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Datasheet for the decision of 7 May 2013

Case Number: T 1185/12 - 3.5.03

Application Number: 07009971.8

Publication Number: 1814242

IPC: H04W 52/50, H04B 1/707

Language of the proceedings: EN

Title of invention:
Device and method for communication between base station and subscriber unit in CDMA communication system

Applicant:
InterDigital Technology Corporation

Headword:
Short codes I/INTERDIGITAL

Relevant legal provisions:
EPC Art. 84, 123(2)

Keyword:
"Clarity (main request) - no"
"Amendment (auxiliary request) - undisclosed intermediate generalization of a specific example"

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Case Number: T 1185/12 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 7 May 2013

Appellant: (Applicant)
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Decision under appeal: **Decision of the examining division of the European Patent Office posted 5 December 2011 refusing European patent application No. 07009971.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: F. van der Voort
Members: B. Noll
R. Moufang

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application no. 07009971.8 (publication number EP 1814242 A2) which was filed as a divisional application relating to earlier European patent application no. 04010946.4, itself a divisional application of European patent application no. 00111007.1, which is a divisional application of European patent application no. 97930175.1.

In its decision the examining division held that the subject-matter of claim 1 of the single request filed during the oral proceedings before the examining division extended beyond the content of the application as filed (Article 123(2) EPC).

II. In the statement of grounds of appeal the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 and 2 as filed together with the statement of grounds of appeal.

III. In a communication accompanying the summons to oral proceedings the board drew the appellant's attention to issues which might be discussed in the oral proceedings, concerning, *inter alia*, added subject-matter (Article 123(2) EPC) and clarity of the claims (Article 84 EPC).

IV. With a letter dated 8 April 2013 the appellant filed sets of claims as first and second auxiliary requests. Arguments in support of the request already on file

(now main request) and these auxiliary requests were submitted.

V. Oral proceedings were held on 7 May 2013. In the course of the oral proceedings the appellant withdrew the first and second auxiliary requests on file and filed a revised set of claims as a new auxiliary request.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 and 2 of the main request filed with the statement of grounds of appeal or, in the alternative, claims 1 and 2 of the auxiliary request filed in the oral proceedings.

At the end of the oral proceedings, after deliberation, the board's decision was announced.

VI. Claim 1 of the main request reads as follows:

"A base station for establishing a two-way communication link with a subscriber unit in a CDMA communication system, the base station comprising means for fulfilling, in advance of call setup signalling and closed loop power control, the following functions:

periodically and continuously transmitting a pilot code to subscriber units;

continuously searching for a short code transmitted by the subscriber unit, wherein the short code has a much shorter period than a conventional spreading code and carries no data;

detecting the short code when the minimum short code power level for detection has been achieved at the proper phase for detection;

transmitting a short code detection indication signal to the subscriber unit in response to detecting the short code;

searching for a proper phase of an access code transmitted by the subscriber unit, wherein the access code has a length of a spreading code and the start of the short code and the start of the access code are synchronized;

detecting the proper phase of the access code; and

transmitting an access code detection acknowledgement to the subscriber unit when the proper phase of the access code is detected."

Claim 1 of the auxiliary request as filed during the oral proceedings differs from claim 1 of the main request in that the third paragraph reads:

"continuously searching for a short code transmitted by the subscriber unit, wherein the short code is shorter than an access code and carries no data"

and in that the sixth paragraph reads:

"searching for a proper phase of the access code transmitted by the subscriber unit, wherein the start of the short code and the start of the access code are synchronized".

Reasons for the Decision

1. *Claim 1 of the main request - clarity (Article 84 EPC)*

1.1 In the third paragraph, claim 1 defines the short code as having "a much shorter period than a conventional spreading code". Such an attempt to specify the period or length of the short code must fail, since the length of "a conventional spreading code" may vary by order of magnitude and, hence, is indeterminate.

Similarly, in the antepenultimate paragraph, the wording "the access code has a length of a spreading code" lacks clarity, since the "length of a spreading code" is indeterminate and, hence, cannot serve to specify the length of the access code.

1.2 For these reasons claim 1 of the main request lacks clarity (Article 84 EPC). The main request is therefore not allowable.

2. *Claim 1 of the auxiliary request - added subject-matter (Article 123(2) EPC)*

2.1 The feature "searching for a proper phase of the access code transmitted by the subscriber unit, wherein the start of the short code and the start of the access code are synchronized" is not clearly and unambiguously disclosed in this general form in the application documents as filed.

2.2 The appellant referred to page 13, lines 23 to 26, in combination with page 19, lines 14 to 17, page 20, line 1, and page 23, lines 20 to 22, of the application

as filed (cf. paragraph [0031], fourth sentence, paragraph [0048], third sentence, paragraph [0049], first sentence, and paragraph [0056], seventh sentence, of the application as published) as a basis for this feature.

The first passage cited by the appellant relates to a "first embodiment" (cf. paragraphs [0029] to [0040]) in which solely the access code is transmitted, without a preceding short code, during the power ramp-up phase. By contrast, the claims of the auxiliary request are based on the "preferred embodiment" ("two-stage communication link establishment procedure") described in paragraphs [0041] to [0050]. This embodiment makes use of a specific sub-procedure for searching the access code, which is described in paragraphs [0048] and [0049] as follows:

> "At this point, the base station 14 has detected the short code at the proper phase and power level (step 162). The base station 14 must now synchronize to the access code which is the same length as all other spreading codes and much longer than the short code. Utilizing the short code, the base station 14 is able to detect the proper phase of the access code much more quickly. The base station 14 begins searching for the proper phase of the access code (step 170). However, since the start of the access code is synchronized with the start of the short code, the base station 14 is only required to search every N chips; where N = the length of the short code. In summary, the base station 14 quickly acquires the access code of the proper phase and power level by:

> 1) detecting the short code; and 2) determining the proper phase of the access code by searching every N chips of the access code from the beginning of the short code.
>
> If the proper phase of the access code has not been detected after searching the number of phases in the maximum round trip delay the base station 14 restarts the search for the access code by searching every chip instead of every N chips (step 172). When the proper phase of the access code has been detected (step 174) the base station 14 transmits an access code detection acknowledgment (step 176) to the subscriber unit 16 which ceases the transmission power increase (step 178) upon receiving this acknowledgment."

Thus, it is evident from paragraphs [0048] and [0049] of the description that the search for obtaining the access code is carried out in a specific way in the two-stage communication link establishment procedure, namely by first searching every N chip, N denoting the length of the short code. The board further notes that the sentence in paragraph [0056] referred to by the appellant reads: "The base station 13 searches for the correct phase of the access code by searching only one phase out of each short code length portion of the access code (step 212)"; and, hence, corresponds to step 170 referred to in paragraph [0048] (see above).

2.3 The appellant further argued that the search as described in paragraphs [0048] and [0049] would be understood by the skilled person as an example only. Therefore, the skilled person would clearly have

recognized that searching for the access code was a generic step in the procedure of the invention and was not limited to the particular procedure as described.

2.4 The board does not agree. The paragraphs in question do not disclose that the search procedure is to be understood as an example only. Nor could a basis for this assertion found elsewhere in the application as filed.

2.5 Hence, it is not clearly and unambiguously derivable from the application as filed that in the context of a two-stage communication link establishment procedure a search other than the procedure as described in paragraphs [0048] and [0049] may be used. For this reason the appellant's argument must fail.

2.6 Since claim 1 fails to meet the requirement of Article 123(2) EPC, the auxiliary request is not allowable.

3. Since there is no allowable request on file, the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Rauh F. van der Voort