



DEFENSE LOGISTICS AGENCY
WEAPONS SUPPORT
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June 16, 2026

MEMORANDUM FOR MILITARY/INDUSTRY DISTRIBUTION

SUBJECT: Initial Drafts of:

MIL-PRF-STACK (Capacitor, Fixed, Ceramic Dielectric (General Purpose and Temperature Stable), Stacked, Standard Reliability and High Reliability, General Specification for)

MIL-PRF-STACK/1 (Capacitor, Fixed, Ceramic Dielectric (General Purpose and Temperature Stable), Horizontally Stacked, Standard Reliability and High Reliability, Size 2220)

Project numbers: 5910-2026-038 and -039.

The subject documents are now available for viewing and downloading from the DLA Weapons Support (Columbus) - VA website:

<https://landandmaritimeapps.dla.mil/Programs/MilSpec/initialdrafts.aspx>

This new military specification and associated specification sheet are being developed to specify the requirements and quality assurance provisions for stacked capacitor assemblies utilizing extended range ceramic capacitors like those in [MIL-PRF-32535](#). Three product levels are offered: M (standard reliability), T (high reliability), and U (high reliability). MIL-PRF-STACK capacitors have higher capacitance values than [MIL-PRF-49470](#) capacitors of the same size and voltage rating.

The high reliability capacitors (T and U level) are intended for space, missile, and other high reliability applications. Requirements and quality assurance provisions for T and U level capacitors include ultrasonic inspection, destructive physical analysis, and an enhanced production lot definition. U level capacitors also require an additional post-termination ultrasonic inspection. Inspection of product for delivery for T and U level capacitors consists of group A and subgroups 1 and 2 of group B.

Concurrence or comments are required at this Center no later than **20 July 2026**. If comments are not received during the allotted coordination period, concurrence may be assumed. Late comments may be held for the next specification action. Comments from military departments must be identified as either "Essential" or "Suggested". Essential comments must be justified with supporting data. Military review activities should forward comments to their custodians of this office, as applicable, in sufficient time to allow for consolidating the department reply. Since Navy – EC is a custodian for this document; all Navy review activities should forward their comments directly to this Center.

The point of contact for this project is Mr. John Bonitatibus, DLA Weapons Support (Columbus) - VAT, Post Office Box 3990, Columbus, OH 43218-3990. The preferred method of contact is via email. John can be reached at john.bonitatibus@dlamail or (614) 693-4886.

//Signature on file//

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NOTE: This draft, dated 16 June 2026, prepared by DLA-CC, has not been approved and is subject to modification.
DO NOT USE PRIOR TO APPROVAL. (Project 5910-2026-039)

INCH-POUND
MIL-PRF-STACK/1
DRAFT

PERFORMANCE SPECIFICATION SHEET

CAPACITOR, FIXED, CERAMIC DIELECTRIC (GENERAL PURPOSE AND TEMPERATURE STABLE), HORIZONTALLY STACKED, STANDARD RELIABILITY AND HIGH RELIABILITY SIZE 2220

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and [MIL-PRF-STACK](#).

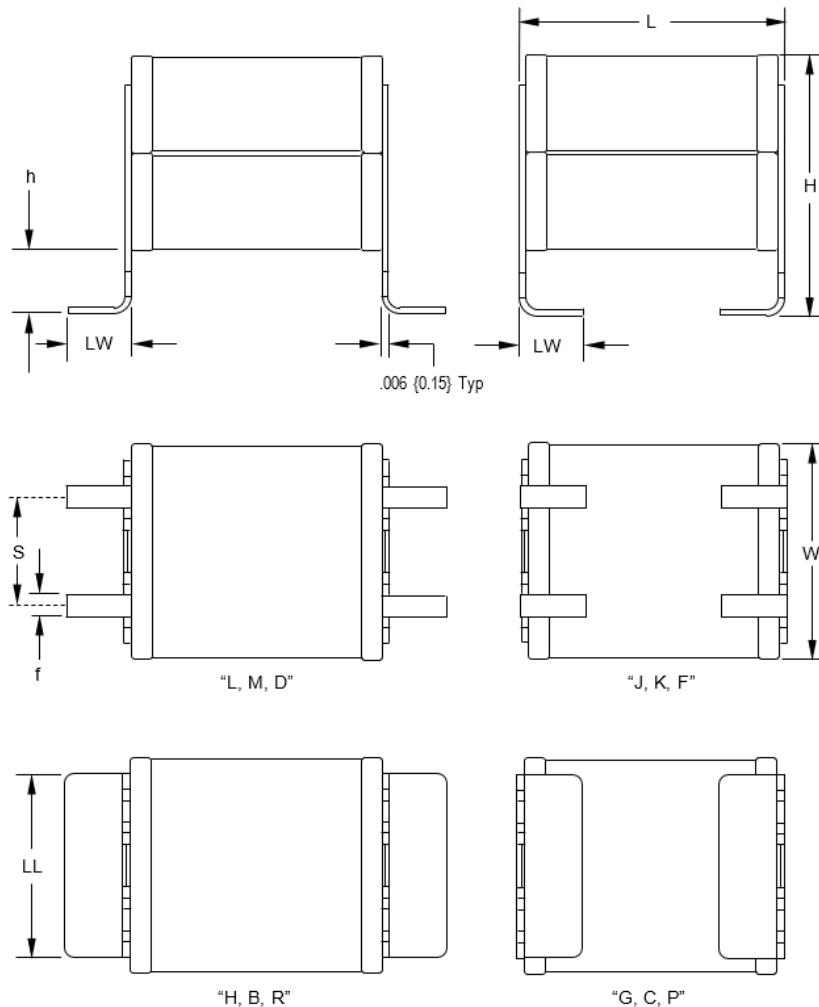


FIGURE 1. Size 2220 stacked capacitors.



MIL-PRF-STACK/1
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Dimensions, inch (mm)							
L (max.)	W (max.)	H (max.)	h (min.)	f ± .012 (0.30)	LW ± .012 (0.30)	LL (min.) (see note 3)	S ± .012 (0.30)
.292 (7.42)	.222 (5.64)	See table I	.035 (0.89)	.020 (0.51)	.063 (1.60)	.149 (3.78)	.100 (2.54)

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in millimeters and are given for information only.
3. Shall not exceed the footprint of the chip.

FIGURE 1. Size 2220 stacked capacitors - Continued.

REQUIREMENTS:

Dimensions and configuration: See [figure 1](#).

Capacitance value: See [table I](#).

Capacitance tolerance: See [table I](#) and MIL-PRF-STACK.

Characteristic: E1 = C0G and E2 = X7R as specified in MIL-PRF-STACK.

Rated voltage (V_{dc}): X = 10; Y = 16; Z = 25; A = 50; B = 100; C = 200, E = 500.

Operating temperature range: -55°C to +125°C.

Configuration: Lead frame styles J, L, G, H, K, M, C, B, F, D, P, and R (see [figure 1](#) and MIL-PRF-STACK).

Product level designator: M, T, and U as specified in MIL-PRF-STACK.

Electrode: P and B as specified in MIL-PRF-STACK.

Marking: In accordance with MIL-PRF-STACK.

TABLE I. Size 2220 capacitor characteristics.

Part or Identifying Number (PIN) 1/	Capacitance (μ F)	Capacitance tolerance	Characteristic	Rated voltage (V_{dc})	Configuration	Electrode material	Maximum H dimension (inch (mm))
MSTACK01E2B825M ---	8.2	M	E2	100	2/	P, B	.295 (7.49)
MSTACK01E2B106M ---	10	M	E2	100	2/	P, B	.295 (7.49)
MSTACK01E2B146M ---	14	M	E2	100	2/	P, B	.414 (10.52)
MSTACK01E2A156M ---	15	M	E2	50	2/	P, B	.295 (7.49)
MSTACK01E2A186M ---	18	M	E2	50	2/	P, B	.295 (7.49)
MSTACK01E2A206M ---	20	M	E2	50	2/	P, B	.295 (7.49)
MSTACK01E2A226M ---	22	M	E2	50	2/	P, B	.295 (7.49)
MSTACK01E2A306M ---	30	M	E2	50	2/	P, B	.414 (10.52)
MSTACK01E2Z276M ---	27	M	E2	25	2/	P, B	.295 (7.49)
MSTACK01E2Z336M ---	33	M	E2	25	2/	P, B	.295 (7.49)
MSTACK01E2Z476M ---	47	M	E2	25	2/	P, B	.295 (7.49)
MSTACK01E2A666M ---	66	M	E2	50	2/	P, B	.414 (10.52)

[1/](#) The complete PIN shall include additional symbols to indicate configuration, product level, and electrode material.

[2/](#) J, L, G, H, K, M, C, B, F, D, P, and R (see [figure 1](#) and MIL-PRF-STACK).

MIL-PRF-STACK/1
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Custodians:
Army – CR
Navy - EC
Air Force – 85
DLA - CC

Preparing activity:
DLA - CC

(Project 5910-2026-039)

Review activities:
Army - MI
Navy - AS, MC, OS, SH
Air Force - 19
Other – MDA, NA

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 <https://assist.dla.mil>.