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INCH-POUND
MIL-PRF-83446B
AMENDMENT 4
3 October 1994
SUPERSEDING
AMENDMENT 3
20 January 1988

PERFORMANCE SPECIFICATION

COILS, RADIO FREQUENCY, CHIP, FIXED OR VARIABLE, GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-C-83886B, dated 16 December 1980, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 1

Title: Delete and substitute as printed above.

TABLE I, code A, method of assemble: Delete "Weldable" and substitute "Solderable/weldable".

TABLE I, code column: Add new code "F".

TABLE I, final finish for code F: Add "Tin-lead".

TABLE I, method of assembly for code F: Add "Solderable".

* 2.1, STANDARDS, MILITARY, delete the following:

"MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes."

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3.4.2, Line 5: Delete "codes B through E" and substitute "codes A through F".

* Add the following new paragraph:

"3.4.6 Tin plated finishes. Use of tin plating is prohibited as a final finish and as an undercoat effective 6 months from the date of this specification (see 6.8). Use of tin-lead (Sn-Pb) finishes are acceptable provided that the minimum lead content is 3 percent."

PAGE 4

3.11, delete and substitute the following:

"3.11 Turning torque. When variable coils are tested as specified in 4.6.8, the torque required to rotate the tuning core shall be .05 ounce-inch minimum, .50 ounce-inch maximum unless otherwise specified (see 3.1). The tuning screw threads of the variable coils shall not shed conductive or magnetic particles."

* 4.5.1.2.1, delete and substitute the following:

"4.5.1.2.1 Sampling plan. If, during the 100 percent inspection of subgroup I, screening requires that if over 10 percent of the coils be discarded, the lot shall be rejected. For subgroup II a sample of parts shall be randomly selected from each inspection lot in accordance with table III-A, if one or more defects are found, the lot shall be rescreened and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected in accordance with table III-A, if one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

* 4.5.1.2.2, delete and substitute the following:

"4.5.1.2.2 Rejected lots (subgroup I). A rejected lot can be screened and resubmitted one time, a resubmitted lot will also have a PDA requirement of 10 percent, however if a lot is rejected after the second submission it shall be rejected and not supplied to this specification."

* TABLE III, Subgroup II, delete "AQL (percent defective)" "Major" "Minor" and all related information in last two columns.

* After table III, add the following new table.

"TABLE III-A. Sampling plan

Lot size	Group A		Group B
	Subgroup I	Subgroup II	
1 to 5	100 percent	100 percent	100 percent
6 to 13	100 percent	100 percent	5
14 to 50	100 percent	13	5
51 to 90	100 percent	13	7
91 to 150	100 percent	13	11
151 to 280	100 percent	20	13
281 to 500	100 percent	29	16
501 to 1,200	100 percent	34	19
1,201 to 3,200	100 percent	42	23
3,201 to 10,000	100 percent	50	29
10,001 to 35,000	100 percent	60	35
35,001 to 150,000	100 percent	74	40
150,001 to 500,000	100 percent	90	40
500,001 and over	100 percent	102	40

* 4.5.1.3.1, delete and substitute the following:

"4.5.1.3.1 Sampling plan. A sample of parts shall be randomly selected from each inspection lot in accordance with table III-A, if one or more defects are found, the lot shall be rescreened and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected in accordance with table III-A, if one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

* 4.5.1.3.2, delete in its entirety.

TABLE V, Subgroup II, Moisture resistance: Delete "Electrical characteristics" and substitute "Electrical characteristics (final)".

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4.6.7.1.1, first sentence, delete and substitute the following:

"The tests shall be performed using a Q meter such as Hewlett Packard model 260A, HP4342A, HP250RX, or equivalent at appropriate test frequencies as listed in the instructions for the test equipment."

4.6.7.1.1, line 6: Delete "Test frequency, MHz" and substitute "Reference test frequency (MHz) for 260 A".

4.6.7.1.1, last sentence: Delete "inductor" and substitute "coil".

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4.6.7.1.2, line 5: Delete "Test frequency, MHz" and substitute "Reference test frequency (MHz) for 260 A".

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4.6.10, line 1: Delete "(not applicable to weldable terminations)".

PAGE 19

4.6.16b., delete and substitute the following:

"b. Mounting - For termination finish codes B, C, and F, mounting shall be as specified in 4.6.1.2a. For termination finish codes A, D, and E, mounting shall be as specified in 4.6.1.2b."

6.1, line 1: Delete "thin or thick film".

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* Add the following new paragraph:

"6.8 Tin plated finishes. Tin plating is prohibited (see 3.4.6) since it may result in tin whisker growth. Tin whisker growth could adversely affect the operation of electronic equipment systems. For additional information on this matter, refer to ASTM B545 (Standard Specification for Electrodeposited Coatings of Tin)."

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20.1.2, last line: Delete "qualification" and substitute "certification".

Add the following new paragraphs:

"20.1.3 Alternate termination finish. When qualification has been granted in accordance with 20.1.1 or 20.1.2 and qualification is sought for an alternate termination finish, the following procedures shall be used.

"20.1.3.1 Single-type submission. A sample of six sample units of the alternate termination finish is required. Submit three sample units to the tests of groups I and VI of table II. Submit the remaining three samples to the tests of group III of table II.

"20.1.3.2 Combined-type submission. A sample of nine sample units of the alternate termination finish is required. Submit six sample units (three of the highest and three of the lowest inductance value) to the tests of groups I and VI of table II. Submit the remaining three sample units to the tests of group III of table II."

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30., Termination table, delete and substitute the following:

Termination	Will qualify termination
A	A
B	B, C, F
C	C, B, F
D	D, E
E	E, D
F	B, C

The margins of this amendment are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous amendment 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 amendment.

CONCLUDING MATERIAL

Custodians:

Army - ER
Navy - EC
Air force - 85

Review activities:

Army - AR, ME, MI
Navy - AS, CG, MC, OS, SH
Air Force - 17, 19, 99
DLA - ES

Preparing activity:

Army - ER

Agent:

DLA - ES

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