



**Product:** <u>7921A</u> ☑

DataTuff® Cat 5e, 4 Bonded-Pr #24 Sol BC, PO Ins, OS+TC Brd, PVC Jkt, CMR CMX-Outdoor

# Request Sample

# **Product Description**

Industrial Ethernet Cat 5e, 4 Bonded-Pair 24AWG (Solid) Bare Copper, PO Insulation, Overall Beldfoil®+Tinned Copper Braid(70%) Shield, PVC Outer Jacket, CMR CMX-Outdoor

# **Technical Specifications**

#### **Product Overview**

Suitable Applications:	noisy environment, 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 <a href="https://www.belden.com/resources/patents">https://www.belden.com/resources/patents</a> .

#### **Construction Details**

#### Conductor

AWG	Stranding	Material	Number of Pairs
24	Solid	BC - Bare Copper	4

## Insulation

Polyolefin White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown	Material		Color Code
	Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & O	range, White/Green Stripe & Green, White/Brown Stripe & Brown
Ronded-Pair: Yes	Bonded-Pa	ir: Yes	

#### Outer Shield Material

Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	70%

# **Outer Jacket Material**

Material	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.33 in	No

# **Electrical Characteristics**

## Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance	Nom. Mutual Capacitance	Nom. Velocity of Prop.
9.38 Ohm/1000ft	3%	150 pF/ft	15 pF/ft	70%

# Delay

Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [			
538 ns/100m	45 ns/100m	70%			

# 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	20 dB	100 ± 15 Ohm	95-110 Ohm
4 MHz	4.1 dB/100m	56.3 dB	53.3 dB	51 dB	49 dB	51.7 dB	48.7 dB	23.6 dB	23.6 dB	100 ± 15 Ohm	95-110
8 MHz	5.8 dB/100m	51.8 dB	48.8 dB	46 dB	43 dB	45.7 dB	42.7 dB	25.4 dB	25.4 dB	100 ± 15 Ohm	95-107

10 MHz	6.5 dB/100m	50.3 dB	47.3 dB	43 dB	41 dB	43.8 dB	40.8 dB	26 dB	26 dB	100 ± 15 Ohm	95-107
16 MHz	8.2 dB/100m	47.3 dB	44.3 dB	39 dB	36 dB	39.7 dB	36.7 dB	26 dB	26 dB	100 ± 15 Ohm	95-107
20 MHz	9.3 dB/100m	45.8 dB	42.8 dB	36.5 dB	33.5 dB	37.7 dB	34.7 dB	26 dB	26 dB	100 ± 15 Ohm	95-107
25 MHz	10.4 dB/100m	44.3 dB	41.3 dB	33.9 dB	30.9 dB	35.8 dB	32.8 dB	25.5 dB	25.5 dB	100 ± 15 Ohm	95-107
31.25 MHz	11.7 dB/100m	42.9 dB	39.9 dB	31 dB	28 dB	33.9 dB	30.9 dB	25 dB	25 dB	100 ± 15 Ohm	95-107
62.5 MHz	17 dB/100m	38.4 dB	35.4 dB	22 dB	19 dB	27.8 dB	24.8 dB	23.5 dB	23.5 dB	100 ± 15 Ohm	95-107
100 MHz	22 dB/100m	35.3 dB	32.3 dB	14 dB	11 dB	23.8 dB	20.8 dB	22.5 dB	22.5 dB	100 ± 15 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	-40°C To +80°C

#### Bend Radius

Stationary Min. 1.32 in

Max. Pull Tension: 75 lbs

Bulk Cable Weight: 50 lbs/1000ft

#### **Standards and Compliance**

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Fire Resistance:	UL1666 Riser, FT4, FT4, 1202 Vertical Tray, 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
7921A 0101000	Black	Reel	1,000 ft	612825191261
7921A 0102000	Black	Reel	2,000 ft	612825191278
7921A 0061000	Blue	Reel	1,000 ft	612825191254
7921A 0021000	Red	Reel	1,000 ft	612825191247
7921A 1NH1000	Teal	Reel	1,000 ft	612825191285

# **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.

# **History**

Update and Revision: Revision Number: 0.337 Revision Date: 07-28-2020

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