



Product: [7936A](#)

DataTuff® 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, OS, LSZH Jkt, CMG CM

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Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil® Shield, LSZH Outer Jacket, CMG CM

Technical Specifications

Product Overview

Suitable Applications:	noisy environment, shipboard, transportation, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	No. of Pairs
24	Solid	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Wall Thickness
PO - Polyolefin	0.01 in

Bonded-Pair:	Yes
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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

Type	Material	Material Trade Name	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D
Tape	Bi-Laminate (Alum+Poly)	Beldfoil®	100%	TC - Tinned Copper	24	7x32

Outer Jacket Material

Material	Nominal Diameter	Ripcord
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.265 in	No

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
538 ns/100m	45 ns/100m

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 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
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
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
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
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
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
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
62.5 MHz	17 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
100 MHz	22 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	
200 MHz	32.4 dB/100m		27.8 dB		1 dB		14.7 dB		15 dB	100 ± 25 Ohm	

Voltage

UL Voltage Rating
300 V RMS

Temperature Range

Installation Temp Range:	+5°C To +75°C
UL Temp Rating:	60°C
Storage Temp Range:	-10°C To +75°C
Operating Temp Range:	-10°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	34 lbs/1000ft
Max. Pull Tension:	40 lbs
Min Bend Radius/Minor Axis:	0.5 in

Standards

NEC/(UL) Compliance:	CM, UL 444
CEC/C(UL) Compliance:	CMG
IEC Compliance:	ISO/IEC 11801 Cat 5e
CPR Euroclass:	Eca
Data Category:	Category 5e
TIA/EIA Compliance:	TIA-5687-C.2 Category 5e, NMEA WC-63.1
Third Party Performance Verification:	UL Verified to Category 5e

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
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Oil Resistance:	No
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1685 UL Loading
CSA Flammability:	FT4
IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC
7936A 0101000	Black	Reel	1,000 ft	612825191704
7936A 0102000	Black	Reel	2,000 ft	612825191711

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	US Patent #'s 5, 606, 151; 5, 734, 126. Operating temperatures are subject to length de-rating. Cable passes -10C Cold Bend per UL 1581.
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History

Update and Revision:	Revision Number: 0.314 Revision Date: 08-25-2020
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