

INCH-POUND

MS75088D  
31 August 2007  
SUPERSEDING  
MS75088C  
16 February 1995

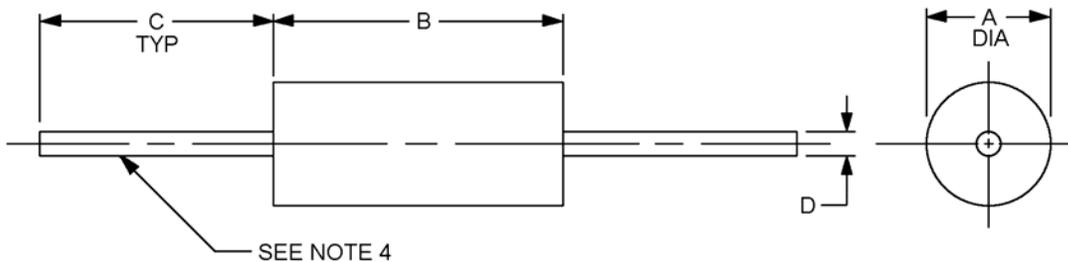
MILITARY SPECIFICATION SHEET

COILS, RADIO FREQUENCY, MOLDED, FIXED, MICRO-MINIATURE,  
MAGNETICALLY SHIELDED, (IRON CORE – IRON SLEEVE),  
TYPES LT10K203 TO LT10K216, INCLUSIVE

Inactive for new design, after 4 September 1985.  
For new design, use MIL-PRF-39010/2.

This specification is approved for use by all Depart-  
ments 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	.152 (3.86)	.172 (4.37)
B	.390 (9.91)	.430 (10.92)
C	1.250 (31.75)	1.626 (41.30)
D	.023 (0.58)	.027 (0.69)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. These coils are intended to be supported by their leads.
4. Solderable/weldable lead wire, number 22 AWG.

FIGURE 1. Dimensions and configuration.

REQUIREMENTS:

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

Weight: 0.0353 ounce, maximum.

Operating temperature range: -55°C to +105°C.

Ambient temperature: + 90°C.

Temperature rise: 15 °C.

Terminal pull: 5 pounds, minimum

Altitude: 70,000 feet.

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

Dielectric withstanding voltage:

At sea level: Method 301 of MIL-STD-202, test voltage 1,000 V rms for a minimum of 60 seconds.

At reduced barometric pressure: Method 105 of MIL-STD-202, test condition C, test voltage of 200 V rms for a minimum of 60 seconds.

Percent coupling: 3 percent, maximum.

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): MS75088 - (dash number from table I).

TABLE 1. Electrical characteristics (initial).

<u>1/</u> Dash Number MS75088	Type Designation	Inductance ( $\mu$ H) $\pm 10\%$	Q (min)	Test Frequency (MHz)	SRF Minimum (MHz)	DC resistance (ohms)	Rated DC current (mA)
-1	LT10K203	1.00	44	25	140	.07	1,070
-2	LT10K204	1.20	44	7.9	130	.10	895
-3	LT10K205	1.50	44	7.9	115	.12	815
-4	LT10K206	1.80	44	7.9	105	.14	775
-5	LT10K207	2.20	44	7.9	100	.19	650
-6	LT10K208	2.70	44	7.9	92	.28	535
-7	LT10K209	3.30	44	7.9	85	.35	480
-8	LT10K210	3.90	44	7.9	75	.40	450
-9	LT10K211	4.70	44	7.9	70	.55	380
-10	LT10K212	5.60	44	7.9	65	.72	335
-11	LT10K213	6.80	50	7.9	55	1.02	280
-12	LT10K214	8.20	50	7.9	50	1.32	250
-13	LT10K215	10.0	50	7.9	46	1.62	220
-14	LT10K216	12.0	55	2.5	44	2.00	200

1/ The coils specified herein are substitutes for the inactive coils on MS90537, providing the small decrease in physical dimensions are not a factor. The decrease in maximum operating temperature from 125°C to 105°C does not downgrade these coils but assures satisfactory operation at 105°C for a minimum of 2,000 hours of life, rather than a shorter period of operation at 125°C.

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	$\pm 5$	---	---	-10
Group III	$\pm 5$	$\pm(3\% +.001 \text{ ohm})$	-8	-10
Group IV	$\pm 5$	$\pm(2\% +.001 \text{ ohm})$	-5	-10
Conformance inspection group C				
Subgroup I	$\pm 5$	---	---	-10
Subgroup II	$\pm 5$	$\pm(2\% +.001 \text{ ohm})$	-5	-10
Subgroup III	$\pm 5$	$\pm(3\% +.001 \text{ ohm})$	-8	-10

1/ Test fixture allowance of  $+0.01\mu\text{H}$  shall be added to all change in inductance limits  $\pm(\_ \text{ percent} +.01 \mu\text{H})$ .

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.

MIL-PRF-15305  
MIL-STD-202

Custodians:

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

Preparing activity:

DLA – CC

Project 5950-2007-040

Review activities:

Army – AR, CR4, MI  
Navy – AS, MC, OS, SH  
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>.