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Datasheet for the decision of 22 August 2006

Case Number: T 1065/04 - 3.5.03

Application Number: 01302506.9

Publication Number: 1187371

IPC: H04B 7/26

Language of the proceedings: EN

Title of invention:
Code space sharing among multiple modes of operation

Applicant:
LUCENT TECHNOLOGIES INC.

Opponent:
-

Headword:
Code space sharing/LUCENT

Relevant legal provisions:
EPC Art. 52(1), 56
RPBA Art. 11(3)

Keyword:
"Inventive step - no"

Decisions cited:
G 0010/93

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 1065/04 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 22 August 2006

Appellant: LUCENT TECHNOLOGIES INC.
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 15 June 2004 refusing European application No. 01302506.9 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: A. S. Clelland
Members: D. H. Rees
R. Moufang

Summary of Facts and Submissions

I. This is an appeal against the decision of the examining division, announced in oral proceedings held on 12 May 2004, with written reasons dispatched on 15 June 2004, to refuse patent application number 01 302 506.9, publication number 1 187 371. The reason given for the refusal was that the claimed subject-matter did not involve an inventive step with respect to the disclosure of document

D1: US 6 064 662 A

II. Notice of appeal was filed and the fee paid on 23 July 2004. A statement setting out the grounds of the appeal was submitted in a letter dated 23 and received 27 July 2004.

III. The board issued, of its own motion, a summons to attend oral proceedings to be held on 22 August 2006. In the accompanying communication the board cited the following documents in addition to D1:

D3: S. Ramakrishna et al., "A Scheme for Throughput Maximization in a Dual-Class CDMA System," IEEE 6th International Conf. on Universal Personal Communications, San Diego, CA, US, 12-16 Oct. 1997, IEEE, Proceedings pages 623 to 627;

D5: WO 98/35514 A

D6: EP 0 332 818 A

D7: WO 00/24146 A

It gave its preliminary opinion that the claims were not clear and not supported by the description, in violation of Article 84 EPC. The board also drew the appellant's attention to and discussed the content of the cited documents, which might become relevant for the assessment whether an inventive step was involved in the event of amended claims being submitted.

IV. In a submission on 21 July 2006 the appellant's representative informed the board that he would not attend the oral proceedings. It was requested that the oral proceedings be cancelled and that the procedure be continued in writing. A new claim set was submitted, together with arguments in its favour.

V. Independent claim 1 of the only request reads as follows:

"1. A method for partitioning code space in a communication system,
characterized by a step of:
dividing a code space into at least two subspaces, a first plurality of codes in the first subspace being derived from a first lower order code and each of the first plurality of codes being available for assignment to one user at a time in response to a request for a voice communication session, and a second plurality of codes in the second subspace being derived from a second lower order code and each of the second plurality of codes being available for assignment to at least one user on a time shared basis in response to a request for data communication, the first and second lower order codes being orthogonal."

VI. The appellant requests that the decision under appeal be set aside and a patent be granted. The board infers that the text on which the request for grant is based is as follows:

claims 1 to 6 filed on 21 July 2006;

description
page 1 filed on 22 November 2002,
pages 2 and 3 as originally filed;

drawing sheets 1 and 2 as originally filed.

VII. The board informed the appellant that the oral proceedings would take place as scheduled. The appellant was not represented at the oral proceedings, during which the board deliberated and the chairman announced the decision taken.

Reasons for the Decision

1. The function of a board of appeal is to reach a decision on the issues presented to it, not to act as an alternative examining division (G 10/93, OJ 1995, 172, in particular Point 4).

According to Article 116(1) EPC, oral proceedings shall take place either at the instance of the European Patent Office if it considers this to be expedient or at the request of any party to the proceedings. Oral proceedings are an effective way to discuss cases mature for decision, since the appellant is given the

opportunity to present its concluding comments on the outstanding issues (Article 113(1) EPC), and a decision can be made at the end of the oral proceedings (Rule 68(1) EPC).

The need for procedural economy dictates that the board should reach its decision as quickly as possible while giving the appellant a fair chance to argue its case. In the present appeal the holding of oral proceedings was considered by the board to meet both these requirements. A summons was therefore issued. The appellant gave no reasons to support the request to cancel the oral proceedings scheduled by the board and to continue the procedure in writing. In accordance with Article 11(3) of the Rules of Procedure of the Boards of Appeal the board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying on its written case. The board considered that, despite the appellant's announced intention not to attend, the twin requirements of fairness and procedural economy were still best served by holding the oral proceedings as scheduled. The request to cancel the scheduled oral proceedings was therefore refused.

The board interprets the appellant's request to continue the procedure in writing as being a request not to reach a final decision in oral proceedings, but rather to issue a further communication. However, the mere choice by the appellant not to attend is not sufficient reason to delay the board's decision. If the appellant had attended the oral proceedings, it would

have had an opportunity to present its comments. The board considers that Article 113(1) EPC has been satisfied. This request is therefore also refused.

2. *Interpretation of claim 1*

2.1 In a mathematical context a "subspace" would consist of all of the members of a set sharing a mathematical property such as satisfying a particular equation. The description however gives an example where one "subspace" seems to consist of all the Walsh codes other than $W_{128,1}$ to $W_{128,8}$ (Paragraph [0010] of the published application), so that it would appear that all is meant is a subset.

2.2 The appellant argued in its final submission that, "[C]laim 1 states that codes in the first subspace are derived from a first lower order code and codes in the second subspace are derived from a second lower order code. The first and second lower order codes are orthogonal."

2.3 However in fact claim 1 merely states that a plurality of codes in each subspace are derived from a lower order code. This clearly encompasses the possibility that other codes in a subspace are derived from other lower order codes, as indeed is the case in the example cited above at Point 2.1. Thus this claimed feature does not in fact provide the unifying mathematical property that the skilled person would expect of a "subspace". The board accordingly takes the term "subspace" in the claim to apply to any subset of the codes.

2.4 The claim to "a method of partitioning code space" has an abstract mathematical connotation. However since the method is to be executed "in a communication system", the board interprets it as creating and storing lists or equivalent data structures in a processor in the system.

2.5 The claim refers to codes in the first subspace (subset) being available "for assignment to one user at a time" whilst codes in the second subspace (subset) are available "for assignment to at least one user on a time-shared basis". These statements have no clear limitative effect. The skilled person would normally understand time-sharing to refer to a situation where a plurality of users are accessing a resource simultaneously. However the claim specifies only "at least one user", thus encompassing the case of only one user. A code of a subset which is assigned to one user at a time (and implicitly to another user at another time) is arguably assigned on a time-shared basis. Thus the feature "for assignment to at least one user on a time-shared basis" would seem to include "for assignment to one user at a time", and the claim is apparently merely limited to assigning subsets of orthogonal codes to users in dependence on whether voice or data is communicated. The claim does not even specify that all the codes in the subspaces must be "available for assignment", since as noted above at Point 2.3, the "subspaces" may include codes which are not in the "first" and "second" defined pluralities.

3. *Inventive step - Articles 52(1) and 56 EPC*

3.1 D3 relates to a CDMA system and identifies two classes of users, delay intolerant with a constant rate requirement and delay tolerant with a minimum rate requirement (page 623 column 1 lines 1 to 5). The two classes are identified with voice and data users respectively (column 2 lines 9 and 10), and a method for assigning codes to users is put forward in which "a scheme resembling TDMA [Time Division Multiple Access, i.e. "time-sharing"] is used to distinguish between class 2 users within a cell; CDMA is used to separate class 1 and class 2 users within a cell," (column 2, lines 33 to 35).

3.2 The skilled person would understand from this, using common general knowledge of CDMA systems, that each voice user would be assigned the dedicated use of a CDMA, e.g. Walsh, code of a length suitable for transmission of a voice call, $W_{128,x}$ in the terms of the present application. The collection of these "voice length" codes available for assignment to the voice users would be a "first subspace" as specified in claim 1. A further one or more "voice length" codes would then be reserved for the data users. As soon as an aggregate data transfer rate higher than that offered by one "voice length" code was required, it would be necessary to reserve a plurality of such codes for data, thus providing the "second subspace" of claim 1. Although other choices are conceivable (e.g. the voice codes are all the $W_{128,x}$ with x even, and the data codes are all the $W_{128,x}$ with x odd), it would be a natural choice, and in the board's view the first choice for the skilled person, to assign a group of

codes having a common "lower order code" to the "data subspace" and indeed to use that lower order code, rather than a collection of individual "voice length" codes for data users on a time-shared basis as the document specifies. It would be equally natural to group the codes assigned to the voice subspace to have one or more common lower order codes.

3.3 The subject-matter of claim 1 therefore lacks an inventive step.

3.4 The appellant's arguments on this point amount to a recital of a summary of the claimed features and the assertion that "the cited references are completely silent with regard to" this set of features. In the board's view the cited references merely use different language for the same technical features and it is not clear from the response which features are considered to distinguish the claimed invention. The appellant's arguments are therefore unconvincing.

4. The appeal must therefore be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar | The Chairman

D. Magliano | A. S. Clelland