Title: WAFER LEVEL CAMERA MODULE AND METHOD OF MANUFACTURE

Abstract: A method includes forming optical lenses on an ICD at the wafer level, rather than attaching a separate lens assembly. The lenses may be formed as an array of individual lenses or as multiple, e.g., two, arrays of individual lenses. The array of lenses may be coupled to an array of ICDs. The ICDs and individual lenses in the array assembly may be singulated to form individual digital camera modules. Additionally or alternatively, the ICDs and individual lenses may be singulated in separate steps.

Fig. 1B
### INTERNATIONAL SEARCH REPORT

**International application No.**

PCT/US2008/001083

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**A. CLASSIFICATION OF SUBJECT MATTER**

**IPC(8)-** G02B 17/00 (2008.04)

**USPC-** 359/366

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

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**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

**IPC(8)-** G02B 17/00 (2008.04)

**USPC-** 359/366

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)

USPTO EAST System (US, USPG-PUB, EPO, DERWENT), PatBase

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**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>Y</td>
<td>US 4,345,021 A (OGAWA et al) 17 August 1982 (17.08.1982) entire document</td>
<td>16,23-26</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

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**Date of the actual completion of the international search**

10 July 2008

**Date of mailing of the international search report**

18 JUL 2008

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**Name and mailing address of the ISA/US**

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Form PCT/ISA/210 (second sheet) (April 2005)