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Declaration under Rule 4.17:
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(54) Title: MODULAR ARRAY DEFINED BY STANDARD CELL LOGIC

(57) Abstract: Disclosed herein is an ASIC having a base array of function blocks (804). Each function block (804) includes a plurality of primitive cells (806). Each primitive cell (806) is defined by a component (808, 810, 812) from a standard cell library. The base array is prefabricated for use later with a custom circuit design.
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INTERNATIONAL SEARCH REPORT

International application No. PCT/US04/16723

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G 06 P 17/50; H 03 K 19/00
US CL : 716/17

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. : 716/17, 2, 3, 4, 8, 9, 10, 16, 17; 703/6; 438/197; 326/39.41; 257/758, 678, 691, 461, 401, 369, 315, 300, 208, 207, 206

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 practicable, search terms used)

EAST (USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDD)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category *</th>
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<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>X</td>
<td>US 4,613,940 (SHENTON et al.) 23 September 1986 (23.09.1986), column 1, lines 37-40, lines 50-62; column 2, lines 20-25, lines 35-44; column 3, lines 1-3; column 6, lines 41-46; Figures 1, 6B</td>
<td>1-10, 23-27</td>
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<tr>
<td>A</td>
<td>US 6,445,065 B1 (Gheewala et al.) 3 September 2002 (03.09.2002)</td>
<td>1-33</td>
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<tr>
<td>A</td>
<td>US 5,638,380 (DE) 10 June 1997 (10.06.1997)</td>
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<td>US 5889329 A (Rostoker et al.) 30 March 1999 (30.03.1999)</td>
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23 June 2005 (23.06.2005)

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