



**Product:** [777940T](#) 

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

## Product Description

Industrial Ethernet Cat 6, 4 Bonded Pair 23AWG (Solid) Bare Copper, PO Insulation, LSZH Jacket, Flame Retardant Tape, LSZH Jacket, Bronze Braid Armor, LSZH Outer Jacket, CMG-LS, ABS

## Technical Specifications

## Product Overview

Suitable Applications:	Marine, shipboard, transit, transportation, outdoor, harsh environment, IoT, 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

Element	Size	Stranding	Material	No. of Pairs	No. of Elements
Pair(s)	23 AWG	Solid	BC - Bare Copper	4	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

Separator	Material	Nom. Diameter
Aramid Tape	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.274 in (6.96 mm)
Aramid Tape	LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.328 in (8.33 mm)

## Armor

Armor Type & Material	Armor Material Diameter	Coverage
BBA - Bronze Braid Armor	0.363 in (9.22 mm)	80%

### Outer Jacket

Material	Material Trade Name	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	Haloarrest®	0.463 in (11.8 mm)

Overall Cable Diameter (Nominal):	0.463 in (11.8 mm)
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## Electrical Characteristics

## Electricals

Max. Conductor DCR	Max. Capacitance Unbalance
93.8 Ohm/km (28.6 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	2.0 dB/100m	74.3	72.3	72.3	70.3	67.8	64.8	20	100 ± 15	100 ± 15	40.0	35.0
4	3.8 dB/100m	65.3	63.3	61.5	59.5	55.8	52.7	23	100 ± 15	100 ± 15	40.0	23.0
8	5.3 dB/100m	60.8	58.8	55.4	53.4	49.7	46.7	24.5	100 ± 15	100 ± 15	40.0	16.9
10	6 dB/100m	59.3	57.3	53.3	51.3	47.8	44.8	25	100 ± 15	100 ± 15	40.0	15.0
16	7.6 dB/100m	56.2	54.3	48.7	46.7	43.7	40.7	25	100 ± 15	100 ± 15	38.0	10.9
20	8.5 dB/100m	54.8	52.8	46.3	44.3	41.8	38.8	25	100 ± 15	100 ± 15	37.0	9.0
25	9.5 dB/100m	53.3	51.3	43.8	41.8	39.8	36.8	24.3	100 ± 15	100 ± 15	36.0	7.0
31.25	10.7 dB/100m	51.9	49.9	41.2	39.2	37.9	34.9	23.6	100 ± 15	100 ± 15	35.1	5.1
62.5	15.4 dB/100m	47.4	45.4	32	30	31.9	28.9	21.5	100 ± 15	100 ± 15	32.0	
100	19.8 dB/100m	44.3	42.3	24.5	22.5	27.8	24.8	20.1	100 ± 15	100 ± 15	30.0	
155	25.2 dB/100m	41.5	39.5	16.3	14.3	23.9	20.9	18.8	100 ± 20	100 ± 15	28.1	
200	29.0 dB/100m	39.8	37.8	10.8	8.8	21.8	18.8	18	100 ± 20	100 ± 15	27.0	
250	32.8 dB/100m	38.3	36.3	5.5	3.5	19.8	16.8	17.3	100 ± 20	100 ± 15	26.0	

## Mechanical Characteristics

### Temperature

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

### Bend Radius

Installation Min.
3.0 in (76 mm)

Max. Pull Tension:	40 lbs (18 kg)
Bulk Cable Weight:	133 lbs/1000ft (198 kg/km)

## Standards and Compliance

Environmental Suitability:	MarineIndoor/Outdoor, Indoor, Outdoor, Non-Halogenated, Sunlight Resistance
Flammability / Reaction to Fire:	UL CMG-LS, FT4, IEEE 1202
NEC / UL Compliance:	Article 800
CEC / C(UL) Compliance:	CMG-ST1
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
Marine Compliance:	ABS Certified
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = IEC 60332-3-22
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = Jacket only
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), 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: 0.385 Revision Date: 04-02-2025
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## Part Numbers

### Variants

Item #	Color	Putup Type	Length	UPC
777940T 0105000	Black	Reel	305 m	612825189138
777940T 0101000	Black	Reel	305 m	

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