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**Datasheet for the decision
of 26 March 2020**

Case Number: T 0702/17 - 3.4.02
Application Number: 11801238.4
Publication Number: 2588991
IPC: G01N33/00, G06K19/07, G01R27/02
Language of the proceedings: EN

Title of invention:

FIELD-PORTABLE IMPEDANCE READER AND METHOD FOR QUANTITATING
PARAMETERS IN AN ENVIRONMENT

Applicant:

General Electric Company

Headword:

Relevant legal provisions:

EPC Art. 83, 111(1)
RPBA 2020 Art. 11

Keyword:

Sufficiency of disclosure - main request (yes)
Reimbursement of appeal fee - (no) - substantial procedural
violation (no)
Remittal to the department of first instance - (yes)

Decisions cited:

T 1165/98

Catchword:



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Case Number: T 0702/17 - 3.4.02

D E C I S I O N
of Technical Board of Appeal 3.4.02
of 26 March 2020

Appellant: General Electric Company
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Representative: Dennemeyer & Associates S.A.
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 2 November 2016
refusing European patent application No.
11801238.4 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman R. Bekkering
Members: A. Hornung
B. Müller

Summary of Facts and Submissions

- I. The applicant appealed against the decision of the examining division refusing European patent application No. 11801238.4 on the basis of Article 97(2) EPC because the requirements of Article 83 EPC were not fulfilled.
- II. The applicant requested that the decision of the examining division be set aside and that a patent be granted on the basis of either a main or an auxiliary request filed with its statement of grounds of appeal. Moreover, it requested the reimbursement of the appeal fee.
- III. On 23 January 2020, the applicant was summoned to oral proceedings, scheduled to take place on 17 November 2020.
- IV. In a telephone conversation between the rapporteur and the applicant on 18 February 2020, the note of the telephone attendance being dated 25 February 2020, the applicant was informed that the board, in its provisional opinion, found the applicant's arguments concerning sufficiency of disclosure convincing and that, therefore, the board considered to set aside the decision under appeal and to remit the case to the department of first instance for further prosecution. However, the board was of the preliminary opinion that no substantial procedural violation had occurred during the first-instance proceedings and that, therefore, the applicant's request for reimbursement of the appeal fee could not be allowed.
- V. In response to the attendance note of the telephone conversation, the applicant, with a letter dated 19 March 2020, withdrew its request for reimbursement of the appeal fee and clarified that it requested the case to be remitted to the department of first instance.

VI. Thereupon, the oral proceedings were cancelled.

VII. Independent claim 1 according to the main request reads as follows:

"A field-portable impedance reader (14), comprising:

a reader antenna (16), the reader being characterized in that it further includes:

an impedance compensator (18) operatively coupled to the reader antenna (16);

a calibrator (20), where the impedance compensator enables efficient transfer of energy between the reader antenna (16) and the calibrator (20);

a synchronous sampler (22) which receives calibrated sensor signals from the calibrator;

and a digital processor (24) coupled to the synchronous sampler (22), which digital processor (24) receives and processes signals from the synchronous sampler (22)."

Reasons for the Decision

1. Sufficiency of disclosure

The invention as claimed is disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 83 EPC).

1.1 According to the appealed decision, the invention as claimed is not disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 83 EPC). The decision of the examining division is based essentially on the following reasons:

1.1.1 RFID readers are generally known in the art and their components may normally be represented "as boxes in a flow chart, provided that they really are interconnected in accordance with common general knowledge. However the present invention is not directed to a standard RFID reader but to an RFID reader that is supposed to be new and inventive, and the interconnection of its components is defined by unusual functionalities that cannot be seen as commonly known" (see appealed decision, point II.2, page 3, fourth and fifth paragraphs).

1.1.2 Concerning the feature of claim 1 "the impedance compensator enables efficient transfer of energy between the reader antenna and the calibrator":

"It would not be obvious to the skilled person how the LCR circuit of the calibrator (20) has to be connected to the impedance compensator (18) (...) and to the synchronous sampler (22) (...) in a way that enables it to receive the energy of the sensor signal from the antenna (16) via the impedance compensator (18), to calibrate this sensor signal and then to transmit it to the synchronous sampler (22)" (see point II.2.1 of the appealed decision).

Moreover, concerning the circuit diagram submitted by the applicant during oral proceedings before the examining division and comprising a switch connecting the synchronous sampler to either the calibrator or the impedance compensator, "[t]he examining division acknowledges that this late-filed example of a circuit does make technical

sense, but since it is neither within the claimed scope nor in accordance with the signal flow shown in Fig. 1 of the application, it cannot prove the skilled person's ability to put the (claimed) invention into practice" (see point II.2.1 of the appealed decision).

- 1.1.3 Concerning the feature of claim 1 "a synchronous sampler which receives calibrated sensor signals from the calibrator":

According to the applicant's explanations given during the oral proceedings before the examining division and based on a further circuit diagram submitted by the applicant, "it was clarified that the synchronous sampler has to comprise a heterodyne sampling architecture that receives the signal (...) and transmits it to the ADC of the processor (...), as well as a DDS that provides the excitation signal". However, contrary to this working example submitted during oral proceedings, the patent application was "giving the impression that the preferred synchronous sampler *is* a DDS. (...) Nothing in the application teaches the skilled person that (...) the synchronous sampler needs to be a combination of the DDS and the heterodyne sampling architecture" (see point II.2.2 of the appealed decision).

- 1.2 The board is not convinced by the arguments given in the appealed decision for the following reasons:

- 1.2.1 Concerning the arguments provided in point II.2 of the appealed decision (see point 1.1.1 above):

An objection under Article 83 EPC cannot merely be based on an unfounded assumption that the subject-matter of claim 1 is new and inventive and that, therefore, some additional, new and inventive information must be disclosed in the patent application.

Concerning the interconnection of the components of the RFID reader being allegedly "defined by unusual functionalities", it is not apparent from the appealed decision why these functionalities are considered to be "unusual" by the examining division. Even if the functionalities defining the interconnections in claim 1 were "unusual" or unclear, it would have to be assessed first whether the patent application as a whole contains sufficient information for the skilled person to clarify the technical meaning of these "unusual" functionalities before deciding that the invention as defined in claim 1 is not sufficiently disclosed in the sense of Article 83 EPC. This assessment is missing in the appealed decision and the board can not see either why the functionalities defined in claim 1 should be so obscure that the person skilled in the art would be prevented from carrying out the invention.

1.2.2 Concerning the arguments provided in point II.2.1 of the appealed decision (see point 1.1.2 above):

The examining division opined that it was not clear from the wording of claim 1 how the impedance compensator, the calibrator and the synchronous sampler were interconnected so as to enable transfer of energy between the reader antenna and the calibrator.

However, the board agrees with the applicant that the description provides sufficient information enabling the skilled person to carry out the invention of claim 1 in this respect (see the statement of grounds of appeal, page 3). In particular, as submitted by the applicant, the skilled person is aware that "transmitting and receiving [signals] are required" between the components of an impedance reader. Moreover, according to the applicant, "essential parts of the invention included in claim have been described in

detail in the description of the application, at [0038] (page 9 as published) to [0059] and their interconnection is shown schematically in Figure 1". To this effect, the board also agrees with the applicant that "the calibrator could be a calibration-standard switch, and a LCR circuit", as described in paragraphs [0041] and [0043], and that "the synchronous sampler 22 has a DDS and a clock circuit", as described in [0045], wherein "the DDS output is used to excite the antenna, and this frequency can be swept to determine the impedance of the RFID sensor [0047]". Based on this information taken from the description of the patent application, the applicant submitted during oral proceedings before the examining division a schematic drawing of an exemplary circuit, which the examining division qualified as making "technical sense". Whether all the essential features of the components of the impedance reader are actually defined in present claim 1 is a matter of clarity (Article 84 EPC) and not of sufficiency of disclosure.

1.2.3 Concerning the arguments provided in point II.2.2 of the appealed decision (see point 1.1.3 above):

Contrary to the examining division's opinion, the board notes that neither claim 1 nor the description requires that the synchronous sampler *is* a DDS, thereby excluding that the synchronous sampler comprises any further component. On the contrary, paragraph [0044] discloses that the synchronous sampler receives calibrated sensor signals from the calibrator and reference signals from a reference source, and is constructed using one of a direct, heterodyne, homodyne or sub-harmonic sampling architecture for receiving and sampling signals. Paragraphs [0045] to [0047] disclose that the synchronous sampler contains a DDS *inter alia* for producing frequency signals used as excitation signals for the reader antenna. While it is not explicitly disclosed in the patent application, it would be implicit for the skilled

person that the synchronous sampler of a RFID reader needs to be a combination of both a sampling component and an excitation component, each of the two components being disclosed in the patent application.

- 1.2.4 In conclusion, the board is not convinced by the reasoning given in the appealed decision according to which the invention is not sufficiently disclosed in the patent application (Article 83 EPC).

However, the precise technical meaning of certain items of claim 1, i.e. "impedance compensator", "calibrator" and "synchronous sampler", and the question whether claim 1 defines all essential features of these items might have to be evaluated under Article 84 EPC. Moreover, while assessing patentability of the claimed subject-matter (Articles 54 and 56 EPC), it might have to be taken into account that the scope of present claim 1 appears to be vague and broad.

Since the relevant technical information of an impedance reader is disclosed in the description of the application as filed, the board is of the opinion that the skilled person is provided with sufficient information in order to interpret the wording of claim 1 and the schematic drawing of figure 1 in a technically reasonable manner and to carry out the invention as claimed within the meaning of Article 83 EPC.

2. Reimbursement of the appeal fee

- 2.1 Originally, the applicant had requested reimbursement of the appeal fee (see statement setting out the grounds of appeal, pages 4 to 6). The applicant withdrew this request by a letter dated 19 March 2020.

- 2.2 After examination of the case of its own motion, the board arrives at the conclusion that the examining division committed no substantial procedural violation which would have justified a refund of the appeal fee.
- 2.3 In particular, the applicant's reasons provided in the statement of grounds of appeal as to why the appeal fee should be reimbursed due to a substantial procedural violation committed by the examining division, are not found convincing by the board for the reasons already provided in the board's attendance note of a phone conversation, reading essentially as follows:
 - 2.3.1 Conducting oral proceedings with a party over the telephone is not provided for in the EPC. Accordingly, the examining division acted correctly in refusing to allow the inventor to take part in the oral proceedings over the phone. Furthermore, at any rate, the inventor was still allowed to speak over the telephone, with the representative relaying the inventor's words to the examining division. Moreover, according to the minutes, the representative agreed to this course of action.
 - 2.3.2 It is not clear to the board whether the second argument presented by the applicant is about the issue that the inventor was not allowed to speak directly to the examining division (same issue as the first point above) or whether the examining division refused to consider the circuit diagrams produced by the inventor during the oral proceedings as evidence that a skilled person was capable of producing such circuit diagrams. In the latter case, the board agrees with the examining division and their referral to T 1165/98, point 14, that the fact that the inventor was able to carry out the invention is not suitable to prove that the skilled person would be able to carry out the invention, too.

2.3.3 It appears from the appealed decision, point II.1, first paragraph, that the meaning of the word "invention" in the context of the assessment of sufficiency of disclosure was actually discussed between the examining division and the applicant, and that, therefore, no infringement of the applicant's right to be heard has taken place.

2.4 Other procedural errors are also not apparent to the board either. Overall, there is therefore no substantial procedural violation which would justify a refund of the appeal fee.

3. Further prosecution

3.1 Since the board is not convinced by the argumentation of lack of sufficiency of disclosure as provided by the examining division, the appealed decision must be set aside.

3.2 The decision under appeal dealt only with the issue of sufficiency of disclosure without considering any of the other requirements of the EPC, especially clarity, novelty and inventive step. Given the significant scope of the pending examination and the applicant's request for remitting the case to the department of first instance, there are "special reasons" within the meaning of Article 11 RPBA 2020 to refer the matter back to the department of first instance for further prosecution (Article 111(1) EPC).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

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

The Registrar:

The Chairman:



M. Kiehl

R. Bekkering

Decision electronically authenticated