Product: 7924A ⧉

DataTuff® 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.

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Pairs
24	7x32	TC - Tinned Copper	0.022 in	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material	Nominal Diameter	Nominal Wall Thickness
Polyolefin	0.042 in	0.008 in

Bonded-Pair:	Yes

Color Chart

Number	Color
1	White/Orange Stripe & Orange
2	White/Blue Stripe & Blue
3	White/Green Stripe & Green
4	White/Brown Stripe & Brown

Outer Shield Material

Material
No Shield

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.242 in	0.03 in

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance
9 Ohm/1000ft	3 %

Capacitance

Max. Capacitance Unbalance	Nom.Mutual Capacitance
66 pF/ft	15 pF/ft

Delay

Max. Delay	Max. Delay Skew	Nominal 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 RMS

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	26 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius/Minor Axis:	0.25 in

Standards

NEC/(UL) Specification:	CMR, CMX-Outdoor, UL 444
CEC/C(UL) Specification:	CMR
ISO/IEC Compliance:	ISO/IEC 11801
CPR Euroclass:	Eca
Data Category:	Category 5e
Telecommunications Standards:	TIA-568.C.2
Third Party Performance Verification:	UL Verified Cat 5e Patch

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

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

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

Footnote:	C - CRATE REEL PUT-UP.
Patent:	https://www.belden.com/resources/patents

Product Notes

Notes:	US Patents 5, 606, 151; 5, 734, 126; 5, 763, 823. 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.

History

Update and Revision:	Revision Number: 0.297 Revision Date: 04-28-2020

Mouser Electronics

Authorized Distributor

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[7924A 0101000]() [7924A 0021000]() [7924A 1NH1000]() [7924A 0102000]()