

# Background Statement for SEMI Draft Document 6062

## REAPPROVAL OF SEMI M13-0706 (Reapproved 1011) - SPECIFICATION FOR ALPHANUMERIC MARKING OF SILICON WAFERS

**Notice:** This background statement is not part of the balloted item. It is provided solely to assist the recipient in reaching an informed decision based on the rationale of the activity that preceded the creation of this Document.

**Notice:** Recipients of this Document are invited to submit, with their comments, notification of any relevant patented technology or copyrighted items of which they are aware and to provide supporting documentation. In this context, “patented technology” is defined as technology for which a patent has issued or has been applied for. In the latter case, only publicly available information on the contents of the patent application is to be provided.

### Background

Per SEMI *Regulations* § 8.9.1, the Originating TC Chapter shall review its Standards and decide whether to ballot the Standards for reapproval, revision, replacement, or withdrawal by the end of the fifth year after their latest publication or reapproval dates.

The Information and Control NA TC Chapter reviewed M13-0706 and recommended to issue a reapproval ballot.

Per SEMI *Procedure Manual* (NOTE 19), a reapproval Letter Ballot should include the Purpose, Scope, Limitations, and Terminology sections, along with the full text of any paragraph in which editorial updates are being made.

Voter requests for access to the full Standard or Safety Guideline must be made at least three business days before the voting deadline. Late requests may not be honored.

### Review and Adjudication Information

	Task Force Review	Committee Adjudication
<b>Group:</b>	Traceability 5 Year Review TF	Traceability NA TC Chapter
<b>Date:</b>	July 10, 2017	July 10, 2017
<b>Time &amp; Timezone:</b>	9:00 AM- 11:00AM PST	11:00 AM- 12:00PM PST
<b>Location:</b>	Marriott Marquis Hotel	Marriott Marquis Hotel
<b>City, State/Country:</b>	San Francisco, California / USA	San Francisco, California / USA
<b>Leader(s)/Authors:</b>	Yaw Obeng (NIST) Win Baylies (BayTEch-Resor)	Yaw Obeng (NIST) Win Baylies (BayTEch-Resor)
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Meeting details are subject to change, and additional review sessions may be scheduled if necessary. Contact the task force leaders or Standards staff for confirmation.

Telephone and web information will be distributed to interested parties as the meeting date approaches. If you will not be able to attend these meetings in person but would like to participate by telephone/web, please contact Standards staff.

Check [www.semi.org/standards](http://www.semi.org/standards) on calendar of event for the latest meeting schedule.

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This Standard was technically approved by the global Traceability Technical Committee. This edition was approved for publication by the global Audits and Reviews Subcommittee on September 12, 2011. Available at [www.semiviews.org](http://www.semiviews.org) and [www.semi.org](http://www.semi.org) in October 2011; originally published in 1988; previously published July 2006.

**NOTICE:** This Document was reapproved with minor editorial changes.

### 1 Purpose

1.1 This Specification describes an alphanumeric marking system for silicon wafers. The marking code includes information on the origin, approximate resistivity, dopant species, and crystal growth orientation in addition to a wafer identification number. Use of this Specification ensures the consistency of all wafer marking performed by silicon manufacturers. This consistency allows simplification of the performance requirements of Automatic Optical Character Reading (OCR) equipment.

1.2 By defining the basic code used to characterize the individual wafer, this Specification provides the information needed for practical operator interpretation.

### 2 Scope

2.1 This Specification defines the character set, location, and associated dimensions and tolerances of an alphanumeric code, specifically for identification of flatted and notched silicon wafers.

2.2 This Specification does not address the marking techniques that may be employed when complying with this Standard.

**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 Referenced Standards and Documents

#### 3.1 SEMI Standards and Safety Guidelines

None.

#### 3.2 Other Documents

SEMI AUX001 — List of Vendor Identification Codes

SEMI AUX015 — SEMI OCR Character Outlines

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

### 4 Terminology

#### 4.1 Definitions

4.1.1 *adjacent character misalignment,  $R_{adj}$*  — the vertical distance between the character baselines of two adjacent characters on the same line.

4.1.2 *character separation* — the horizontal distance between the adjacent boundaries of any characters.

4.1.3 *character spacing* — the horizontal distance between the character spacing reference lines of the adjacent characters.

4.1.4 *line character misalignment,  $R_{line}$*  — the vertical distance between the character baselines of the highest and lowest characters on the same line.

**NOTICE:** SEMI makes no warranties or representations as to the suitability of the Standards and Safety Guidelines set forth herein for any particular application. The determination of the suitability of the Standard or Safety Guideline is solely the responsibility of the user. Users are cautioned to refer to manufacturer's instructions, product labels, product data sheets, and other relevant literature, respecting any materials or equipment mentioned herein. Standards and Safety Guidelines are subject to change without notice.

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