



MIL-DTL 24643/59 Shielded, Category 5e

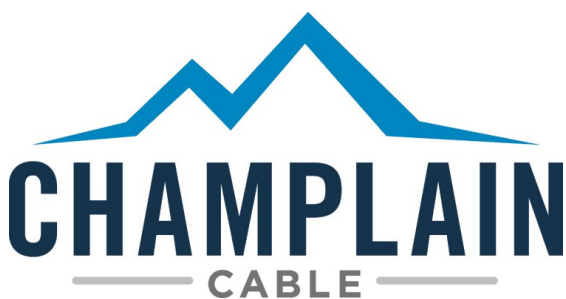
Water-Blocked and Non Water-Blocked

Champlain Cable has a long history of success in the development and manufacture of data communication cables. We are the first supplier to be qualified by the US Naval Sea Systems Command (NAVSEA) for supply of all variants of MIL-DTL 24643/59. With over 10 years of QPL approval and over 30 million feet installed on Naval vessels, no one else comes close. **Dataclear®** is the brand you can count on for Reliability, Service and Price.

Dataclear® Marine /59 cables are Low Smoke Zero Halogen (LSZH) Category 5e data cables to serve the shipboard market. **Dataclear® Marine /59** provides two major solutions for shipboard communications:

- Replacement of halogenated insulations (PVC, Fluoropolymers) in confined shipboard compartments, thereby eliminating a major source of halogenated toxic gases in the event of fire.
- Maintains exceptional main link data communication capabilities in accordance with current ANSI/TIA/EIA 568.2 standards for Local Area Network (LAN) premise wiring.

Military Part No. MIL-DTL-24643/59	Type	Pairs	Conductor	Shield	Water-blocked	Jacket Color	Cable OD (nom)
-01U0	LSC5FS-4	4	24, solid BC	Foil	No	Black	.310"
-02U0	LSC5FSW-4	4	24, solid BC	Foil	Yes	Black	.320"
-03U0	LSC5OS-4	4	24, solid BC	Foil + Braid	No	Black	.350"
-04U0	LSC5OSW-4	4	24, solid BC	Foil + Braid	Yes	Black	.375"





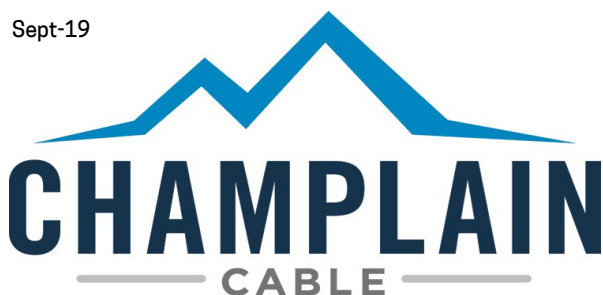
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ELECTRICAL PROPERTIES (M-24643/59 Cat 5e)					
DC Resistance (Ohms/100m)	9.38 max				
DC Resistance Unbalance	5% max				
Input Impedance (1 MHz - 100MHz)	100 Ohms ±15%				
Frequency	1.0	10.0	31.25	62.5	100.0
Return Loss dB/100m (min)	20.0	25.0	23.6	21.5	20.1
Insertion Loss dB/100m (max)	2.0	6.5	11.7	17.0	22.0
NEXT dB/100m (min)	65.3	50.3	42.9	38.4	35.3
ELFEXT dB/100m (min)	63.8	43.8	33.9	27.9	23.8
PS NEXT dB/100m (min)	62.3	47.3	39.9	35.4	32.3
PS ELFEXT dB/100m (min)	60.8	40.8	30.9	24.9	20.8
Propagation Delay ns/100m (max)	570	545	540	539	538
Delay Skew ns/100m (max)	45	45	45	45	45

PHYSICAL PROPERTIES (M-24643/59)	
Tensile Strength	
Insulation and Jacket (Un-aged)	1300 min
Insulation and Jacket (Retention after 168hrs at 136°C)	780 min
Elongation	
Insulation and Jacket (Un-aged)	160% min
Insulation and Jacket (Retention after 168hrs at 136°C)	96% min
Cross-link proof test (Jacket, Percent maximum)	50%
Flame Propagation (Cable)*	No Failure

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Sept-19



Manufacturing Locations:

Colchester, Vermont

El Paso, Texas

www.champcable.com