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**Datasheet for the decision
of 12 March 2024**

Case Number: T 2194/21 - 3.5.03

Application Number: 14173589.4

Publication Number: 2797239

IPC: H04B1/707, H04J13/20

Language of the proceedings: EN

Title of invention:

A method and a telecommunication device for selecting a number of code channels and an associated spreading factor for a CDMA transmission

Patent Proprietor:

Nokia Solutions and Networks Oy

Opponents:

TomTom Sales B.V. ("opponent 1")
Robert Bosch GmbH ("opponent 2")
Bury GmbH & Co. KG ("opponent 3")
Continental Automotive GmbH ("opponent 4")
Daimler AG ("opponent 5" until 7 June 2021)

Headword:

Selecting a spreading factor/NOKIA

Relevant legal provisions:

EPC Art. 112(1)(a), 123(3)

RPBA 2020 Art. 13(2), 21

Keywords:

Extension of protection conferred - main request (yes):

claim 1 as amended corresponds to an *aliud*

Admittance of claim amendments filed after board's

communication - auxiliary request A (no): no exceptional
circumstances + no *prima facie* allowability

Referral to the Enlarged Board of Appeal - (no): questions
regarding Art. 123(3) EPC not relevant to the present decision

Decisions cited:

G 0002/88, J 0016/90, T 1896/11, T 0131/15, T 0626/16



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Case Number: T 2194/21 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 12 March 2024

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 1 October 2021
revoking European patent No. 2797239 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chair

K. Bengi-Akyürek

Members:

J. Eraso Helguera

F. Bostedt

Summary of Facts and Submissions

- I. This case concerns the appeal filed by the proprietor against the decision of the opposition division to revoke the opposed patent under Article 101(2) and 101(3)(b) EPC.
- II. Oral proceedings before the board were held on 12 March 2024. The final requests of the parties were:
- The proprietor (appellant) requested, as a **main request**, that the decision under appeal be set aside and that the patent be maintained on the basis of the claims of the request labelled as "auxiliary request 3.5" in the decision under appeal. In the alternative, the proprietor requested that the patent be maintained on the basis of the claims of **auxiliary request A**, filed on 12 February 2024. Further, the proprietor requested that the board refer two questions to the Enlarged Board of Appeal in order to ensure uniform application of the law (Article 112(1) EPC) in the event that it intended to refuse the appeal.
 - The respondents, i.e. opponents 1, 2 and 4, present at the oral proceedings before the board, as well as opponent 3, in writing, requested that the appeal be dismissed.

At the end of those oral proceedings, the board announced its decision.

- III. Claim 1 of the **main request** reads as follows:

"A method for determining a parameter pair for a CDMA transmission between a sending and a receiving device wherein the parameter pair comprises a number of code channels, E-DPDCH, and a spreading factor, SF, and wherein the parameter pair corresponds to a possible number of bits, $N_{e,data}$, available for a transmission time interval, and the parameter pair to be determined is one pair of a set of parameter pairs defined by $\{N_{256}, N_{128}, N_{64}, N_{32}, N_{16}, N_8, N_4, 2 \times N_4, 2 \times N_2, 2 \times N_2 + 2 \times N_4\}$,

the method comprising the steps of:

determining a first set, SET1, comprising the possible numbers of bits, $N_{e,data}$, available for a transmission time interval in an allowed set, SET0, supported by the sending and receiving device, such that $N_{e,data} - N_{e,j}$ is non-negative, wherein the allowed set SET0 supported by the sending and receiving device is $\{N_{256}, N_{128}, N_{64}, N_{32}, N_{16}, N_8, N_4, 2 \times N_4, 2 \times N_2, 2 \times N_2 + 2 \times N_4\}$, wherein $N_{e,j}$ is a total number of bits per transmission time interval after channel coding and before rate matching, wherein j is the transport format;

determining the parameter pair to be a minimum $N_{e,data}$ from the first set, SET1, if the first set, SET1, is not empty and a smallest element of the first set, SET1, requires one code channel, E-DPDCH,

else, determining a second set of $N_{e,data}$, SET2, according to at least one first selection criterion given by a limitation of the sending or the receiving device, a rate matching criterion or a puncturing limit, wherein the second set, SET2, is a subset of the allowed set SET0 supported by the sending and receiving device;

sorting the second set of $N_{e,data}$, SET2,
corresponding to the possible number of bits
available for a transmission time interval in
ascending order,
determining the $N_{e,data}$ from the second set, SET2,
according to at least one second selection
criterion, wherein the second selection criterion
includes, while the $N_{e,data}$ is not a maximum value
of the second set, SET2, and a follower of $N_{e,data}$
only requires a single code channel, selecting the
follower of the $N_{e,data}$ in the second set, SET2."

Claim 1 of **auxiliary request A** is identical to claim 1
of the main request, except for the insertion of

" $N_{e,data} - N_{e,j}$ is negative and"

right before "the $N_{e,data}$ is not a maximum value".

Reasons for the Decision

1. MAIN REQUEST

1.1 *Extension of protection conferred (Article 123(3) EPC)*

1.1.1 Claim 1 of the main request comprises the following
limiting features (amendments vis-à-vis granted claim 1
indicated by the board):

1.1 A method for determining a parameter pair for a
CDMA transmission between a sending and a
receiving device wherein the parameter pair
comprises

- 1.1.1 a number of code channels, E-DPDCH, and a spreading factor, SF,
- 1.1.2 the parameter pair corresponds to a possible number of bits, $N_{e,data}$, available for a transmission time interval,
- 1.1.3 the parameter pair to be determined is one pair of a set of parameter pairs defined by $\{N_{256}, N_{128}, N_{64}, N_{32}, N_{16}, N_8, N_4, 2 \times N_4, 2 \times N_2, 2 \times N_2 + 2 \times N_4\}$,
- 1.2 the method comprising the steps of:
 - 1.2.0 determining a first set, SET1, comprising the possible numbers of bits, $N_{e,data}$, available for a transmission time interval in an allowed set, SET0, supported by the sending and receiving device, such that $N_{e,data} - N_{e,j}$ is non-negative, wherein the allowed set SET0 supported by the sending and receiving device is $\{N_{256}, N_{128}, N_{64}, N_{32}, N_{16}, N_8, N_4, 2 \times N_4, 2 \times N_2, 2 \times N_2 + 2 \times N_4\}$, wherein $N_{e,j}$ is a total number of bits per transmission time interval after channel coding and before rate matching, wherein j is the transport format; determining the parameter pair to be a minimum $N_{e,data}$ from the first set, SET1, if the first set, SET1, is not empty and a smallest element of the first set, SET1, requires one code channel, E-DPDCH
 - 1.2.1 ~~else, if a difference between a possible number of $N_{e,data}$ available for a transmission time interval in an allowed set, SET0, supported by the sending and receiving device and a total number of bits per transmission time interval~~

~~after channel coding and before rate matching $N_{e,j}$ is negative, wherein j is the transport format,~~

- 1.2.2 determining a second set of $N_{e,data}$, SET2, according to at least one first selection criterion given by a limitation of the sending or the receiving device, a rate matching criterion or a puncturing limit, wherein the second set, SET2, is a subset of the allowed set SET0 supported by the sending and receiving device;
- 1.3 sorting the second set of $N_{e,data}$, SET2, corresponding to the possible number of bits available for a transmission time interval in ascending order,
- 1.4 determining the $N_{e,data}$ from ~~said~~ the second set, SET2, according to at least one second selection criterion, wherein the second selection criterion includes, while the $N_{e,data}$ is not a maximum value of the second set, SET2, and a follower of $N_{e,data}$ only requires a single code channel, selecting the follower of the $N_{e,data}$ in ~~said~~ the second set, SET2.

1.1.2 In Reasons 76 to 81 of the decision under appeal, the opposition division found that the removal of feature 1.2.1 from granted claim 1 and its substitution by another sub-routine leads to a violation of Article 123(3) EPC.

1.1.3 The board considers that, if the proprietor amends the patent and an objection of extension of the protection of the patent is raised under Article 123(3) EPC, it is for the proprietor to show that the protection the patent confers was not extended, for example that the

amendment has - only - led to a limitation of the protected scope.

1.1.4 The proprietor submitted the following arguments:

- Claim 1 of the main request referred the claimed subject-matter back to the "Third Embodiment", which was already covered by the scope of protection of granted claim 1. Article 69 EPC needed to be observed when comparing the scope of protection of a *granted* claim with the scope of protection of an *amended* claim.
- The narrow interpretation of feature 1.2.1 of granted claim 1 applied by the opponents and the decision under appeal would have the effect that no embodiment in the description - in particular, not the "Third Embodiment" underlying the invention - would fall within such limited scope of protection of the granted patent. However, in line with case **T 131/15**, it should be determined whether a balanced understanding of feature 1.2.1 of granted claim 1 was possible which included the "Third Embodiment" and still was in line with the wording of granted claim 1.
- The features of granted claim 1 were more general than the detailed algorithm and did also encompass one embodiment of the patent description. The mere words of feature 1.2.1 of granted claim 1 did not specify which difference(s) between $N_{e,data}$ and $N_{e,j}$ was/were to be negative. Nor did they specify in which way this difference was to be determined. Further, granted claim 1 did not specify what happened if the "if condition" of feature 1.2.1 was not fulfilled. As a consequence, the skilled person

would have understood that the "if condition" (and determination) of the "Third Embodiment" related to the "SET1 selection stage" of the detailed algorithm presented in paragraph [0026] of the patent. The further "else branch" would be entered if a selection from SET1 did not occur. The "else" part of the detailed algorithm meant that there must be a *negative* difference between $N_{e,data}$ and $N_{e,j}$ at least for N_4 or all of $N_{256} - N_4$. Thus, the "Third Embodiment" was in line with granted claim 1 and could serve as part of the description to interpret the claim as stipulated by Article 69(1) EPC and its Protocol.

- The present limitation did not require the use of Article 69 EPC and its Protocol to exclude what was literally covered. Feature 1.2.1 of granted claim 1 did not refer to "any negative difference" between $N_{e,data}$ and $N_{e,j}$, but to "a difference" which had to be negative. Thus, it remained undefined *which* difference was considered and e.g. the difference for N_4 was one of the differences that was covered by feature 1.2.1 as granted. The scope of protection of granted claim 1 had at least to include the "Third Embodiment". And interpreting feature 1.2.1 "in the light of the description" did not lead to any exclusion of what was already literally covered by granted claim 1. Rather, it constituted a mere limitation.

In summary, the proprietor contended that, when the difference between $N_{e,data}$ and $N_{e,j}$ is negative for at least N_4 (corresponding to "a difference" according to feature 1.2.1 of granted claim 1), the same method steps 1.2.2, 1.3 and 1.4 were executed according to granted claim 1 and claim 1 of the main request (which

is supposed to correspond to the "Third Embodiment" of the description). So, the "else" part of feature 1.2.1 of claim 1 of the main request and the "if a difference [...] is negative" condition of feature 1.2.1 of granted claim 1 were *equivalent* at least for those cases, which ensured compliance with Article 123(3) EPC.

1.1.5 These arguments are not convincing for the reasons set out below.

In claim 1 of the main request, method steps 1.2.2, 1.3 and 1.4, following the "else" part of feature 1.2.1, are executed

if the statement "the first set, SET1, is not empty and a smallest element of the first set, SET1, requires one code channel, E-DPDCH" is false.

The "else condition" can actually be rewritten using the negation of the logic statement appearing in feature 1.2.0 of claim 1 of the main request as:

if the statement "SET1 is empty or a smallest element of SET1 requires more than one code channel, E-DPDCH" is true.

Since SET1 comprises $N_{e,data}$ in SET0 such that $N_{e,data} - N_{e,j}$ is non-negative, an empty SET1 means that "all the differences between $N_{e,data}$ and $N_{e,j}$ are negative". Thus, the "else condition" of feature 1.2.1 of claim 1 of the main request also translates into:

if the statement "all the differences between $N_{e,data}$ and $N_{e,j}$ are negative or the smallest element for which the difference between $N_{e,data}$ and $N_{e,j}$ is

non-negative requires more than one code channel,
E-DPDCH" is true.

This condition is, in principle, not *mathematically* or *logically* equivalent to "if a difference between $N_{e,data}$ and $N_{e,j}$ is negative" according to feature 1.2.1 of granted claim 1, whether or not "a difference" is interpreted as "a difference for N_4 " in the light of the "Third Embodiment". In fact, the "else condition" of feature 1.2.1 of the main request now causes method steps 1.2.2, 1.3 and 1.4 to be executed in situations where "no difference between $N_{e,data}$ and $N_{e,j}$ is negative" (cf., for instance, "counterexample 2" indicated at pages 16 to 18 of opponent 1's and opponent 2's respective written replies to the appeal). Conversely, granted claim 1 necessarily requires "a difference" - whatever its interpretation - between $N_{e,data}$ and $N_{e,j}$ to be negative. At any rate, the conditions appearing in claim 1 of the main request are *different* from "if a difference between a $N_{e,data}$ and $N_{e,j}$ is negative" according to feature 1.2.1 of granted claim 1.

The opponents have put forward that the replacement of feature 1.2.1 of granted claim 1 by an "else branch" in claim 1 of the main request linked to additional conditions appearing in feature 1.2.0 constitutes an *aliud* rather than a *limitation*. As indicated in the preceding paragraph, the board indeed considers that the patent's scope of protection was shifted by the proprietor's amendment. The proprietor's submissions show, at most, that granted claim 1 and claim 1 of the main request confer somehow an overlapping protection. This does not mean, however, that the *aliud* remains within the limits of protection the granted patent confers. In other words, subject-matter which does not

fall within the scope of granted claim 1 could, consequently, fall within the scope of claim 1 of the main request, contrary to what the provision of Article 123(3) EPC is supposed to avoid.

1.1.6 Thus, the board concludes that claim 1 of the main request indeed extends the protection conferred by the granted patent.

1.2 It follows that the main request is not allowable under Article 123(3) EPC.

2. AUXILIARY REQUEST A

Claim 1 of auxiliary request A differs from claim 1 of the main request in the following amendment made to feature 1.4:

1.4' determining the $N_{e,data}$ from SET2, according to at least one second selection criterion, wherein the second selection criterion includes, while $N_{e,data} - N_{e,j}$ is negative and the $N_{e,data}$ is not a maximum value of SET2 and a follower of $N_{e,data}$ only requires a single code channel, selecting the follower of the $N_{e,data}$ in SET2.

2.1 *Admittance into the appeal proceedings (Article 13(2) RPBA)*

2.1.1 The claims of auxiliary request A were filed after notification of the board's communication under Article 15(1) RPBA.

2.1.2 Hence, admittance of auxiliary request A is governed by Article 13(2) RPBA, according to which any amendment to a party's appeal case is, in principle, not taken into

account, unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

- 2.1.3 The proprietor has not provided reasons for the existence of "exceptional circumstances" with respect to the above amendment. Rather, it explained that it could have filed this claim request earlier, but did not do so to avoid entering the appeal stage with a high number of claim requests. The proprietor further acknowledged that feature 1.4' as amended of present claim 1 was motivated by an objection raised under Article 123(2) EPC unrelated to the issue of Article 123(3) EPC apparent in claim 1 of the main request. As a consequence, auxiliary request A lacks *prima facie* allowability under Article 123(3) EPC (cf. point 1.1 above).
- 2.2 Accordingly, auxiliary request A was not admitted into the appeal proceedings (Article 13(2) RPBA).
3. *Request for a referral to the Enlarged Board of Appeal (Article 112(1) (a) EPC)*
 - 3.1 The proprietor submitted that the scope of protection of granted claim 1 must at least include the "Third Embodiment" presented in the description. The proprietor contrasted the "stricter approach" of **T 1896/11** and **T 626/16** with the "more liberal" approach of **T 131/15** and **G 2/88** and concluded that "diverging case law and practice seem to exist concerning the way when and how to apply Art. 69(1) EPC and its Protocol to examine the requirements of Art. 123(3) EPC."

3.2 The proprietor proposed that the board refer the following two questions to the Enlarged Board of Appeal:

Question 1: If a claim in itself imparts a clear and credible technical teaching, is the scope of protection of the patent - when analysing the requirements of Art. 123(3) EPC - to be determined by interpreting the claim in the light of the description and the figures of the patent, i.e. are Art. 69 EPC and its Protocol to be applied?

Question 2: Where an expression in a granted claim, taken literally and in isolation, would have the effect of excluding all of the disclosed embodiments from the scope of protection, should the scope of protection be considered to include at least some of the disclosed embodiments within the ambit of the claim and provided such claim interpretation is in compliance with the normal meaning of the words used in the claim and is not manifestly unreasonable, in judging compliance with the requirements of Art. 123(3) EPC?"

3.3 According to Article 112(1) (a) EPC, a Board shall either of its own motion or following a request from a party to the appeal, refer any question to the Enlarged Board of Appeal if it considers that a decision is "required" for ensuring uniform application of the law, or if a point of law of fundamental importance arises. Moreover, pursuant to Article 21 RPBA, a question shall be referred to the Enlarged Board of Appeal if a Board considers it necessary to deviate from an interpretation or explanation of the EPC contained in an earlier decision or opinion of the Enlarged Board of Appeal according to Article 112(1) EPC. It is not

sufficient for a referral that a question is of general interest: an answer to it must also be "necessary" to a decision on the appeal in question (cf. **J 16/90**, Reasons 1.2).

- 3.4 As explained above (cf. point 1.1.5), it is not relevant to the decision on the case at hand whether or not claim 1 as granted encompasses the "Third Embodiment". Thus, a referral of the above questions is not necessary, i.e. not "required", for deciding this appeal case. In this context, the board also did not deviate from an interpretation or explanation of the EPC contained in an earlier decision or opinion of the Enlarged Board of Appeal.
- 3.5 Already for these reasons, the board sees no merit in referring the case and, consequently, refused the proprietor's request for referral to the Enlarged Board of Appeal.
4. Since there is no allowable claim request on file, the proprietor's appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated