

Semiconductor die products -- Part 6: Requirements for information concerning thermal simulation

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for information concerning thermal simulation

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 62258-6:2006 sisaldab Euroopa standardi EN 62258-6:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 20.10.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 62258-6:2006 consists of the English text of the European standard EN 62258-6:2006.</p> <p>This document is endorsed on 20.10.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>This part of IEC 62258 has been developed to facilitate the production, supply and use of semiconductor die products, including: • wafers; • singulated bare die; • die and wafers with attached connection structures; • minimally or partially encapsulated die and wafers.</p>	<p>Scope:</p> <p>This part of IEC 62258 has been developed to facilitate the production, supply and use of semiconductor die products, including: • wafers; • singulated bare die; • die and wafers with attached connection structures; • minimally or partially encapsulated die and wafers.</p>
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Võtmesõnad:

English version

Semiconductor die products
Part 6: Requirements for information
concerning thermal simulation
(IEC 62258-6:2006)

Produits de matrice de semi-conducteur
Partie 6: Exigences pour l'information
concernant la simulation thermique
(CEI 62258-6:2006)

Halbleiter-Chip-Erzeugnisse
Teil 6: Anforderungen für Angaben
hinsichtlich der thermischen Simulation
(IEC 62258-6:2006)

This European Standard was approved by CENELEC on 2006-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 47/1870/FDIS, future edition 1 of IEC 62258-6, prepared by IEC TC 47, Semiconductor devices, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62258-6 on 2006-09-01.

This standard is to be used in conjunction with EN 62258-1 and EN 62258-2.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2007-06-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2009-09-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62258-6:2006 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62258-1	- ¹⁾	Semiconductor die products Part 1: Requirements for procurement and use	EN 62258-1	2005 ²⁾
IEC 62258-2	- ¹⁾	Semiconductor die products Part 2: Exchange data formats	EN 62258-2	2005 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

INTERNATIONAL STANDARD

IEC
62258-6

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Semiconductor die products –

**Part 6:
Requirements for information
concerning thermal simulation**



Reference number
IEC 62258-6:2006(E)

Publication numbering

As from 1 January 1997 all IEC publications are issued with a designation in the 60000 series. For example, IEC 34-1 is now referred to as IEC 60034-1.

Consolidated editions

The IEC is now publishing consolidated versions of its publications. For example, edition numbers 1.0, 1.1 and 1.2 refer, respectively, to the base publication, the base publication incorporating amendment 1 and the base publication incorporating amendments 1 and 2.

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CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions.....	6
4 General	6
5 Requirements for information for thermal simulation	7
5.1 Requirements for bare die with or without added connection structures	7
5.2 Requirements for minimally-packaged die	7
5.3 Information on thermal simulation model	8
Bibliography.....	9

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR DIE PRODUCTS –**Part 6: Requirements for information
concerning thermal simulation**

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62258-6 has been prepared by IEC technical committee 47: Semiconductor devices.

This standard should be read in conjunction with IEC 62258-1 and IEC 62258-2.

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

FDIS	Report on voting
47/1870/FDIS	47/1883/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 publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The structure of 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 (Technical Report)
- Part 4: Questionnaire for die users and suppliers (Technical Report) (in preparation)
- Part 5: Requirements for information concerning electrical simulation
- Part 6: Requirements for information concerning thermal simulation
- Part 7: XML schema for data exchange (Technical Report) (in preparation)

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.

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

INTRODUCTION

This standard is based on the work carried out in the ESPRIT 4th Framework project GOODDIE which resulted in the publication of the ES 59008 series of European specifications. Organisations that helped prepare this part to IEC 62258 included the ESPRIT ENCAST project, the Die Products Consortium, JEITA, JEDEC and ZVEI.

SEMICONDUCTOR DIE PRODUCTS –

Part 6: Requirements for information concerning thermal simulation

1 Scope

This part of IEC 62258 has been developed to facilitate the production, supply and use of semiconductor die products, including:

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

This part of IEC 62258 determines the information required to facilitate the use of thermal data and models for simulation of the thermal behaviour and verification of the correct functionality of electronic systems that include bare semiconductor die, with or without connection structures, and/or minimally packaged semiconductor die. It is intended to assist all those involved in the supply chain for die devices to comply with the requirements of IEC 62258-1 and IEC 62258-2.

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*

IEC 62258-2: *Semiconductor die products – Part 2: Exchange data formats*

3 Terms and definitions

For the purposes of this document, the terms, definitions and acronyms as given in IEC 62258-1 apply.

4 General

To comply with IEC 62258-1, suppliers of die devices shall furnish information, which is necessary and sufficient for users of the devices at all stages of design, procurement, manufacture and test of products containing them..

It is expected that much of the information supplied will be in the public domain and available from such sources as manufacturers' data sheets. However, this standard does not place an obligation on a supplier to make information public. Any information that a supplier considers to be proprietary or commercially sensitive may be supplied under the terms of a non-disclosure agreement.