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**Datasheet for the decision
of 31 May 2012**

Case Number: T 0685/08 - 3.4.01

Application Number: 04758844.7

Publication Number: 1609212

IPC: H01Q 9/14, H01Q 9/04

Language of the proceedings: EN

Title of invention:
System and method for regulating antenna electrical length

Applicant:
Kyocera Corporation

Opponent:
-

Headword:
-

Relevant legal provisions:
RPBA Art. 13(1), 13(3)

Relevant legal provisions (EPC 1973):
-

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

Decisions cited:
T 0237/96

Catchword:
-



Case Number: T 0685/08 - 3.4.01

D E C I S I O N
of the Technical Board of Appeal 3.4.01
of 31 May 20121

Appellant: Kyocera Corporation
(Applicant) 6 Takeda Tobadono-Cho, Fushimi-ku
Kyoto 612-8501 (JP)

Representative: Viering, Jentschura & Partner
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 12 October 2007
refusing European patent application
No. 04758844.7 pursuant to Article 97(1) EPC
1973.

Composition of the Board:

Chairman: G. Assi
Members: H. Wolfrum
J. Geschwind

Summary of Facts and Submissions

- I. European patent application 04 758 844.7 (publication No. WO-A-2004/091046) was refused by a decision of the examining division dispatched on 12 October 2007, for the reasons of added subject-matter (Article 123(2) EPC 1973) and/or lack of clarity (Article 84 EPC 1973) and lack of inventive step (Article 56 EPC 1973) of the requests then on file.
- II. The applicant (appellant) lodged an appeal against the decision and paid the prescribed fee on 17 December 2007. On 22 February 2008 a statement of grounds of appeal was filed. The appellant requested the grant of a patent on the basis of amended sets of claims according to a main request and two auxiliary requests. Furthermore, an auxiliary request for oral proceedings was made.
- III. On 5 March 2012 the appellant was summoned to oral proceedings.

In a communication dated 6 March 2012, the board gave a preliminary opinion on the issues of added subject-matter, clarity as well as novelty and inventive step. Reference was made to documents :

D1: EP-A-1 220 354; and
D3: US-B-6 501 427.

- IV. In response, the appellant filed by letter of 30 April 2012 new sets of claims according to a main request and two auxiliary requests.

V. Oral proceedings were held on 31 May 2012.

In the oral proceedings the appellant withdrew the main request and the two auxiliary requests, filed on 30 April 2012, and filed a new main request consisting of claims 1 to 7 as its sole request.

VI. Independent claims 1 and 5 of the appellant's request read as follows :

"1. A method for regulating an electrical length of an antenna (102; 402) of a wireless telephone having a regulator circuit (116) including a memory (136), with the antenna (102; 402) having an antenna port, the method comprising:

initially calibrating the antenna electrical length to communicate transmission line signals at a predetermined frequency between a transceiver and said antenna (102; 402) (502) in a predetermined first environment of proximate dielectric materials, including accepting the transmission line signal from said transceiver at the antenna port; changing from the antenna first environment of proximate dielectric materials to an antenna second environment of dielectric materials;

sensing transmission line signals (504), including measuring the transmission line signal reflected from the antenna port, wherein sensing transmission line signals includes sensing changes in the transmission line signals due to the antenna second environment; and,

modifying the electrical length of the antenna (102; 402) in response to sensing the transmission line signals (506), wherein modifying the electrical length

of the antenna (102; 402) in response to sensing the transmission line signals includes modifying the electrical length of the antenna (102; 402) in response to the antenna second environment;

wherein the transceiver and antenna (102; 402) are elements of a portable wireless communications telephone; and,

wherein changing from the antenna first environment of proximate dielectric materials to an antenna second environment of dielectric materials includes a user manipulating the telephone,

wherein modifying the electrical length of the antenna in response to sensing the transmission line signals includes modifying the electrical length of the antenna to operate at a frequency selected from the group including 824 to 894 megahertz (MHz), 1850 to 1990 MHz, 1565 to 1585 MHz, and 2400 to 2480 MHz;

wherein the average modification relating to previous control signal modifications of control signals for controlling the electrical length of the antenna is stored in said memory (136), and wherein the active element (104) is initialized with the stored average modification as an initial value

wherein the antenna includes a radiator with at least one selectively connectable microelectromechanical switch (MEMS); and, wherein modifying the electrical length of the antenna in response to sensing the transmission line signals includes changing the electrical length of the radiator in response to connecting the MEMS;

wherein the antenna includes a counterpoise with at least one selectively connectable MEMS; and

wherein modifying the electrical length of the antenna in response to sensing the transmission line signals includes changing the electrical length of the counterpoise in response to connecting the MEMS."

"5. A wireless telephone, the wireless telephone having an antenna system for regulating the electrical length of an antenna, the system comprising:

an antenna (102, 402) including :

an active element (104, 404) having an electrical length responsive to a control signal;

an antenna port configured to transceive transmission line signals;

a control port connected to the active element (104, 404) to accept control signals;

a transmission line (106, 406) connected to the antenna port; and

a regulator circuit having an input operatively connected to the transmission line (106, 406) and an output connected to the antenna (102, 402) to supply the control signal in response to the transmission line signals;

a detector having an input operatively connected to the transmission line (106, 406) to sense transmission line signals and an output connected to the regulator input to supply detected signals responsive to the transmission line signals; and,

a transceiver with a port connected to the transmission line (106, 406) to supply a transmission line signal;

wherein the antenna port reflects transmission line signals in response to changes in the active element electrical length;

wherein the regulator circuit has a reference input to accept a reference signal responsive to the intended antenna operating frequency, and supplies control signals in response to accepting the detected signals and reference signal;

wherein detector senses transmission line signals reflected from the antenna port;

wherein the detector senses transmission line signals supplied by the receiver and reflected from the antenna port;

wherein the active element has an operating frequency selected from the group including 824 to 894 megahertz (MHz), 1850 to 1990 MHz, 1565 to 1585 MHz, and 2400 to 2480 MHz. [sic!]

wherein the antenna active element (104, 404) includes:

at least one selectively connectable microelectromechanical switch (MEMS) responsive to the control signal; and,

a radiator with an electrical length that varies in response to selectively connecting the MEMS;

wherein said regulator circuit (116) includes a memory for storing the average modification relating to previous control signal modifications of control signals for controlling the electrical length of the antenna, so that the wireless telephone is configured to initialize the active element (104) with the stored average modification as an initial value and

wherein the antenna active element (104, 404) includes a counterpoise with an electrical length that varies in response to selectively connecting the MEMS."

Claims 2 to 4 and 6 to 7 are dependent claims.

VII. The appellant argued that the request filed in the oral proceedings should be considered as a reaction to objections raised by the board in the oral proceedings. Some aspects of these objections, in particular those which concerned added subject-matter and lack of clarity, had not been previously discussed or became only clear to the appellant in the course of the debate. Moreover, the amended claims defined novel and inventive subject-matter and thus addressed all objections which had been raised by the board. For these reasons, the request should be admitted into the proceedings.

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
 - 3.1 The request filed in the oral proceedings replaces the main request and the two auxiliary requests which were filed on 30 April 2012 in reaction to the board's communication. At the oral proceedings however the appellant did not actually defend these requests with respect to the requirements of Article 123(2) EPC and Article 84 EPC 1973 but, instead, indicated its

intention to overcome any such objection by the filing of a new request.

- 3.2 Article 13(1) RPBA stipulates that "any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion. The discretion shall be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy."

Article 13(3) RPBA complements that "*amendments sought to be made after oral proceedings have been arranged shall not be admitted if they raise issues which the Board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings.*"

Moreover, the case law of the boards of appeal has established a variety of criteria for the admission or rejection of amended claims in appeal proceedings (cf. chapter VII.E.16. of the 6th edition of the "Case Law of the Boards of Appeal of the European Patent Office"). Among these criteria are the complexity of the amendments, whether the amendments respond to new objections, or whether the amended request is clearly allowable.

- 3.3 Contrary to the appellant's allegation, the amendments proposed do not constitute a reaction to objections raised for the first time in the oral proceedings but rather attempt to remove deficiencies as to added subject-matter, lack of clarity and lack of novelty or inventive step, on which the decision of the examining

division was already based and which were addressed in the board's communication. Therefore, the new request should have been filed much earlier, at the latest in response to the summons to oral proceedings.

Moreover, independent claims 1 and 5 of the appellant's request have no direct basis in any of the previously filed claims. Instead they are the result of an extensive rephrasing leading to a complex claim structure with a lengthy and involved wording. Thus, admitting the request into the proceedings would render necessary an extensive fresh examination as to the clarity and basis of disclosure of the claim definitions. Such a task cannot reasonably be performed in the limited time frame of an oral proceedings.

In addition, on the basis of a *prima facie* study of the said claims doubts arise not only as to a proper basis of disclosure and clarity of the involved claim wording, but also as to whether the requirements of novelty and inventive step are met.

- 3.4 For these reasons, the amendments according to the appellant's request do not respond to fresh objections, raise issues which could not be dealt with without adjournment of the oral proceedings, and are not clearly allowable,.

The board, in exercising its discretion under Article 13(1) RPBA, thus does not admit the appellant's request into the proceedings.

4. In consequence, there are no appellant's requests on file. Although the appellant was aware of this fact during the oral proceedings, it declared that it had no further requests. Under these circumstances, the appeal has to be dismissed (see in analogy T 237/96, unpublished, point 2.5 of the reasons).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

R. Schumacher

G. Assi