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**Datasheet for the decision
of 4 July 2013**

Case Number: T 1042/09 - 3.3.08

Application Number: 95925244.6

Publication Number: 764214

IPC: C12Q 1/00, C12Q 1/68,
G01N 21/00

Language of the proceedings: EN

Title of invention:
Bioarray Chip Reaction Apparatus and its Manufacture

Patent Proprietor:
Affymetrix, Inc. (a Delaware Corporation)

Opponent:
Clondiag Chip Technologies GmbH

Headword:
Bioarray Chip/AFFYMETRIX

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
"Main and auxiliary requests 1-7: added subject-matter (yes)"

Decisions cited:
G 0003/89, G 0002/10

Catchword:
-



Case Number: T 1042/09 - 3.3.08

D E C I S I O N
of the Technical Board of Appeal 3.3.08
of 4 July 2013

Appellant: Clondia Chip Technologies GmbH
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted
4 March 2009 concerning maintenance of European
patent No. 764214 in amended form.**

Composition of the Board:

Chairman: M. Wieser
Members: T. J. H. Mennessier
R. Moufang

Summary of Facts and Submissions

- I. European patent No. 0 764 214 had been granted on European application No. 95925244.6, published under the international publication No. WO 95/33846.
- II. Claim 1 and 7 as filed read as follows (see WO 95/33846, the content of which is deemed to be identical to that of the application as filed):

"1. A method of making probe chips comprising the steps of:

forming a plurality of probe arrays on a substrate;
separating said substrate into a plurality of chips, each of said chips comprising at least one probe array thereon; and

mating at least one of said chips to a package, said package comprising a reaction chamber, said reaction chamber comprising inlets for flowing fluid therein, said at least one probe array in fluid communication with said reaction chamber.

7. The method as recited in claim 1 wherein said package comprises an alignment structure thereon, and further comprising the step of identifying the location of at least one target on said probe array in a scanner, wherein said package is placed at a desired location in said scanner using said alignment structure."

- III. The patent had been opposed and the opposition division decided that it could be maintained in an amended form on the basis of the second auxiliary request filed at the oral proceedings held on 1 December 2008. The main request (claims as granted) and the first auxiliary

request filed at said oral proceedings, had been refused for reasons of non-compliance with Article 123(2) EPC.

IV. The opponent (appellant) lodged an appeal against this interlocutory decision of the opposition division dated 4 March 2009.

V. The statement of grounds was filed on 6 July 2009. The patentee (respondent) replied on 24 November 2009 by filing submissions which were accompanied by seven auxiliary requests. The main request was the request accepted by the opposition division. The third to seventh auxiliary requests were derived from the third to seventh auxiliary requests, respectively, that were already on file at the oral proceedings before the opposition division. The first and second auxiliary requests were new.

VI. On 14 June 2010, the appellant filed further submissions to which the respondent replied on 27 May 2011 by filing additional comments which were accompanied by a new fifth auxiliary request to replace the fifth auxiliary request of 24 November 2009.

VII. Claim 1 of the main request read:

"1. A method of packaging probe chips comprising the steps of:

separating a **substrate** (100) into a plurality of chips (120), each of said chips comprising at least one probe array (110) **thereon**; and mating at least one of said chips (120) to a package, said package comprising a

reaction chamber (310, 1720, 2710, 3405), said reaction chamber comprising inlets (350, 360, 1730, 1740, 2750, 2751, 3205, 3207) for flowing fluid therein, said at least one probe array in fluid communication with said reaction chamber, said package comprising **an alignment structure** (330, 335, 1621, 1622, 1721, 1722, 3201, 3203, 3401, 3403) for placing said package at a desired location with respect to a scanner."

(emphasis added by the Board to specify the places where amendments were carried out in claim 1 of the auxiliary requests, see *infra*)

Claim 1 of the first auxiliary request differed from claim 1 of the main request in that the phrase "*forming a plurality of probe arrays on a substrate;*" was added before the word "*separating*" and the article "a" thereafter was replaced by the word "said".

Claim 1 of the second auxiliary request differed from claim 1 of the main request in that the word "*thereon*" was added after the term "*alignment structure*".

Claim 1 of the third auxiliary request was identical to claim 1 of the main request.

Claim 1 of the fourth auxiliary request corresponded to claim 1 of the main request wherein, after the last word ("*scanner;*"), the phrase "*wherein said package includes a top casing (410) having an external planar surface (501) including a cavity (310), said chip being placed on said cavity to mate to said package thereby to form said reaction chamber*" was added.

Claim 1 of the fifth auxiliary request differed from claim 1 of the fourth auxiliary request in that the phrase "*flat glass or single-crystal silicon wafer*" was added before the word "*substrate*".

Claim 1 of the sixth auxiliary request differed from claim 1 of the fourth auxiliary request in so far as at its end (after the term "*reaction chamber;*") the phrase "*and wherein said inlets are located at opposite ends of said cavity for improving fluid circulation and regulation of bubble formation in said cavity*" was added.

Claim 1 of the seventh auxiliary request differed from claim 1 of main request in that the phrase "*, each probe in said probe array occupying a region having an area of less than 10^{-4} cm²;*" was added after the term "*at least one probe array (110) thereon*".

- VIII. On 8 February 2013, the Board issued a communication pursuant Article 15(1) of the Rules of Procedure of the Boards of Appeal expressing its preliminary and non-binding views.
- IX. No substantive submissions were filed in reply to the Board's communication.
- X. The submissions made by the appellant, and by the respondent in writing, insofar as they are relevant to the present decision, can be summarised as follows:

Article 123(2) EPC - Claim 1 (all requests)

Introduction of the feature: "said package comprising an alignment structure (...) for placing said package at a desired location with respect to a scanner"

This feature has been introduced into claim 1 in the examination phase of the grant procedure. The respondent referred to claims 1 and 7 and to page 12, lines 19 to 22 of the application as published as a basis for this amendment.

The appellant argued that the passage on page 12 referred exclusively to a specific embodiment of the claimed invention which was disclosed in Figure 31 and which referred to a particular chip packaging device consisting of a top casing, a middle casing and a bottom casing, each comprising specific support structures or alignment holes. As claim 1 generally referred to a method of packaging probe chips wherein the obtained chip packaging devices were not restricted according to the embodiment shown in Figure 31, the disclosure on page 12 of the application as published could not form a basis for the amendment.

Original claim 7 did not provide a basis for the feature in question, since it disclosed that the alignment structure was located on the package, which was different from a *"package comprising an alignment structure"* and that the package was placed at a desired location in a scanner, which is different from *"placing said package at a desired location with respect to a scanner"*.

The respondent argued that the application as published disclosed on page 12, lines 19 to 22 that the *"support structures"* (which term was a synonym for *"alignment structures"*) *"can be used to mount or position the chip packaging device to an apparatus, e.g., scanner or the like"*. The point was that *"to"* was a good basis for *"with respect to"*. Alignment holes were structures *"in"* rather than *"on"* the package, so it was not appropriate to include the word *"thereon"* in claim 1. The alignment structure in claim 1 was functionally defined *"for placing said package at a desired location with respect to a scanner"*. An alignment structure could also be useful in assembling the package. Original claim 7, as well as pages 12 and 14 of the description, referring to Figures 31 and 32, respectively, made it clear that the alignment structure could have this additional use.

- XI. Oral proceedings took place on 4 July 2013 in the presence of the appellant only. As announced with letter of 21 February 2013, the respondent did not attend.

- XII. The appellant requested that the decision under appeal be set aside and that the patent be revoked.

- XIII. The respondent requested in writing that the appeal be dismissed and the patent be maintained on the basis of the main request or on the basis of one of auxiliary requests 1 to 7.

Reasons for the decision

Article 123(2) EPC - Claim 1 (all requests)

1. An amendment is not allowable if the overall change in content of the application as filed results in the skilled person being presented with information which is not directly and unambiguously derivable, seen objectively and relative to the date of filing, from the whole content of the application as filed, even when account is taken of matter which is implicit to a person skilled in the art using common general knowledge (see decisions G 3/89 (OJ EPO 1993, 117; see Reason 2) and G 2/10 (OJ EPO 2012, 376; see Reason 4.3)).
2. Claim 1 of all requests on file (main request and auxiliary requests 1 to 7) has been amended to contain the feature "*said package comprising an alignment structure (...) for placing said package at a desired location with respect to a scanner*". Claim 1 of auxiliary request 2 additionally contains the word "*thereon*" after the term "*alignment structure*" (see Section VII *supra*).
3. According to original claim 7 (see Section II *supra*), an alignment structure is located on the package and is used to place the package at a desired location in a scanner when said package is placed at a desired location in a scanner. In contrast thereto the subject-matter of amended claim 1 encompasses embodiments wherein the alignment structure is not located on but at any possible position of the package (e.g. in or at the bottom side) and wherein it is used

to place the package at a desired location with respect to a scanner, thus also outside of the scanner. Therefore originally filed claim 7 does not form a basis for the subject-matter of amended claim 1.

4. The respondent relies on the disclosure on page 12, from line 19 to 22 as basis for those parts of the amendment which are not covered by original claims 1 and 7. This passage reads: *"Support structures (or alignment holes) exist at selected locations of the chip packing device. The support structures can be used to mount or position the chip packaging device to an apparatus, e.g., scanner or the like"*.

5. Page 12, lines 19 to 22 of the original description forms part of a disclosure referring to *"a simplified illustration of an alternative embodiment of a chip packaging device 3100 according to the present invention"* (see page 12, lines 7 to 9). This alternative embodiment is a packaging device consisting of a top casing 3200, a middle casing 3300 and a bottom casing 3400 and is shown in Figure 31. All three casings contain support structures (or alignment holes) 3201 and 3203 (the top casing), 3313 and 3315 (the middle casing) and 3401 and 3403 (the bottom casing), which are said to be *"complementary"* to each other and which *"can be used to mount or position the chip packaging device to an apparatus, e.g., scanner or the like"* (see page 12, lines 19 to 34). Reference signs 3201, 3203, 3401 and 3403 are moreover used in Figure 32, described on page 14 of the description (see lines 19 to 27) which shows another specific embodiment of a chip packaging device.

6. Claim 1 refers to a method of packaging probe chips, wherein the obtained product, the chip packaging device, is generally described as comprising a reaction chamber with fluid inlets (main request, auxiliary requests 1, 2 and 7) and a specifically formed top casing (auxiliary requests 4 to 6). None of these claims is restricted to the specific device of Figure 31.

7. According to established case law of the boards of appeal, the amendment of a claim by the introduction of a technical feature taken in isolation from the description of a specific embodiment is not allowable under Article 123(2) EPC (see Case Law of the Boards of Appeal of the EPO, 6th Edition, 2010, III.A.2).

8. This leads to the conclusion that claim 1 of each of the respondent's requests (main request and auxiliary requests 1 to 7) contains subject-matter which extends beyond the content of the application as filed. Therefore, the requests do not comply with the requirements of Article 123(2) EPC.

9. As none of the main request and auxiliary requests 1 to 7 may serve as a basis to maintain the patent, in the absence of any further claim request on file, the patent has to be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar

The Chairman

A. Wolinski

M. Wieser