



**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.
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### Construction Details

#### Conductor

AWG	Stranding	Material	Number of Conductors
22	7x30	TC - Tinned Copper	4

#### Insulation

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

Bonded-Pair:	No
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#### Inner Jacket Material

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

#### Outer Shield Material

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

#### Outer Jacket Material

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.272 in	No

### Electrical Characteristics

#### Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance
5.7 Ohm/100m	3%	150 pF/ft	15 pF/ft

#### Delay

Max. Delay	Nom. Velocity of Propagation (VP) [%]
552 ns/100m	70%

#### High Freq

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)	Max./Min. Fitted Impedance
1 MHz	2.1 dB/100m	65.3 dB	62.3 dB	63.2 dB	63.8 dB	60.8 dB	23 dB	100 ± 20.2 Ohm	105 ± 10 Ohm

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

#### Voltage

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

### Mechanical Characteristics

#### Temperature

UL Rating	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

Max. Pull Tension:	55 lbs
Bulk Cable Weight:	42.6 lbs/1000ft

### Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL 1685 (UL Loading), FT4, FT4, 1202 Vertical Tray, IEC 60332-1-2
NEC / UL Compliance:	Article 800, CMG;CMX-Outdoor;ITC;PLTC
AWM Compliance:	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
CPR Euroclass:	Eca
European Directive Compliance:	EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), 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/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

### 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.
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### History

Update and Revision:	Revision Number: 0.284 Revision Date: 03-16-2021
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