



**Part Number:** 7905A

DataTuff® 5e, 4 Pr #24 Str TC, PO Ins, TPE Jkt, Flexible CMR

**Product Description**

Industrial Ethernet Cat 5e, 4 Bonded Pair 24AWG (7x32) Tinned Copper, PO Insulation, TPE Outer Jacket, Flexible CMR

**Technical Specifications**

**Product Overview**

Suitable Applications:	Industrial Ethernet Cable, Harsh Environments, EtherNet/IP™, 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
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**Physical Characteristics (Overall)**

**Conductor**

AWG	Stranding	Material	No. of Pairs
24	7x32	TC- Tinned Copper	4

Conductor Count:	8
Total Number of Pairs:	4

**Insulation**

<b>Material</b>	PO - Polyolefin
Bonded-Pair:	Yes

**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**

<b>Material</b>	Unshielded
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**Outer Jacket Material**

Material	Nominal Diameter
Industrial Grade TPE - Thermoplastic Elastomer	0.242 in.

**Electrical Characteristics**

**Conductor DCR**

Max. Conductor DCR	Max. DCR Unbalance
9 Ohm/1000ft	3.0 %

**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	70.0 %

#### 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]	Max./Min. Input Impedance (unFitted)	Max./Min. Fitted Impedance
1 MHz	2.4 dB/100m	65.3 dB	65.3 dB	62.9 dB	62.9 dB	63.8 dB	60.8 dB	20 dB	100 ± 12 Ohm	105 ± 10
4 MHz	4.8 dB/100m	56.3 dB	56.3 dB	51.5 dB	51.5 dB	51.7 dB	48.7 dB	23.6 dB	100 ± 12 Ohm	100 ± 10
8 MHz	6.8 dB/100m	51.8 dB	51.8 dB	45.0 dB	45.0 dB	45.7 dB	42.7 dB	25.4 dB	100 ± 12 Ohm	100 ± 10
10 MHz	7.7 dB/100m	50.3 dB	50.3 dB	42.6 dB	42.6 dB	43.8 dB	40.8 dB	26 dB	100 ± 12 Ohm	100 ± 10
16 MHz	9.7 dB/100m	47.3 dB	47.3 dB	37.5 dB	37.5 dB	39.7 dB	36.7 dB	26 dB	100 ± 12 Ohm	100 ± 10
20 MHz	11.0 dB/100m	45.8 dB	45.8 dB	34.8 dB	34.8 dB	37.7 dB	34.7 dB	26 dB	100 ± 12 Ohm	100 ± 10
25 MHz	12.4 dB/100m	44.3 dB	44.3 dB	31.9 dB	31.9 dB	35.8 dB	32.8 dB	25.5 dB	100 ± 15 Ohm	100 ± 10
31.25 MHz	13.9 dB/100m	42.9 dB	42.9 dB	29.0 dB	29.0 dB	33.9 dB	30.9 dB	25 dB	100 ± 15 Ohm	100 ± 10
62.5 MHz	20.2 dB/100m	38.4 dB	38.4 dB	18.3 dB	18.3 dB	27.8 dB	24.8 dB	23.5 dB	100 ± 15 Ohm	100 ± 10
100 MHz	26 dB/100m	35.3 dB	35.3 dB	9.2 dB	9.2 dB	23.8 dB	20.8 dB	22.5 dB	100 ± 15 Ohm	100 ± 10
155 MHz	33.2 dB/100m	32.5 dB	32.5 dB			19.9 dB	16.9 dB	19 dB	100 ± 18 Ohm	100 ± 10
200 MHz	38.4 dB/100m	30.8 dB	30.8 dB			17.7 dB	14.7 dB	19 dB	100 ± 20 Ohm	100 ± 10
250 MHz	43.7 dB/100m	29.3 dB	29.3 dB			15.8 dB	12.8 dB	18 dB	100 ± 20 Ohm	100 ± 10
300 MHz	48.6 dB/100m	28.2 dB	28.2 dB			14.2 dB	11.2 dB	18 dB	100 ± 20 Ohm	100 ± 10
310 MHz	49.5 dB/100m	27.9 dB	27.9 dB			13.9 dB	10.9 dB	18 dB	100 ± 20 Ohm	100 ± 10
350 MHz	53.2 dB/100m	27.2 dB	27.2 dB			12.9 dB	9.9 dB	17 dB	100 ± 22 Ohm	100 ± 10

#### Voltage

UL Voltage Rating
300 V RMS

#### Temperature Range

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

#### Mechanical Characteristics

Bulk Cable Weight:	27 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius/Minor Axis:	0.25 in

#### Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
ISO/IEC Compliance:	ISO/IEC 11801 Cat 5e Patch
Telecommunications Standards:	TIA 568-C.2 Category 5e Patch

#### Applicable Environmental and Other Programs

EU Directive 2011/65/EU (ROHS II):	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2008-02-11

#### Suitability

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

#### Flammability, LSOH, Toxicity Testing

UL Flammability:	UL1666 Riser
CSA Flammability:	FT4

#### Part Number

## Variants

Item #	UPC
7905A 0021000	612825424215
7905A 0061000	612825422754
7905A 1NH1000	612825422747
7905A B591000	612825422730

Patent: <http://www.belden.com/p>

## Product Notes

Notes: US Patent # 6, 273, 977. Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581.

## History

Update and Revision: Revision Number: 0.28 Revision Date: 11-12-2019

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