



Product: [MA6UFL](#)

MarineTuff Cat 6, U/FTP, 4 Pr 23 BC, FMPE Ins, LSZH, Indoor, LR certified

### Product Description

Marine Ethernet Cat 6, 4 Pr 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.
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#### Construction Details

##### Conductor

Stranding	Material	No. of Pairs
Solid	BC - Bare Copper	4

##### 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

Shield Type	Material
Tape	Bi-Laminate (Alum+Poly)

##### 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	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. TCL [dB]	Min. ELTCTL [dB]
1	2.1	75.3	72.3	73.2	70.2	68	65	20	40	35
4	3.8	66.3	63.3	62.4	59.4	56	53	23	34	23
10	6	60.3	57.3	54.3	51.3	48	45	25	30	15
16	7.6	57.2	54.2	49.6	46.6	43.9	40.9	25	28	10.9
31.3	10.7	52.9	49.9	42.1	39.1	38.1	35.1	23.6	25.1	5.1
62.5	15.5	48.4	45.4	32.9	29.9	32.1	29.1	21.5	22	
100	19.9	45.3	42.3	25.4	22.4	28	25	20.1	20	

125	22.5	43.8	40.8	21.4	18.4	26.1	23.1	19.4	19	
200	29.1	40.8	37.8	11.6	8.6	22	19	18	17	
250	33	39.3	36.3	6.3	3.3	20	17	17.3	16	

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:	57.3 kg/km (38.5 lbs/1000ft)
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## 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 6
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
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## History

Update and Revision:	Revision Number: 0.64 Revision Date: 04-03-2024
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