




REPRESENTATIVE IMAGE

**Product:** [7922A](#) 

DataTuff® Cat 5e, 4 Bonded-Pr #22 Sol BC, PO Ins, PVC Jkt, PLTC CMR

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## Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 22AWG (Solid) Bare Copper, PO Insulation, PVC Outer Jacket, PLTC CMR

## Technical Specifications

### Product Overview

|                        |  |
|------------------------|--|
| Suitable Applications: | power-limited tray, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.   |
| Patent:                | This product has one or more applicable patents. More information on patents can be found at <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> . |

### Construction Details

#### Conductor

| AWG | Stranding | Material         | Number of Pairs |
|-----|-----------|------------------|-----------------|
| 22  | Solid     | BC - Bare Copper | 4               |

#### Insulation

| Material        | Color Code   |
|-----------------|--|
| PO - Polyolefin | White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown |

|              |     |
|--------------|-----|
| Bonded-Pair: | Yes |
|--------------|-----|

#### Outer Jacket Material

| Material                 | Nom. Diameter | Ripcord |
|--------------------------|---------------|---------|
| PVC - Polyvinyl Chloride | 0.301 in      | Yes     |

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR | Max. DCR Unbalance | Max. Capacitance Unbalance |
|--------------------|--------------------|----------------------------|
| 9 Ohm/1000ft       | 3%                 | 66 pF/ft                   |

#### Delay

| Max. Delay  | Max. Delay Skew |
|-------------|-----------------|
| 510 ns/100m | 25 ns/100m      |

#### High Freq

| 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] | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|--------------------------------------|----------------------------|
| 1 MHz           | 2 dB/100m                         | 65.3 dB        | 65.3 dB          | 63.3 dB       | 63.3 dB         | 63.8 dB                 | 60.8 dB                     | 20 dB                      | 100 ± 12 Ohm                         | 105 ± 10 Ohm               |
| 4 MHz           | 4 dB/100m                         | 56.3 dB        | 56.3 dB          | 52.3 dB       | 52.3 dB         | 51.7 dB                 | 48.7 dB                     | 23 dB                      | 100 ± 12 Ohm                         | 100 ± 10                   |
| 8 MHz           | 5.7 dB/100m                       | 51.8 dB        | 51.8 dB          | 46.1 dB       | 46.1 dB         | 45.7 dB                 | 42.7 dB                     | 24.5 dB                    | 100 ± 12 Ohm                         | 100 ± 10                   |
| 10 MHz          | 6.4 dB/100m                       | 50.3 dB        | 50.3 dB          | 43.9 dB       | 43.9 dB         | 43.8 dB                 | 40.8 dB                     | 25 dB                      | 100 ± 12 Ohm                         | 100 ± 10                   |
| 16 MHz          | 8.1 dB/100m                       | 47.3 dB        | 47.3 dB          | 39.1 dB       | 39.1 dB         | 39.7 dB                 | 36.7 dB                     | 25 dB                      | 100 ± 12 Ohm                         | 100 ± 10                   |
| 20 MHz          | 9.2 dB/100m                       | 45.8 dB        | 45.8 dB          | 35.2 dB       | 35.2 dB         | 37.7 dB                 | 34.7 dB                     | 25 dB                      | 100 ± 12 Ohm                         | 100 ± 10                   |
| 25 MHz          | 10.3 dB/100m                      | 44.3 dB        | 44.3 dB          | 34.1 dB       | 34.1 dB         | 35.8 dB                 | 32.8 dB                     | 24.3 dB                    | 100 ± 15 Ohm                         | 100 ± 10                   |
| 31.25 MHz       | 11.6 dB/100m                      | 42.9 dB        | 42.9 dB          | 31.3 dB       | 31.3 dB         | 33.9 dB                 | 30.9 dB                     | 23.6 dB                    | 100 ± 15 Ohm                         | 100 ± 10                   |
| 62.5 MHz        | 16.8 dB/100m                      | 38.4 dB        | 38.4 dB          | 21.6 dB       | 21.6 dB         | 27.8 dB                 | 24.8 dB                     | 21.5 dB                    | 100 ± 15 Ohm                         | 100 ± 10                   |

|         |              |         |         |         |         |         |         |         |              |  |
|---------|--------------|---------|---------|---------|---------|---------|---------|---------|--------------|--|
| 100 MHz | 21.7 dB/100m | 35.3 dB | 35.3 dB | 17.1 dB | 17.1 dB | 23.8 dB | 20.8 dB | 20.1 dB | 100 ± 15 Ohm |  |
| 155 MHz | 27.7 dB/100m | 32.5 dB | 32.5 dB | 4.7 dB  | 4.7 dB  | 19.9 dB | 16.9 dB | 19 dB   | 100 ± 18 Ohm |  |
| 200 MHz | 32 dB/100m   | 30.8 dB | 30.8 dB | 3 dB    | 3 dB    | 17.7 dB | 14.7 dB | 19 dB   | 100 ± 20 Ohm |  |
| 250 MHz | 36.4 dB/100m | 29.3 dB | 29.3 dB | 0 dB    | 0 dB    | 15.8 dB | 12.8 dB | 18 dB   | 100 ± 20 Ohm |  |
| 300 MHz | 40.5 dB/100m | 28.2 dB | 28.2 dB | 0 dB    | 0 dB    | 14.2 dB | 11.2 dB | 18 dB   | 100 ± 20 Ohm |  |
| 310 MHz | 41.3 dB/100m | 27.9 dB | 27.9 dB |         |         | 13.9 dB | 10.9 dB | 18 dB   | 100 ± 20 Ohm |  |
| 350 MHz | 44.3 dB/100m | 27.2 dB | 27.2 dB |         |         | 12.9 dB | 9.9 dB  | 17 dB   | 100 ± 22 Ohm |  |

Voltage

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

Mechanical Characteristics

Temperature

| UL Rating | Operating      | Installation   | Storage        |
|-----------|----------------|----------------|----------------|
| 60°C      | -25°C To +75°C | -10°C To +75°C | -25°C To +75°C |

Bend Radius

| Stationary Min. |
|-----------------|
| 0.3 in          |

|                    |               |
|--------------------|---------------|
| Max. Pull Tension: | 40 lbs        |
| Bulk Cable Weight: | 42 lbs/1000ft |

Standards and Compliance

|                                 |  |
|---------------------------------|--|
| Environmental Suitability:      | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance   |
| Flammability / Fire Resistance: | UL1666 Riser, FT4, FT4, IEC 60332-1-2  |
| NEC / UL Compliance:            | 800, CMR;CMX-Outdoor;PLTC  |
| CEC / C(UL) Compliance:         | CMX-Outdoor  |
| Data Category:                  | Category 5e  |
| TIA/EIA Compliance:             | ANSI/TIA-568.2-D Category 5e   |
| CPR Euroclass:                  | Eca  |
| 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          |
|---------------|-------|------------|----------|--------------|
| 7922A 0101000 | Black | Reel       | 1,000 ft | 612825191292 |
| 7922A 0102000 | Black | Reel       | 2,000 ft | 612825191308 |
| 7922A 0105000 | Black | Reel       | 5,000 ft | 612825191315 |

Product Notes

|        |  |
|--------|--|
| Notes: | Operating temperatures are subject to length de-rating |
|--------|--|

History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.339 Revision Date: 08-12-2020 |
|----------------------|--|

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