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BSI Standards Publication

Flexible display devices

Part 5-2: Measuring methods of optical characteristics from the vantage point for curved displays

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee EPL/47, Semiconductors.

A list of organizations represented on this committee can be obtained on request to its secretary.

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Flexible display devices –
Part 5-2: Measuring methods of optical characteristics from the vantage point for curved displays

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Technical specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62715-5-2, which is a technical specification, has been prepared by IEC technical committee 110: Electronic display devices.

The text of this standard is based on the following documents:

Enquiry draft	Report on voting
110/715/DTS	110/739/RVC

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

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

A list of all parts in the IEC 62715 series, published under the general title *Flexible display devices*, can be found on the IEC website.

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

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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FLEXIBLE DISPLAY DEVICES –

Part 5-2: Measuring methods of optical characteristics from the vantage point for curved displays

1 Scope

This part of IEC 62715, which is a technical specification, specifies the general rules and the details of optical measuring methods from a fixed point (the so-called vantage point) for curved emissive and transmissive type displays such as OLED and LCD in dark room conditions. This document focuses on concave shape large screen displays (non-portable) around a horizontal and/or vertical axis with fixed or variable curvature radius.

The measuring method stipulated in this technical specification is applied to the curved display modules under the following states:

- vantage-point luminance variation by viewing angles
- vantage-point contrast ratio variation by viewing angles
- vantage-point chromaticity variation of white colour by viewing angles
- vantage-point colour gamut area variation by viewing angles
- vantage-point chromaticity variation of primary colours by viewing angles
- luminance uniformity and its uniformity variation by viewing angles
- chromaticity uniformity and its uniformity variation by viewing angles
- viewing angle of half-luminance
- viewing angle of half-contrast

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 62715-1-1, *Flexible display devices – Part 1-1: Terminology and letter symbols*

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 62715-1-1 as well as the following apply.

3.1.1
curved display
display that has a single curvature radius along the screen horizontally and/or vertically

Note 1 to entry: The curvature radius of each screen position is fixed by the manufacturer or user controllable curvature radius.

Note 2 to entry: The direction of curvature might be concave or convex from the viewer’s position.