



Product: [127929A](#)

DataTuff® 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, OS, PVC Jkt, AIA Armor, PVC Jkt, CMG CM -40C

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, PVC Inner Jacket, Aluminum Interlock Armor, PVC Outer Jacket, CMG CM -40C

Technical Specifications

Product Overview

Suitable Applications:	mining, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
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Physical Characteristics (Overall)

Conductor				
Element	AWG	Stranding	Material	No. of Pairs
Pair(s)	24	Solid	BC - Bare Copper	4
Conductor Count:			8	
Total Number of Pairs:			4	

Insulation		
Element	Material	Nominal Diameter
Pair(s)	PO - Polyolefin	0.044 in
Bonded-Pair:		Yes

Color Chart	
Color	
White/Blue Stripe & Blue	
White/Orange Stripe & Orange	
White/Green Stripe & Green	
White/Brown Stripe & Brown	

Inner Jacket	
Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.275 in

Outer Shield			
Type	Material	Material Trade Name	Coverage [%]
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%

Outer Jacket		
Material	Nominal Diameter	Separator Material
PVC - Polyvinyl Chloride	0.583 in	Polyester Tape

Construction and Dimensions

Armor	
Diameter over Armoring	
0.495 in	

Electrical Characteristics

Conductor DCR

Max. Conductor DCR
93.8 Ohm/km

Capacitance

Max. Capacitance Unbalance
330 pF/100m

Delay

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

Voltage

UL Description	UL Voltage Rating
CM	300 V

Temperature Range

UL Temp Rating:	75°C
Storage Temperature Range:	-40°C To +85°C
Operating Temperature Range:	-40°C To +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	134 lbs/1000ft
Max. Pull Tension:	100 lbs

Standards

NEC Articles:	Article 800
NEC/(UL) Compliance:	CM
CEC/C(UL) Compliance:	CMG, HL
ISO/IEC Compliance:	ISO/IEC 1801 Cat 5e
CPR Euroclass:	Eca
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
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Suitability

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

Flammability, LS0H, Toxicity Testing

CSA/C(UL) Flammability:	FT4
UL Flammability:	UL 1685 UL Loading
UL voltage rating:	300 V RMS

Product Notes

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

Update and Revision:	Revision Number: 0.317 Revision Date: 12-12-2023
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