OPTICAL RECEIVER ARCHITECTURE USING A MIRRORED SUBSTRATE

Abstract: Techniques and architectures for providing a reflective target area of an integrated circuit die assembly. In an embodiment, a reflective bevel surface of a die allows an optical signal to be received from the direction of a side surface of a die assembly for reflection into a photodetector. In another embodiment, one or more grooves in a coupling surface of the die provide respective leverage points for aligning a target area of the bevel surface with a detecting surface of the photodetector.
A. CLASSIFICATION OF SUBJECT MATTER

G02B 6/12(2006.01)i

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)
G02B 6/12; G02B 6/26; H04B 10/00; G02B 6/42; G02F 1/1335

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: optical, receiver, reflector, bevel, and similar terms.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>A</td>
<td>US 2009-0148169 A1 (PORJO NIKO SANTERI) 11 June 2009 See abstract, claim 1, figure 1</td>
<td>1-26</td>
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<tr>
<td>A</td>
<td>KR 2004-0039656 A (SAMSUNG ELECTRONICS CO., LTD.) 02 December 2004 See abstract</td>
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<td>A</td>
<td>US 6516116 B1 (MURRAY; JAMES T. et al.) 04 February 2003 See abstract</td>
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☐ Further documents are listed in the continuation of Box C. ☑ See patent family annex.

* "A" Special categories of cited documents:
"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
17 FEBRUARY 2012 (17.02.2012)

Date of mailing of the international search report
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<tr>
<td>KR 2004-0099656 A</td>
<td>02.12.2004</td>
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<td>US 6516116 B1</td>
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