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INTERNATIONAL STANDARD

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Device embedding assembly technology – Part 2-5: Guidelines – Implementation of a 3D data format for device embedded substrate

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FOREWORD

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International Standard IEC 62878-2-5 has been prepared by IEC technical committee 91: Electronics assembly technology.

This first edition cancels and replaces IEC PAS 62878-2-5 published in 2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) the title has been changed to "Implementation of a 3D data format for device embedded substrate" from "Requirements of design date format for device embedded substrate";
b) the scope of this implementation has changed to not include SiPs.

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

CDV	Report on voting
91/1557/CDV	91/1589/RVC

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 62878 series, published under the general title *Device embedding assembly technology*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

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- withdrawn,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.

A bilingual version of this publication may be issued at a later date.

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DEVICE EMBEDDING ASSEMBLY TECHNOLOGY –

Part 2-5: Guidelines – Implementation of a 3D data format for device embedded substrate

1 Scope

This part of IEC 62878 specifies requirements based on XML schema that represents a design data format for device embedded substrate, which is a board comprising embedded active and passive devices whose electrical connections are made by means of a via, electroplating, conductive paste or printing of conductive material.

This data format is to be used for simulation (e.g. stress, thermal, EMC), tooling, manufacturing, assembly, and inspection requirements. Furthermore, the data format is used for transferring information among printed board designers, printed board simulation engineer, manufacturers, and assemblers.

This part of IEC 62878 applies to substrates using organic material. It neither applies to the re-distribution layer (RDL) nor to the electronic modules defined as M-type business model in IEC 62421.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
artwork information
information that shows a SiP not included in net and figure data in board (symbol mark, inside of SiP, mould, spacer, remarks, etc.)

3.2
board information
total information of a device-embedded substrate, including embedded devices

3.3
chip stack
package of semiconductor chips stacked vertically

3.4
clearance
area around a through-hole where there is no conductor to prevent electrical connection between a large conductor area, such as that of a power supply or a ground and a plated through-hole