

INCH-POUND

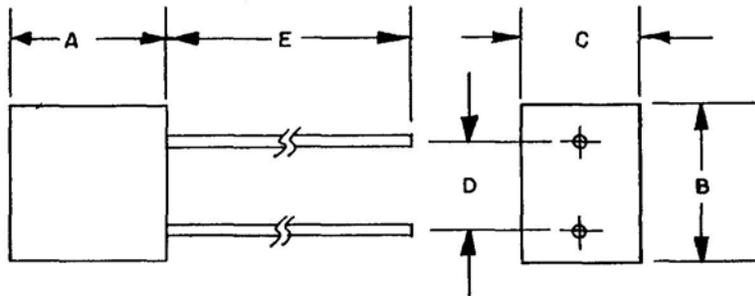
MS21424D  
31 August 2007  
SUPERSEDING  
MS21424C  
28 September 1987

MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, SUB-MINIATURE,  
TYPE LT4K546 TO LT4K570

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)	.300 (7.62)
B	.260 (6.60)	.280 (7.11)
C	.140 (3.56)	.160 (4.06)
D	.190 (4.83)	.210 (5.33)
E	1.00 (25.40)	----

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

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

Style: LT4

Grade: 1  
Class: B

Weight: 1 gram, maximum.

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

Ambient temperature: + 90°C maximum.

Temperature rise: 35°C.

Power dissipation: 0.33 watt, maximum.

Lead wire: Lead wire shall be type LW (0.51) C-xx--N or LW (0.51) C-xx-N, (where xx is Final Finish 32, 34, 41, 43, 45, 51, or 52) in accordance with MIL-STD-1276.

Terminal pull: 5 pounds minimum.

Altitude: 70,000 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 D.

Dielectric withstanding voltage:

At sea level: Method 301 of MIL-STD-202, test voltage 700 V rms minimum.

At reduced barometric pressure: Method 105 of MIL-STD-202, test condition C, test voltage 200 V rms minimum.

Electrical characteristics: See tables I and 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): MS21424 - (dash number from table I).

TABLE 1. Electrical characteristics (initial).

<u>1/</u> Dash Number	Type Designa- tion	Inductance ( $\mu$ H) $\pm 5\%$	Q (min)	Test frequency (MHz)	SRF min (MHz)	DC resistance (max)  (ohms)	Max rated DC current (mA)	Approx. cap. (pF)
MS21424								
-01	LT4K546	10	75	2.5	35	1.1	550	1.43
-02	LT4K547	12	75	2.5	31	1.3	500	1.61
-03	LT4K548	15	75	2.5	27	1.5	450	1.65
-04	LT4K549	18	80	2.5	24	1.9	410	1.67
-05	LT4K550	22	80	2.5	22	2.3	380	1.71
-06	LT4K551	27	80	2.5	20	2.7	350	1.63
-07	LT4K552	33	80	2.5	18	3.3	320	1.57
-08	LT4K553	39	80	2.5	16	3.9	290	1.79
-09	LT4K554	47	80	2.5	14	4.7	260	1.88
-10	LT4K555	56	80	2.5	12	5.6	240	2.31
-11	LT4K556	68	80	2.5	11	6.8	220	2.10
-12	LT4K557	82	80	2.5	10	8.1	200	3.15
-13	LT4K558	100	80	2.5	9.1	9.7	180	3.09
-14	LT4K559	120	45	.79	8.2	12	160	3.10
-15	LT4K560	150	45	.79	7.3	14	150	2.18
-16	LT4K561	180	45	.79	6.4	17	140	2.38
-17	LT4K562	220	50	.79	5.6	20	130	2.68
-18	LT4K563	270	55	.79	5.0	24	120	2.61
-19	LT4K564	330	55	.79	4.4	19	130	2.73
-20	LT4K565	390	55	.79	3.9	22	120	2.94
-21	LT4K566	470	55	.79	3.5	27	110	3.05
-22	LT4K567	560	55	.79	3.1	32	100	3.31
-23	LT4K568	680	55	.79	2.8	19	130	3.21
-24	LT4K569	820	50	.79	2.5	23	120	3.41
-25	LT4K570	1000	50	.79	2.2	27	110	3.75

1/ The dash number added to the MS military standard number constitutes the MS part number, for example MS21424-01

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

Application notes:

1. The overload current shall be 1.4 times the rated value specified in table I.

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.

MIL-PRF-15305  
MIL-STD-1276  
MIL-STD-202

Custodians:  
Army – CR  
Navy - EC  
Air Force – 11  
DLA - CC

Preparing activity:  
DLA – CC

(Project 5950-2007-025)

Review activities:  
Air Force – 19

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>.