

TECHNICAL SPECIFICATION



Electrostatics – Part 5-4: Protection of electronic devices from electrostatic phenomena – Compliance verification



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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
www.iec.ch

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Electrostatics – Part 5-4: Protection of electronic devices from electrostatic phenomena – Compliance verification

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROSTATICS –

**Part 5-4: Protection of electronic devices from
electrostatic phenomena – Compliance verification**

FOREWORD

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IEC TS 61340-5-4 has been prepared by IEC technical committee 101: Electrostatics. It is a Technical Specification.

This first edition cancels and replaces IEC TR 61340-5-4 published in 2019. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to IEC TR 61340-5-4:

- a) test methods in the main body of the document have been made normative, and consequently normative references have been added;
- b) the term "ESD ground" has been added and defined;
- c) description of equipment for measuring low resistance has been added;
- d) user specified electrodes, including surface resistance bar electrodes, are permitted to be used for resistance measurements;

- e) an informative annex on verification of compliance verification test equipment has been added;
- f) compliance verification of person-footwear-flooring systems by measuring body voltage has been moved to an informative annex.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
101/615/DTS	101/627A/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 61340 series, published under the general title *Electrostatics*, can be found on the IEC website.

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- amended.

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INTRODUCTION

Compliance verification is the process of monitoring and measuring all elements of an ESD control program. Regular compliance verification checks and tests are an essential part of this process, ensure that area precautions and equipment remain effective, and that an ESD control program is correctly implemented in compliance with an ESD control program plan.

Qualification testing is typically carried out under controlled conditions, often in a laboratory environment, and using industry recognized standards. Compliance verification testing is carried out under operational conditions using test methods that are appropriate to a user's requirements. Although qualification test methods can be used, compliance verification testing often uses simple equipment and procedures. Accuracy is still important, but of equal importance is the ability to carry out non-destructive testing without interrupting the normal business of the organization.

This document describes equipment and test methods that can be used for compliance verification testing of ESD control items and systems, and provides users with some guidance on how to carry out the tests and take appropriate action to ensure continuous compliance.