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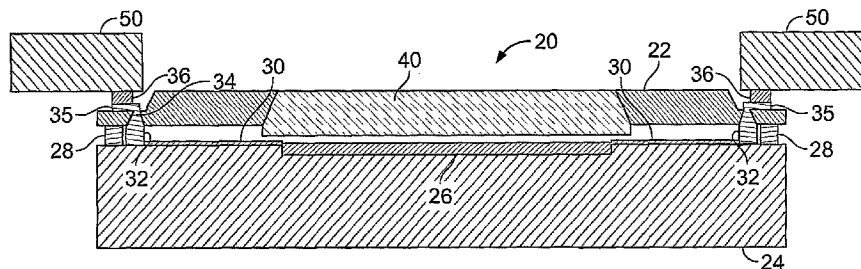
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(88) Date of publication of the international search report:
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SEALED PACKAGE WITH GLASS WINDOW FOR OPTOELECTRONIC COMPONENTS AND ASSEMBLIES INCORPORATING THE SAME



(57) Abstract: A package includes one or more optoelectronic components and a cap with an embedded glass window attached to a substrate. The optoelectronic component(s) is supported by the substrate and is capable of detecting or emitting light through the glass window. The glass window may serve as an optical filter. Techniques are disclosed for fabricating a relatively thin package with an embedded glass window in the cap.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/003651

A. CLASSIFICATION OF SUBJECT MATTER

INV. H01L27/146 H01L31/0203 H01L31/0232 H01L33/00

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)

H01L

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, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 384 473 B1 (PETERSON KENNETH A [US] ET AL) 7 May 2002 (2002-05-07) column 8, lines 8-37; figure 3A -----	1-4,7, 10,23,24
X	US 5 915 168 A (SALATINO MATTHEW M [US] ET AL) 22 June 1999 (1999-06-22) column 3, line 9 - column 4, line 49; figure 8 -----	1-3,7, 10,23
X	DE 101 54 277 A1 (SIEMENS AG [DE]) 30 January 2003 (2003-01-30) the whole document -----	1-4,7, 10,23,24
X	US 6 483 030 B1 (GLENN THOMAS P [US] ET AL) 19 November 2002 (2002-11-19) the whole document -----	1-3,7, 10,23
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 Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts 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

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" 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

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

13 July 2007

Date of mailing of the international search report

31.10.07

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 60 079749 A (HITACHI LTD) 7 May 1985 (1985-05-07) the whole document -----	1,7,10

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2006/003651

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

- 1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

- 2. Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

- 3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

- 1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

- 2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

- 3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

- 4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 7, 10, 23, 24

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,7,10,23,24

a package comprising an optoelectronic component, on a substrate, a cap comprising an embedded glass window, wherein the glass window functions as an optical filter and the related method of manufacturing said package

2. claims: 1,5,6

a package comprising an optoelectronic component, on a substrate, a cap comprising an embedded glass window wherein the optoelectronic component is coupled to a contact on the exterior of the package by one or more feed-trough interconnects through the cap

3. claims: 1,8,9,10-22,25-32

a method of making a package comprising an optoelectronic component, on a substrate, a cap comprising an embedded glass window wherein the cap is made of semiconductor material and the related package

INTERNATIONAL SEARCH REPORT

International application No
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