

**Part Number: 7930A**

DataTuff® Cat 5e, (4 pr) 24 AWG (7x32) BC, PO/PVC, CMR, CMX



[Request Sample](#)

## Product Description

Four Cat 5e 24 AWG pairs stranded (7x32) bare copper conductors, polyolefin insulation, industrial grade oil- and UV-resistant PVC jacket.

## Technical Specifications

### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | Industrial Ethernet Cable, Harsh Environments, Flexible Applications, 200MHz Category 5e, Industrial Patch Cable, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU, Digital Video, RS-422, CMX - Outdoor, RJ-45 Compatible |
|------------------------|---|

### Physical Characteristics (Overall)

#### Conductor

| AWG | Stranding | Material         | No. of Pairs |
|-----|-----------|------------------|--------------|
| 24  | 7x32      | BC - Bare Copper | 4            |

|                        |        |
|------------------------|--------|
| Conductor Count:       | 8      |
| Total Number of Pairs: | 4      |
| Conductor Size:        | 24 AWG |

#### Insulation

| Material        | Nominal Wall Thickness |
|-----------------|------------------------|
| PO - Polyolefin | 0.008 in               |

#### Color Chart

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

#### Outer Shield Material

| Material   |
|------------|
| Unshielded |

#### Outer Jacket Material

| Material                                  | Nominal Diameter | Nominal Wall Thickness |
|---|------------------|------------------------|
| Industrial Grade PVC - Polyvinyl Chloride | 0.24 in          | 0.03 in                |

### Electrical Characteristics

#### Conductor DCR

| Max. Conductor DCR | Max. DCR Unbalance |
|--------------------|--------------------|
| 9.38 Ohm/1000ft    | 3 %                |

#### Capacitance

| Max. Capacitance Unbalance | Nom. Mutual Capacitance |
|----------------------------|-------------------------|
| 330 pF/ft                  | 15 pF/ft                |

#### Delay

| Max. Delay  | Max. Delay Skew | Nominal Velocity of Propagation (VP) [%] | Typical Delay Skew |
|-------------|-----------------|--|--------------------|
| 510 ns/100m | 45 ns/100m      | 69 %                                     | 12 ns/ft           |

## 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] | Min. SRL (Structural Return Loss) | Max./Min. Input Impedance (unFitted) | Max./Min. Fitted Impedance |
|-----------------|-----------------------------------|----------------|------------------|---------------|-----------------|-------------------------|-----------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------------|
| 1 MHz           | 2.5 dB/100m                       | 65.3 dB        | 62.3 dB          | 62.8 dB       | 59.8 dB         | 63.8 dB                 | 60.8 dB                     | 20 dB                      | 23 dB                             | 100 ± 15 Ohm                         | 100 ± 15 Ohm               |
| 4 MHz           | 4.9 dB/100m                       | 56.3 dB        | 53.3 dB          | 51.4 dB       | 48.4 dB         | 51.7 dB                 | 48.7 dB                     | 23 dB                      | 23 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 8 MHz           | 6.9 dB/100m                       | 51.8 dB        | 48.8 dB          | 44.9 dB       | 41.9 dB         | 45.7 dB                 | 42.7 dB                     | 24.5 dB                    | 24.5 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 10 MHz          | 7.8 dB/100m                       | 50.3 dB        | 47.3 dB          | 42.5 dB       | 39.5 dB         | 43.8 dB                 | 40.8 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 16 MHz          | 9.9 dB/100m                       | 47.3 dB        | 44.3 dB          | 37.4 dB       | 34.4 dB         | 39.7 dB                 | 36.7 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 20 MHz          | 11.1 dB/100m                      | 45.8 dB        | 42.8 dB          | 34.7 dB       | 31.7 dB         | 37.7 dB                 | 34.7 dB                     | 25 dB                      | 25 dB                             | 100 ± 15 Ohm                         | 100 ± 15                   |
| 25 MHz          | 12.5 dB/100m                      | 44.3 dB        | 41.3 dB          | 21.8 dB       | 28.8 dB         | 35.8 dB                 | 32.8 dB                     | 24.3 dB                    | 24.3 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 31.25 MHz       | 14.1 dB/100m                      | 42.9 dB        | 39.9 dB          | 28.8 dB       | 25.8 dB         | 33.9 dB                 | 30.9 dB                     | 23.6 dB                    | 23.6 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 62.5 MHz        | 20.4 dB/100m                      | 38.4 dB        | 35.4 dB          | 18 dB         | 15 dB           | 27.8 dB                 | 24.8 dB                     | 21.5 dB                    | 21.5 dB                           | 100 ± 15 Ohm                         | 100 ± 15                   |
| 100 MHz         | 26.4 dB/100m                      | 35.3 dB        | 32.3 dB          | 8.9 dB        | 5.9 dB          | 23.8 dB                 | 20.8 dB                     | 20.1 dB                    | 20.1 dB                           | 100 ± 15 Ohm                         |                            |
| 155 MHz         | 33.7 dB/100m                      | 32.5 dB        | 29.5 dB          |               |                 | 19.9 dB                 | 16.9 dB                     | 15.8 dB                    |                                   | 100 ± 25 Ohm                         |                            |
| 200 MHz         | 38.9 dB/100m                      | 30.8 dB        | 27.8 dB          |               |                 | 17.7 dB                 | 14.7 dB                     | 15 dB                      |                                   | 100 ± 25 Ohm                         |                            |
| 1 MHz           |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 4 MHz           |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 8 MHz           |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 10 MHz          |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 16 MHz          |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 20 MHz          |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 25 MHz          |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 31.25 MHz       |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 62.5 MHz        |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 100 MHz         |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 155 MHz         |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |
| 200 MHz         |                                   |                |                  |               |                 |                         |                             |                            |                                   |                                      |                            |

## Voltage

### UL Voltage Rating

300 V RMS

## Temperature Range

|                          |                |
|--------------------------|----------------|
| Installation Temp Range: | -25°C To +75°C |
| UL Temp Rating:          | 60°C           |
| Storage Temp Range:      | -40°C To +85°C |
| Operating Temp Range:    | -40°C To +75°C |

## Mechanical Characteristics

|                                  |               |
|----------------------------------|---------------|
| Bulk Cable Weight:               | 26 lbs/1000ft |
| Max Recommended Pulling Tension: | 25 lbs        |
| Min Bend Radius/Minor Axis:      | 0.960 in      |

## Standards

|                                       |                                  |
|---------------------------------------|----------------------------------|
| NEC/(UL) Specification:               | CMR, CMX-Outdoor, UL 444         |
| CEC/C(UL) Specification:              | CMR                              |
| ISO/IEC Compliance:                   | ISO/IEC 11801 Cat 5e             |
| CPR Euroclass:                        | Eca                              |
| Data Category:                        | Category 5e                      |
| ANSI Compliance:                      | ICEA 661                         |
| Telecommunications Standards:         | TIA-568.C.2 Cat 5e, NEMA WC-63.1 |
| Third Party Performance Verification: | UL Verified Cat 5e Patch         |

## Applicable Environmental and Other Programs

|                                |     |
|--------------------------------|-----|
| EU Directive 2000/53/EC (ELV): | Yes |
| EU Directive 2003/11/EC (BFR): | Yes |

|                                       |                               |
|---------------------------------------|-------------------------------|
| EU Directive 2011/65/EU (ROHS II):    | Yes                           |
| EU Directive 2012/19/EU (WEEE):       | Yes                           |
| EU Directive 2015/863/EU:             | Yes                           |
| EU Directive Compliance:              | EU Directive 2003/11/EC (BFR) |
| EU CE Mark:                           | Yes                           |
| EU RoHS Compliance Date (yyyy-mm-dd): | 2004-01-04                    |
| CA Prop 65 (CJ for Wire & Cable):     | Yes                           |
| MII Order #39 (China RoHS):           | Yes                           |

## Suitability

|                                    |     |
|------------------------------------|-----|
| Suitability - Indoor:              | Yes |
| Suitability - Oil Resistance:      | Yes |
| Suitability - Outdoor:             | Yes |
| Suitability - Sunlight Resistance: | Yes |

## Flammability, LSOH, Toxicity Testing

|                    |              |
|--------------------|--------------|
| UL Flammability:   | UL1666 Riser |
| CSA Flammability:  | FT4          |
| UL voltage rating: | 300 V RMS    |

## Plenum/Non-Plenum

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

## Part Number

### Variants

| Item #        | Color | Footnote |
|---------------|-------|----------|
| 7930A 0101000 | Black | C        |
| 7930A 0102000 | Black | C        |

|           |                        |
|-----------|------------------------|
| Footnote: | C - CRATE REEL PUT-UP. |
| Patent:   |                        |

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