

Features & Benefits

- Low Loss
- Superior Shielding Effectiveness
- Fire Retardant (non-halogen)
- Light Weight
- Flexible for Ease of Deployment
- Excellent Connector Selection



• **Flexible:** With very tight minimum bend radius, LLSB cable can be easily routed into and through tight spaces without kinking. The bonded-tape outer conductor provides superior flexibility and ease of bending compared to previous generation M17/RG type, corrugated copper, or smooth wall copper hard-line cables.

• **Low Loss:** LLSB has lower loss than other cables of the same size. This is achieved through the use of a high velocity dielectric and bonded aluminum tape outer conductor. The proprietary gas-injected closed cell foam dielectric prevents water migration through the cable and provides excellent crush resistance.

• **Fire Retardant:** A black UV resistant non-halogen Low Smoke - Fire Retardant cross-linked polyethylene jacket makes the cable rugged and resistant to the full range of military/defense environments. LLSB cables easily achieve FAR 25, NES-711, NES-

713 compliance.

• **RF Shielding:** The bonded aluminum tape outer conductor is overlapped to provide 100% coverage, resulting in >90 dB RF shielding (>180 dB crosstalk) and excellent interference immunity (ingress and egress).

• **Phase Stability:** The intimately bonded structure and foam dielectric of LLSB cables provide excellent phase stability over temperature and with bending. The high velocity dielectric results in superior phase stability as compared with solid and air-spaced dielectric cables.

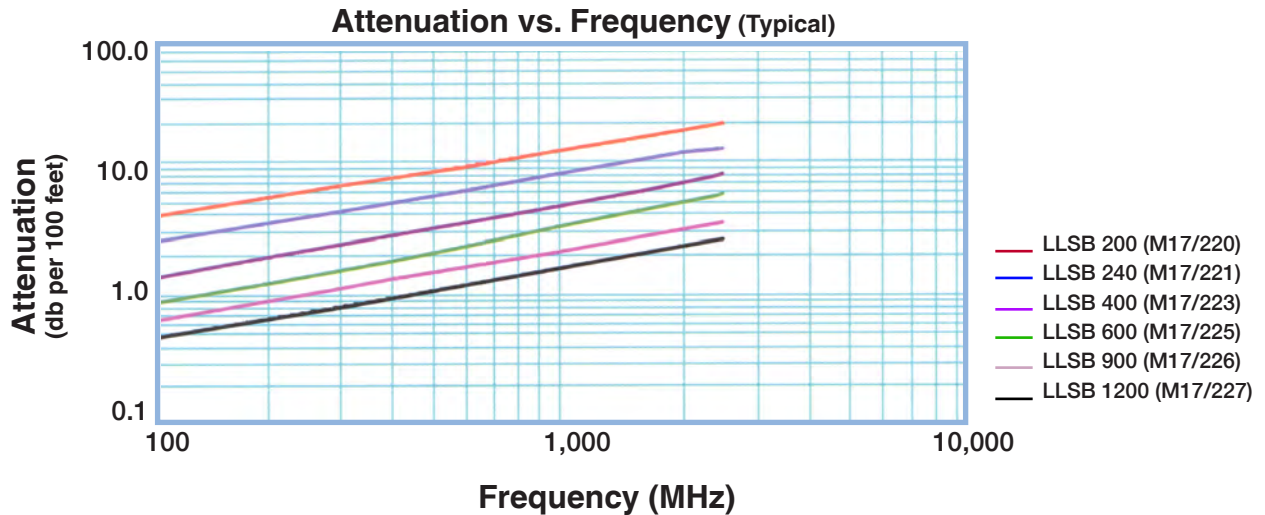
• **Connectors and Assemblies:** A full range of connector interfaces is available in crimp or clamp styles in addition to supporting installation tools. Custom preterminated and tested assemblies with phase matching, insertion loss matching, and other special electrical or marking requirements can also be provided.

LLSB Shipboard Coaxial Cables

TMS & M17 Number	Conductor inches (mm)	Dielectric inches (mm)	Shields inches (mm)	Jacket inches (mm)	Weight lbs/foot (kg/m)	Impedance ohms Vp(%)	Capacitance pF/foot (pF/m)	DC Resistance ohms/1kft/(km)		Oper. Voltage kvrms	Temp. Range F (C)	Test Freq.
								Cent. Cond	Shield (s)			
LLSB-200 M17/220-00001	BC 0.044 (1.12)	Foam PE 0.118 (2.95)	Alum Tape; 36 TC 0.144 (3.66)	XLPE 0.195 (4.95)	0.037 (0.055)	50 +/- 2 83	24.5 (80.4)	5.4 (17.7)	4.9 (16.1)	1.0	-22 +185 (-30 +85)	0.05- 2.5 GHz
LLSB-240 M17/221-00001	BC 0.056 (1.42)	Foam PE 0.150 (3.81)	Alum. Tape; 36 TC 0.178 (4.52)	XLPE 0.242 (6.15)	0.051 (0.076)	50 +/-2 84	24.2 (79.4)	3.2 (10.5)	3.9 (12.8)	1.5	-22 +185 (-30+85)	0.05- 2.5 GHz
LLSB-400 M17/223-00001	BCCAI 0.108 (2.74)	Foam PE 0.285 (7.245)	Alum Tape; 34 TC 0.320 (8.13)	XLPE 0.405 (10.29)	0.114 (0.170)	50 +/-2 85	23.9 (78.4)	1.39 (4.6)	1.65 (5.4)	3.0	-22 +185 (-30 +85)	0.05- 2.5 GHz
LLSB-600 M17/225-00001	BCCAI 0.0176 (4.47)	Foam PE 0.455 (11.56)	Alum Tape; 33 TC 0.490 (12.45)	XLPE 0.590 (14.99)	0.168 (0.250)	50 +/-2 87	23.4 (76.8)	0.53 (1.74)	1.20 (3.94)	5.0	-22 +185 (-30 +85)	0.05- 2.5 GHz
LLSB-900 M17/226-00001	BC Tube 0.262 (6.65)	Foam PE 0.680 (17.27)	Alum Tape; 30 TC 0.732 (18.59)	XLPE 0.870 (22.108)	0.375 (0.559)	50 +/-2 87	23.4 (76.8)	0.54 (1.78)	0.55 (1.80)	7.0	-22 +185 (-30 +85)	0.05- 2.5 GHz
LLSB-1200 M17/227-00001	BC Tube 0349 (8.86)	Foam PE 0.920 (23.37)	Alum Tape; 30 TC 0.972 (24.69)	XLPE 1.200 30.48	0.686 (1.022)	50 +/-2 88	23.1 (75.8)	0.32 (1.06)	0.37 (1.21)	8.0	-22 +185 (-30 +85)	0.05- 2.5 GHz

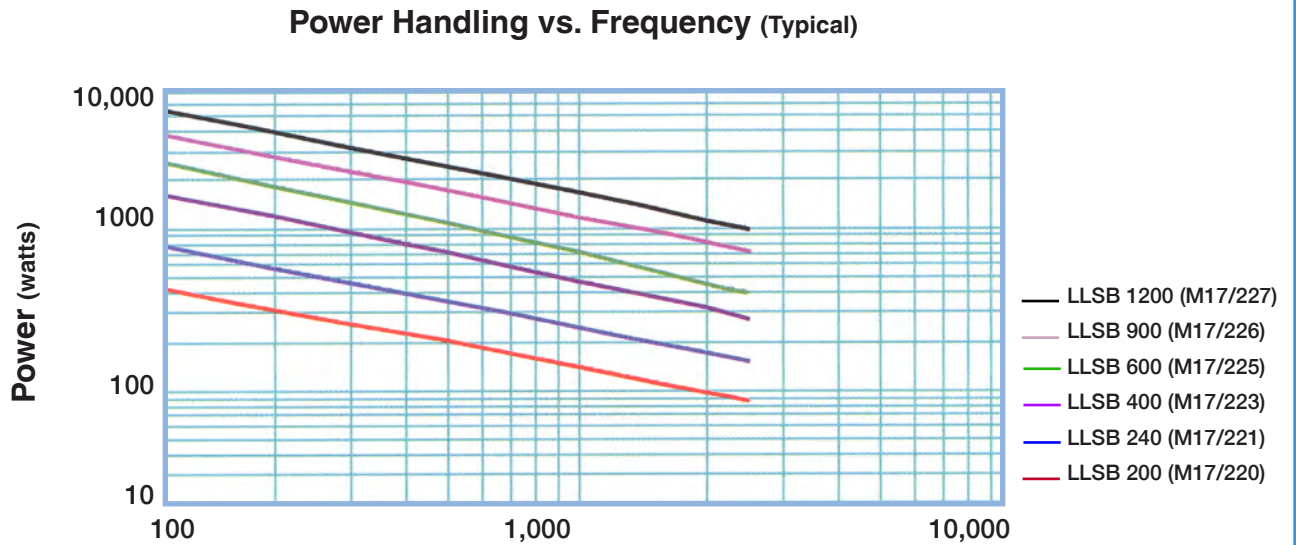
See page 39 for additional sizes and armored versions

- Fire Retardant / Low Smoke (non-halogen)
- Flexible For Easy Deployment / Routing



Frequency (MHz)	10	30	50	100	400	1,000	1,500	2,000	2,500	k1	k2
LLSB-200 (M17/220)	1.2	2.1	2.7	3.8	7.7	12	15	18	20	0.377530	0.000380
LLSB-240 (M17/221)	0.8	1.3	1.7	2.5	5.0	8	10	12	13	0.242084	0.000397
LLSB-400 (M17/223)	0.4	0.7	0.9	1.3	2.8	4.7	5.9	7.0	8.1	0.14387	0.00031
LLSB-600 (M17/225)	0.2	0.4	0.6	0.8	1.8	3.2	4.2	5.0	5.9	0.08888	0.00031
LLSB-900 (M17/226)	0.2	0.3	0.4	0.6	1.3	2.1	2.6	3.1	3.5	0.060910	0.000188
LLSB-1200 (M17/227)	0.1	0.2	0.3	0.5	1.0	1.6	2.0	2.3	2.7	0.043960	0.000188

Attenuation at Any Frequency = [k1 x SQRT (Fmhz)] + [k2 x Fmhz]; dB per 100 feet



Frequency (MHz)	10	30	50	100	400	1,000	1,500	2,000	2,500
LLSB-1200 (M17/227)	18953	10835	8337	5823	2795	1689	1342	1137	998
LLSB-900 (M17/226)	13044	7477	5763	4038	1959	1197	958	815	718
LLSB-600 (M17/225)	9392	5291	4031	2767	1257	718	554	458	394
LLSB-400 (M17/223)	5720	3254	2495	1732	815	482	379	318	277
LLSB-240 (M17/221)	2592	1490	1150	809	397	245	198	169	150
LLSB-200 (M17/220)	1459	840	649	457	225	140	113	97	86

Watts; Sea Level; Ambient +40C; VSWR 1:1