



Product: [7973A](#)

DataTuff® 6, 4 Bonded-Pr #24 Sol BC, PP Ins, X-spline, OS, PVC Jkt, CMR, CMX Outdoor

Product Description

Industrial Ethernet Cat 6, 4 Bonded-Pair 24AWG (Stranded) Bare Copper, PP Insulation, X-spline, PVC Outer Jacket, CMR, CMX Outdoor

Technical Specifications

Product Overview

Suitable Applications:	Harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
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Construction Details

Conductor

Size	Stranding	Material	No. of Pairs
24 AWG	7x32	BC - Bare Copper	4

Insulation

Material	Color Code
PO - Polyolefin	White/Blue Stripe & Blue, White/Orange Stripe & Orange, White/Green Stripe & Green, White/Brown Stripe & Brown

Bonded-Pair:	Yes
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Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	24 AWG (7x32) TC

Outer Jacket

Separator	Material	Nom. Diameter	Ripcord
Center Member (Patented EquiSpline®)	PVC - Polyvinyl Chloride	0.320 in (8.13 mm)	Yes

Overall Cable Diameter (Nominal):	0.320 in (8.13 mm)
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Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
140 Ohm/km (43 Ohm/1000ft)	330 pF/100m

Delay

Frequency	Max. Delay	Max. Delay Skew	Nom. Velocity of Prop.
100 MHz	537 ns/100m	45 ns/100m	69%

High Frequency

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) [Ohm]	Max./Min. Fitted Impedance [Ohm]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.4 dB/100m	74.3	72.3	71.9	69.9	67.8	64.8	20	100 ± 15	100 ± 15	40.0	35.0
4	4.5 dB/100m	65.3	63.3	60.8	58.8	55.8	52.7	23	100 ± 15	100 ± 15	40.0	23.0
8	6.4 dB/100m	60.8	58.8	54.4	52.4	49.7	46.7	24.5	100 ± 15	100 ± 15	40.0	16.9
10	7.1 dB/100m	59.3	57.3	52.2	50.2	47.8	44.8	25	100 ± 15	100 ± 15	40.0	15.0
16	9.1 dB/100m	56.2	54.3	47.1	45.1	43.7	40.7	25	100 ± 15	100 ± 15	38.0	10.9

20	10.2 dB/100m	54.8	52.8	44.6	42.6	41.8	38.8	25	100 ± 15	100 ± 15	37.0	9.0
25	11.4dB/100m	53.3	51.3	41.9	39.9	39.8	36.8	24.2	100 ± 15	100 ± 15	36.0	7.0
31.25	12.8 dB/100m	51.9	49.9	39.1	37.1	37.9	34.9	23.3	100 ± 15	100 ± 15	35.1	5.1
62.5	18.5 dB/100m	47.4	45.4	28.9	26.9	31.9	28.9	20.7	100 ± 15	100 ± 15	32.0	
100	23.8 dB/100m	44.3	42.3	20.5	18.5	27.8	24.8	19.0	100 ± 15	100 ± 15	30.0	
155	30.2 dB/100m	41.5	39.5	11.3	9.3	23.9	20.9	17.4	100 ± 20	100 ± 15	28.1	
200	34.8 dB/100m	39.8	37.8	5.0	3.0	21.8	18.8	16.4	100 ± 20	100 ± 15	27.0	
250	39.4 dB/100m	38.3	36.3			19.8	16.8	15.6	100 ± 20	100 ± 15	26.0	

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating	Storage
90°C	-40°C To +90°C	-40°C To +90°C

Bend Radius

Stationary Min.
3.2 in (81 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	47 lbs/1000ft (70 kg/km)

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Oil Resistance
Flammability / Reaction to Fire:	UL1666 Riser, FT4
CPR Compliance:	CPR Euroclass: Fca
NEC / UL Compliance:	Article 800, CMR, CMX-Outdoor
CEC / C(UL) Compliance:	CMX-Outdoor;CMG
Data Category:	Category 6
ISO/IEC Compliance:	ISO/IEC 11801-1, IEC 61156-5
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE), REACH: 2022-04-27
APAC Compliance:	China RoHS II (GB/T 26572-2011)

Product Notes

Notes:	Jacket sequentially marked at 2 ft. intervals.
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History

Update and Revision:	Revision Number: 0.13 Revision Date: 04-29-2024
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Part Numbers

Variants

Item #
7973A 0101000
7973A 0105000

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