Title: SEMICONDUCTOR ALIGNMENT AID

Abstract: An alignment aid (115) for semiconductor devices. The alignment aid includes an area (123) having a high level of reflectivity and an adjacent area (125) having a low level of reflectivity. The area having a low level of reflectivity includes at least one layer of tiles (203) located in an interconnect layer (225) of a semiconductor device and located over active circuitry (218) of the semiconductor device. In some examples, the spacings between the tiles in a scan direction of the alignment aid is less than the wavelength of a light (e.g., a laser light) used to scan the alignment aid. In other examples, the width of the tiles in a scan direction of the alignment aid is less than the wave length of a laser used to scan the alignment aid.
# INTERNATIONAL SEARCH REPORT

## A. CLASSIFICATION OF SUBJECT MATTER
- IPC(7) : H01L 23/544, 23/58, 21/302, 21/8244
- US CL : 257/797, 798, E23.19; 438/710, 238

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
- U.S.: 257/797, 798, E23.19, 438/710, 238

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

NONE

Electronic database consulted during the international search (name of data base and, where practicable, search terms used)

East, West

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>US 5,311,061 A (Scheck) 10 May 1994 (10.05.1994), see entire document</td>
<td>1-31</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

See patent family annex.

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent published on or after the international filing date
- "L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed
- "Y" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "A" document member of the same patent family

Date of the actual completion of the international search

23 August 2005 (23.08.2005)

Date of mailing of the international search report

09 SEP 2008

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703) 305-3230

Authorized officer

Fahmy Wael

Telephone No. (571) 272-2800

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