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**Datasheet for the decision
of 25 June 2014**

Case Number: T 0545/11 - 3.5.05
Application Number: 06720518.7
Publication Number: 1851926
IPC: H04L27/26
Language of the proceedings: EN

Title of invention:

METHOD AND APPARATUS FOR PREAMBLE TRAINING WITH SHORTENED LONG TRAINING FIELD IN A MULTIPLE ANTENNA COMMUNICATION SYSTEM

Applicant:

Agere Systems, Inc.

Headword:

PREAMBLE TRAINING WITH SHORTENED LONG TRAINING FIELD IN A MULTIPLE ANTENNA COMMUNICATION SYSTEM/AGERE

Relevant legal provisions:

EPC 1973 Art. 84

Keyword:

Claims - clarity after amendment (yes)

Decisions cited:

Catchword:



**Beschwerdekammern
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Chambres de recours**

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Case Number: T 0545/11 - 3.5.05

**D E C I S I O N
of Technical Board of Appeal 3.5.05
of 25 June 2014**

Appellant: Agere Systems, Inc.
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Allentown, PA 18109 (US)

Representative: Williams, David John
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted on 6 December 2010
refusing European patent application No.
06720518.7 pursuant to Article 97(2) EPC.

Composition of the Board:

Chair A. Ritzka
Members: M. Höhn
G. Weiss

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division, posted 6 December 2010, refusing European patent application No. 06720518.7 on the ground of Article 84 EPC.

- II. The notice of appeal was received on 15 February 2011. The appeal fee was paid on the same day. The statement setting out the grounds of appeal was also received on 15 February 2011. The appellant requested that the appealed decision be set aside and that a patent be granted on the basis of the sets of claims according to the main request or according to the first and second auxiliary requests, all submitted with the statement setting out the grounds of appeal. Oral proceedings were requested as an auxiliary measure.

- III. A summons to oral proceedings, to be held on 25 June 2014, was issued on 10 March 2014. In an annex accompanying the summons the board expressed the preliminary opinion that claim 10 of all requests did not appear to fulfil the requirements of Article 84 EPC 1973. The board gave its reasons for the objections and explained why it did not consider the appellant's arguments convincing.

- IV. By letter dated 20 May 2014 the appellant submitted three sets of claims according to an amended main request, a first auxiliary request and a second auxiliary request together with arguments supporting these requests. The appellant further stated that it maintained a precautionary request for oral proceedings in the event that the board would not allow the appeal

on the basis of any of these requests and that the appellant would like to avoid oral proceedings.

- V. By facsimile dated 10 June 2014 the board informed the appellant that it was minded to accept the first auxiliary request and to remit the case on this basis to the first instance for further prosecution. However, the main request did not appear to be acceptable.
- VI. By letter dated 16 June 2014 the appellant requested that the application be continued with the first auxiliary request as the sole request and withdrew the request for oral proceedings.
- VII. By letter dated 17 June 2014 the board informed the appellant that oral proceedings to be held on 25 June 2014 are cancelled.
- VIII. Independent claim 10 according to the first auxiliary request (sole request) reads as follows:

"A multiple antenna communication system, wherein a preamble has at least one legacy long training field (L-LTF) for use by one or more single antenna legacy devices, characterized by:
N transmit circuits (115, 120, 128, 130, 135);
N transmit antennas (140) for transmitting said preamble, wherein said preamble has an extended portion (520) having at least N additional long training fields (HT-LTF) on each of said N transmit antennas, wherein one of said at least N additional long training fields is comprised of two OFDM symbols, wherein N-1 of said at least N additional long training fields consist of only one OFDM symbol and wherein N is an integer and $N > 1$; and at least one receive circuit (260, 265, 270, 275, 280) for receiving and processing said preamble."

Reasons for the Decision

Admissibility

1. The appeal complies with Articles 106 to 108 EPC (see Facts and Submissions, point II above). It is therefore admissible.

First auxiliary request (sole request)

2. Amendments - Article 123(2) EPC
 - 2.1 The amendments made to the independent claims 1, 4, 8 and 10 are supported by figure 5 in the light of the disclosure on page 7, lines 8 to 24.
 - 2.2 The subject-matter of independent claims 1 and 10 therefore fulfils the requirements of Article 123(2) EPC.
3. Clarity - Article 84 EPC 1973
 - 3.1 The decision under appeal was solely based on the objection that the application did not meet the requirements of Article 84 EPC 1973, because claim 10 was not clear for the reason that it attempted to define a receiver apparatus in terms of a signal transmitted/received and not in terms of the technical features of the receiver itself. Furthermore, the back referencing of claim 10 to the transmitter claim 6 did not provide any teaching as to how the receiver itself was built. Hence the receiver as specified in claim 10 lacked essential features in its own category and could not be considered as an entity adapted towards reception.

3.2 By directing the claimed subject-matter of claim 10 to a system formed by a transmitter and a corresponding receiver, the interaction by the transmitted/received preamble is clearly specified and the generation of such a received signal forms part of the system claim. In accordance with the remark under point 4 of the decision under appeal, the board therefore regards the objection on which the decision under appeal was based to be overcome by present claim 10.

3.3 By specifying the distinction between legacy long training field L-LTF and MIMO long training fields HT-LTF, present claim 10 when interpreted in the light of the embodiments of the invention as disclosed in figures 5 and 6 with the corresponding text of the description (see page 7, line 8 onwards), with regard to a repeated OFDM symbol. In particular, it is now excluded that claim 10 encompasses either two of the N antennas having two OFDM symbols or even one antenna having three OFDM symbols.

3.4 Therefore, also further objections under Article 84 EPC raised in the appeal proceedings were overcome by the appellant.

The board therefore agrees with the appellant that claims 1, 4, 8 and 10 fulfil the requirements of Article 84 EPC 1973.

4.

5. Remittal

The question of compliance with Article 52(1) EPC, in particular as regards novelty and inventive step, was not discussed during the oral proceedings before the first instance nor is it mentioned in the decision

under appeal. The board therefore judges that it would not be appropriate for this question to be decided during the present appeal proceedings.

As the appellant has succeeded in filing an amended set of claims which, in the board's judgement, overcome its reservations concerning compliance with the requirements of Article 84 EPC 1973, remittal of the case to the department of first instance for further prosecution (Article 111(1) EPC) is judged to be the most appropriate course of action under the given circumstances, in order not to deprive the appellant of the possibility of having all other outstanding matters decided by two instances.

Order

For these reasons it is decided that:

The decision under appeal is set aside.

The case is remitted to the department of first instance for further prosecution on the basis of the sole request named First Auxiliary Request (claims 1-10) as filed with letter dated 20 May 2014.

The Registrar:

The Chair:



K. Götz

A. Ritzka

Decision electronically authenticated