



Product: [777940T](#) 

DataTuff® 6, 4 Pr #23 Sol BC, PO Ins, LSZH Jkt, Brnz Brd Armor, LSZH Jkt, CMG-LS, ABS, DNV pending

Product Description

Industrial Ethernet Cat 6, 4 Pair 23AWG (Solid) Bare Copper, PO Insulation, LSZH Inner Jacket, Bronze Braid Armor, LSZH Outer Jacket, CMG-LS, ABS, DNV pending

Technical Specifications

Product Overview

Suitable Applications:	marine, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc. exposure to rodent, crush, or cut through force,
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Construction Details

Conductor

AWG	Stranding	Material	Number of Pairs
23	Solid	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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Inner Jacket Material

Separator	Material	Nom. Diameter
	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.274 in
Aramid Tape	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.328 in

Armor

Armor Type & Material	Coverage	Diameter
BBA - Bronze Braid Armor	80%	0.363 in

Outer Jacket Material

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.463 in

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. DCR Unbalance	Max. Capacitance Unbalance
93.8 Ohm/km	3%	330 pF/100m

Delay

Frequency [MHz]	Max. Delay	Max. Delay Skew	Nom. Velocity of Propagation (VP) [%]
100 MHz	537 ns/100m	45 ns/100m	69%

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	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	2 dB/100m	74.3 dB	72.3 dB	72.3 dB	70.3 dB	67.8 dB	64.8 dB	20 dB	100 ± 15	100 ± 15	40.0 dB	35.0 dB

4 MHz	3.8 dB/100m	65.3 dB	63.3 dB	61.5 dB	59.5 dB	55.8 dB	52.7 dB	23 dB	100 ± 15	100 ± 15	40.0 dB	23.0 dB
8 MHz	5.3 dB/100m	60.8 dB	58.8 dB	55.4 dB	53.4 dB	49.7 dB	46.7 dB	24.5 dB	100 ± 15	100 ± 15	40.0 dB	16.9 dB
10 MHz	6 dB/100m	59.3 dB	57.3 dB	53.3 dB	51.3 dB	47.8 dB	44.8 dB	25 dB	100 ± 15	100 ± 15	40.0 dB	15.0 dB
16 MHz	7.6 dB/100m	56.2 dB	54.3 dB	48.7 dB	46.7 dB	43.7 dB	40.7 dB	25 dB	100 ± 15	100 ± 15	38.0 dB	10.9 dB
20 MHz	8.5 dB/100m	54.8 dB	52.8 dB	46.3 dB	44.3 dB	41.8 dB	38.8 dB	25 dB	100 ± 15	100 ± 15	37.0 dB	9.0 dB
25 MHz	9.5 dB/100m	53.3 dB	51.3 dB	43.8 dB	41.8 dB	39.8 dB	36.8 dB	24.3 dB	100 ± 15	100 ± 15	36.0 dB	7.0 dB
31.25 MHz	10.7 dB/100m	51.9 dB	49.9 dB	41.2 dB	39.2 dB	37.9 dB	34.9 dB	23.6 dB	100 ± 15	100 ± 15	35.1 dB	5.1 dB
62.5 MHz	15.4 dB/100m	47.4 dB	45.4 dB	32 dB	30 dB	31.9 dB	28.9 dB	21.5 dB	100 ± 15	100 ± 15	32.0 dB	
100 MHz	19.8 dB/100m	44.3 dB	42.3 dB	24.5 dB	22.5 dB	27.8 dB	24.8 dB	20.1 dB	100 ± 15	100 ± 15	30.0 dB	
155 MHz	25.2 dB/100m	41.5 dB	39.5 dB	16.3 dB	14.3 dB	23.9 dB	20.9 dB	18.8 dB	100 ± 20	100 ± 15	28.1 dB	
200 MHz	29 dB/100m	39.8 dB	37.8 dB	10.8 dB	8.8 dB	21.8 dB	18.8 dB	18 dB	100 ± 20	100 ± 15	27.0 dB	
250 MHz	32.8 dB/100m	38.3 dB	36.3 dB	5.5 dB	3.5 dB	19.8 dB	16.8 dB	17.3 dB	100 ± 20	100 ± 15	26.0 dB	

Mechanical Characteristics

Temperature

UL Rating.	Operating	Installation	Storage
75°C	-40°C To +75°C	0°C To +60°C	-40°C To +75°C

Bend Radius

Installation Min.
4.7 in

Max. Pull Tension:	40 lbs
Bulk Cable Weight:	122 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Marine, Indoor, Outdoor, Non-Halogenated, Sunlight Resistance
Flammability / Fire Resistance:	UL CMG-LS, FT4, IEEE 1202
NEC / UL Compliance:	Article 800, UL 444
CEC / C(UL) Compliance:	FT4
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6
TIA/EIA Compliance:	Category 6 - TIA 568.2-D
European Halogen Free Standards:	IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance=IEC 60332-3-22, IEC 60754-1 (EN50267-1)- Halogen Amount=Jacket only
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: 2017-07-10
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: 0.98 Revision Date: 11-03-2020
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