IEC PAS 61340-5-6

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PUBLICLY AVAILABLE SPECIFICATION

colour inside

Electrostatics –
Part 5-6: Protection of electronic devices from electrostatic phenomena – Process assessment techniques

IEC PAS 61340-5-6:2022-06(en)

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ELECTROSTATICS –

Part 5-6: Protection of electronic devices from electrostatic phenomena – Process assessment techniques

FOREWORD

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IEC PAS 61340-5-6 has been processed by IEC technical committee 101: Electrostatics.

It is based on ANSI/ESD SP17.1-2020. The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

The text of this PAS is based on the following document:

This PAS was approved for publication by the P-members of the committee concerned as indicated in the following document

Draft PAS	Report on voting
101/654/DPAS	101/663/RVDPAS

Following publication of this PAS, the technical committee or subcommittee concerned may transform it into an International Standard.

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

This PAS shall remain valid for an initial maximum period of 2 years starting from the publication date. The validity may be extended for a single period up to a maximum of 2 years, at the end of which it shall be published as another type of normative document, or shall be withdrawn.

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ESD Association Standard Practice for the Protection of Electrostatic Discharge Susceptible Items –

Process Assessment Techniques

Approved November 17, 2020
EOS/ESD Association, Inc.

(This foreword is not part of EOS/ESD Association, Inc. Standard Practice ANSI/ESD SP17.1-2020)

FOREWORD

This standard practice[1] describes a set of methodologies, techniques, and tools that can be used to characterize a process where ESD sensitive (ESDS) items are handled. This document's procedures are meant to be used by those possessing knowledge and experience with electrostatic measurements.

This document provides methods to determine the level of ESD risk that remains in the process after ESD protective equipment and materials are implemented.

These test methods' objective is to identify if potentially damaging ESD events are occurring or if significant electrostatic charges are generated on people, equipment, materials, components, or printed circuit board assemblies (PCBA) even though there are static control measures in place.

Sensitivities of items are characterized by industry-standard ESD testing and rated by their withstand voltages. This document is intended to provide methods to determine whether items of a given withstand voltage are at risk in the process.

The wide variety of ESD protective equipment and materials and the environment in which these items are used may require test setups different from those described in this document. Users of this standard practice may need to adapt the test procedure and setups described in Annex A to produce meaningful data for the user’s application.

Organizations performing these tests will need to determine if on-going process characterization is necessary, and if so, the time interval between observations. It may also be important to make these observations when new products are introduced or when process changes occur. Examples of process changes may include tools, fixtures, equipment, new items/products, and additional manufacturing steps.

The topics below are not addressed in this document:

- Program Management: see ANSI/ESD S20.20 Protection of Electrical and Electronic Parts, Assemblies and Equipment (Excluding Electrically Initiated Explosive Devices)
- Compliance Verification: see ESD TR53-01 Compliance Verification of ESD Protective Equipment and Materials
- Troubleshooting: ESD TR53-01
- ESD Program Certification: see ANSI/ESD S20.20 Certification Program at www.esda.org

This document was designated ANSI/ESD SP17.1-2020 and approved on November 17, 2020.

[1] **ESD Association Standard Practice:** A procedure for performing one or more operations or functions that may or may not yield a test result. Note, if a test result is obtained it may not be reproducible.