



Product: [IBDN25R](#)

Category 5e Backbone Cable, 25 Pair, U/UTP, CMR

Product Description

Category 5e Premise Backbone Cable (100MHz), 25 Pair, 24 AWG Solid Bare Copper Conductors, U/UTP, Riser-CMR, PVC Jacket

Technical Specifications

Product Overview

| | |
|------------------------|---|
| Suitable Applications: | Premise Backbone Cable, Ethernet 1000BASE-T, Ethernet 100BASE-TX, Ethernet 10BASE-T, PoE++, PoE+, PoE |
|------------------------|---|

Construction Details

Conductor

| Size | Stranding | Material | No. of Pairs |
|--------|-----------|------------------|--------------|
| 24 AWG | Solid | BC - Bare Copper | 25 |

Insulation

| Material | Color Code |
|-----------------|--------------------------------|
| PO - Polyolefin | Western Electric (Non-Striped) |

Outer Jacket

| Material | Nom. Diameter | Ripcord |
|--------------------------|--------------------|---------|
| PVC - Polyvinyl Chloride | 0.510 in (13.0 mm) | Yes |

| | |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.510 in (13.0 mm) |
|-----------------------------------|--------------------|

Electrical Characteristics

Electricals

| Max. Conductor DCR | Max. Capacitance Unbalance |
|-------------------------------|----------------------------|
| 93.8 Ohm/km (28.6 Ohm/1000ft) | 330 pF/100m |

Delay

| Frequency | Max. Delay | Max. Delay Skew | Nom. Velocity of Prop. |
|-----------|---------------|-----------------|------------------------|
| 100 MHz | 537.6 ns/100m | 45 ns/100m | 68% |

High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. PSNEXT [dB] | Min. RL (Return Loss) [dB] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|------------------|----------------------------|----------------------------------|
| 1 | 2.0 dB/100m | 62.3 | 20.0 | 100 ± 15% |
| 4 | 4.1 dB/100m | 53.3 | 23.0 | 100 ± 15% |
| 8 | 5.8 dB/100m | 48.8 | 24.5 | 100 ± 15% |
| 10 | 6.5 dB/100m | 47.3 | 25.0 | 100 ± 15% |
| 16 | 8.2 dB/100m | 44.3 | 25.0 | 100 ± 15% |
| 20 | 9.3 dB/100m | 42.8 | 25.0 | 100 ± 15% |
| 25 | 10.4 dB/100m | 41.3 | 24.3 | 100 ± 15% |
| 31.25 | 11.7 dB/100m | 39.9 | 23.6 | 100 ± 15% |
| 62.5 | 17.0 dB/100m | 35.4 | 21.5 | 100 ± 15% |
| 100 | 22.0 dB/100m | 32.3 | 20.1 | 100 ± 15% |

Voltage

| UL Voltage Rating |
|-------------------|
| 300 V (CMR) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating | Installation | Storage |
|----------------|----------------|--------------|----------------|
| 60°C | -30°C To +60°C | 0°C To +60°C | -30°C To +60°C |

Bend Radius

| Stationary Min. | Installation Min. |
|------------------|---------------------|
| 5.25 in (133 mm) | 10.25 in (260.4 mm) |

| | |
|--------------------|-----------------|
| Max. Pull Tension: | 150 lbs (68 kg) |
| Bulk Cable Weight: | 146 lbs/1000ft |

Standards and Compliance

| | |
|---------------------------------------|---|
| Environmental Suitability: | Riser, Indoor |
| Flammability / Reaction to Fire: | UL1666 Riser, FT4 |
| CPR Compliance: | CPR Euroclass: Fca; CPR UKCA Class: Fca |
| NEC / UL Compliance: | CMR |
| CEC / C(UL) Compliance: | CMR |
| ICEA Compliance: | S-90-661 |
| NEMA Compliance: | NEMA WC-63.1 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| Third Party Performance Verification: | Category 5e |
| ISO/IEC Compliance: | ISO/IEC 11801-1, IEC 61156-5 |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| UK Regulation Compliance: | UKCA Mark |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |
| Plenum Number: | IBDN25P |

Product Notes

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| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Print Includes Descending Footage/Meter Markings. |
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History

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| Update and Revision: | Revision Number: 0.473 Revision Date: 12-12-2023 |
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Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC |
|-----------------|-------|---------------|----------|--------------|
| IBDN25R 006500 | Blue | Reel | 500 ft | 612825061922 |
| IBDN25R 006500 | Blue | Reel | 500 ft | 612825061922 |
| IBDN25R 008CUT | Gray | Cut to Length | | 612825061908 |
| IBDN25R 008CUT | Gray | Cut to Length | 1 ft | 612825061908 |
| IBDN25R 0081000 | Gray | Reel | 1,000 ft | 612825061915 |
| IBDN25R 0081000 | Gray | Reel | 1,000 ft | 612825061915 |
| IBDN25R 0085000 | Gray | Reel | 5,000 ft | 612825061946 |

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