

Part Number: 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:	Industrial Ethernet Cable, Harsh Environments, 350MHz Enhanced Category 5e, Gigabit Ethernet, 100BaseTX, 100BaseVG ANYLAN, 155ATM, 622ATM, NTSC/PAL Component or Composite Video, AES/EBU Digital Audio, AES51, RS-422, CMX - Outdoor, RJ-45 Compatible, Flexible Applications

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
Conductor Size:	24 AWG

Insulation

Material	Nominal Diameter	Nominal Wall Thickness
PO - 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
Unshielded

Outer Jacket Material

Material	Nominal Diameter	Nominal Wall Thickness
Industrial Grade 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

CA Prop 65 (CJ for Wire & Cable):	Yes
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
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	Footnote
7924A 0101000	Black	C
7924A 0102000	Black	C
7924A 0105000	Black	C
7924A 0061000	Blue	C
7924A 0081000	Gray	C
7924A 0021000	Red	C
7924A 1NH1000	Teal	C

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 Internation, 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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