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,

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

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.

History

Update and Revision:	Revision Number: 0.98 Revision Date: 11-03-2020