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Datasheet for the decision of 6 May 2009

Case Number: T 1414/06 - 3.4.02

Application Number: 01917522.3

Publication Number: 1194742

IPC: G01N 15/02

Language of the proceedings: EN

Title of invention:
Particle sensor

Patentee:
Panasonic Electric Works Co., Ltd.

Opponent:
HEKATRON Vertriebs GmbH

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 111(1)

Keyword:
"Remittal effecting consideration of prior art before two instances"

Decisions cited:
-

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1414/06 **-** 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 6 May 2009

Appellant: (Opponent)	HEKATRON Vertriebs GmbH Brühlmatten 9 D-79295 Sulzburg (DE)
Representative:	Börjes-Pestalozza, Heinrich Patent- und Rechtsanwaltssozietät Maucher, Börjes & Kollegen Urachstraße 23 D-79102 Freiburg i. Br. (DE)
Respondent: (Patent Proprietor)	Panasonic Electric Works Co., Ltd. 1048 Oaza Kadoma Kadoma-shi Osaka (JP)
Representative:	Appelt, Christian W. Forrester & Boehmert Pettenkoferstraße 20-22 D-80336 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted 12 July 2006 concerning maintenance of European patent No. 1194742 in amended form.**

Composition of the Board:

Chairman: A. G. Klein
Members: M. Rayner
B. Müller

Summary of Facts and Submissions

I. The opponent lodged an appeal against the interlocutory decision of the opposition division that, taking account of the amendments made by the patent proprietor in the opposition proceedings, European patent 1 194 742 (application no. 01 917 522.3, priority date 28.03.2000) meets the requirements of the Convention. The patent concerns particle sensors. During the opposition and/or appeal proceedings, reference has been made to documents including the following:

E8 Datasheet: X9401, Xicor; "Quad, 64 Tap, Digital Potentiometer"; pages 1-21; copyright 2000

E8a Datasheet: X9221, Xicor; "Dual E2POT Nonvolatile Digital Potentiometer" pages 1-14; copyright 1994, 1995, 1996;

E8c Xicor X9221 complex comprising:
(a) Letter of 05.07.2006 from Senior Product Marketing Engineer, Intersil Corporation, reading "The attached pages that describe Xicor's X9221 integrated circuit which I copied from the 1995 Xicor data book. Intersil now owns Xicor."
(b) Cover and president's message page of Xicor data book copyright 1992, 1995
(c) Pages 4-55 to 4-65 and 4-68 pertaining to X9221 Nonvolatile Digital Potentiometer;

E13 DE-A-3 708 758

E14 Intersil Press Release concerning X9401 and X9409 bearing a date of 13.09.1999 and stating "The parts are sampling now and will be in volume production in October 1999"

II. During the proceedings before the opposition division, in the annex to the summons to oral proceedings, the division mentioned (see penultimate sentence of the penultimate paragraph of section 3 pertaining to the main request) "...and [document] E8, which is a data sheet of a commercially available digital potentiometer (X9401 obtainable from XICOR) are considered less pertinent documents..., since ... E8 merely document the existence of such elements generally without providing any indication that they should be combined with particle sensors...". During oral proceedings then held before the opposition division, the division announced a decision (see point 7A of the Minutes) to the effect that document E13 was admitted into the proceedings because of being considered the closest prior art. On the other hand, it appears that both documents E8 and E8a were not admitted because their publication date could not be established with certainty. They were not considered to form part of the state of the art.

III. In the decision under appeal, the opposition division decided that the subject matter of claim 1 of the third auxiliary request before it met the requirements both of novelty and inventive step. In the decision, the division pointed in relation to Article 123 EPC 1973 to the basis for the amendments made and went on to explain that the problem solved starting from document E13 is improving reliability of controlling of synthesised resistances which determine the sensitivity of a detector system used in the critical environment of a smoke detector by making the system less susceptible to external noise. Even assuming envisaging

of a redundant structure of two memories, no prompt is given to develop three connecting lines from a buffer into an interface with selective connection to memories on the basis of a clock signal either from a memory controller directly or from a microcomputer so as to deliver instruction data to one of a gain/offset resistor networks.

IV. The appellant (=opponent) requested that the decision under appeal be set aside and the patent be revoked. Oral proceedings were requested on an auxiliary basis.

According to the appellant, document E8c, filed with the statement of grounds for appeal, belongs to the state of the art and the arguments in relation to documents E8 and E8a are maintained. In relation to the position of the opposition division concerning document E13, the description of the patent in dispute shows only one of the memories connected to the interface so that the latter cannot receive data selectively. Thus no choice is made. Therefore the supposed problem is not solved by the claimed subject matter. Nor is the solution upon which the reasoning of the division supporting inventive step is based present in the application as originally filed, the solution thus also being an impermissible amendment.

V. The respondent (=patent proprietor) requested that the appeal be dismissed or, alternatively, the patent maintained on the basis of an auxiliary request filed in reply to the appeal. Oral proceedings were requested on an auxiliary basis.

According to the respondent, the arguments in the appeal are not clearly and concisely presented as the appellant has not specifically referred to features of the claims as maintained by the opposition division as compared to those as granted. Moreover the new document E8c introduced with the appeal has neither specific argumentation supporting it nor has it been shown to refer to the same device as documents E8 and E8a. Furthermore, the appellant refers not to patentability but to added subject matter, which ground has not been referred to in the opposition proceedings. The appeal should therefore be dismissed as inadmissible.

Even if the appeal is considered admissible, the respondent observes that the feature relating to the selector was contained in claim 10 as filed and as granted. None of the documents cited, including documents E8c and E13, discloses the selector. The subject matter claimed is patentable. The claim according to the auxiliary request is more limited.

VI. Consequent to auxiliary requests by both parties, oral proceedings were appointed by the board.

During the oral proceedings, the appellant argued that the decision under appeal had indeed been challenged in that both the decision not to admit the document E8 and the reasoning supporting inventive step were challenged. The appellant explained that after the summons to oral proceedings before the opposition division, it had both believed that publication had been proven by document 8a and had tried to get further confirmation from Intersil, but nothing further came at that time. The appellant had explained in writing why X9221 was to be

substituted for X9401. Document E14 was a further indication of publication. The appellant admitted that the wording of claim 1 was present in the application as filed, but maintained that any interpretation thereof that two memories were connected in the device in its final form would be added subject matter because there is only one data terminal. The real device thus has one memory or the other. The appellant went on to explain its case concerning lack of inventive step of the subject matter of claim 1 in relation to documents E13 and E8c, starting from document E13 and arguing that the resistance network is nothing other than a potentiometer, for which it would have been obvious to use a component such as that disclosed in document E8c.

During the oral proceedings, the patent proprietor underlined that document E13 was only filed one month in advance of the oral proceedings before the opposition division and inventive step with respect thereto was not addressed by the opponent. The patent proprietor also expressed reservations against the late filing of document E8c. Furthermore the press release E14 does not give any reliable date when the product came onto the market. The patent proprietor did not comment on subject matter alleged as added by the appellant but underlined that because there is no doubt that the subject matter claimed was present in the documents as filed, it was not necessary to add anything more about the submissions of the opponent. What was disclosed was simply disclosed. The patent proprietor went on to advance its case in support of inventive step, arguing, in particular, that even a combination of documents E13 and E8c would still not

provide the subject matter claimed for lack of features such as the first and second clock signals.

At the end of the discussion, the parties were in agreement that the case should be remitted, should document E8c be admitted into the proceedings.

VII. At the end of the oral proceedings, the board gave its decision.

VIII. Claim 1 of the patent upon which the decision of the opposition division was based is worded as follows:

"1. A particle sensor which detects the presence of specific particles and provides an output signal indicative of the amount of the particles being detected, said particle sensor comprising:
a detector (1, 11, 12) providing an output voltage which is proportional to the amount of particles carried on a medium such as the air being detected, said detector being composed of a photo-sensor (1) providing an output current proportional to the amount of particles carried on the medium, a converter (11) converting said output current into a voltage, and an amplifier (12) amplifying said voltage into said output voltage;
a gain controller (20) adjusting the output voltage received from the photo detector to provide an adjusted output voltage, said gain controller including a gain resistor network (24) which gives a variable resistance in order to vary the adjusted output voltage;
an offset voltage adjustor (30) providing an adjustable offset voltage indicative of a background voltage which is combined with said adjusted output voltage to

provide a sensor output (V_{out}) which satisfies a predetermined (regulation) relationship between a particle density and the sensor output, said offset voltage adjustor comprising an offset resistor network (34) which gives a variable resistance in order to adjust the offset voltage,
characterized in that
each of the gain resistor network (24) and the offset resistor network (34) comprises a plurality of digitally controllable switches and a plurality of resistors so as to give the variable resistance varying by conduction of a suitable combination of the switches,
said detector further includes:
a memory interface (40) having an input terminal (41) adapted for selective connection with a first non-volatile memory (71) through a microcomputer (72), and directly with a second non-volatile memory (81), each of said first and second memories storing an instruction data designating which one or more of the switches are to be made conductive, said microcomputer having a function of writing the instruction data in the associated memory,
said memory interface (40) comprising:
a memory controller (44) which sends a first clock signal and a read signal for reading from the second memory (81) the instruction data in accordance with the first clock and delivering the instruction data to at least one of the gain resistor network and the offset resistor network,
a selector (42) adapted to receive the first clock signal from the memory controller (44) and a second clock signal from the microcomputer (72) and to select one of the first clock signal and the second clock signal, the second clock signal being

utilized to read the instruction data from the first memory (71) by the microcomputer and to deliver the instruction data to at least one of the gain resistor network and the offset resistor network."

Reasons for the Decision

1. *Admissibility of Appeal*

1.1 The respondent claims that the appeal is inadmissible because the grounds for appeal submitted by the appellant do not meet the admissibility requirements of the EPC, as interpreted in the case law of the boards of appeal. The board notes that, in reaching its decision, the opposition division, using the "problem/solution" approach to inventive step, arrived at the conclusion that the subject matter of claim 1 as amended could, starting from document E13, be considered to involve an inventive step. The appellant challenged this conclusion in section III of its statement of grounds for appeal, in that the reason underlying the application of the "problem/solution" approach is called into question. The board considers that the appellant's argument can be understood in the sense that the claimed subject matter must be construed in the light of the disclosure of the patent as granted and in that case does not solve the problem said to be set. Accordingly, the board is satisfied that the appellant has directed its appeal to the specific reasoning of the opposition division as set out in the decision and explained why, in its view, the decision is not correct. The submissions of the patent

proprietor in this regard did not therefore persuade the board.

1.2 Given that the appellant has not relied on other grounds for inadmissibility of the appeal nor have any such grounds become apparent to the board, the board reached the conclusion that the appeal is admissible.

2. *Amendments*

2.1 No objection relating to added subject matter was raised against the patent as granted in the opposition.

2.2 The appellant did not dispute that the wording of claim 1 as amended can be found in the documents as filed. The board does not therefore see any reason to diverge from the position of the opposition division that no subject matter going beyond the documents as filed has been introduced into the claim as amended.

3. *Remittal*

3.1 The board notes that document E13 was introduced into the proceedings in exercise of the discretion of the opposition division and dealt with in detail in the decision under appeal. The board has seen nothing in the submissions of the patent proprietor which would justify it interfering in this exercise of discretion by the first instance.

3.2 The board is satisfied that documents E8c(b) and (c) were published before the priority date of the patent because this is confirmed by document E8(c)(a), i.e. the letter of 5 July 2006 from the Senior Product

Marketing Engineer of Intersil Corporation, independently of the appellant. Whereas they are not conclusive in themselves, this conclusion is also supported by the copyright notices on documents E8, E8a and E8c(b) and the dates mentioned in the press release E14. Moreover, the skilled person can immediately see by inspection the similarities between documents E8, E8a and E8c.

3.3 The board therefore introduced document E8c into the proceedings. This was hardly a surprise for the patent proprietor, since corresponding subject matter, in documents of disputed publication date, had been present in the opposition proceedings. In fact, the patent proprietor prepared a comprehensive reply to the appeal, which while disputing the admissibility of document E8c, nevertheless took a position on patentability.

3.4 When a document is at the centre of a party's case, an approach open to the first instance is to give an opinion about it if there is a possibility the matter will be disputed on appeal, even if it does not accept prior publication has taken place, for example, along the lines "Even if document X had been pre-published...". Such an approach can be useful in avoiding procedural ping-pong between instances, i.e. it may offer procedural economy. In the present case, the remark in the summons to oral proceedings quoted above, at point II, is not sufficient for the board to be confident of the view of the opposition division on document E8, especially as it was made before document E13 was in the proceedings. In the decision under appeal itself, the opposition division did not consider

document E8 or E8a in relation to patentability at all. Thus, had the board finally decided the case at the end of the oral proceedings, it would have been put in the position of having to consider document E8c fully for the first time in appeal proceedings in reaching a substantive decision, which would have led to the loss of an instance.

3.5 In these circumstances the board, after hearing the views of the parties, considered remittal, for consideration of the impact of document E8c on substantive patentability, to be the appropriate course of action, a course of action to which neither party objected.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the first instance for further prosecution.

The Registrar | The Chairman

M. Kiehl | A. G. Klein