



MIL-DTL-24643/77

Category 6A Ethernet

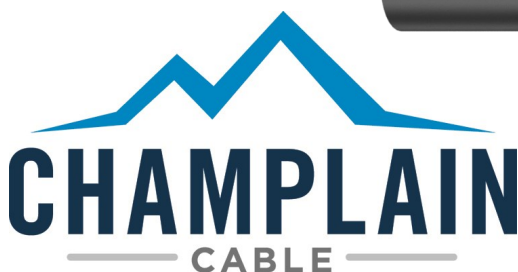
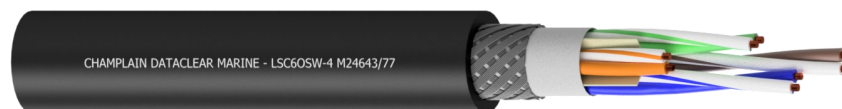
4pr, Shielded, LSZH, Water-Blocked and Non Water-Blocked

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 (QPL) by the US Naval Sea Systems Command (NAVSEA) for all variants of MIL-DTL 24643/77.

Dataclear® Marine /77 CAT 6A provides significant improvements to the previous M24643/59 Cat5e cables:

- Substantially More Data Carrying Capacity in a Similar Footprint
- Pair-Balance Requirements Provide a Level of EMI Immunity
- Provides Bandwidth Headroom to Support Future Technology Improvements
- Interoperability: Terminates in the same RJ-45 Connectors as the Previous Cat5e (M24643/59) Cables
- Supports 10GBASE-T Systems (10,000BASE-T)
- Swept Electrical Performance to 500MHz

MIL-DTL 24643/77 PN	Type	Pairs	Conductor	Shield	Water-blocked	Jacket Color	Weight / KFT (lbs)	Bend Radius (inch / min)	Nom Cable OD
-01U0	LSC6FS-4	4	23, solid BC	Foil	No	Black	54.6	1.5"	0.355"
-02U0	LSC6OS-4	4	23, solid BC	Foil + Braid	No	Black	70	1.5"	0.375"
-03U0	LSC6OSW-4	4	23, solid BC	Foil + Braid	Yes	Black	81.3	2.5"	0.410"





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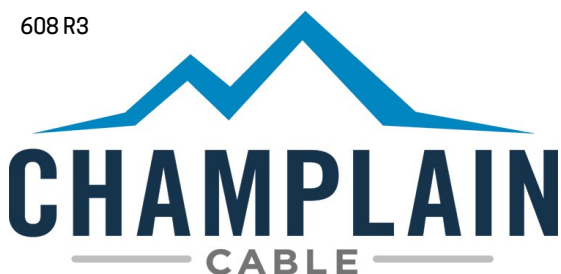
ELECTRICAL PROPERTIES						
DC Resistance (Ohms/100m)	9.38 max					
DC Resistance Unbalance	4% max					
Input Impedance (1 MHz - 500MHz)	100 Ohms ±15%					
Frequency	1.0	10.0	31.25	62.5	100.0	500.0
Return Loss dB/100m (min)	20.0	25.0	23.6	21.5	20.1	15.2
Insertion Loss dB/100m (max)	2.1	5.9	10.5	15.0	19.1	45.3
NEXT dB/100m (min)	74.3	59.3	51.9	47.4	44.3	33.8
PS NEXT dB/100m (min)	72.3	57.3	49.9	45.4	42.3	31.8
ACRF [ELFEXT] dB/100m (min)	67.8	47.8	37.9	31.9	27.8	13.8
PSACRF [PS ELFEXT] dB/100m (min)	64.8	44.8	34.9	28.9	24.8	10.8
TCL dB (min)	40.0	40.0	35.1	32.0	30.0	23
Propagation Delay ns/100m (max)	570	545	540	539	538	536
Delay Skew ns/100m (max)	45	45	45	45	45	45

PHYSICAL PROPERTIES	
Tensile Strength (lb/in², min)	
Insulation (Un-aged)	450
Insulation (Retention after 48hrs at 100°C)	75%
Jacket (Un-aged)	1300
Jacket (Retention after 168hrs at 136°C)	60%
Elongation (Percent min)	
Insulation (Un-aged,)	75%
Insulation (Retention after 48hrs at 100°C)	75%
Jacket (Un-aged, percent min)	160%
Jacket (Retention after 168hrs at 136°C)	60%
Cross-link proof test (Jacket, Percent max)	50%
Tear (lb/in thickness, min)	35
Flame Propagation (Cable)	No Failure

We cannot anticipate all conditions under which this information and our products or the products of other manufacturers in combination with our products may be used. We accept no responsibility for results obtained by the application of this information or the safety and suitability of our products alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product combination for their own purpose. Unless otherwise agreed in writing, we sell the products without warranty, and buyers and users assume all responsibility and liability for loss and damage arising from the handling and use of our products whether used alone or in combination with other products.

April-21

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Manufacturing Locations:
Colchester, Vermont
El Paso, Texas
www.champcable.com