SENDING ALL THE RIGHT SIGNALS


Product: 1300A [

## Category 5e Cable, 4 Pair, F/UTP, CMR/CMX/CMG

## Product Description

Category 5e Wireless LAN Cable, 4 Pair, 24 AWG Solid Bare Copper Conductors, F/UTP - Foil Shielded, Riser-CMR/CMX/CMG, Oil Resistant Sun Resistant PVC Jacket

## Technical Specifications

Product Overview

Suitable Applications: Wi-Fi, Wireless LAN, Outoor Antenna, Radio, Broadband, RF
Construction Details

Conductor

| AWG | Stranding | Material | Number of Pairs |
| :--- | :--- | :---: | :--- |
| 24 | Solid | BC - Bare Copper | 4 |

Insulation

| Material | Thickness |  | Color Code |
| :--- | :--- | :--- | :--- |
| PO - Polyolefin | 0.01 in | White/Blue Stripe \& Blue, White/Orange Stripe \& Orange, White/Green Stripe \& Green, White/Brown Stripe \& Brown |  |
| Bonded-Pair: | No |  |  |

## Outer Shield Material

| Type | Material | Coverage | Drainwire Type |
| :---: | :--- | :--- | :--- |
| Tape | Polyester + Bi-Laminate (Alum+Poly) | $100 \%$ | 24 AWG (7x32) TC |

Outer Jacket Material

| Material | Nom. Diameter | Ripcord |
| :--- | :--- | :--- |
| PVC - Polyvinyl Chloride | 0.265 in | No |

Electrical Characteristics

| Electricals |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Max. Conductor DCR |  | Max. DCR Unbalance |  |  | Max. Capacitance Unbalance |  |  | Nom. Mutual Capacitance |  |  |  |  |  |
| 93.8 Ohm/km |  | 5\% |  |  | $90 \mathrm{pF} / 100 \mathrm{~m}$ |  |  | $15 \mathrm{pF} / \mathrm{ft}$ |  |  |  |  |  |
| Delay |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Frequency [MHz] | ] Max. Delay |  | Max. Delay Skew |  |  | Nom. Velocity of Propagation (VP) [\%] |  |  | ] |  |  |  |  |
| 100 MHz | 537.6 ns/100m |  | $45 \mathrm{~ns} / 100 \mathrm{~m}$ |  |  | 70\% |  |  |  |  |  |  |  |
| High Freq |  |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { Frequency } \\ {[\mathrm{MHz}]} \end{gathered}$ | Max. Insertion Loss (Attenuation) |  |  | Min. <br> NEXT [dB] |  | $\begin{gathered} \text { Min. } \\ \text { PSNEXT [dB] } \end{gathered}$ | $\underset{\mathrm{ACR}}{\mathrm{Min}} .$ | $\begin{gathered} \text { Min. } \\ \text { PSACR [dB] } \end{gathered}$ | $\begin{aligned} & \text { Min. ACRF } \\ & \text { (ELFEXT) [dB] } \end{aligned}$ | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
| 1 MHz | 2.0 dB/100m |  |  | 65.3 dB |  | 62.3 dB | 63.3 dB | 60.3 dB | 63.8 dB | 60.8 dB | 20.0 dB | $100 \pm 15$ Ohm | $100 \pm 15$ Ohm |
| 4 MHz | 4.1 dB/100m |  |  | 56.3 dB |  | 53.3 dB | 52.2 dB | 49.2 dB | 51.8 dB | 48.8 dB | 23.0 dB | $100 \pm 15$ Ohm | $100 \pm 15$ Ohm |
| 8 MHz 5.8 | $5.8 \text { dB/100m }$ |  |  | 51.8 dB |  | 48.8 dB | 46.0 dB | 43.0 dB | 45.7 dB | 42.7 dB | 24.5 dB | $100 \pm 15$ Ohm | $100 \pm 15 \mathrm{Ohm}$ |
| 10 MHz | $6.5 \mathrm{~dB} / 100 \mathrm{~m}$ |  |  | 50.3 dB |  | 47.3 dB | 43.8 dB | 40.8 dB | 43.8 dB | 40.8 dB | 25.0 dB | $100 \pm 15$ Ohm | $100 \pm 15 \mathrm{Ohm}$ |
| 16 MHz | $8.2 \mathrm{~dB} / 100 \mathrm{~m}$ |  |  | 47.2 dB |  | 44.2 dB | 39.0 dB | 36.0 dB | 39.7 dB | 36.7 dB | 25.0 dB | $100 \pm 15 \mathrm{Ohm}$ | $100 \pm 15 \mathrm{Ohm}$ |
| 20 MHz | 9.3 dB/100m |  |  | 45.8 dB |  | 42.8 dB | 36.5 dB | 33.5 dB | 37.8 dB | 34.8 dB | 25.0 dB | $100 \pm 15$ Ohm | $100 \pm 15$ Ohm |


| 25 MHz | 10.4 dB/100m | 44.3 dB | 41.3 dB | 33.9 dB | 30.9 dB | 35.8 dB | 32.8 dB | 24.3 dB | $100 \pm 15 \mathrm{Ohm}$ | $100 \pm 15 \mathrm{Ohm}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 31.25 MHz | $11.7 \mathrm{~dB} / 100 \mathrm{~m}$ | 42.9 dB | 39.9 dB | 31.2 dB | 28.2 dB | 33.9 dB | 30.9 dB | 23.6 dB | $100 \pm 15 \mathrm{Ohm}$ | $100 \pm 15 \mathrm{Ohm}$ |
| 62.5 MHz | $17.0 \mathrm{~dB} / 100 \mathrm{~m}$ | 38.4 dB | 35.4 dB | 21.4 dB | 18.4 dB | 27.9 dB | 24.9 dB | 21.5 dB | $100 \pm 15 \mathrm{Ohm}$ | $100 \pm 15 \mathrm{Ohm}$ |
| 100 MHz | 22.0 dB/100m | 35.3 dB | 32.3 dB | 13.3 dB | 10.3 dB | 23.8 dB | 20.8 dB | 20.1 dB | $100 \pm 15 \mathrm{Ohm}$ | $100 \pm 15 \mathrm{Ohm}$ |
| 155 MHz | 28.1 dB/100m | 32.4 dB | 29.4 dB | 4.4 dB | 1.4 dB | 20.0 dB | 17.0 dB | 18.8 dB |  |  |
| 200 MHz | 32.4 dB/100m | 30.8 dB | 27.8 dB |  |  | 17.8 dB | 14.8 dB | 18.0 dB |  |  |

## Voltage

| UL. Voltage Rating |
| :---: |
| 300 V (CMR), 300 V (CMX-Outdoor) |

Mechanical Characteristics
Temperature

| UL Rating. | Operating | Installation | Storage |
| :--- | :---: | :---: | :---: |
| $75^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C}$ To $+75^{\circ} \mathrm{C}$ | $-25^{\circ} \mathrm{C}$ To $+75^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C}$ To $+75^{\circ} \mathrm{C}$ |

## Bend Radius

| Stationary Min. | Installation Min. |
| :--- | :--- | :--- |$|$|  |  |
| :--- | :--- |
| 2.25 in | 2.75 in |
| Max. Pull Tension: $\quad 25 \mathrm{lbs}$ |  |
| Bulk Cable Weight: $\quad 30 \mathrm{lbs} / 1000 \mathrm{ft}$ |  |

Standards and Compliance

| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance |
| :---: | :---: |
| Flammability / Fire Resistance: | UL 1666 Riser, FT4, FT4, 1202 Vertical Tray |
| NEC / UL Compliance: | 800, CMR;CMX-Outdoor;CMG |
| CEC / C(UL) Compliance: | CMX-Outdoor;CMG |
| ICEA Compliance: | S-116-732-2013 |
| ICEA Compliance: | S-56-434 |
| ICEA Compliance: | S-99-689 |
| ICEA Compliance: | S-100-685 |
| IEEE Compliance: | IEEE 802.3bt Type 1, Type 2, Type 3 |
| NEMA Compliance: | NEMA WC-63.1 |
| Data Category: | Category 5e |
| TIA/EIA Compliance: | ANSI/TIA-568.2-D Category 5e |
| CPR Euroclass: | Fca |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), EU Directive 2012/19/EU (WEEE), REACH: 2020-01-16 |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

Part Number

## Variants

| Item \# | Color | Putup Type | Length | UPC |
| :---: | :--- | :--- | :--- | :---: |
| 1300A 010500 | Black | Reel | 500 ft | 612825111085 |
| 1300A 0101000 | Black | Reel | $1,000 \mathrm{ft}$ | 612825111078 |
| 1300A 0105000 | Black | Reel | $5,000 \mathrm{ft}$ | 612825313168 |

Product Notes

| Notes: | Electrical values are expected performance based on cable testing and representative performance within a typical Belden system. Values above 100 MHz are for Engineering <br> Information Only. Print Includes Descending Footage Markings. Operating Temperatures are Subject to Length Derating. |
| :--- | :--- |
| History |  |
| Update and Revision: | Revision Number: 0.306 Revision Date: 09-30-2020 |

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