

# INTERNATIONAL STANDARD

# IEC 62258-2

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## Semiconductor die products –

### Part 2: Exchange data formats

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**SEMICONDUCTOR DIE PRODUCTS –****Part 2: Exchange data formats**

## FOREWORD

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International Standard IEC 62258-2 has been prepared by IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47/1809/FDIS	47/1822/RVD

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

This Part of IEC 62258 should be read in conjunction with IEC 62258-1.

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

IEC 62258, as currently conceived, consists of the following parts, under the general title *Semiconductor die products*

- Part 1: Requirements for procurement and use
- Part 2: Exchange data formats
- Part 3: Recommendations for good practice in handling, packing and storage
- Part 4: Questionnaire for die users and suppliers
- Part 5: Requirements for information concerning electrical simulation
- Part 6: Requirements for information concerning thermal simulation

Further parts may be added as required.

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

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This International Standard is based on the work carried out in the ESPRIT 4<sup>th</sup> Framework project GOOD-DIE which resulted in the publication of the ES 59008 series of European specifications. Organisations that helped prepare this standard included the ESPRIT GOOD-DIE and ENCAST projects, the Die Products Consortium, and JEITA.

## SEMICONDUCTOR DIE PRODUCTS –

### Part 2: Exchange data formats

#### 1 Scope

This part of IEC 62258 has been developed to facilitate the production, supply and use of semiconductor die products, including but not limited to

- wafers,
- singulated bare die,
- die and wafers with attached connection structures,
- minimally or partially encapsulated die and wafers.

This standard specifies the data formats that may be used for the exchange of data covered by other parts in the IEC 62258 series as well as definitions of all parameters used according to the principles and methods of IEC 61360-1, IEC 61360-2 and IEC 61360-4. It introduces a Device Data Exchange (DDX) format, with the prime goal of facilitating the transfer of adequate geometric data between the die manufacturer and the CAD/CAE user and formal information models that allow data exchange in other formats such as STEP physical file format, in accordance with ISO 10303-21 and XML. The data format has been kept intentionally flexible to permit usage beyond this initial scope.

This standard reflects the DDX data format: version 1.2.1.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 62258-1, *Semiconductor die products – Part 1: Requirements for procurement and use*<sup>1</sup>

IEC 61360-1:2002, *Standard data element types with associated classification scheme for electric components – Part 1: Definitions – Principles and methods*

IEC 61360-2:2002, *Standard data element types with associated classification scheme for electric components – Part 2: EXPRESS dictionary schema*

IEC 61360-4:1997, *Standard data element types with associated classification scheme for electric components – Part 4: IEC reference collection of standard data element types, component classes and terms*

ISO 6093:1985, *Information processing – Representation of numerical values in character strings for information interchange*

ISO 8601:2004, *Data elements and interchange formats – Information interchange – Representation of dates and times*

ISO 10303-21:2002, *Industrial automation systems and integration – Product data representation and exchange – Part 21: Implementation methods: Clear text encoding of the exchange structure*

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<sup>1</sup> To be published.