



BSI Standards Publication

Electrostatics

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

National foreword

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TECHNICAL REPORT



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

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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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 TR 61340-5-4, which is a Technical Report, has been prepared by IEC technical committee 101: Electrostatics.

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

Draft TR	Report on voting
101/581/DTR	101/586/RVDTR

Full information on the voting for the approval of this Technical Report can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Compliance verification is the process of monitoring and measuring all elements of an ESD control program. Regular compliance 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. Verification testing is carried out under operational conditions using test methods that are appropriate to an organization'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 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.

The compliance verification test frequency is not described in this document. See Annex A for test frequency considerations.

ELECTROSTATICS –

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

1 Scope

This part of IEC 61340 describes compliance verification testing for technical items that are included in ESD control programs, such as those specified in IEC 61340-5-1.

Test methods, in the main body of this document, are based on those specified in IEC 61340-5-1 and other parts of IEC 61340, and are simplified where necessary for the purposes of compliance verification, to be performed by competent personnel.

Additional compliance verification tests and procedures within the scope of this document are described in Annexes B to G.

Users can, by reference to this document in their compliance verification plan, adopt the necessary test methods described herein without change or addition. Alternatively, tests methods described in this document can be adapted to match the requirements of their own ESD control program, provided deviations in equipment or procedure are documented in their compliance verification plan.

Product qualification is excluded from the scope of this document.

2 Normative references

There are no normative references in this document

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the documents cited in the bibliography apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Personnel safety

The procedures and equipment described in this document can expose personnel to hazardous electrical conditions. Users of this document are responsible for selecting equipment that complies with applicable laws, regulatory codes and both external and internal policy. This document cannot replace or supersede any requirements for personnel safety.

Electrical hazard reduction practices should be exercised and proper grounding instructions for equipment should be followed.