Product: MA6AUFLD

MarineTuff Cat 6A Duplex, U/FTP, 2x4Pr 23 BC, FMPE Ins, LSZH, Indoor, LR certified

Product Description

Marine Ethernet Cat 6A Duplex Cable,2x4Pr 23AWG Annealed Bare Copper, Foam Polyethylene Insulation, U/FTP, Low Smoke Zero Halogen (SHF1) Jacket, Indoor Shipboard, LR certified

Technical Specifications

Product Overview

Suitable Applications:	Shipbuilding, in-cabin passenger Wi-Fi, high-bandwidth IPTV, PoE lighting, device charging stations, onboard security cameras, etc.

Construction Details

Conductor

Size	Stranding	Stranding Class	Material	No. of Pairs
23 AWG	Solid	Class 1	BC - Bare Copper	8

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin (Foam)	1.35 mm (0.0531 in)	White & Blue, White & Orange, White & Green, White & Brown

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type
Individual Shielded Pair	Tape	Bi-Laminate (Alum+Poly)	100%	26 AWG (Solid) TC

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (SHF1)	7.5 mm (0.30 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
95 Ohm/km (29 Ohm/1000ft)	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

Delay

Max. Delay Skew	Nom. Velocity of Prop.
45 ns/100m	77%

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	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]	Min. PSANEXT [dB]	Min. PSAACRF [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1	2.1	75.3	72.3	73.2	70.2	68	65	20	67	67	40	35
4	3.8	66.3	63.3	62.5	59.5	56	53	23	67	66.2	34	23
10	5.9	60.3	57.3	54.4	51.4	48	45	25	67	58.2	30	15
16	7.5	57.2	54.2	49.7	46.7	43.9	40.9	25	67	54.1	28	10.9
31.3	10.5	52.9	49.9	42.4	39.4	38.1	35.1	23.6	67	48.3	25.1	5.1
62.5	15.0	48.4	45.4	33.4	30.4	32.1	29.1	21.5	65.6	42.3	22	
100	19.1	45.3	42.3	26.2	23.2	28	25	20.1	62.5	38.2	20	

125	21.5	43.8	40.8	22.3	19.3	26.1	23.1	19.4	61	36.3	19	
200	27.6	40.8	37.8	13.2	10.2	22	19	18	58	32.2	17	
250	31.1	39.3	36.3	8.2	5.2	20	17	17.3	56.5	30.2	16	
350	34.3	37.1	34.1			17.1	14.1	17.3	54.3	27.3		
500	45.3	34.8	31.8			14	11	17.3	52	24.2		

Table Notes:	Limits below 4 MHz are for information only. Reference standard: ISO/IEC 61156-5 ed. 2.0 (2009)
Transfer Impedance Class:	Grade 2

Mechanical Characteristics

Temperature

Operating	Installation
-40°C To +80°C	-5°C To +80°C

Bend Radius

Installation Min.
10*D

Bulk Cable Weight:	115 kg/km (77.3 lbs/1000ft)

Standards and Compliance

Environmental Suitability:	Indoor, Indoor
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-22
IEEE Compliance:	IEEE 802.3bt Type 1, Type 2, Type 3, Type 4
Data Category:	Category 6A
ISO/IEC Compliance:	ISO/IEC 11801-2IEC 60092-360
CENELEC Compliance:	EN 50173-1
European Halogen Free Standards:	IEC 60754-1 - Halogen Amount = HCL+HBr ≤ 0.5%, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 10 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3

Product Notes

Notes:	LR (Lloyd’s Register) certification

History

Update and Revision:	Revision Number: 0.72 Revision Date: 09-04-2024

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