



Product: [127903A](#)

DataTuff® 5e, 4Pr #22 Sol BC, PO Ins, OS, PVC Jkt, AIA Armor, PVC Jkt, PLTC CMG CM, -40C

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Product Description

Industrial Ethernet Cat 5e, 4 Pair 22AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, PLTC CMG CM, -40C

Technical Specifications

Product Overview

Suitable Applications:	harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force, power-limited tray,
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Construction Details

Conductor

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Pair(s)	22	Solid	BC - Bare Copper	4	4

Insulation

Element	Material	Color Code
Pair(s)	PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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Inner Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Inner Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.335 in (8.51 mm)

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC

Armor

Armor Type & Material	Armor Thickness	Diameter Over Armor
AIA - Aluminum Interlock Armor	0.025 in (0.64 mm)	0.565 in (14.4 mm)

Outer Jacket

Separator	Material	Nom. Diameter
Polyester Tape	PVC - Polyvinyl Chloride	0.655 in (16.6 mm)

Overall Cable Diameter (Nominal):	0.655 in (16.6 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 Ohm/1000ft)	17 pF/ft (56 pF/m)	330 pF/100m

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
538 ns/100m	45 ns/100m	70%

High Frequency

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) [Ohm]	Max./Min. Fitted Impedance [Ohm]
1	2.0 dB/100m	65.3	62.3	63	60	63.8	60.8	20	100 ± 15	100 ± 15
4	4.1 dB/100m	56.3	53.3	51	49	51.7	48.7	23	100 ± 15	100 ± 15
8	5.8 dB/100m	51.8	48.8	46	43	45.7	42.7	24.5	100 ± 15	100 ± 15
10	6.5 dB/100m	50.3	47.3	43	41	43.8	40.8	25	100 ± 15	100 ± 15
16	8.2 dB/100m	47.3	44.3	39	36	39.7	36.7	25	100 ± 15	100 ± 15
20	9.3 dB/100m	45.8	42.8	36.5	33.5	37.7	34.7	25	100 ± 15	100 ± 15
25	10.4 dB/100m	44.3	41.3	33.9	30.9	35.8	32.8	24.3	100 ± 15	100 ± 15
31.25	11.7 dB/100m	42.9	39.9	31	28	33.9	30.9	23.6	100 ± 15	100 ± 15
62.5	17.0 dB/100m	38.4	35.4	22	19	27.8	24.8	21.5	100 ± 15	100 ± 15
100	22.0 dB/100m	35.3	32.3	14	11	23.8	20.8	20.1	100 ± 15	
310	41.8 dB/100m									
350	44.9 dB/100m									

Voltage

UL Voltage Rating
300 V (CM)

Mechanical Characteristics

Temperature

UL Temperature	Operating	Storage
75°C	-40°C To +75°C	-40°C To +75°C

Bend Radius

Stationary Min.
7.86 in (200 mm)

Max. Pull Tension:	100 lbs (45 kg)
Bulk Cable Weight:	157 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, UV Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL 1685 (UL Loading), FT4
CPR Compliance:	CPR Euroclass: Eca
NEC / UL Compliance:	Article 800, CM, PLTC
CEC / C(UL) Compliance:	CMG, HL, CSA CMG, HL, -40C
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
ISO/IEC Compliance:	ISO/IEC 1801 Cat 5e

Product Notes

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

Update and Revision:	Revision Number: 0.273 Revision Date: 04-29-2024
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Part Numbers

Variants

Item #	UPC
127903A 0101000	612825439073
127903A 0105000	612825439080

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