The photoresist photomasks using openings sized based on desired inter-select gate width are transferred to the same photoset layer. The first photomask can have openings with a given feature size F that are spaced apart by the feature size F, for instance. The second photomask has an opening which is sized to create a desired inter-select gate gap, such as 3F or 5F. A third photomask is used to provide protective portions in a second photoset layer over the select gate structures. The final structure has memory elements of width F spaced apart by a distance F5 and select gates of width 3F spaced apart by 3F or 5F. In another approach, the patterns of three photomasks are transferred to respective photoset layers to create an analogous final structure.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasiy (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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# INTERNATIONAL SEARCH REPORT

**International application No**

PCT/US2006/049531

## A. CLASSIFICATION OF SUBJECT MATTER

INV. H01L21/8247 H01L27/115 H01L21/28 H01L21/311 H01L21/32

G03F7/00 G03F7/20 H01L21/033

G03F7/00 G03F7/20

### B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H01L G03F

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

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

**EPO-Internal**

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No</th>
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<tr>
<td>A</td>
<td>US 6 337 175 B1 (YAMAGUCHI ATSUMI [JP]) 8 January 2002 (2002-01-08) abstract; figures 1-4 column 5, line 24 - line 31 column 6, line 3 - line 10</td>
<td>1-22</td>
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<td>A</td>
<td>JP 08 017703 A (NIPPON ELECTRIC CO) 19 January 1996 (1996-01-19) abstract; figures 1, 2, 4</td>
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See patent family annex

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Date of the actual completion of the international search

18 July 2007

Date of mailing of the international search report

01/08/2007

Name and mailing address of the ISA/

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Mosig, Karsten
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