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Printed electronics -

Part 302-3: Equipment – Inkjet – Imaging-based measurement of drop direction

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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CONTENTS

FOREWORD	3
INTRODUCTION	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	6
4 Measurement methods	7
4.1 General	
4.2 Process for projected angle using one double flash drop watcher (method 1)	
4.3 Process for projected angle using one single flash drop watcher (method 2)	
 4.4 Process for projected angle using one strobe flash drop watcher (method 3) 4.5 Process for trajectory angles using two double flash drop watchers (method 4) 	8
4.5 Process for trajectory angles using two double hash drop watchers (method 4)	8
4.6 Process for trajectory angles using two single flash drop watchers (method 5)	Ω
4.7 Process for trajectory angles using two strobe flash drop watchers (method 6)	8
Annex A (informative) Determination of jetted drop direction	
A.1 Imaging-based measurements of jetted drop direction	
A.2 Formulae used for imaging results from the measurements	13
A.2.1 Formulae for projected angle using one double flash drop watcher (method 1)	13
A.2.2 Formulae for projected angle using one single flash drop watcher (method 2)	
A.2.3 Formulae for projected angle using one strobe drop watcher (method 3)	13
A.2.4 Formulae for trajectory angles using two double flash drop watchers (method 4)	14
A.2.5 Formulae for measured trajectory angles using two single flash drop watchers (method 5)	15
A.2.6 Formulae for measured trajectory angles using two strobe flash drop watchers (method 6)	17
A.3 Recording	18
Bibliography	20
Figure A.1 – Schematic representation of jetted drop positions below a jetting nozzle (0) for double flash (1-2), single flash (1-2') and strobe flash (1"-2") at different delays	10
Figure A.2 – Schematic representation of a) the projected angle δ in 2-D and b) the trajectory angles θ and ψ in 3-D	11
Figure A.3 – Example of two orthogonally-mounted in-flight imaging drop watchers	

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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

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INTRODUCTION

Establishing the jetted drop direction under specific operating conditions of inks and inkjet print-heads is significant for accurate drop placement during the manufacture of printed electronics. Manufacturers that include such print-heads in their equipment should know the angular spread of ink drop directions because this influences the achievable spatial resolution of the printed material, and in particular whether any neighbouring conducting tracks could be connected by stray materials, which would affect the printed electronics' product performance. This document defines the methods for in-flight imaging measurement of jetted drop direction from drop-on-demand type inkjet print-heads to be used in printed electronics equipment.

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1 Scope

This part of IEC 62899 specifies in-flight imaging methods for the measurement of the direction of ink drops jetted from inkjet print-heads using drop watchers. It does not apply to holographic or other interference techniques, or to any method assessing deposited ink drops. It is specific to drop-on-demand type inkjet print-heads (used in printed electronics equipment).

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 62899-302-1, Printed electronics – Equipment – Inkjet – Imaging based measurement of jetting speed