



Product: [7924A](#)

DataTuff® Cat 5e, 4 Bonded-Pr #24 Str TC, PO Ins, PVC Jkt, CMX-Outdoor CMR

[Request Sample](#)

Product Description

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (7x32) Tinned Copper, PO Insulation, PVC Outer Jacket, CMX-Outdoor CMR

Technical Specifications

Product Overview

Suitable Applications:	outdoor, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
Patent:	This product has one or more applicable patents. More information on patents can be found at https://www.belden.com/resources/patents .

Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
24	7x32	TC - Tinned Copper	4

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	0.042	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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Outer Jacket Material

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.242 in	No

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance	Nom. Velocity of Prop.
9 Ohm/1000ft	3%	66 pF/ft	15 pF/ft	70%

Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
510 ns/100m	25 ns/100m	70%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. PSACR [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	2.4 dB/100m	65.3 dB	65.3 dB	62.9 dB	63.8 dB	60.8 dB	20 dB	100 ± 12 Ohm	105 ± 10 Ohm
4 MHz	4.8 dB/100m	56.3 dB	56.3 dB	51.5 dB	51.7 dB	48.7 dB	23 dB	100 ± 12 Ohm	100 ± 10
8 MHz	6.8 dB/100m	51.8 dB	51.8 dB	45 dB	45.7 dB	42.7 dB	24.5 dB	100 ± 12 Ohm	100 ± 10
10 MHz	7.7 dB/100m	50.3 dB	50.3 dB	42.6 dB	43.8 dB	40.8 dB	25 dB	100 ± 12 Ohm	100 ± 10
16 MHz	9.7 dB/100m	47.3 dB	47.3 dB	37.5 dB	39.7 dB	36.7 dB	25 dB	100 ± 12 Ohm	100 ± 10
20 MHz	11 dB/100m	45.8 dB	45.8 dB	34.8 dB	37.7 dB	34.7 dB	25 dB	100 ± 12 Ohm	100 ± 10
25 MHz	12.4 dB/100m	44.3 dB	44.3 dB	31.9 dB	35.8 dB	32.8 dB	24.3 dB	100 ± 15 Ohm	100 ± 10
31.25 MHz	13.9 dB/100m	42.9 dB	42.9 dB	29 dB	33.9 dB	30.9 dB	23.6 dB	100 ± 15 Ohm	100 ± 10
62.5 MHz	20.2 dB/100m	38.4 dB	38.4 dB	18.3 dB	27.8 dB	24.8 dB	21.5 dB	100 ± 15 Ohm	100 ± 10

100 MHz	26 dB/100m	35.3 dB	35.3 dB	9.2 dB	23.8 dB	20.8 dB	20.1 dB	100 ± 18 Ohm	
155 MHz	33.2 dB/100m	32.5 dB	32.5 dB	0 dB	19.9 dB	16.9 dB	19 dB	100 ± 18 Ohm	
200 MHz	38.4 dB/100m	30.8 dB	30.8 dB		17.7 dB	14.7 dB	19 dB	100 ± 20 Ohm	
250 MHz	43.7 dB/100m	29.3 dB	29.3 dB		15.8 dB	12.8 dB	18 dB	100 ± 20 Ohm	
300 MHz	48.6 dB/100m	28.2 dB	28.2 dB		14.2 dB	11.2 dB	18 dB	100 ± 20 Ohm	
310 MHz	49.5 dB/100m	27.9 dB	27.9 dB		13.9 dB	10.9 dB	18 dB	100 ± 20 Ohm	
350 MHz	53.2 dB/100m	27.2 dB	27.2 dB		12.9 dB	9.9 dB	17 dB	100 ± 22 Ohm	

Voltage

UL Voltage Rating
300 V (CMR), 300 V (CMX-Outdoor)

Mechanical Characteristics

Temperature

UL Rating	Operating	Installation	Storage
60°C	-40°C To +75°C	-25°C To +75°C	-25°C To +75°C

Bend Radius

Stationary Min.
0.25 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	26 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL1666 Riser, FT4, FT4, IEC 60332-1-2
NEC / UL Compliance:	800, CMR,CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor
Data Category:	Category 5e
TIA/EIA Compliance:	ANSI/TIA-568.2-D Category 5e
CPR Euroclass:	Eca
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU, EU Directive 2011/65/EU (ROHS II), 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
7924A 0105000	Black			
7924A 0101000	Black	Reel	1,000 ft	612825191414
7924A 0102000	Black	Reel	2,000 ft	612825191421
7924A 0061000	Blue	Reel	1,000 ft	612825191391
7924A 0081000	Gray	Reel	1,000 ft	612825191407
7924A 0021000	Red	Reel	1,000 ft	612825191384
7924A 1NH1000	Teal	Reel	1,000 ft	612825191438

Product Notes

Notes:	EtherNet/IP is a trademark of ControlNet International, Ltd. under license by Open DeviceNet Vendor Association, Inc. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.
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History

Update and Revision:	Revision Number: 0.351 Revision Date: 09-30-2020
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