

Army MI, ME, EL
Navy AS, CG, MC
Air Force 19

Army MI, MU
Navy EC, OS, SH
Air Force 11, 17, 80
DSA-ES

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

RATINGS			
Style	LT12		
Grade	3		
Class	A		
Maximum operating temperature	105°C		
Temperature rise	15°C		
Ambient temperature	90°C		
Dielectric withstanding voltage (sea level)	1000 volts rms		
Dielectric withstanding voltage (reduced barometric pressure)	200 volts rms		
Terminal pull	5 pounds		
Operating temperature	-55° to 105°C		
Altitude	70,000 feet		

INCHES	MM	INCHES	MM	INCHES	MM
.002	.05	.172	4.37	.355	9.02
.004	.10	.19	4.83	.40	10.16
.005	.13	.192	4.88	.60	15.24
.032	.18	.21	5.33	.900	22.86
.099	2.51	.23	5.84	.952	24.18

ELECTRICAL CHARACTERISTICS (INITIAL)												
Dash No 1/	Type designation	Former MS part number	Former type designation	Tuning range				Min self-resonant frequency at max specified inductance	DC resistance max Ohms	Rated DC current ma		
				Inductance min	Q min	Test frequency	Inductance max				Q min	Test frequency
-32	LT12V001	90543-01	LT10V001	.18 μH	85	25 MHz	28 μH	100	25 MHz	225 MHz	.05	1200
-33	LT12V002	90543-02	LT10V002	.25 μH	95	25 MHz	.38 μH	110	25 MHz	200 MHz	.055	1720
-34	LT12V003	90543-03	LT10V003	.35 μH	95	25 MHz	.52 μH	110	25 MHz	185 MHz	.06	1650
-35	LT12V004	90543-04	LT10V004	.45 μH	105	25 MHz	.70 μH	110	25 MHz	165 MHz	.08	1430
-36	LT12V005	90543-05	LT10V005	.62 μH	110	25 MHz	1.00 μH	110	25 MHz	125 MHz	.09	1340
-37	LT12V006	90543-06	LT10V006	.83 μH	100	25 MHz	1.60 μH	65	7.9 MHz	100 MHz	.10	1280
-38	LT12V007	90543-07	LT10V007	1.30 μH	65	7.9 MHz	2.50 μH	80	7.9 MHz	78 MHz	.23	840
-39	LT12V008	90543-08	LT10V008	1.70 μH	70	7.9 MHz	3.40 μH	85	7.9 MHz	62 MHz	.35	580
-40	LT12V009	90543-09	LT10V009	2.60 μH	70	7.9 MHz	5.50 μH	95	7.9 MHz	52 MHz	.75	465
-41	LT12V010	90543-10	LT10V010	3.80 μH	80	7.9 MHz	7.30 μH	95	7.9 MHz	42 MHz	1.00	405
-42	LT12V011	90543-11	LT10V011	5.80 μH	85	7.9 MHz	11.00 μH	90	2.5 MHz	34 MHz	1.40	340
-43	LT12V012	90543-12	LT10V012	9.30 μH	65	1.9 MHz	18.00 μH	90	2.5 MHz	24 MHz	1.50	315
-44	LT12V013	90543-13	LT10V013	13.50 μH	70	2.5 MHz	27.00 μH	90	2.5 MHz	18 MHz	2.00	274
-45	LT12V014	90543-14	LT10V014	20.00 μH	75	2.5 MHz	40.00 μH	90	2.5 MHz	15.6 MHz	2.20	261
-46	LT12V015	90543-15	LT10V015	30.00 μH	80	2.5 MHz	58.00 μH	90	2.5 MHz	12.8 MHz	3.00	223
-47	LT12V016	90543-16	LT10V016	46.00 μH	80	2.5 MHz	87.00 μH	80	2.5 MHz	10.6 MHz	3.80	198
-48	LT12V017	90543-17	LT10V017	70.00 μH	75	2.5 MHz	130.00 μH	85	790 kHz	8.0 MHz	4.20	189
-49	LT12V018	90543-18	LT10V018	105.00 μH	75	790 kHz	170.00 μH	85	790 kHz	7.0 MHz	4.50	182
-50	LT12V019	90543-19	LT10V019	150.00 μH	65	190 kHz	250.00 μH	80	790 kHz	5.5 MHz	6.00	158
-51	LT12V020	90543-20	LT10V020	225.00 μH	85	190 kHz	350.00 μH	70	790 kHz	3.6 MHz	13.00	107
-52	LT12V021	90543-21	LT10V021	360.00 μH	85	790 kHz	600.00 μH	60	790 kHz	2.8 MHz	17.00	94
-53	LT12V022	90543-22	LT10V022	570.00 μH	35	790 kHz	1.25 mH	45	250 kHz	1.95 MHz	19.00	82
-54	LT12V023	90543-23	LT10V023	1.05 mH	40	250 kHz	2.00 mH	45	250 kHz	1.45 MHz	23.00	74
-55	LT12V024	90543-24	LT10V024	1.60 mH	35	250 kHz	3.20 mH	45	250 kHz	1.3 MHz	32.00	62
-56	LT12V025	90543-25	LT10V025	2.50 mH	35	250 kHz	5.00 mH	40	250 kHz	1.10 MHz	41.00	56
-57	LT12V026	90543-26	LT10V026	3.70 mH	35	250 kHz	7.50 mH	40	250 kHz	.80 MHz	61.00	46
-58	LT12V027	90543-27	LT10V027	5.00 mH	35	250 kHz	10.00 mH	35	250 kHz	.65 MHz	81.00	40
-59	LT12V028	90543-28	LT10V028	8.50 mH	35	250 kHz	16.00 mH	35	79 kHz	.46 MHz	120.00	32
-60	LT12V029	90543-29	LT10V029	12.80 mH	25	79 kHz	25.00 mH	35	79 kHz	.34 MHz	170.00	27
-61	LT12V030	90543-30	LT10V030	20.00 mH	20	79 kHz	38.00 mH	30	79 kHz	.28 MHz	230.00	23
-62	LT12V031	90543-31	LT10V031	30.00 mH	20	79 kHz	56.00 mH	30	79 kHz	.22 MHz	345.00	19

1/ The dash number added to the MS military standard number constitutes the MS part number. for example, MS 90543-32.

(A) Entire standard revised

P.A	EL	International interest	TITLE	MILITARY STANDARD
Other Cust	EC		COILS, RADIO FREQUENCY, MOLDED, VARIABLE, POWDERED IRON CORE (PRINTED CIRCUIT MT'G) TYPES LT12V001 TO LT12V031 INCLUSIVE	MS 90543
Procurement Specification MIL-C-15805			SUPERSEDES:	PAGE 1 OF 3

FED. SUP CLASS
5950

Electrical characteristics (Final)				
Inspection Group	Allowable variation from initial measurement		Allowable % from specified minimum value in Electrical Characteristics (Initial) table	
	Inductance	DC resistance	Self-resonant frequency	Q
	Percent			
Qualification Inspection				
Group II	± 2	---	--	-10
Group III	± 5	± (2% + .001 ohm)	-5	-15
Group IV	± 3	± (2% + .001 ohm)	-5	-5
Quality Conformance Inspection				
Group C				
Subgroup I	± 2	---	--	-10
Subgroup II	± 3	± (2% + .001 ohm)	-5	-5
Subgroup III	± 5	± (2% + .001 ohm)	-5	-10

NOTES:

- Core shall be set at the maximum specified inductance value indicated in the electrical characteristics (initial) table prior to all inspection tests. This core setting shall not be changed until electrical characteristics (Final) measurements are performed.
- Temperature rise and terminal pull tests are applicable.
- Barometric pressure (test condition C) is applicable.
- Operating torque shall be a maximum of 6 ounce-inches and a minimum of 0.5 ounce-inch for tuning coil.
- The test fixture in the diagram below shall be used for electrical measurements. The effective inductance shall be determined for all coils whenever this measurement is specified. Allowance of approximately .03 μ H shall be determined for internal inductance of the Q-meter and test fixture when measuring inductance values of 10 μ H or less. The shorting bar shall be made of solid copper wire (AWG #20) bent to conform to the body configuration of the coil under test (see diagram below).
- Approximate weight:
Dash number 32-42 -----5.8 grams
43-52 -----8.6 grams
53-62 -----7.0 grams
- Dimensions are in inches.
- Metric equivalents (to the nearest 0.01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.
- Unless otherwise specified, tolerances are .XX±.02 and .XXX±.005.
- For design feature purposes, this standard takes precedence over procurement document referenced herein.
- Referenced document shall be of the issue in effect on date of invitations for bid.
- Shock specified pulse method 213, test condition I is applicable. Coil shall be mounted by its mounting stud and securely fastened with mounting hardware for vibration and shock testing.
- Terminal material shall be in accordance with QQ-W-345, Type I.

P.A. EL	International Interest	TITLE COILS, RADIO FREQUENCY, MOLDED, VARIABLE, POWDERED IRON CORE (PRINTED CIRCUIT MT'G) TYPES LT12V001 TO LT12V031 INCLUSIVE	MILITARY STANDARD
Other Cust. EC 80			MS 90543
Procurement Specification MIL-C-15305	SUPERSEDES:		PAGE 2 OF 3

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Use activities

MI, MU
EC, OS, SH
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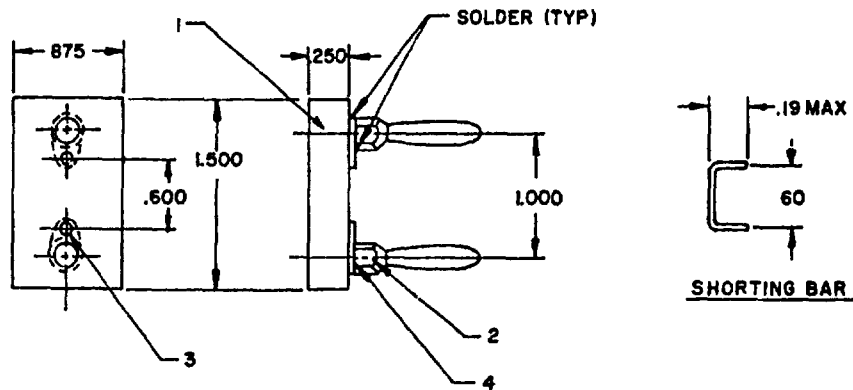
Reviewer activities

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APPROVED 24 March 1967
REVISED (A) 27 Nov 1973

FED. SUP CLASS
5950

TEST FIXTURE FOR ELECTRICAL MEASUREMENTS



Item	Description	Qty
1	Lucite block	1
2	#103 Banana plug or equivalent	2
3	Nugent PS-402-60 or equal	2
4	Copper lug	2

INCHES	MM
.19	4.83
.250	6.35
.600	15.24
.875	22.23
1.000	25.40
1.500	38.10

P A	EL	International interest	TITLE COILS, RADIO FREQUENCY, MOLDED, VARIABLE, POWDERED IRON CORE (PRINTED CIRCUIT MT'G) TYPES LT12V001 TO LT12V031 INCLUSIVE	MILITARY STANDARD
Other Cust	EC 80			MS 90543
Procurement Specification MIL-C-15305			SUPERSEDES:	PAGE 3 OF 3

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Reviewer activities: Army MI, MU; Navy EC, OS, SH; Air Force 11, 17, 80; DSA-ES

User activities: Army MI, ME, EL; Navy AS, CG, MC; Air Force 19

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Department of the Army
Headquarters
U.S. Army Electronics Command
Fort Monmouth, New Jersey 07703

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Commanding General
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