current and future Category 5e applications, such as: 1000Base-T (Gigabit Ethernet), 100 Base-T, 10 Base-T, FDDI, ATM |
|------------------------|---|

Construction Details

Conductor

| Element | Size | Stranding | Material | No. of Pairs | No. of Elements |
|-----------------|--------|-----------|------------------|--------------|-----------------|
| Individual Pair | 24 AWG | Solid | BC - Bare Copper | 4 | 8 |

Insulation

| Element | Material | Nom. Insulation Diameter | Color Code |
|-----------------|-------------------|--------------------------|--|
| Individual Pair | PE - Polyethylene | 1.05 mm (0.0413 in) | White/Blue & Blue, White/Green & Green, White/Orange & Orange, White/Brown & Brown |

Cable Core

| Description |
|--|
| 4 pairs twisted together covered with a polyester foil |

Outer Shield

| Shield Type | Material | Coverage | Drainwire Type |
|-------------|-------------------------|----------|-------------------|
| Tape | Bi-Laminate (Alum+Poly) | 100% | 26 AWG (Solid) TC |
| Braid | Tinned Copper (TC) | 30% | |

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| Table Notes: | Aluminum facing outside in contact with drain wire |
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Outer Jacket

| Material | Nom. Diameter |
|--------------------------|------------------|
| PVC - Polyvinyl Chloride | 6.0 mm (0.24 in) |

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|-----------------------------------|------------------|
| Overall Cable Diameter (Nominal): | 6.0 mm (0.24 in) |
|-----------------------------------|------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Mutual Capacitance | Max. Capacitance Unbalance | Nom. Characteristic Impedance |
|--------------------|-------------------------|----------------------------|-------------------------------|
| 95 Ohm/km | 56 pF/m (17 pF/ft) | 160 pF/100m | 100 Ohm |

Delay

| Max. Delay Skew | Nom. Velocity of Prop. |
|-----------------|------------------------|
| 40 ns/100m | 69% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. PSACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Min. TCL [dB] | Min. ELTCTL [dB] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|---------------|------------------|
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|---------------|------------------|

| | | | | | | | | | | |
|-------|--------------|------|------|-------|------|------|------|------|------|------|
| 1 | 2.1 dB/100m | 65.3 | 62.3 | 63.2 | 60.2 | 64 | 61 | 20 | 40 | 35 |
| 4 | 4 dB/100m | 56.3 | 53.3 | 52.32 | 49.3 | 52 | 49 | 23 | 34 | 23 |
| 10 | 6.3 dB/100m | 50.3 | 47.3 | 44 | 41 | 44 | 41 | 25 | 30 | 15 |
| 16 | 8 dB/100m | 47.2 | 44.2 | 39.2 | 36.2 | 39.9 | 36.9 | 25 | 28 | 10.9 |
| 20 | 9 dB/100m | 45.8 | 42.8 | 36.8 | 33.8 | 38 | 35 | 25 | 27 | 9 |
| 31.25 | 11.4 dB/100m | 42.9 | 39.9 | 31.5 | 28.5 | 34.1 | 31.5 | 23.6 | 25.1 | 5.5 |
| 62.5 | 16.5 dB/100m | 38.4 | 35.4 | 21.9 | 18.9 | 28.1 | 25.1 | 21.5 | 22 | |
| 100 | 21.3 dB/100m | 35.3 | 32.3 | 14 | 11 | 24 | 21 | 20.1 | 20 | |

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| Table Notes: | Limits below 4 MHz are for information only. Reference standard: IEC 61156-5 |
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Transfer Impedance

| Frequency | Max. Transfer Impedance |
|-----------|-------------------------|
| 1 Mhz | Max. 50 mOhm/m |
| 10 Mhz | Max. 100 mOhm/m |
| 30 Mhz | Max. 200 mOhm/m |
| 100 Mhz | Max. 1000 mOhm/m |

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|---------------------------|----------------------|
| Transfer Impedance Class: | Grade 2 |
| Screening Class: | Type II |
| Table Notes: | Coupling Attenuation |

Voltage

| Voltage Rating |
|----------------|
| 72 V DC |

Mechanical Characteristics

Temperature

| Operating | Installation |
|----------------|--------------|
| -30°C to +60°C | 0°C To +50°C |

Bend Radius

| Stationary Min. | Installation Min. |
|-----------------|-------------------|
| 24 mm (0.94 in) | 48 mm |

| | |
|--------------------|---------------|
| Max. Pull Tension: | 72 N (16 lbf) |
| Bulk Cable Weight: | 45 kg/km |

Standards and Compliance

| | |
|----------------------------------|---|
| Environmental Suitability: | Indoor - Euroclass Eca |
| Flammability / Reaction to Fire: | IEC 60332-1-2 |
| CPR Compliance: | CPR Euroclass: Eca; CPR UKCA Class: Eca |
| IEEE Compliance: | PoE: IEEE 802.3bt Type 1, Type 2, Type 3 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA 568.2-D |
| ISO/IEC Compliance: | ISO/IEC 11801-1 |
| CENELEC Compliance: | EN 50173-1, Segregation class according EN50174-2 = c |
| European Directive Compliance: | EU CE Mark |
| UK Regulation Compliance: | UKCA Mark |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. |
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History

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| Update and Revision: | Revision Number: 0.266 Revision Date: 12-20-2022 |
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Part Numbers

Variants

| Item # | Color | Putup Type | Length | EAN |
|---------------|----------------|------------|--------|---------------|
| 1633ES.00B100 | Gray, RAL 7032 | Flat Box | 100 m | 8719605003065 |
| 1633ES.00305 | Gray, RAL 7032 | Reel | 305 m | 8719605003041 |
| 1633ES.00500 | Gray, RAL 7032 | Reel | 500 m | 8719605003058 |

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|---------------|----------------|------|---------|---------------|
| 1633ES.001000 | Gray, RAL 7032 | Reel | 1,000 m | 8719605003034 |
|---------------|----------------|------|---------|---------------|

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