

Product: [50007TSE](#) 

MarineTuff Cat7, 4 Pr #23 Str BC, FMPE Ins, LSZH Jkt



Product Description

Industrial Marine Ethernet Cat7, 4 Pr 23AWG Stranded Bare Copper, FoamPolyethylene Insulation, S/FTP, Low Smoke Zero Halogen (SHF1) Jacket, ABS, DNV

Technical Specifications

Product Overview

Suitable Applications:	marine, harsh environment, IIoT, factory or process automation, IP cameras and devices, data communication, etc.
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material
23	Stranded	BC - Bare Copper

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Material
PO - Polyolefin (Foam)

Bonded-Pair:	No
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Color Chart

Number	Color
Pair 1	White / Blue
Pair 2	White / Orange
Pair 3	White / Green
Pair 4	White / Brown

Inner Shield Material

Type	Material
Tape	Bi-Laminate (Alum+Poly)

Outer Shield Material

Type	Material
Braid	Tinned Copper (TC)

Outer Jacket Material

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	9.0 mm

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max. DCR Unbalance	Max DCR Unbalanced Between Pairs [%]
95 Ohm/km	2 %	4 %

Capacitance

Max. Capacitance Unbalance	Nom. Mutual Capacitance
160 pF/100m	5,600 pF/100m

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay	Max. Delay Skew
538 ns/100m @100MHz	25 ns/100m

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz							40 dB	35 dB
4 MHz	3.7 dB/100m	78 dB	75 dB	78 dB	75 dB	23 dB	34 dB	23 dB
8 MHz	5.2 dB/100m	78 dB	75 dB	77.2 dB	74.2 dB	24.5 dB	31 dB	16.9 dB
10 MHz	5.9 dB/100m	78 dB	75 dB	75.3 dB	72.3 dB	25 dB	30 dB	15 dB
16 MHz	7.4 dB/100m	78 dB	75 dB	71.2 dB	68.2 dB	25 dB	28 dB	10.9 dB
20 MHz	8.3 dB/100m	78 dB	75 dB	69.3 dB	66.3 dB	25 dB	27 dB	9 dB
25 MHz	9.3 dB/100m	78 dB	75 dB	67.3 dB	64.3 dB	24.3 dB	26 dB	7 dB
31.25 MHz	10.4 dB/100m	78 dB	75 dB	65.4 dB	62.4 dB	23.6 dB	25.1 dB	
62.5 MHz	14.9 dB/100m	75.5 dB	72.5 dB	59.4 dB	56.4 dB	21.5 dB	22 dB	
100 MHz	19 dB/100m	72.4 dB	69.4 dB	55.3 dB	52.3 dB	20.1 dB	20 dB	
200 MHz	27.5 dB/100m	67.9 dB	64.9 dB	49.3 dB	46.3 dB	18 dB	17 dB	
250 MHz	31 dB/100m	66.4 dB	63.4 dB	47.3 dB	44.3 dB	17.3 dB	16 dB	
300 MHz	34.2 dB/100m	65.2 dB	62.2 dB	45.8 dB	42.8 dB	17.3 dB		
500 MHz	45.3 dB/100m	61.9 dB	58.9 dB	41.3 dB	38.3 dB	17.3 dB		
600 MHz	50.1 dB/100m	60.7 dB	57.7 dB	39.7 dB	36.7 dB	17.3 dB		

Coupling Attenuation Class: IEC 61156-5, Typelll

Voltage

Voltage Rating [V]
72V DC

Temperature Range

Operating Temp Range:	-25°C To 80°C
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Mechanical Characteristics

Bulk Cable Weight:	92 kg/km
Min Bend Radius During Installation:	80 mm

Standards

IEC Compliance:	ISO/IEC 11801
Data Category:	Category 7
ANSI Compliance:	ANSI/TIA 568-D.2

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive Compliance:	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Oil Resistance:	ICEAS-73-532
Suitability - Outdoor:	Yes - Black only
Suitability - Sunlight Resistance:	Yes - Black only

Flammability, LS0H, Toxicity Testing

IEC Flammability:	60332-1*60332-3-22 (Category A)
IEC 60754-1 (EN50267-1)- Halogen Amount:	0.5%
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Max. Conductivity:	10 µS/mm
IEC 60754-2 (EN50267-2)- Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 (EN 61034-2) (VDE 0482-1034) - Smoke Density Min. Transmittance:	60%

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
50007TSF 010305M	Black	Reel	305 m	
50007TSF-A500	Black	Reel	500 m	8719605188014
50007TSF-A1000	Black	Reel	1,000 m	8719605189097
50007TSF 006305M	Blue	Reel	305 m	
50007TSF 008305M	Gray	Reel	305 m	

Footnote:	For more order number information, please approach your Belden sales representative freely
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History

Update and Revision:	Revision Number: 0.107 Revision Date: 12-17-2020
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