



industrial data rf cable series

LS1S75MU

MIL-DTL-24643 LS1S75MU 75 Ohm Low-Smoke Shipboard RF

MIL-DTL-24643/29 · 75 Ω LSZH shipboard video & RF coax · Double tinned Cu braid · XLPO



MIL-DTL-24643/30 · NAVSEA

75 $\Omega \pm 3 \Omega$ · Video / IF / Sonar

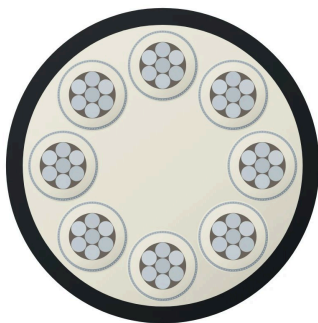
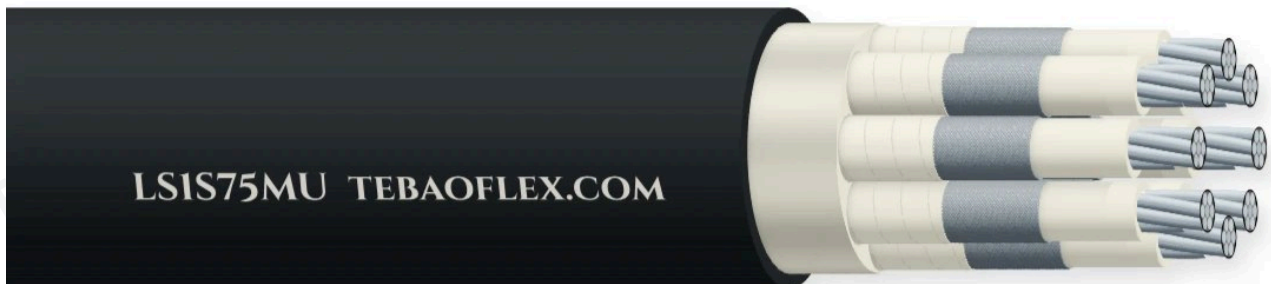
LSZH XLPO · Double Cu Braid

Application

US Navy 75 Ω LSZH shipboard video and IF coaxial cable (LS1S75MU) per MIL-DTL-24643/29 with a 22 AWG stranded copper center conductor, cross-linked polyolefin dielectric (66 % VoP, 67.3 pF/m), double 95 % tinned copper braids (> 90 dB), and naval LSZH sheath.

Typical uses: Naval Combat Information Centers (CIC), Shipboard Flight-Deck & Hangar CCTV, Submarine Sonar & Acoustic Displays, Marine Satellite TV & IF Distribution, Offshore Naval Support Vessels

Construction



Cross-section, not to scale

- 1 18 AWG stranded tinned copper center conductor
- 2 Solid polyethylene (PE) dielectric
- 3 Double bare copper wire braid shields
- 4 Cross-linked low-smoke zero-halogen (LSZH XLPO) sheath

High screening
attenuation from 10 kHz
to 1 GHz

Technical data

Typical values

Characteristic impedance	75 $\Omega \pm 3 \Omega$	Nominal capacitance	67.3 pF/m (20.5 pF/ft)
Velocity of propagation	66 % nominal (solid PE dielectric)	Max. operating voltage	3,700 V RMS (5,000 V RMS dielectric test)
Attenuation @ 50 / 100 / 400 MHz	4.3 / 6.2 / 13.8 dB/100m	Operating temperature	-30 °C to +105 °C (XLPO jacket rating)
Dielectric core limit	+85 °C continuous PE dielectric	Halogen & acid gas	< 0.2 % halogen · low smoke optical density
Center conductor	18 AWG (7×26 AWG, $\varnothing$ 1.21 mm) tinned copper	Overall diameter	10.80 mm (LS1S75MU) · 12.45 mm (LS1S75MUS)
Min. bending radius	8 × OD (unarmored) · 10 × OD (armored)	Flame propagation	MIL-DTL-24643 / IEEE 1202 vertical tray flame
Marine oil & fluids	Resists marine diesel, lube oil & salt spray	Shielding effectiveness	≥ 85 dB (double bare copper wire braids)
Standards	MIL-DTL-24643/30 (M24643/30-01UO & -01AU)		

Sizes

8 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Impedance / size	Conductor & dielectric	Wall $\approx$ mm	Outer $\varnothing \approx$ mm	Metal kg/km	Weight $\approx$ kg/km	Min. bend R fixed mm
Standard LS1S75MU configurations 8 sizes							
☐ M24643/30-01UO (LS1S75MU)	75 Ω · 18 AWG Unarmored	7×26 Sn-Cu + PE + 2×Braid	1.15	10.80	74.0	155.0	86
☐ M24643/30-01AU (LS1S75MUS)	75 Ω · 18 AWG Al-Armored	7×26 Sn-Cu + 2×Braid + Al	1.15	12.45	102.0	202.0	125
☐ LS1S75MU-59 Compact	75 Ω · 22 AWG Unarmored	7×30 Sn-Cu + PE + 2×Braid	0.90	6.40	32.0	66.0	52
☐ LS1S75MUS-59 Armored	75 Ω · 22 AWG Al-Armored	7×30 Sn-Cu + 2×Braid + Al	0.90	8.00	48.0	95.0	80
☐ LS1S75MU-F Foam 75 Ω	75 Ω · 18 AWG Foam PE	18 AWG + Foam PE + LSZH	1.10	10.30	70.0	138.0	82
☐ LS1S75MUS-F Foam Armored	75 Ω · 18 AWG Al-Armored	18 AWG + Foam + Al Braid	1.10	11.95	96.0	184.0	120
☐ LS2S75MU Dual 75 Ω	2 × 75 Ω · 18 AWG	Dual 75 Ω Shipboard Coax	1.40	21.80	148.0	335.0	175
☐ LS1S75MWU Watertight	75 Ω · 18 AWG Watertight	Water-Blocked 75 Ω Coax	1.25	11.20	76.0	168.0	90

– Outer diameters and weights are nominal engineering values for LS1S75MU subject to standard manufacturing tolerances per MIL-DTL-24643/30 (US Navy Shipboard 75 Ω Low-Smoke Coaxial Cable).

RF & electrical data

8 sizes

Configuration	Max. DC R @ 20 °C Ω /km	Char. Z0 Ω	Velocity VoP / L (% or nH/m)	Dielectric test V/AC rms
M24643/30-01UO (LS1S75MU) (75 Ω · 18 AWG Unarmored)	21.60	75.0	66.0	5,000
M24643/30-01AU (LS1S75MUS) (75 Ω · 18 AWG Al-Armored)	21.60	75.0	66.0	5,000
LS1S75MU-59 Compact (75 Ω · 22 AWG Unarmored)	54.00	75.0	66.0	2,500
LS1S75MUS-59 Armored (75 Ω · 22 AWG Al-Armored)	54.00	75.0	66.0	2,500
LS1S75MU-F Foam 75 Ω (75 Ω · 18 AWG Foam PE)	21.00	75.0	82.0	3,000
LS1S75MUS-F Foam Armored (75 Ω · 18 AWG Al-Armored)	21.00	75.0	82.0	3,000
LS2S75MU Dual 75 Ω (2 × 75 Ω · 18 AWG)	21.60	75.0	66.0	5,000
LS1S75MWU Watertight (75 Ω · 18 AWG Watertight)	21.60	75.0	66.0	5,000

– Characteristic impedance, propagation velocity, DC resistance at +20 °C, and dielectric withstand voltages verified per MIL-DTL-24643/30 (US Navy Shipboard 75 Ω Low-Smoke Coaxial Cable).

Standards and approvals

- ✓ MIL-DTL-24643/30 (US Navy Shipboard 75 Ω Low-Smoke Coaxial Cable)
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/mil-dtl-24643-ls1s75mu-75-ohm-low-smoke-shipboard-rf-coaxial-cable



Typical values for this cable type, based on MIL-DTL-24643/30 (US Navy Shipboard 75 Ω Low-Smoke Coaxial Cable). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.