

ICS 31.200
CCS L 55



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 35010.2-2018

Semiconductor die products -- Part 2: Exchange data formats

Issued on: March 15, 2018

Implemented on: August 1, 2018

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and definitions

4 requirements

2009 embodiment.

5 Device Data Exchange Format (DDX) file purpose and usage

5.4 DDX files and its data should be independent of the computer and operating system.

6 DDX file format and format rules

6.1 Data validity

6.2 character set

6.3 Grammar rules

7.2 DDXDEVICE block syntax

7.3 DDX data syntax

8 DEVICE block parameter definition

8.0 General Usage Guide

8.1 block data

Foreword

GB/T 35010 "Semiconductor Chip Products" is divided into the following sections.

- Part 1. Requirements for procurement and use;
- Part 2. Data exchange format;
- Part 3. Guide to handling, packaging and storage;
- Part 4. Chip user and supplier requirements;
- Part 5. Electrical simulation requirements;
- Part 6. Thermal simulation requirements;
- Part 7. XML format for data exchange;
- Part 8. EXPRESS format for data exchange.

This part is the second part of GB/T 35010.

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This section uses the translation method equivalent to IEC 62258-2:2011 "Semiconductor chip products Part 2. Data exchange format."

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

--- GB/T 35010.1-2018 Semiconductor chip products - Part 1. Requirements for procurement and use (IEC 62258-1:2009,

IDT)

1 Scope

This part of GB/T 35010 specifies the data format that can be used for data exchange. This format should be used in other parts of GB/T 35010.

At the same time, all the parameters used are defined according to the guidelines and methods of GB/T 17564.4-2009. This section presents a device number

According to the conversion (DDX) format, the main purpose is to promote the full transmission of geometric data between chip manufacturers and CAD/CAE users, and provide

Formal information models that allow data to be converted to other formats, such as GB/T 16656.21-2008 and XML

The STEP physical file format. Exceeding the scope of this section, in order to allow the use of the data conversion format, the format was specifically given

Great flexibility.

This section is used to guide the production, supply and use of semiconductor chip products. Among them, semiconductor chip products include.

- * Wafer;
- * a single bare chip;
- * chips and wafers with interconnect structures;
- * Minimal or partially packaged chips and wafers.

The version of the DDX data format in this section is 1.3.0.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 7408-2005 Data element and exchange format information exchange date and time representation (ISO 8601.2000, IDT)

GB/T 16656.21-2008 Industrial automation systems and integrated products - Data presentation and exchange - Part 21

Pure text encoding of the exchange file structure (ISO 10303-21.2001, IDT)

GB/T 17564.4-2009 Standard data element types and related classification modes for electronic components - Part 4. IEC standard number

According to the element type and component category benchmark set (IEC 61360-4.2005, IDT)

IEC 62258-1 Semiconductor Chip Products Part 1. Procurement and Use
(Semiconductor die products-Part 1.

Procurement and use)

SJ/Z9047-1987 Information processing information exchange is used in string form numerical representation (idt ISO 6093.1985)

IPC/JEDECJ-STD-033B.2007 Processing, packaging, and navigation of surface mount devices sensitive to the combined effects of moisture and soldering heat

Handling, packing, shipping and use of moisture/Reflow sensitive surface mount devices

3 Terms and definitions

The terms and definitions defined in IEC 62258-1 apply to this document.

4 requirements

The parameter variable specifically refers to the GB/T 17564.4-2009 data element type (DET) encoding, which is defined in GB/T 17564.4-

5 Device Data Exchange Format (DDX) file purpose and usage

5.1 In order to facilitate the conversion of data between the device vendor and the terminal CAD/CAE system user through the electronic medium, the data grid should be used.

The file is device data exchange (DDX). In order to allow for enhancements and extensions for future use, this data file format is intentionally reserved.

Flexibility.

5.2 It is strongly recommended that the device data exchange file use the 3-letter DDX as the file extension. Here, the device data exchange format should be called

For DDX files.

5.3 Data transferred from the device vendor to the user shall be contained in a separate computer-readable DDX file, and this file shall be

The content should at least meet a geometric CAD/CAE software design system. The original text in this document should be readable for simplicity

The person is checking.

5.4 DDX files and its data should be independent of the computer and operating system.

5.5 DDX file content should contain mechanical and interconnection information, but can also contain electronic and functional data.

5.6 DDX files may contain data for one or more devices and shall be used as a repository file for the CAD/CAE software design system.

A DDX file can contain one or more sets of data for the same device type, each with a different transfer mode, such as bump chips, bare chips, and cores.

Chip-level packaging.

5.7 DDX files should be able to be generated simply or automatically, for example via an ASCII text editor or spreadsheet software.

5.8 DDX files should be able to reference some external files, such as simulation and thermal model files.

5.9 All data should be defined in a way that can be converted to and from other exchange formats, such as chips such as GDSII and CIF.

Geometric data. In order to support the simple conversion of some DIE (Chip Information Exchange) data files, compatibility with existing DIE data is required.

May be close.

5.10 The parameter definition shall be consistent with GB/T 17564.4-2009 (see Chapter 5 of IEC 62258-1).

6 DDX file format and format rules

Note 1. The 1.2.1 version of DDX included in ES59008-6-1 replaces version 1.0.0.

Note 2. Version 1.3.0 of DDX included in IEC 62258-2.2005 replaces version 1.2.1.