SEMI T15-0818 (Reapproved 0324)
SPECIFICATION FOR JIG ID: CONCEPT

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1 Purpose

1.1 The purpose of this Standard is to establish generic Jig ID to identify individual jigs uniquely, mounted on the jig to process semiconductor devices.

2 Scope

2.1 This Standard specifies the following contents of IDs to be installed onto the jigs used in the process of semiconductor manufacturing.

- Types of IDs
- Data format

NOTICE: SEMI Standards and Safety Guidelines do not purport to address all safety issues associated with their use. It is the responsibility of the users of the Documents to establish appropriate safety and health practices, and determine the applicability of regulatory or other limitations prior to use.

3 Limitations

3.1 This Standard does not restrict the communication protocol for communicating data of Jig ID.

3.2 This Standard does not provide the shape of tags in which the information of Jig ID is written.

3.3 This Standard does not specify the physical interfaces, such as the installation positions of Jig ID and reader or reader/writer.

4 Referenced Standards and Documents

4.1 *SEMI Standards and Safety Guidelines*

SEMI T12 — Specification of Tracing Jigs and Implements

NOTICE: Unless otherwise indicated, all documents cited shall be the latest published versions.

5 Terminology

5.1 *Abbreviations and Acronyms*

5.1.1 *RFID* — radio frequency identification

5.2 *Definitions*

5.2.1 *Jig* — a kind of attachment used to support measurement or production for material on one or more equipment, as defined in SEMI T12.

5.2.2 *Jig ID* — an identifier installed onto a Jig, which is recognized to identify the individual piece.

6 Requirements

6.1 *Types of IDs*

6.1.1 This Standard describes identification mechanism to allow automatic reading or writing as shown below.

- Barcodes
- 2D Codes — Data Matrix (ECC200)

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- Radio frequency identifications (RFIDs)

6.2 *Data Format*

6.2.1 Both of the following ID part and DATA part shall be contained in the JIG ID Tag. They shall exist on the same tag.

6.2.1.1 *ID Part* — The ID part within the JIG ID is a part describing consolidated identification data to identify the jigs. The requirements of the ID part are specified as following.

6.2.1.1.1 The ID part exists on any JIG IDs.

6.2.1.1.2 *Number of Digits* — The number of digits contained in the ID part shall be fixed to 16 digits.

6.2.1.1.3 *Attribute* — Information on the ID part shall be represented in Visible ASCII Characters (20_{16}-$7E_{16}$).

6.2.1.1.4 *Information Alteration* — No alternation to information on the ID part shall be allowed.

6.2.1.1.5 *Format* — Information on the ID part consists of Supplier Code, year and month of manufacturing and a serial number.

6.2.1.1.5.1 *Supplier Codes* — A series of Visible ASCII Characters (20_{16}-$7E_{16}$) to identify supplier with 3-character.

NOTE 1: List of Suppliers Codes is to be provided by a separate Auxiliary Document.

6.2.1.1.5.2 *Year and Month of Manufacturing* — The year and month of manufacturing shall be expressed in a four-digit number as shown below.

YYMM

6.2.1.1.5.3 YY shall be the last two digits of the year. MM shall be two digits month of year. For example, January shall be designated as 01 and October shall be designated as 10.

6.2.1.1.6 *Serial Number* — The serial numbers shall be expressed in nine-digit of alpha-numerical codes. Space codes or Null codes shall not be allowed. Duplicated serial numbers shall not be used if 'year and month of manufacturing' is equivalent.

6.2.1.2 *DATA Part*

6.2.1.2.1 The DATA part is the optional information for the JIG ID. The DATA part contained in JIG ID shall be used for such supplemental information as notes of the requirements, conditions and history of the JIG. The specification of the DATA part is as below.

6.2.1.2.2 *Number of Digits* — Although the number of digits of the DATA part is not stipulated in particular, the number shall be the minimum necessary to achieve the purpose abovementioned. The following example may help understanding: Even though there is a case where approximately. 256 byte letters are used for the primary memory to describe the number of shots and the history of errors, the limitation on the number of digits for the DATA part depends on the amount of memory held by the RFID tag.

6.2.1.2.3 *Attribute* — Information on the DATA part shall be represented in Visible ASCII Characters (20_{16}-$7E_{16}$).

6.2.1.2.4 *Information Alteration* — No considerations are given to whether or not information on the DATA part is available for alteration. This information is available to read only, record, or read and write data.

6.2.1.2.5 *Security Information Data* — Security information data will be described in the DATA Part. Users describe contents of the Security information data optionally. Therefore, this Document does not define the exact content of the DATA.

ID part	DATA part

Figure 1
Data Format of JIG ID

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