



**Product:** [7961A](#)

DataTuff® Cat 5e, 1 Quad (2 Pr) #22 Str TC, PO Ins, OS+TC Brd, PVC Jkt, CMG CMX-Outdoor

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## Product Description

Industrial Ethernet Cat 5e, 1 Quad (2 Pair) 22AWG (7x30) Tinned copper, PO Insulation, Overall Belfoil®+Tinned Copper Braid(85%) Shield, PVC Outer Jacket, CMG CMX-Outdoor

## Technical Specifications

### Product Overview

|                        |   |
|------------------------|---|
| Suitable Applications: | PROFINET, outdoor, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. |
|------------------------|---|

### Construction Details

#### Conductor

| Element | Size   | Stranding | Material           | No. of Elements |
|---------|--------|-----------|--------------------|-----------------|
| Quad(s) | 22 AWG | 7x30      | TC - Tinned Copper | 1               |

#### Insulation

| Material        | Color Code                  |
|-----------------|-----------------------------|
| PO - Polyolefin | White, Blue, Yellow, Orange |

#### Inner Jacket

| Material  | Nom. Diameter      |
|---|--------------------|
| LSZH - Low Smoke Zero Halogen (Flame Retardant) | 0.164 in (4.17 mm) |

#### Outer Shield

| Shield Type | Material                | Coverage |
|-------------|-------------------------|----------|
| Tape        | Bi-Laminate (Alum+Poly) | 100%     |
| Braid       | Tinned Copper (TC)      | 85%      |

#### Outer Jacket

| Material                 | Nom. Diameter      | Ripcord |
|--------------------------|--------------------|---------|
| PVC - Polyvinyl Chloride | 0.272 in (6.91 mm) | No      |

|                                   |                    |
|-----------------------------------|--------------------|
| Overall Cable Diameter (Nominal): | 0.272 in (6.91 mm) |
|-----------------------------------|--------------------|

### Electrical Characteristics

#### Electricals

| Max. Conductor DCR        | Max. Capacitance Unbalance |
|---------------------------|----------------------------|
| 57 Ohm/km (17 Ohm/1000ft) | 150 pF/ft                  |

#### Delay

| Max. Delay  | Nom. Velocity of Prop. |
|-------------|------------------------|
| 552 ns/100m | 70%                    |

#### High Frequency

| Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT [dB] | Min. PSNEXT [dB] | Min. ACR [dB] | Min. ACRF (ELFEXT) [dB] | Min. PSACRF (PSELFEXT) [dB] | Min. RL (Return Loss) [dB] | Max./Min. Input Impedance (unFitted) [Ohm] | Max./Min. Fitted Impedance [Ohm] |
|-----------------|-----------------------------------|----------------|------------------|---------------|-------------------------|-----------------------------|----------------------------|--|----------------------------------|
| 1               | 2.1 dB/100m                       | 65.3           | 62.3             | 63.2          | 63.8                    | 60.8                        | 23                         | 100 ± 20.2                                 | 105 ± 10                         |

|       |              |      |      |      |      |      |      |            |         |
|-------|--------------|------|------|------|------|------|------|------------|---------|
| 4     | 4.0 dB/100m  | 56.3 | 53.3 | 56.3 | 51.7 | 48.7 | 23   | 100 ± 14.2 | 100 ±10 |
| 8     | 5.6 dB/100m  | 51.8 | 48.8 | 46.2 | 45.7 | 42.7 | 23   | 100 ± 11.3 | 100 ±10 |
| 10    | 6.3 dB/100m  | 50.3 | 47.3 | 43.9 | 43.8 | 40.8 | 25   | 100 ± 11.3 | 100 ±10 |
| 16    | 8.0 dB/100m  | 47.3 | 44.3 | 35.2 | 39.7 | 36.7 | 25   | 100 ± 11.3 | 100 ±10 |
| 20    | 9.0 dB/100m  | 45.8 | 42.8 | 36.5 | 37.7 | 34.7 | 25   | 100 ± 11.3 | 100 ±10 |
| 25    | 10.1 dB/100m | 44.3 | 41.3 | 34.2 | 35.8 | 32.8 | 25.5 | 100 ± 11.3 | 100 ±10 |
| 31.25 | 11.4 dB/100m | 42.9 | 39.9 | 31.3 | 33.9 | 30.9 | 23.6 | 100 ± 13.2 | 100 ±10 |
| 62.5  | 16.5 dB/100m | 38.4 | 35.4 | 21.6 | 27.8 | 24.8 | 21.5 | 100 ± 16.9 | 100 ±10 |
| 100   | 21.3 dB/100m | 35.3 | 32.3 | 17.1 | 23.8 | 20.8 | 20.1 | 100 ± 20.0 | 100 ±10 |

#### Voltage

| UL Voltage Rating                           |
|---|
| 300 V (CMG, CMX-Outdoor), 600 V (AWM 21047) |

#### Mechanical Characteristics

#### Temperature

| UL Temperature | Operating      | Installation   | Storage        |
|----------------|----------------|----------------|----------------|
| 60°C           | -40°C To +80°C | -20°C To +60°C | -40°C To +80°C |

#### Bend Radius

| Stationary Min.     |                |
|---------------------|----------------|
| 2.560 in (65.02 mm) |                |
| Max. Pull Tension:  | 55 lbs (25 kg) |
| Bulk Cable Weight:  | 43 lbs/1000ft  |

#### Standards and Compliance

|                                  |   |
|----------------------------------|---|
| Environmental Suitability:       | Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance  |
| Flammability / Reaction to Fire: | UL 1685 (UL Loading), FT4, IEEE 1202 Vertical Tray Flame Test, IEC 60332-1-2  |
| CPR Compliance:                  | CPR Euroclass: Eca  |
| NEC / UL Compliance:             | Article 800, CMG, CMX-Outdoor, ITC, PLTC  |
| AWM Compliance:                  | AWM 21047   |
| CEC / C(UL) Compliance:          | CMX-Outdoor;CMG   |
| NEMA Compliance:                 | NEMA WC-63.1  |
| Data Category:                   | Category 5e   |
| TIA/EIA Compliance:              | ANSI/TIA-568.2-D Category 5e  |
| ISO/IEC Compliance:              | ISO/IEC 11801-1, IEC 61156-6  |
| European Directive Compliance:   | 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)   |

#### Product Notes

|        |  |
|--------|--|
| Notes: | Operating Temperature subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Limits below 4 MHz are for information only. |
|--------|--|

#### History

|                      |  |
|----------------------|--|
| Update and Revision: | Revision Number: 0.432 Revision Date: 04-29-2024 |
|----------------------|--|

#### Part Numbers

#### Variants

| Item #        | Color           | Putup Type | Length | UPC/EAN       |
|---------------|-----------------|------------|--------|---------------|
| 7961A.00305   | Green           | Reel       | 305 m  | 8719605016799 |
| 7961A.00610   | Green           | Reel       | 610 m  | 8719605016805 |
| 7961A 1SW1000 | Green, RAL 6018 |            |        | 612825367314  |
| 7961A 1SW2000 | Green, RAL 6018 |            |        | 612825367321  |

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