IEC 60191-6-13

Edition 2.0 2016-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Mechanical standardization of semiconductor devices –
Part 6-13: Design guideline of open-top-type sockets for Fine-pitch Ball Grid Array (FBGA) and Fine-pitch Land Grid Array (FLGA)

Normalisation mécanique des dispositifs à semiconducteurs –
Partie 6-13: Guide de conception pour les supports sans couvercle pour les boîtiers matriciels à billes et à pas fins (FBGA) et les boîtiers matriciels à zone de contact plate et à pas fins (FLGA)

IEC 60191-6-13:2016 (en-fr)

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Part 6-13: Design guideline of open-top-type sockets for Fine-pitch Ball Grid Array (FBGA) and Fine-pitch Land Grid Array (FLGA)

FOREWORD

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International Standard IEC 60191-6-13 has been prepared by subcommittee 47D: Semiconductor devices packaging, of IEC technical committee 47: Semiconductor devices.

This second edition cancels and replaces the first edition published in 2007. This edition constitutes a technical revision.

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

a) BGA package nominal length and width have been newly expanded to 43 mm and 43 mm, respectively. Accordingly, six socket sizes have been added to the socket group numbers 1, 2 and 3, and twenty-two socket sizes have been added to the socket group number 4.

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

FDIS	Report on voting
47D/878/FDIS	47D/885/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.

A list of all the parts in the IEC 60191 series, under the general title *Mechanical standardization of semiconductor devices,* can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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 part of IEC 60191 aims to standardize the outer dimensions of the sockets for FBGA and FLGA, where leading-edge developments are aggressively innovated, to establish their compatibility with the needs of the surface-mount industry that is globally expanding due to enhanced functions and performances of electrical devices.

For defining each dimension, the target was to indicate the standard design value which has the concept of the design centre as much as possible, aiming to enhance the function as a standardization index.

MECHANICAL STANDARDIZATION OF SEMICONDUCTOR DEVICES –

Part 6-13: Design guideline of open-top-type sockets for Fine-pitch Ball Grid Array (FBGA) and Fine-pitch Land Grid Array (FLGA)

1 Scope

This part of IEC 60191 specifies a design guideline of open-top-type semiconductor sockets for Fine-pitch Ball Grid Array (FBGA) and Fine-pitch Land Grid Array (FLGA). In particular, this part of IEC 60191 establishes the outline drawings and dimensions of the open-top-type test and burn-in sockets applied to FBGA and FLGA.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60191-2, *Mechanical standardization of semiconductor devices – Part 2: Dimensions*

IEC 60191-6, *Mechanical standardization of semiconductor devices – Part 6: General rules for the preparation of outline drawings of surface mounted semiconductor device packages*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60191-6 apply.

4 Socket code

4.1 Construction of socket code

A socket code is constructed as follows.

EXAMPLE