

MIL-PRF-15305E  
 SUPPLEMENT 1B  
25 February 2001  
 SUPERSEDING  
 SUPPLEMENT 1A  
 16 September 1985

## PERFORMANCE SPECIFICATION

### COILS, FIXED AND VARIABLE, RADIO FREQUENCY GENERAL SPECIFICATION FOR

This supplement forms a part of MIL-PRF-15305E, dated 17 July 1979.

### SPECIFICATION SHEETS

- \* MS14040 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS14041 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS14042 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS14043 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS14044 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS14046 - Coils, Radio Frequency, Molded, Fixed, Microminiature (Iron Core).
- MS14047 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS14048 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS14049 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS14050 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS14052 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- \* MS18100 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).
- \* MS18130 - Coils, Radio Frequency, Molded, Fixed, Microminiature (Phenolic Core).
- \* MS21363 - Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded, (Ferrite Core-Ferrite Sleeve).
- MS21367 - Coils, Radio Frequency, Encapsulated, Fixed, Microminiature, Shielded (Iron Core).
- MS21380 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS21381 - Coils, Radio Frequency, Molded, Variable, Subminiature, Magnetically Shielded (Iron Core).
- MS21388 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS21389 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).
- MS21390 - Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).
- MS21397 - Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Ferrite Core-Ferrite Sleeve).
- MS21399 - Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Phenolic Core-Iron Sleeve).
- MS21400 - Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Iron Core-Iron Sleeve).
- MS21401 - Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Ferrite Core-Ferrite Sleeve).
- MS21402 - Coils, Radio Frequency, Molded, Variable, Subminiature, Magnetically Shielded (Ferrite Core).

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|           |   |   |
|-----------|---|---|
| MS21422   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature.  |
| MS21423   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature.  |
| MS21424   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature.  |
| MS21426   | - | Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Iron Core-Iron Sleeve).       |
| MS21427   | - | Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Ferrite Core-Ferrite Sleeve). |
| MS53229   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Iron Core).                                 |
| MS53230   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Ferrite Core).                              |
| MS53231   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Iron Core).                                 |
| MS53232   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Ferrite Core).                              |
| MS53233   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Iron Core).                                 |
| MS53234   | - | Coils, Radio Frequency, Encapsulated, Variable, Microminiature (Ferrite Core).                              |
| * MS75008 | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).  |
| * MS75052 | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).  |
| * MS75083 | - | Coils, Radio Frequency, Molded, Fixed (Phenolic Core).  |
| * MS75084 | - | Coils, Radio Frequency, Molded, Fixed (Iron Core).  |
| * MS75085 | - | Coils, Radio Frequency, Molded, Fixed (Ferrite Core).   |
| * MS75087 | - | Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Phenolic Core-Iron Sleeve).   |
| * MS75088 | - | Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Iron Core-Iron Sleeve).       |
| * MS75089 | - | Coils, Radio Frequency, Molded, Fixed, Microminiature, Magnetically Shielded (Ferrite Core-Ferrite Sleeve). |
| * MS75101 | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| MS75103   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| * MS75132 | - | Coils, Radio Frequency, Molded, Fixed, Subminiature.  |
| * MS90537 | - | Coils, Radio Frequency, Molded, Fixed, Subminiature, Shielded, Magnetic.                                    |
| MS90538   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| MS90539   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| MS90540   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| MS90541   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Iron Core).  |
| MS90542   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).  |
| MS90543   | - | Coils, Radio Frequency, Molded, Variable (Powdered Iron Core).  |
| MS90546   | - | Coils, Radio Frequency, Molded, Variable (Ferrite Core).  |
| MS91189   | - | Coils, Radio Frequency, Molded, Fixed, Subminiature (Phenolic Core).  |

\* Indicates inactive for new design.

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SUPPLEMENT 1B

COIL RF. (FIXED). (AXIAL LEADS) (105°C).

| Military Standard | Inductance $\mu$ H | Inductance tolerance | Rated dc current mA | Q min.   | Max. dimensions |                 | Shielded |
|-------------------|--------------------|----------------------|---------------------|----------|-----------------|-----------------|----------|
|                   |                    |                      |                     |          | Dia. (inches)   | Length (inches) |          |
| MS75087           | .10 to .82         | $\pm 10\%$           | 1,790 to 370        | 50 to 40 | .172            | .430            | Yes      |
| MS21399           | .10 to .82         | $\pm 10\%$           | 1,038 to 447        | 42 to 35 | .146            | .523            | Yes      |
| MS21426           | .10 to 100         | $\pm 10\%$           | 670 to 51           | 54 to 40 | .105            | .260            | Yes      |
| MS75088           | 1.0 to 12          | $\pm 10\%$           | 1,070 to 200        | 44 to 55 | .172            | .430            | Yes      |
| MS21400           | 1.0 to 12          | $\pm 10\%$           | 678 to 173          | 38 to 51 | .146            | .523            | Yes      |
| MS75084           | 1.2 to 27          | $\pm 10\%$           | 590 to 135          | 25 to 50 | .105            | .260            | ---      |
| MS75101           | 3.3 to 27          | $\pm 10\%$           | 990 to 205          | 30 to 65 | .219            | .469            | ---      |
| MS14046           | 5.6 to 33          | $\pm 10\%$           | 495 to 165          | 45 to 65 | .166            | .385            | ---      |
| MS14052           | 5.6 to 39          | $\pm 10\%$           | 885 to 224          | 35 to 70 | .230            | .570            | ---      |
| MS75089           | 15 to 100,000      | $\pm 10\%$           | 315 to 11           | 45 to 18 | .172            | .430            | Yes      |
| MS21363           | 15 to 100,000      | $\pm 5\%$            | 315 to 11           | 45 to 18 | .172            | .430            | Yes      |
| MS21401           | 15 to 10,000       | $\pm 10\%$           | 314 to 18           | 45 to 50 | .146            | .523            | Yes      |
| MS75103           | 22 to 120          | $\pm 10\%$           | 725 to 195          | 50 to 95 | .313            | 1.000           | ---      |
| MS75085           | 33 to 1,000        | $\pm 10\%$           | 130 to 28           | 45 to 30 | .105            | .260            | ---      |
| MS90538           | 36 to 240          | $\pm 5\%$            | 180 to 101          | 60 to 65 | .165            | .385            | ---      |
| MS14047           | 68 to 150          | $\pm 10\%$           | 168 to 132          | 70 to 75 | .260            | .570            | ---      |
| MS21427           | 120 to 560         | $\pm 10\%$           | 88 to 40            | 31 to 36 | .105            | .206            | Yes      |
| MS14048           | 180 to 390         | $\pm 10\%$           | 148 to 118          | 80 to 75 | .320            | .570            | ---      |
| MS90539           | 270 to 1,000       | $\pm 5\%$            | 110 to 78           | 65 to 60 | .200            | .450            | ---      |
| MS14049           | 470 to 1,000       | $\pm 10\%$           | 125 to 95           | 80 to 70 | .385            | .635            | ---      |
| MS90540           | 1,100 to 3,600     | $\pm 5\%$            | 78 to 57            | 60 to 70 | .225            | .570            | ---      |
| MS14050           | 1,500 to 10,000    | $\pm 10\%$           | 84 to 47            | 85 to 70 | .478            | .697            | ---      |
| MS90541           | 3,900 to 10,000    | $\pm 5\%$            | 61 to 47            | 80       | .250            | .750            | ---      |

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COIL RF, (FIXED), (AXIAL LEADS) (125°C).

| Military Standard | Inductance $\mu$ H | Inductance tolerance     | Rated dc current mA | Q min.    | Max. dimensions |                 | Shielded |
|-------------------|--------------------|--------------------------|---------------------|-----------|-----------------|-----------------|----------|
|                   |                    |                          |                     |           | Dia. (inches)   | Length (inches) |          |
| MS75083           | .10 to 1.0         | $\pm 10\%$               | 1,350 to 385        | 40 to 25  | .105            | .260            | ---      |
| MS21389           | .10 to 2.2         | $\pm 20\%$ to $\pm 10\%$ | 4,000 to 610        | 75 to 45  | .188            | .440            | ---      |
| MS90537           | .10 to 100,000     | $\pm 10\%$               | 2,900 to 22         | 50 to 18  | .167            | .415            | Yes      |
| MS75008           | .15 to 2.7         | $\pm 20\%$ to $\pm 10\%$ | 3,000 to 460        | 55 to 30  | .219            | .469            | ---      |
| MS18130           | .15 to 4.7         | $\pm 20\%$ to $\pm 10\%$ | 2,450 to 260        | 50 to 33  | .166            | .385            | ---      |
| MS90542           | .47 to 4.7         | $\pm 10\%$               | 1,970 to 360        | 65 to 40  | .230            | .570            | ---      |
| MS21388           | 1.0 to 2,000       | $\pm 20\%$ to $\pm 5\%$  | 2,700 to 100        | 100 to 70 | .250            | .600            | ---      |
| MS21380           | 1.0 to 10,000      | $\pm 10\%$ to $\pm 5\%$  | 4,000 to 80         | 130 to 65 | .310            | .900            | ---      |
| MS91189           | 1.2 to 18          | $\pm 10\%$               | 2,400 to 315        | 60 to 40  | .313            | 1.000           | ---      |
| MS21390           | 2.7 to 1,000       | $\pm 10\%$ to $\pm 5\%$  | 1,600 to 104        | 55 to 60  | .188            | .440            | ---      |
| MS75052           | 47 and 56          | $\pm 10\%$               | 195 and 185         | 18        | .260            | .570            | ---      |
| MS21397           | 12 to 1,000        | $\pm 10\%$               | 230 to 15           | 55 to 36  | .105            | .260            | Yes      |

COIL RF, (FIXED), (RADIAL LEADS) (105°C).

| Military Standard | Inductance $\mu$ H | Inductance tolerance     | Rated dc current mA | Q min.   | Max. dimensions |                 | Shielded |
|-------------------|--------------------|--------------------------|---------------------|----------|-----------------|-----------------|----------|
|                   |                    |                          |                     |          | Dia. (inches)   | Length (inches) |          |
| MS21367           | .015 to 10         | $\pm 20\%$ to $\pm 10\%$ | 492 to 53           | 40 to 40 | .110            | .110            | Yes      |
| MS14040           | 5.6 to 39          | $\pm 10\%$               | 760 to 198          | 35 to 60 | .266            | .756            | ---      |
| MS14041           | 68 to 150          | $\pm 10\%$               | 165 to 132          | 45 to 60 | .313            | .656            | ---      |
| MS14042           | 180 to 390         | $\pm 10\%$               | 148 to 125          | 60 to 55 | .406            | .656            | ---      |
| MS14043           | 470 to 1,000       | $\pm 10\%$               | 125 to 99           | 50 to 35 | .468            | .656            | ---      |
| MS14044           | 1,500 to 10,000    | $\pm 10\%$               | 82 to 49            | 55 to 40 | .531            | .856            | ---      |

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COIL RF, (FIXED), (RADIAL LEADS) (125°C).

| Military Standard | Inductance $\mu$ H | Inductance tolerance     | Rated dc current mA | Q min.   | Max. dimensions |                 | Max distance between leads (inches) |
|-------------------|--------------------|--------------------------|---------------------|----------|-----------------|-----------------|-------------------------------------|
|                   |                    |                          |                     |          | Dia. (inches)   | Length (inches) |                                     |
| MS21423           | .01 to 1.0         | $\pm 20\%$ to $\pm 10\%$ | 3,000 to 700        | 60 to 70 | .210            | .230            | .110                                |
| MS21422           | .10 to 10          | $\pm 10\%$ to $\pm 5\%$  | 2,200 to 280        | 55 to 60 | .210            | .230            | .110                                |
| MS18100           | .47 to 4.7         | $\pm 20\%$ to $\pm 10\%$ | 1,800 to 325        | 50 to 40 | .266            | .756            | .610                                |
| MS21424           | 10 to 1,000        | $\pm 5\%$                | 550 to 110          | 75 to 50 | .280            | .300            | .210                                |
| MS75132           | 100 to 10,000      | $\pm 5\%$                | 50 to 280           | 40 to 80 | .390            | .390            | .210                                |

COIL RF, (VARIABLE), (RADIAL LEADS).

| Military Standard | Inductance max. $\mu$ H | Rated dc current mA | Q min.    | Max. dimensions        |                 | Shielded | Max. distance between pins (inches) |
|-------------------|-------------------------|---------------------|-----------|------------------------|-----------------|----------|-------------------------------------|
|                   |                         |                     |           | Dia. or width (inches) | Length (inches) |          |                                     |
| MS21381           | .105 to 90.2            | 1,510 to 174        | 45 to 67  | .300                   | .400            | Yes      | .200                                |
| MS21402           | 110 to 110,000          | 180 to 13           | 76 to 48  | .300                   | .400            | Yes      | .200                                |
| MS53229           | .025 to 8.2             | 250 to 50           | 50 to 25  | .200                   | .275            | ---      | .100                                |
| MS53230           | 10 to 1,000             | 57 to 11            | 25 to 20  | .200                   | .275            | ---      | .100                                |
| MS53231           | .025 to 8.2             | 250 to 50           | 50 to 25  | .097                   | .475            | ---      | .180                                |
| MS53232           | 10 to 1,000             | 57 to 11            | 25 to 20  | .097                   | .475            | ---      | .180                                |
| MS53233           | .025 to 8.2             | 250 to 50           | 50 to 25  | .280                   | .450            | ---      | .218                                |
| MS53234           | 10 to 1,000             | 57 to 11            | 25 to 20  | .280                   | .450            | ---      | .218                                |
| MS90543           | .28 to 56,000           | 1,800 to 19         | 100 to 30 | .400                   | .952            | ---      | .600                                |
| MS90546           | .40 to 70,000           | 1,800 to 19         | 100 to 25 | .400                   | .952            | ---      | .600                                |

Preparing activity:  
DLA - CC

(Project number 5950-1060)