



INTERNATIONAL STANDARD



**Printed electronics –
Part 402-2: Printability – Measurement of qualities – Edge waviness**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

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FOREWORD

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

FDIS	Report on voting
119/310/FDIS	119/317/RVD

Full information on the voting for the approval of this International Standard 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 62899 series, published under the general title *Printed electronics*, 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 "<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- withdrawn,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.

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INTRODUCTION

This part of IEC 62899-402 describes the measurement methods of printed patterns to evaluate their printability in the field of printed electronics. Printability is defined as both the qualities of printed patterns and the reproducibility of printing designs as the interaction result of printing media, inks and substrates. The qualities of printed patterns are satisfied by accurate measuring of the printed patterns two- and/or three-dimensionally with mechanical, physical and optical apparatus. The reproducibility of printing designs is achieved by estimating the reproducibility of replica. In terms of the business background, the requests from the industry applying the printing technology to the electronics manufacturing concern the guarantees of both the quality and reproducibility of printed patterns and printing designs to facilitate international trade and enhance user value in the field of printed electronics.

This document provides fundamental information on the measurement of printed pattern edge waviness to evaluate the printability in the field of printed electronics. An assurance of printability enhances user value of printed electronics and facilitates international trade. This document includes the measurement procedure, as well as the definition of edge waviness and related attributes such as average edge, touch edge and distribution edge of edge waviness, which are quite different from those that appear in the printing of graphic arts or from etching processes.

This document excludes the standardization of any kind of measurement equipment or system. It focuses on specifying the properties related to edge waviness of the printed patterns obtained by an optical measurement system.

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1 Scope

This part of IEC 62899 describes the measurement methods of the edge waviness of printed patterns in printed electronics.

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.

ISO 291, *Plastics – Standard atmospheres for conditioning and testing*