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Datasheet for the decision of 17 April 2013

Case Number: T 1585/09 - 3.4.01

Application Number: 05253003.7

Publication Number: 1605392

IPC: G06K 7/08, G06K 7/00

Language of the proceedings: EN

Title of invention:
RFID reader utilizing an analog to digital converter for data acquisition and power monitoring functions

Applicant:
ASSA ABLOY AB

Headword:
-

Relevant legal provisions:
RPBA Art. 13(3)

Keyword:
"Late-filed request (not admitted)"
"No appellant's request on file"

Decisions cited:
T 1587/07

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1585/09 - 3.4.01

D E C I S I O N
of the Technical Board of Appeal 3.4.01
of 17 April 2013

Appellant: (Applicant)
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Decision under appeal:
Decision of the Examining Division of the European Patent Office posted 20 January 2009 refusing European patent application No. 05253003.7 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman: G. Assi
Members: H. Wolfrum
M. J. Vogel

Summary of Facts and Submissions

I. European patent application 05 253 003.7 (publication No. EP 1 605 392) was refused by a decision of the examining division dispatched on 20 January 2009 for a lack of inventive step (Articles 52(1) and 56 EPC 1973) of the subject-matter of the claims of the requests then on file.

II. The applicant lodged an appeal against the decision on 11 March 2009. The prescribed appeal fee was paid on the same day. A statement setting out the grounds of appeal was filed on 20 May 2009. The appellant requested grant of a patent on the basis of claim sets forming a main request and three auxiliary requests, all filed with the statement setting out the grounds of appeal. Oral proceedings were requested as well.

Moreover, the appellant requested that interlocutory revision (Article 109(1) EPC) be granted.

III. On 6 February 2013 the appellant was summoned to oral proceedings to take place on 17 April 2013.

In an annex accompanying the summons pursuant to Article 15(1) RPBA the Board addressed a number of issues to be discussed concerning, in addition to the question of inventive step, added subject-matter (Article 123(2) EPC) and clarity of the claims (Article 84 EPC 1973).

IV. By letter of 21 March 2013 the appellant replaced the former main and auxiliary requests by a new request to grant a patent on the basis of claims 1 to 19 filed

with that letter. Moreover the appellant informed the Board that it did not intend to attend the oral proceedings, withdrew its request for oral proceedings and requested that the procedure be continued in writing on the basis of the newly-filed claims.

V. On 17 April 2013 oral proceedings were held in the absence of the appellant.

VI. Independent claims 1 and 11 of the appellant's request read as follows:

"*1. A reader (14) for an RFID system comprising:*

a signal generator (24) for generating a detection signal containing analog data and also for generating an excitation signal, the detection signal being generated while the reader is operating in a reduced power state, the excitation signal being generated while the reader is operating in an increased power state;

a transmitting antenna (34,38) coupled with said signal generator for transmitting said detection signal and also for transmitting said excitation signal into a space (16) surrounding said transmitting antenna;

a receiving antenna (34,38) for receiving a transponder data signal containing digital data from a transponder (12) in said space;

receiver electronics (26) coupled with said receiving antenna for conditioning said transponder data signal to a conditioned transponder data signal including said received digital data, wherein the transponder data signal is conditioned by the receiver electronics by at least one of: (i) reducing a voltage value of the transponder data signal; (ii) rectifying

the voltage value of the transponder data signal between about ground and an internal power source for the reader; and (iii) rectifying the voltage value of the transponder data signal and integrating the transponder data signal over one or more cycles of a carrier frequency of the transponder data signal;; [sic!]

a power source (32) for receiving electrical operating power to said reader;

and

a single-chip microcontroller (28) coupled with said power source and said receiver electronics, said single-chip microcontroller including an analog to digital converter (42) to acquire said analog data from said detection signal and said received digital data from said conditioned transponder data signal and to convert said analog data from said detection signal to converted digital data;

the single chip microcontroller including a detection means for evaluating said converted digital data to detect a transponder presence in the space surrounding said transmitting antenna by monitoring digital data changes with reference to a preceding digital data value to detect the transponder and, when the transponder is detected, to switch the reader to the increased power state and cause the signal generator to generate the excitation signal instead of the detection signal, the single-chip microcontroller further including a reading means for demodulating said conditioned transponder data signal to read said received digital data when the reader is operating in the increased power state."

"11. A method for operating a reader for an RFID system (10) comprising:

generating a detection signal containing analog data;

transmitting said detection signal from a transmitting antenna into a space (16) surrounding said transmitting antenna;

acquiring said analog data from said detection signal with an analog to digital converter (42) included within a single-chip microcontroller (28) and coupled with receiver electronics (26);

converting said analog data to converted digital data with said analog to digital converter;

evaluating said converted digital data with said microcontroller to detect a proximal transponder in space surrounding said transmitting antenna;

detecting the proximal transponder in the space surrounding said transmitting antenna by monitoring digital data changes with reference to a preceding digital data value to detect the proximal transponder in response to detecting the proximal transponder, switching the reader to an increased power state which causes the reader to generate an excitation signal instead of said detection signal;

transmitting said excitation signal from said transmitting antenna into said space to power up said proximal transponder;

generating a transponder data signal at said proximal transponder in response to said excitation signal and propagating said transponder data signal through said space from said proximal transponder;

receiving said transponder data signal with a receiving antenna, wherein said transponder data signal contains received digital data;

conditioning said transponder data signal with receiver electronics to a conditioned transponder data signal, wherein the transponder data signal is conditioned by the receiver electronics by at least one of: (i) reducing a voltage value of the transponder data signal; (ii) rectifying the voltage value of the transponder data signal between about ground and an internal power source for the reader; and (iii) rectifying the voltage value of the transponder data signal and integrating the transponder data signal over one or more cycles of a carrier frequency of the transponder data signal;; [sic!]

acquiring said received digital data from said conditioned transponder data signal with said analog to digital converter; and

demodulating said conditioned transponder data signal with said microcontroller to read said received digital data."

Claims 2 to 10 and 12 to 19 are dependent claims.

VII. The appellant submitted the following arguments with the letter of 21 March 2013 (see page 5) in support of the admissibility of its request:

Although the present amendments to the claims are made late in the proceedings, it is submitted that they are admissible for the following reasons:
-) they are filed very shortly after the deadline set by the Board of Appeal (March 18, 2013);
-) they respond to all formal objections raised by the Board of Appeal in the Annex to the Summons to attend oral proceedings;

-) they simplify the matter to be decided upon by reduction of number of requests and responding to raised objections;
-) for these reasons, they clearly conform with the need of procedural economy.

Reasons for the Decision

1. In the following reference is made to the provisions of the EPC 2000, which entered into force as of 13 December 2007, unless the former provisions of the EPC 1973 still apply to pending applications.

2. The appeal complies with the requirements of Articles 106 to 108 EPC and Rule 99 EPC and is, therefore, admissible.

3. Admissibility of the appellant's request of 21 March 2013

3.1 With respect to the claims of the requests previously on file, the claims of the request filed on 21 March 2013 contain a number of substantive amendments to independent claims 1 and 11.

Some of the amendments, such as for instance features i) to iii) relating to the conditioning of the transponder data signal by the receiver electronics, have been derived from the application description (see letter of 21 March 2013, paragraph bridging pages 1 and 2, second paragraph of page 3) and thus had not and could not have been addressed in the Board's assessment

of inventive step in the previous communication of 6 February 2013.

3.2 Since the appellant chose not to attend the oral proceedings, the Board was not in a position to raise its concerns *inter alia* as to lack of inventive step and to decide the case in the oral proceedings (Article 15(6) RPBA) without infringing the appellant's right to be heard (Article 113(1) EPC).

Therefore, in the present case, due to the manner in which the appellant conducted its appeal, namely to file substantial amendments for discussion in oral proceedings and then to not attend those oral proceedings, the Board would have had to continue the proceedings in writing if the appellant's request would have been admitted into the proceedings.

Such a course of action is however excluded by Article 13(3) RPBA, according to which "*Amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board … cannot reasonably be expected to deal with without adjournment of the oral proceedings*".

It is of course needless to add that, contrary to the appellant's allegation (see letter of 21 March 2013, page 5), admission of the new request would not have furthered procedural economy.

3.3 As a result, the Board decided not to admit the appellant's request of 21 March 2013 into the proceedings.

4. For the sake of completeness it is noted that the appellant's request for interlocutory revision according to Article 109(1) EPC could only address the examining division and became obsolete with the commencement of the proceedings before the Board of appeal.

5. In conclusion, there is no request of the appellant remaining on file. Under these circumstances, the appeal has to be dismissed (see in analogy T 1587/07, unpublished, point 4. of the reasons).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar The Chairman

K. Boelicke G. Assi