

NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised

PERFORMANCE SPECIFICATION

FILTERS AND CAPACITORS, RADIO FREQUENCY INTERFERENCE
GENERAL SPECIFICATION FOR

This amendment forms a part of Military Specification MIL-F-15733G, dated 6 September 1984, and is approved for use by all Departments and Agencies of the Department of Defense.

PAGE 3

- 2.1, delete federal specifications "NN-P-71", "QQ-C-533", "QQ-S-571", "QQ-S-781", "PPP-B-566", "PPP-B-601", "PPP-B-621", "PPP-B-636", and "PPP-B-676". Delete military specifications "MIL-P-116" and "MIL-E-2036". Delete military standards "MIL-STD-105", "MIL-STD-129", "MIL-STD-147", and "MIL-STD-794".

PAGE 4

- 2.2, delete and substitute:

2.2 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the issue of the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- ASTM B 16 - Standard Specification for Free-Cutting Brass Rod, Bar and Shapes for Use in Screw Machines. (DoD adopted)
- ASTM B 36 - Standard Specification for Brass Plate, Sheet, Strip, and Rolled Bar. (DoD adopted)
- ASTM B 194 - Standard Specification for Copper-Beryllium Alloy Plate, Sheet, Strip, and Rolled Bar. (DoD adopted)
- ASTM D 92 - Flash and Fire Points by Cleveland Open Cup. (DoD adopted)

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103-1137.)

(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)"

3.3.1, add the following sentence:

"Effective 8 August 1988, the use of wax is prohibited in those filters qualified and supplied to the MIL-F-15733 specification sheets."

- 3.4, delete and substitute

3.4 Interface and physical dimensions. Filters shall meet the interface and physical dimensions specified (see 3.1)."

MIL-F-15733G
AMENDMENT 5

- After 3.4 add the following

"3.4.1 Performance Filter performance shall be such that none of the components of the filter are overstressed during operation as electrically and mechanically specified herein. No degradation, unless allowed for herein, shall occur during any 100 percent screens specified herein. The filter shall meet the specified electrical characteristics at all operating temperatures, voltages, currents, or any combinations thereof as specified herein.

- 3.4.1, delete and substitute:

"3.4.2 Case Filters shall be enclosed in a suitable case in order to pass the performance requirements of this specification. The case shall be hermetically sealed or nonhermetically sealed as specified (see 3.1). The case shall protect the filter components from damage under all test conditions specified and prevent leakage of impregnant or filling compound. All metallic surfaces shall be free from insulating finishes except as specified."

- 3.4.2, delete and substitute:

"3.4.3 Finish All exposed metallic surfaces shall be suitably protected against corrosion by plating, lead-alloy coating, or other means. The finish shall provide good electrical contact when used on a terminal or as a conductor (see 6.4); shall have uniform texture and appearance; shall be adherent; and shall be free from blisters, pinholes, and other defects that may affect the protective value of the coating. Pure tin plating is prohibited. When used, tin plating shall have a minimum lead content of 3 percent (see 6.5)."

- 3.4.2.1, delete. (This reverses a change made by amendment 4.)

PAGE 5

- 3.4.3, delete and substitute:

"3.4.4 Threaded parts Unless otherwise specified, all threaded parts shall be in accordance with FED-STD-H28."

- 3.4.3.1, delete.

- 3.4.4, delete and substitute:

"3.4.5 Weight (when applicable) Filters shall not exceed the weight specified (see 3.1)."

- 3.5 through 3.5.3.3 inclusive, delete.

PAGE 6

- TABLE VI, delete.

PAGE 8

3.12, delete title and substitute: "DC voltage drop (when specified)"

PAGE 11

4.4.4, delete "6 month" (4 places) and substitute "12 months" (4 places).

4.5.1.2.1, delete and substitute:

"4.5.1.2.1 Sampling plan A sample of parts shall be randomly selected in accordance with table X-1. If one or more defects are found, the lot shall be 100 percent rescreened for those quality characteristics found defective in the sample and defects removed. After rescreening and removal of defects, a new sample of parts shall be randomly selected in accordance with table X-1. 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

MIL-F-15733G
AMENDMENT 5

PAGE 13

4.5.1.3.1, delete and substitute:

"4.5.1.3.1 Sampling plan. A sample of parts shall be randomly selected in accordance with table X-1. If one or more defects are found, the lot shall be 100 percent rescreened for those quality characteristics found defective in the sample and defects removed. After rescreening and removal of defects, a new sample of parts shall be randomly selected in accordance with table X-1. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

TABLE X, delete and substitute:

"TABLE X. Group A inspection

| Inspection | Requirement paragraph | Test paragraph | Sampling procedure |
|--|--------------------------|----------------|--------------------|
| Visual and mechanical inspection: ^{1/} | | | |
| Material | 3.3 and 3.3.1 | 4.6.1 | See table X-1 |
| Body dimensions | 3.4 | | |
| Design and construction (other than body dimensions) | 3.4 to 3.5.3.3 inclusive | | |
| Marking | 3.26 | | |
| Workmanship | 3.27 | | |
| Seal | 3.6 | 4.6.2 | |
| Capacitance to ground (when applicable) | 3.7 | 4.6.3 | |
| Dielectric withstanding voltage | 3.9 | 4.6.5 | |
| Insulation resistance (terminal to ground) | 3.11 | 4.6.7 | |
| DC voltage drop (when specified) | 3.12 | 4.6.8 | |
| Insertion loss (check test) | 3.13 | 4.6.9 | |

^{1/} Visual and mechanical examination may be performed before or after the units are sealed, whichever is applicable."

After TABLE X, add the following table:

"TABLE X-1. C = 0 sampling plan

| Lot size | Sample size | |
|-----------------|-------------|-------------|
| | Group A | Group B |
| 2 to 3 | 100 percent | 100 percent |
| 4 to 13 | 100 percent | 3 |
| 14 to 25 | 13 | 3 |
| 26 to 50 | 13 | 5 |
| 51 to 90 | 13 | 6 |
| 91 to 150 | 13 | 7 |
| 151 to 280 | 20 | 10 |
| 281 to 500 | 29 | 11 |
| 501 to 1,200 | 34 | 15 |
| 1,201 to 3,200 | 42 | 18 |
| 3,201 to 10,000 | 50 | 22 |

4.5.1.3.2 delete

MIL-F-15733G
AMENDMENT 5

PAGE 14

TABLE XII, subgroup 1, add the following above insertion loss.

"AC voltage drop (when specified) |3.12| 4.6.8|." Extend the brackets in column 4 and column 5 to include this new test requirement.

- 4.5.3, delete.

PAGE 16

4.6.5b, delete and substitute:

"b. Duration of application of test voltage: 5 seconds minimum, 1 minute maximum."

PAGE 19

4.6.16b, delete and substitute:

"b. Test condition letter: As specified (see 3.1) "

PAGE 20

4.6.16c, delete.

PAGE 22

4.6.21.2b(1), delete and substitute:

" (1) **Material:** Beryllium copper per ASTM B 194, Copper Alloy UNS No. C17000, 0.014 ±0.002 inch (0.36 ±0.05 mm) thick. Also acceptable is brass per ASTM B 16, Copper Alloy UNS No. C36000, ½ hard or brass per ASTM B 36, Copper Alloy UNS No. C26000, ½ hard; 0.014 ±0.002."

- 5, delete section 5 and substitute:

"5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity."

PAGE 25

- FIGURE 6, delete

MIL-F-15733G
AMENDMENT 5

PAGE 26

- 6.2c, delete and substitute:

"c Packaging requirements (see 5.1)."

- 6.2d and 6.2e, delete.

- 6.2.1, delete.

- 6.5, delete and substitute:

"6.5 ~~Tin-plated finish~~ Tin plating is prohibited (see 3.4.2.1) 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 B 545 (Standard Specification for Electrodeposited Coating of Tin)."

- After 6.5, add the following:

"6.6 ~~Changes from previous issue~~ The margins of this specification are marked with asterisks to indicate where changes (additions, modifications, corrections, deletions) 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.

NOTE: The margin of this amendment is marked with an asterisk to indicate where a change (addition) from the previous amendment was made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracy 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 - CR
Navy - EC
Air Force - 85

Preparing activity:
DLA - ES

(Project 59GP-0149)

Review activities:
Army - AR, AT, AV, ME, MI
Navy - AS, MC, OS, SH, YD
Air Force - 19, 99