

ENGINEERING PRACTICE STUDY

TITLE: REVIEW THE MLCC THICKNESS REQUIREMENT IN DLA LAND AND MARITIME  
DRAWING 05007

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FINAL REPORT

Study conducted by John A. Bonitatibus  
Electronics Engineer  
Electronics Component Branch  
DLA Land and Maritime-VAT

Prepared by:

//Signed//

John A. Bonitatibus  
Electronics Engineer  
Electronics Components Branch

Approved by:

//Signed//

Michael A. Radecki  
Chief  
Electronics Components Branch

**I. OBJECTIVE:** This engineering practice study was conducted to determine the benefits and/or consequences of increasing the thickness dimension of 1206 size MLCC capacitors in DLA Land and Maritime drawing [05007](#).

**II. BACKGROUND:** The thickness dimension for the MLCC capacitors in DLA Land and Maritime drawing [05007](#) is limited to .051", maximum. An approved supplier to [05007](#) has proposed increasing this thickness dimension to the [EIA-198](#) industry standard for 1206 size MLCCs (.059", maximum). The supplier believes that increasing the thickness requirement will allow capacitor manufacturers the opportunity to offer larger capacitance values within the currently listed voltage ratings.

The current thickness dimension in [05007](#) matches the same in [MIL-PRF-55681/8](#) (style CDR32).

**III. RESULTS:** Comments were received from both users and manufacturers. All of the respondents agreed that a change in the thickness requirement would be a benefit. There were no negative comments.

**IV. CONCLUSIONS:** Increasing the thickness dimension in DLA Land and Maritime drawing [05007](#) to the [EIA-198](#) industry standard for 1206 size MLCCs will allow manufactures to offer larger capacitance values within the currently listed voltage ratings. Users and OEMs can benefit from these new offerings.

**V. RECOMMENDATIONS:** Revise DLA Land and Maritime drawing [05007](#) to increase the thickness maximum to the [EIA-198](#) industry standard for 1206 size MLCCs (.059").