

INCH-POUND

MS21380D  
 2 July 2007  
 SUPERSEDING  
 MS21380C(USAF)  
 14 September 1994

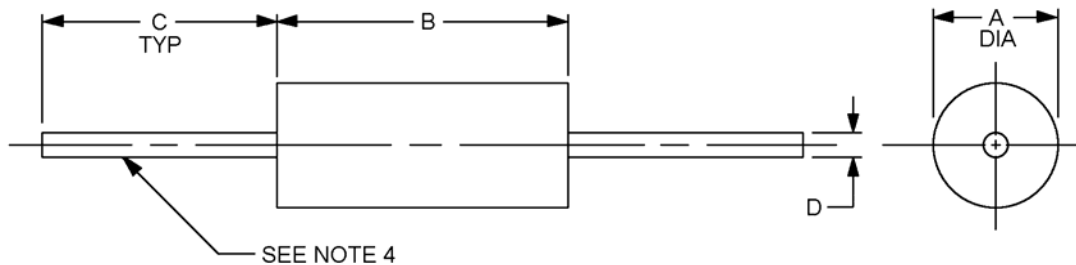
## MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED,  
 SUBMINIATURE, IRON CORE, TYPES LT4K

Inactive for new design.

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the products described herein shall consist of this specification and MIL-PRF-15305.



Ltr	Dimensions in inches with metric equivalents (mm) in parentheses	
	Minimum	Maximum
A	.270 (6.86)	.310 (7.87)
B	.880 (22.35)	.910 (23.11)
C	1.300 (33.02)	---
D	.0265 (0.671)	.0305 (0.775)

## NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These coils are intended to be mounted by the bodies.
4. Solderable/weldable lead wire, tinned copper, AWG number 21.

FIGURE 1. Dimensions and configuration.

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### REQUIREMENTS:

Design, construction, and physical dimensions: See figure 1.

Style: LT4.

Grade: 1.

Class: B.

Weight: 0.14 ounce, maximum.

Operating temperature range: -55°C to +125°C.

Ambient temperature: + 90°C maximum.

Temperature rise: 35°C maximum.

Power dissipation: .500 watt maximum.

Terminal pull: 5 pounds minimum.

Altitude: 60,000 feet.

Shock, specified pulse: Method 213 of MIL-STD-202, test condition I, is applicable.

Vibration (high frequency): Method 204 of MIL-STD-202, test condition G.

Dielectric withstanding voltage (sea level): Method 301 of MIL-STD-202, test voltage 700 V rms minimum.

Barometric pressure (reduced): Method 105 of MIL-STD-202, test condition C, test voltage 100 V rms minimum.

Electrical characteristics: See table I and table II.

Inductance: See table I.

Q values: See table I.

Self-resonant frequency (SRF): See table I.

DC resistance (DCR): See table I.

Part or Identifying Number (PIN): MS21380 - (dash number from table I).

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TABLE I. Electrical characteristics (initial).

Dash number	Type designation	Inductance ( $\mu$ H)	Test frequency (MHz)		Q (min)	1/ SRF min (MHz)	Maximum DCR (ohms)	Rated dc current (mA)
			Q	L				
-01	LT4K352	1.0 $\pm$ 10%	15	25	130	170	.03	4000
-02	LT4K353	1.2 $\pm$ 10%	15	7.9	130	155	.03	4000
-03	LT4K354	1.5 $\pm$ 10%	10	7.9	130	140	.03	4000
-04	LT4K355	1.8 $\pm$ 10%	10	7.9	130	125	.03	4000
-05	LT4K356	2.2 $\pm$ 10%	10	7.9	130	115	.04	3500
-06	LT4K357	2.7 $\pm$ 10%	10	7.9	100	102	.04	3500
-07	LT4K358	3.3 $\pm$ 10%	7.9	7.9	100	90	.04	3500
-08	LT4K359	3.9 $\pm$ 10%	7.9	7.9	80	85	.05	3100
-09	LT4K360	4.7 $\pm$ 10%	7.9	7.9	75	80	.05	3100
-10	LT4K361	5.6 $\pm$ 10%	7.9	7.9	65	72	.06	3000
-11	LT4K362	6.8 $\pm$ 10%	7.9	7.9	65	65	.06	3000
-12	LT4K363	8.2 $\pm$ 10%	7.9	7.9	65	57	.11	2400
-13	LT4K364	10 $\pm$ 10%	5.0	7.9	75	50	.15	1800
-14	LT4K365	12 $\pm$ 10%	5.0	2.5	75	45	.23	1600
-15	LT4K366	15 $\pm$ 5%	5.0	2.5	75	40	.30	1300
-16	LT4K367	18 $\pm$ 5%	5.0	2.5	75	36	.40	1150
-17	LT4K368	22 $\pm$ 5%	2.5	2.5	75	32	.50	1000
-18	LT4K369	27 $\pm$ 5%	2.5	2.5	70	30	.60	900
-19	LT4K370	33 $\pm$ 5%	2.5	2.5	70	28	.70	850
-20	LT4K371	39 $\pm$ 5%	2.5	2.5	70	26	1.1	720
-21	LT4K372	47 $\pm$ 5%	2.5	2.5	75	25	1.3	620
-22	LT4K373	56 $\pm$ 5%	2.5	2.5	80	22	1.8	540
-23	LT4K374	68 $\pm$ 5%	2.5	2.5	100	20	2.4	450
-24	LT4K375	82 $\pm$ 5%	2.5	2.5	100	18	2.8	425
-25	LT4K376	100 $\pm$ 5%	1.5	2.5	100	17	3.2	400
-26	LT4K377	120 $\pm$ 5%	1.5	.79	100	15	4.8	360
-27	LT4K378	150 $\pm$ 5%	1.0	.79	100	14	6.4	280
-28	LT4K379	180 $\pm$ 5%	1.0	.79	95	12	9.5	240
-29	LT4K380	220 $\pm$ 5%	1.0	.79	95	11	12	200
-30	LT4K381	270 $\pm$ 5%	1.0	.79	70	9	13	195
-31	LT4K382	330 $\pm$ 5%	.79	.79	65	7.5	14	190
-32	LT4K383	390 $\pm$ 5%	.79	.79	65	6.5	15.5	180
-33	LT4K384	470 $\pm$ 5%	.79	.79	60	5.5	17	170
-34	LT4K385	560 $\pm$ 5%	.50	.79	75	4.0	18.5	165
-35	LT4K386	680 $\pm$ 5%	.50	.79	75	3.2	20	155
-36	LT4K387	820 $\pm$ 5%	.50	.79	75	2.8	22	150
-37	LT4K388	1,000 $\pm$ 5%	.50	.79	75	2.4	24	145
-38	LT4K389	1,200 $\pm$ 5%	.50	.79	75	2.1	27	137
-39	LT4K390	1,500 $\pm$ 5%	.40	.79	75	1.9	29	130
-40	LT4K391	1,800 $\pm$ 5%	.40	.79	65	1.7	32	125
-41	LT4K392	2,200 $\pm$ 5%	.25	.25	65	1.5	35	120
-42	LT4K393	2,700 $\pm$ 5%	.25	.25	65	1.3	40	112
-43	LT4K394	3,300 $\pm$ 5%	.25	.25	65	1.2	45	105
-44	LT4K395	3,900 $\pm$ 5%	.25	.25	65	1	49	100
-45	LT4K396	4,700 $\pm$ 5%	.25	.25	65	0.95	53	95
-46	LT4K397	5,600 $\pm$ 5%	.25	.25	65	0.85	60	90
-47	LT4K398	6,800 $\pm$ 5%	.25	.25	65	0.75	67	85
-48	LT4K399	8,200 $\pm$ 5%	.25	.25	65	0.65	75	82
-49	LT4K400	10,000 $\pm$ 5%	.15	.25	65	0.58	80	80

1/ Minimum self resonant frequency to be no less than 80 percent of the specified value.

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TABLE II. Electrical characteristics (final). 1/

Inspection group	Allowable variation from Initial measurement		Allowable percent from specified minimum value in electrical characteristics (initial) table	
	Inductance (percent)	DC resistance	Self-resonant frequency	Q
Qualification inspection				
Group II	±2	---	---	-10
Group III	±5	±(3% +.001 ohm)	-8	-10
Group IV	±5	±(2% +.001 ohm)	-10	-10
Conformance inspection group C				
Subgroup I	±2	---	---	-10
Subgroup II	±5	±(2% +.001 ohm)	-10	-10
Subgroup III	±5	±(3% +.001 ohm)	-8	-10

1/ Test fixture allowance of +.01  $\mu$ H shall be added to all change in inductance limits  $\pm$ ( \_ percent +.01  $\mu$ H).

Changes from previous issue. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

Referenced documents. In addition to MIL-PRF-15305, this document references MIL-STD-202.

Custodians:  
Air Force – 11  
DLA - CC

Preparing activity:  
DLA – CC

(Project 5950-2007-014)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.