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Durability test methods for electronic displays – Part 2-21: Environmental tests – Test methods for heat and humidity

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DURABILITY TEST METHODS FOR ELECTRONIC DISPLAYS –

Part 2-21: Environmental tests – Test methods for heat and humidity

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IEC 63211-2-21 has been prepared by IEC technical committee 110: Electronic displays. It is an International Standard.

The text of this International Standard is based on the following documents:

Draft	Report on voting
110/1742/FDIS	110/1760/RVD

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 International Standard 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/publications.

A list of all parts in the IEC 63211 series, published under the general title *Durability test methods for electronic displays*, 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 website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

INTRODUCTION

All documents developed in IEC TC 110 that are concerned with the durability of electronic displays refer to a set of methods and procedures that are similar to each other, or sometimes even identical. This document is intended to identify these methods and to describe them as a reference for forthcoming standards to make the work of the involved experts more efficient and to avoid duplication of efforts.

Environmental tests for different display technologies are covered in specific standards, including IEC 62715-6-2, IEC 62679-4-2, IEC 62341-5, IEC 62908-13-10, and IEC 61747-10-2. They were originally created using the IEC 60068 series as a reference, in which some modifications were introduced to be suitable for electronic displays. However, the relevance of environmental test largely depends on the application and intended use of the display, rather than the technology utilized. Therefore, the creation of a comprehensive, technology-agnostic IEC standard for environmental test of electronic displays is proposed. Such a standard would facilitate more application-centric and use-case focused test protocols, resulting in a more thorough assessment of electronic displays under various environmental conditions.

This document has been prepared for the following objectives:

a) to avoid unnecessary deviations;

b) to avoid inefficient discussions and documents in multiple working groups;

c) to follow ISO/IEC Directives Part 2:2021, 5.7 (Avoidance of duplication and unnecessary deviations).

This document relates to the common durability test methods applicable in the field of electronic displays, which can overlap with some of the parts of existing TC 110 documents that describe the durability test methods of individual technologies, such as LCD, OLED, PDP and others. This document is intended to be used as the reference document in future standards and in revisions of existing ones. The existing standards will be revised in their maintenance time to refer to this document to the largest extent possible.

DURABILITY TEST METHODS FOR ELECTRONIC DISPLAYS –

Part 2-21: Environmental tests – Test methods for heat and humidity

1 Scope

This part of IEC 63211 provides test methods of the environmental tests for resistance to heat and humidity. This part of IEC 63211 is used to evaluate the ability of electronic displays to resist environmental damage. This document applies to electronic displays.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-1, *Environmental testing – Part 1: General and guidance*