

INCH-POUND

MIL-STD-202-305
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SUPERSEDING
MIL-STD-202G
w/CHANGE 2 (IN PART)
28 June 2013
(see 6.1)

**DEPARTMENT OF DEFENSE
TEST METHOD STANDARD
METHOD 305, CAPACITANCE**



AMSC N/A

FSC 59GP



MIL-STD-202-305

FOREWORD

1. This standard is approved for use by all Departments and Agencies of the Department of Defense.
2. This entire standard has been revised. This revision has resulted in many changes to the format, but the most significant one is the splitting the document into test methods. See MIL-STD-202 for the change summary.
3. Comments, suggestions, or questions on this document should be emailed to std202@dla.mil or addressed to: Commander, Defense Logistics Agency, DLA Land and Maritime, ATTN: VAT, P.O. Box 3990, Columbus, OH 43218-3990. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

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METHOD 305
CAPACITANCE

1. SCOPE

1.1 Purpose. The purpose of this test is to measure the capacitance of component parts. Preferred test frequencies for this measurement are 60 Hz, 100 Hz, 120 Hz, 1 kHz, 100 kHz, and 1 MHz.

2. APPLICABLE DOCUMENTS

This section not applicable to this standard.

3. DEFINITIONS

This section not applicable to this standard.

4. GENERAL REQUIREMENTS

4.1. Procedure. The capacitance of the specimen shall be measured with a capacitance bridge or other suitable method at the frequency specified. Unless otherwise specified, the measurement shall be made at a temperature of $25^{\circ}\text{C} \pm 5^{\circ}\text{C}$. In the case of measurement dispute, capacitance measurements shall be made at or corrected to 25°C . The inherent accuracy of the measurement shall be $\pm(0.5 \text{ percent} + 0.2 \text{ picofarad})$ unless otherwise specified. Suitable measurement technique shall be used to minimize errors due to the connections between the measuring apparatus and the specimen. The alternating-current (ac) voltage actually impressed across the specimen shall be as low as practicable. When a direct-current (dc) polarizing voltage is required, it shall be as specified and shall exceed the peak ac voltage impressed across the specimen; however, the sum of the peak ac and the dc voltages shall not exceed the voltage rating of the specimen.

5. DETAILED REQUIREMENTS

5.1. Summary. The following details are to be specified in the individual specification:

- a. Test frequency (see 4.1).
- b. Test temperature, if other than that specified (see 4.1).
- c. Limit of accuracy, if other than that specified (see 4.1).
- d. Magnitude of polarizing voltage, if applicable (see 4.1)
- e. Magnitude of AC rms test signal, if applicable (see 4.1).

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6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Supersession data. The main body and 38 parts of this revision of MIL-STD-202 replace superseded MIL-STD-202.

Custodians:

Army - CR
Navy - EC
Air Force - 85
DLA - CC

Preparing activity:
DLA – CC

(Project 59GP-2015-035)

Review activities:

Army - AR, AT, AV, CR4, MI, SM, TE
Navy - AS, OS, SH
Air Force - 19, 99
NSA - NS

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