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**Datasheet for the decision
of 5 July 2023**

Case Number: T 0522/21 - 3.5.05

Application Number: 07825547.8

Publication Number: 2087626

IPC: H04L1/00

Language of the proceedings: EN

Title of invention:

ADDITIONAL MODULATION INFORMATION SIGNALING FOR HIGH SPEED
DOWNLINK PACKET ACCESS

Patent Proprietor:

Nokia Technologies Oy

Opponents:

TomTom International B.V.
Daimler AG
Continental Automotive GmbH
Robert Bosch GmbH
Oppo Mobile UK Ltd.
OROPE Germany GmbH
Vivo Tech GmbH
Vivo Mobile Communication Co., Ltd.

Headword:

Modulation signalling in HSDPA/NOKIA

Relevant legal provisions:

EPC Art. 54, 87, 112(1)(a)
RPBA 2020 Art. 12(2), 12(4)

Keyword:

Novelty - (no)
Priority - (no)
primary object of appeal proceedings to review decision -
appeal case directed to arguments on which decision was based
Amendment to case - amendment within meaning of Art. 12(4) RPBA
2020
Referral to the Enlarged Board of Appeal - (no)

Decisions cited:

T 0171/84, T 1695/14

Catchword:



Beschwerdekammern
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Case Number: T 0522/21 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 5 July 2023

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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
2 March 2021 concerning maintenance of the
European Patent No. 2087626 in amended form.**

Composition of the Board:

Chair A. Ritzka
Members: P. Cretaine
F. Blumer

Summary of Facts and Submissions

- I. This appeal is against the opposition division's interlocutory decision, despatched on 2 March 2021, to maintain European patent No. 2 087 626 in amended form. During the oral proceedings on 12 January 2021, the patent proprietor (PP) filed a main request and auxiliary requests 1 and 2. The oppositions of opponent 1 (O1), opponent 2 (O2), opponent 3 (O3) and opponent 4 (O4) were based on the ground of Article 100(a) EPC. Additionally, the oppositions of O1, O3 and O4 were based on the ground of Article 100(b) EPC, and the oppositions of O3 and O4 were based on the ground of Article 100(c) EPC. The main request (claims 1 to 8 corresponding to claims 1, 2, 7, 8 and 12 to 15 as granted) was considered to be non-compliant with the requirements of Article 84 EPC since the description had not been adapted following the deletion of some granted claims. The opposition division found that auxiliary request 1 met the requirements of Articles 123(2) and 83 EPC and that the subject-matter of its claims involved an inventive step (Article 56 EPC) having regard to the disclosure of documents D1 to D11, D18, D19, D20, D24 and D25, and decided to maintain the patent as amended according to auxiliary request 1.
- II. O1's notice of appeal was received on 7 May 2021 and the appeal fee was paid on the same day. O1's statement setting out the grounds of appeal was received on 12 July 2021. O1 requested that the decision be set aside and the patent be revoked in its entirety. Oral proceedings were requested on an auxiliary basis.

III. O3's notice of appeal was received on 10 May 2021 and the appeal fee was paid on the same day. O3's statement setting out the grounds of appeal was received on 12 July 2021. O3 requested that the decision be set aside and the patent be revoked in its entirety. Oral proceedings were requested on an auxiliary basis.

IV. PP's notice of appeal was received on 11 May 2021 and the appeal fee was paid on the same day. PP requested that the decision be set aside and the patent be maintained according to the main request on which the decision is based, or alternatively according to auxiliary requests 1 and 2 on which the decision is based.

PP's statement setting out the grounds of appeal was received on 12 July 2021. PP requested that the decision be set aside and that the patent be maintained as granted or, alternatively, according to auxiliary requests 1 and 2 on which the decision is based or according to an auxiliary request 3 filed with the statement setting out the grounds of appeal. Oral proceedings were requested on an auxiliary basis.

V. O2's notice of appeal was received on 11 May 2021 and the appeal fee was paid on 10 May 2021. By letter dated 2 June 2021, O2 withdrew its opposition.

VI. An intervention under Article 105 EPC was filed by opponent 5 (O5) on 1 October 2021, within the three-month time limit under Rule 89(1) EPC, and the opposition fee was paid on the same day. The intervention was based on the grounds of opposition under Article 100(a) (Articles 54 and 56 EPC), (b) and

(c) EPC (Article 123(2) EPC). O5 relied only on the facts and arguments presented by O1 to O4 and requested that the decision be set aside and the patent be revoked in its entirety. Accelerated proceedings were requested, and oral proceedings were requested on an auxiliary basis.

VII. An intervention under Article 105 EPC was filed by opponent 6 (O6) on 19 October 2021, within the three-month time limit under Rule 89(1) EPC, and the opposition fee was paid on the same day. The intervention was based on the grounds of opposition under Article 100(a) (Articles 54 and 56 EPC), (b) and (c) EPC (Article 123(2) EPC). O6 relied on the facts and arguments presented by O1 to O4 and submitted additional facts and arguments with respect to its inventive step objection. In particular, O6 submitted the following documents to illustrate the common general knowledge:

HLE1: WO 03/058870

HLE2: EP 1 613 018

HLE3: 3GPP TS 44.018 V7.6.0 (2006-09); pages 1, 2 and 273 to 275

O6 requested that the decision be set aside and the patent be revoked in its entirety. Accelerated proceedings were requested, and oral proceedings were requested on an auxiliary basis.

VIII. By letter dated 25 November 2021, PP responded to the grounds of appeal of O1 and O3.

- IX. By letter dated 6 December 2021, O3 responded to PP's grounds of appeal. O3 further requested that auxiliary request 3 not be admitted into the appeal proceedings.
- X. By letter dated 6 December 2021, O4, party as of right, responded to PP's grounds of appeal. O4 requested that the patent be revoked in its entirety and that auxiliary request 3 not be admitted into the appeal proceedings. Oral proceedings were requested on an auxiliary basis.
- XI. By letter dated 7 March 2022, PP responded to the interventions of O5 and O6.
- XII. A summons to oral proceedings, scheduled for 5 July 2023, was issued on 5 July 2022.
- XIII. An intervention under Article 105 EPC was filed by opponent 7 (O7) on 6 July 2022, within the three-month time limit under Rule 89(1) EPC, and the opposition fee was paid on the same day. The intervention was based on the grounds of opposition under Article 100(a) (Articles 54 and 56 EPC), (b) and (c) EPC (Article 123(2) EPC). O7 relied only on the facts and arguments presented by O1 to O6 and requested that the decision be set aside and the patent be revoked in its entirety. Accelerated proceedings were requested, and oral proceedings were requested on an auxiliary basis.
- XIV. An intervention under Article 105 EPC was filed by opponent 8 (O8) on 25 July 2022, within the three-month time limit under Rule 89(1) EPC, and the opposition fee was paid on the same day. The intervention was based on the grounds of opposition under Article 100(a) (Articles 54 and 56 EPC), (b) and (c) EPC (Article 123(2) EPC). O8 requested that the decision be set

aside and the patent be revoked in its entirety. Accelerated proceedings were requested, and oral proceedings were requested on an auxiliary basis.

O8 relied on the facts and arguments presented by O1 to O7. In addition, O8 argued that the priority document D14 was not an enabling disclosure, leading to the invalidity of the priority claim. As a consequence, according to O8, documents D3 and D4 were prior art under Article 54(1) and (2) EPC anticipating the subject-matter of claim 1 of the main request and auxiliary requests 1 and 2.

- XV. By letter dated 23 November 2022, PP responded to the interventions of O7 and O8, and in particular provided arguments why the priority document was indeed an enabling disclosure. Furthermore, it submitted exhibits A, B, C and D annexed to the priority application as D14a, D14b, D14c and D14d, respectively.
- XVI. By letter dated 20 February 2023, O8 responded to PP's letter and provided further arguments in support of its objection that the priority document was not an enabling disclosure.
- XVII. By letter dated 31 March 2023, PP responded to O8's letter and further requested that O8's arguments submitted with the letter of 20 February 2023 not be admitted, under the provisions of Article 12(2) and (3) RPBA.
- XVIII. By letter dated 24 April 2023, the joint representative of O7 and O8 responded to PP's letter.
- XIX. In a communication pursuant to Article 15(1) RPBA sent on 15 May 2023, the board indicated the points which

should be discussed during the oral proceedings and expressed its preliminary opinion on a number of issues. In particular, the board indicated its assumption that, on the basis of PP's substantive submissions, PP's main request was that the patent be maintained according to the main request on which the decision is based and not according to the claims as granted as requested in PP's grounds of appeal. The board also indicated that the ground of opposition under Article 100(c) EPC had not been maintained by any appellant and thus would not need to be discussed at the oral proceedings. Furthermore, the board indicated that O8's objection that the priority claim was not valid had been raised in its notice of intervention and should thus be discussed at the oral proceedings before discussing the other points addressed in the decision. The board noted that O8's objection was based on the findings that the priority document D14 was not an enabling disclosure due to errors in the formula on page 9 of D14 which would prevent a person skilled in the art from carrying out the invention. The board also expressed the opinion that auxiliary request 3 should not be admitted into the appeal proceedings.

- XX. With a communication dated 16 June 2023, the board informed the parties that the oral proceedings would be held by videoconference.
- XXI. By letter dated 20 June 2023, O1 responded to the board's communication of 15 May 2023.
- XXII. By letter dated 21 June 2023, PP responded to the board's communication of 15 May 2023. PP clarified that its main request was to maintain the patent according to the main request considered in the decision. Furthermore, PP presented further arguments with

respect to the objection of a lack of enabling disclosure in the priority document D14 raised by O8.

XXIII. By letter dated 21 June 2023, the joint representative of O5 and O6 responded to the board's communication of 15 May 2023 and submitted a further document to illustrate the common general knowledge:

HLE4: "Text compression", T. C. Bell et al., 1990, pages 290 to 295 and 303 to 318

XXIV. Oral proceedings were held before the board on 5 July 2023.

The appellant (PP) requested that the patent be maintained on the basis of the main request, auxiliary request 1 or auxiliary request 2 considered in the decision under appeal, or on the basis of auxiliary request 3 as filed with the statement setting out the grounds of appeal. PP further requested that the following question be referred to the Enlarged Board of Appeal:

"In a situation where a mathematical formula in an example of the description contains errors, is it immaterial to the sufficiency of the disclosure (Art. 83 EPC) if the skilled person could recognize and rectify the errors using his common general knowledge, as laid out by T 171/84?"

The appellants (O1 and O3) and the other parties (O4, O5, O6, O7 and O8) requested that the decision under appeal be set aside and that the European patent No. 2 087 626 be revoked.

O5, O6, O7 and O8 further requested that the request for a referral to the Enlarged Board of Appeal be refused.

At the end of the proceedings, the board's decision was pronounced.

- XXV. By letter dated 28 July 2023, PP submitted a request for correction of the minutes of the oral proceedings pursuant to Rule 124 EPC.
- XXVI. By letter dated 11 August 2023, O8 suggested rejecting PP's request for correction of the minutes.
- XXVII. With a communication dated 7 September 2023, the board gave the reasons why the request for correction of the minutes was not allowed.
- XXVIII. Claim 1 of the main request and of auxiliary requests 1 and 2 reads as follows:

"A method, comprising:

interpreting (6a) a modulation indication bit as a quadrature phase shift keying/quadrature amplitude modulation indication if both a user equipment and a serving cell support 64 quadrature amplitude modulation according to the following condition:

if the modulation indication bit indicates quadrature phase shift keying, interpreting (6b) 7 channelization code-set information bits in a high-speed-shared-control-channel, HS-SCCH, part 1 structure as currently interpreted as defined in the 3GPP release 5 specification such that the first three bits of the channelization code-set information bits represent a

group code indicator and the last four bits of the channelization code-set information bits represent a code offset indication; and

if the modulation indication bit indicates quadrature amplitude modulation, interpreting (6c) the 7 channelization code-set information bits in HS-SCCH part 1 structure such that only 6 bits of the channelization code-set information bits are interpreted as code-set information and one bit of the channelization code-set information bits is interpreted as selection between 16 quadrature amplitude modulation and 64 quadrature amplitude modulation."

The main request and auxiliary requests 1 and 2 further contain independent claims directed to a corresponding apparatus (claim 3) and a corresponding computer program product (claim 8).

Claim 1 of auxiliary request 3 reads as follows:

"A method, comprising:

interpreting(6a) the High Speed Downlink Packet Access, HSDPA, modulation indication bit as a quadrature phase shift keying/quadrature amplitude modulation indication if both a user equipment and a serving cell support 64 quadrature amplitude modulation according to the following condition:

if the HSDPA modulation indication bit indicates quadrature phase shift keying, interpreting (6b) 7 channelization code-set information bits in a high-speed-shared-control channel, HS-SCCH, part 1 structure as currently interpreted as defined in the 3GPP release 5 specification such that the first three bits of the

channelization code-set information bits represent a group code indicator and the last four bits of the channelization code-set information bits represent a code offset indication; and

if the HSDPA modulation indication bit indicates quadrature amplitude modulation, interpreting (6c) the 7 channelization code-set information bits in HS-SCCH part 1 structure such that only 6 bits of the channelization code-set information bits are interpreted as code-set information and one bit of the channelization code-set information bits is interpreted as selection between 16 quadrature (sic) amplitude modulation and 64 quadrature (sic) amplitude modulation."

Auxiliary request 3 further contains independent claims directed to a corresponding apparatus (claim 3) and a corresponding computer program product (claim 8).

Reasons for the Decision

1. Admissibility of the appeals

The appeals of PP, O1 and O3 comply with the provisions of Articles 106 to 108 EPC (see points II to IV above) and are therefore admissible.

2. Admissibility of the interventions

The interventions of O5, O6, O7 and O8 comply with the provisions of Article 105 EPC (see points VI, VII, XIII and XIV above) and are therefore admissible.

3. The numbering of documents stated in the Summary of Facts and Submissions of the impugned decision (point VI) is used in the following.
4. Admission of the main request

At the oral proceedings, O4 requested that PP's main request on file - to maintain the patent according to the main request considered in the decision, as filed with PP's letter of 21 June 2023 - not be admitted into the appeal proceedings. O4 argued that, although this request had been filed with PP's notice of appeal, it had been subsequently clearly replaced by the request to maintain the patent as granted in PP's statement setting out the grounds of appeal. O4 pointed to T 1695/14 and argued that, in the case in hand, the request in the statement setting out the grounds of appeal did not have to be interpreted since it was clearly formulated (see section "A. Requests" of the statement). According to O4, the main request in this case should thus be considered to have been filed after the summons to oral proceedings and should not be admitted under Article 13(2) RPBA. O1, O5, O6, O7 and O8 also requested at the oral proceedings that PP's main request not be admitted.

However, the board notes that the differences between the claims of the main request on which the decision is based and the claims as granted are that dependent claims 3 to 6 and 9 to 11 as granted have been deleted and the other claims have been renumbered. The board agrees with PP that the substantial submissions in its statement setting out the grounds of appeal deal with independent claims 1 and 3 of the main request on which the decision is based, which are identical to independent claims 1 and 7 as granted; see section B.1.

None of the submissions deal with the deleted dependent claims 3 to 6 and 9 to 11 as granted. Moreover, section E.26 of the statement setting out the grounds of appeal mentions that the decision found there was an inconsistency between the claims of the main request and paragraphs [0030] and [0031] of the description since these paragraphs corresponded to claims of the granted patent which had been deleted. Thus, said section clearly states that the main request is the main request on which the decision is based.

The board also notes that none of the opponents or parties addressed this issue in their written submissions in the appeal proceedings.

For these reasons, the board held at the oral proceedings that it was clear from PP's statement setting out the grounds of appeal that the main request was the main request on which the decision was based, and that this request had not been amended in PP's further submissions. The board thus decided at the oral proceedings to admit PP's main request under the provisions of Article 12(2) RPBA.

5. Non-enabling disclosure of the priority document D14

5.1 With its notice of intervention, O8 raised the objection that the priority claim based on D14 was not valid since D14 was not an enabling disclosure. As stated by O8, it is established case law that a valid priority claim can only be made when the disclosure in the priority document is an enabling disclosure for a skilled person (see Case Law of the Boards of Appeal, 10th edition, Part II.D.3.1.6). PP rightfully argued that the requirements with respect to enabling disclosure of the priority application, i.e. the

requirements for compliance with Article 83 EPC, were that the skilled person could implement the invention without undue burden, on the basis of the disclosure of the priority document and the skilled person's common general knowledge.

Claim 1 according to the main request and auxiliary requests 1 and 2 in substance specifies that, if both a user equipment and a serving cell support 64QAM, and if a modulation indication bit indicates quadrature amplitude modulation, only 6 bits of the 7 channelization code-set information bits in the HS-SCCH part 1 structure, as defined in the 3GPP Release 5 specification, are interpreted as code-set information.

In the 3GPP TS 25.212 specification for HSDPA, annexed to D14 as D14c, 7 channelization code-set information bits are defined as indicating to the user terminal which code out of the 15 possible HS-PDSCH codes is the first code used and how many consecutive codes following this first one are used (see paragraph [0035] of the patent). The number of consecutive codes used (P , integer between 1 and 15) and the number of the starting code (O , integer between 1 and 15) are encoded using the 7 bits $x_{CCS,1}$ to $x_{CCS,7}$ of the channelization code-set information using the unsigned representation of integers calculated by the following expressions given in section 4.6.2.3 of D14c:

$x_{CCS,1}, x_{CCS,2}, x_{CCS,3} = \min(P-1, 15-P)$ (code group indicator),

and

$x_{CCS,4}, x_{CCS,5}, x_{CCS,6}, x_{CCS,7} = \lfloor 0.1 - \lfloor \frac{P}{8} \rfloor * 15 \rfloor$, where $\lfloor _ \rfloor$ is the floor bracket symbol (code offset indicator).

To be able to implement the claimed invention, the skilled person thus needs to find in the priority document D14 at least one embodiment that makes it possible to code a code group indicator and a code offset indicator on 6 bits only instead of 7 bits, as defined by claim 1 in the case where 64QAM is supported and signalled by one bit of the 7 channelization code-set bits. In that respect, the board agrees with O8 that the almost literal support of claim 1 by D14 (from page 6, last paragraph to page 7, first paragraph) is not a sufficient disclosure to put the invention defined by claim 1 into practice.

PP argued that D14 disclosed at least two embodiments which enabled the skilled person to carry out the invention.

5.2 First embodiment

5.2.1 D14 presents a first embodiment on page 9, in which the first three bits of the channelization code-set information $x_{CCS,1}$, $x_{CCS,2}$, $x_{CCS,3}$ code the group indicator in a manner identical to the 3GPP Release 5 specification, and the next three bits code the code offset indicator by the formula:

$x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6} = \lfloor 0.1 - P/8 * 15 \rfloor / 2$, with the interpretation of the start code 0 being modified to be an odd integer between 1 and 15.

However, as correctly pointed out by O8 and acknowledged by PP, this last formula does not lead to a correct implementation since it may deliver decimal numbers which cannot be signalled with a binary code. O8 showed that, if $P = 5$ and $O = 11$, the result of the

formula is 0.3215, which cannot be represented by a 3-bit binary code. The board also found several combinations of (P, O) for which the formula delivers a decimal number. As a consequence, the formula disclosed on page 9 of D14 does not allow the skilled person to code the last 3 bits of the channelization code-set information.

Moreover, as argued by O8, even if the formula on page 9 of D14 were corrected to read $\lfloor 0.1 - \lfloor \frac{P}{8} \rfloor * 15 \rfloor / 2$, the formula would not enable parameters O and P to be signalled using the 6 bits of the channelization code-set information. In that respect, O8 pointed to the example (P, O) = (11, 5), which leads to a decimal number as result of the formula, which cannot be represented by the 3 signalling bits $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$.

Furthermore, as argued by O8, even if the floor brackets were introduced in the formula giving $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$ and its result were truncated to a binary number, the signalling of P and O to the user equipment using the channelization code-set information $x_{CCS,1}$, $x_{CCS,2}$, $x_{CCS,3}$, $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$ would be the same for different pairs (P, O), e.g. the pairs (11, 5) and (5, 11). Thus, an additional bit would be needed to distinguish some pairs (P, O) from each other, so signalling with 6 bits, as defined by claim 1, cannot be implemented.

- 5.2.2 With respect to this first embodiment disclosed on page 9 of D14, PP argued that the skilled person would identify the error in the formula giving $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$ and that the correction was obvious for them. According to PP, the skilled person would immediately have realised that this formula was a

refinement of the formula of the specification annexed to D14 as Annex C (see D14c), adapted with a division by 2 to the case where O is an odd number between 1 and 15, i.e. O may take 8 values. In addition, the skilled person would also have recognised, by comparing the formulas on pages 8 and 9 of D14, which give the code offset indicator, with the formula in section 4.6.2.3 of the specification D14c, that the absence of floor brackets rounding the term " $P/8$ " down to the lower integer in both formulas was an accidental omission due to an unintended typographical error. PP further argued that the skilled person would also recognise that the formula on page 9 of D14 giving $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$ omitted floor brackets around the whole mathematical expression, i.e. $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6} = \lfloor \lfloor O-1 - \lfloor P/8 \rfloor * 15 \rfloor / 2 \rfloor$, because it was explicitly disclosed that the equation had to result in an "unsigned binary representation of integers" fitting into 3 bits.

The board is not convinced by this line of argument and agrees with O8 that, for the skilled person, the formula on page 9 of D14 should be different from the formula on page 8 since it relates to a modification of the standard signalling scheme for the channelization code set. The skilled person would thus not recognise at first glance that the formula was erroneous. Furthermore, even if the skilled person did recognise that the formula on page 9 of D14 was wrong, it would not be obvious to them what part of the formula should be corrected and how. In particular, the board agrees with O8 that only a trial-and-error procedure would lead the skilled person to modify the formula in page 9 of D14 by introducing floor brackets around both " $P/8$ " and the whole mathematical expression. This, however,

represents an undue burden for the skilled person, contrary to the requirements of Article 83 EPC.

PP further argued that O8's objection that the formula on page 9 of D14 led to the same result for $(P, O) = (11, 5)$ and $(P, O) = (5, 11)$ had only been raised with O8's letter of 24 April 2023, after the notice of intervention, and should thus not be admitted into the appeal proceedings under Article 12(4) RPBA. In the board's view, however, this argument raised by O8 relates to the objection that the formulas on page 9 of D14 do not provide a workable signalling for O and P; this objection had already been raised in the notice of intervention. Moreover, this argument was filed in response to PP's argument that the formula could be obviously corrected by introducing floor brackets not only around "P/8" but also around the whole mathematical expression. Therefore, this argument has to be considered in the appeal proceedings.

With respect to this argument, PP acknowledged that if the corrected formula were used, there would be four combinations of P and O for which the code offset indicator $(x_{CCS,1}, x_{CCS,2}, x_{CCS,3})$ and the code group indicator $(x_{CCS,4}, x_{CCS,5}, x_{CCS,6})$ would have the same values if P and O were exchanged in the formula. PP further argued in writing that in order to cope with this ambiguity, the skilled person would obviously either choose not to signal four (P, O) pairs or choose to signal these four (P, O) pairs with an additional assignment of 6-bit sequences which were not results of the formulas giving $x_{CCS,1}, x_{CCS,2}, x_{CCS,3}$ and $x_{CCS,4}, x_{CCS,5}, x_{CCS,6}$. The board is not convinced by this line of argument. The board holds that the first choice of not signalling four (P, O) pairs would not result in a full implementation of the claimed invention, and that

the second choice relies on steps to be performed by the skilled person that go well beyond their common general knowledge.

5.2.3 For these reasons, the board holds that the first implementation example relied on by PP does not represent clear and complete teaching with which the skilled person can implement the claimed invention without undue burden.

5.3 Second embodiment

5.3.1 D14 mentions (page 10, lines 3 to 6) that in a second concept of the invention, the number of HS-PDSCH codes is {1, 3, 5, ..., 15} instead of {1, 2, 3, ..., 15}. This single sentence does not indicate to the skilled person how the channelization code-set information of the HS-SCCH part 1 structure defined in the 3GPP Release 5 specification is modified, or how P and O are signalled. Even if the number of HS-PDSCH codes used is reduced from 15 to 8 with respect to the specification, meaning that the code offset O and the number P of consecutive codes used may each take 8 values, the skilled person is not taught how the signalling is performed. It is also unclear for the skilled person how it is signalled to the user equipment that the HS-PDSCH codes used are restricted to the codes of the specification having only odd numbers, i.e. {1, 3, 5, ..., 15}. The board therefore agrees with O8 that the single sentence on page 10 of D14 does not form clear and complete teaching of a second embodiment with which the skilled person can implement the invention without undue burden.

5.3.2 PP argued in writing that having only odd values for the code numbers, i.e. {1, 3, 5, 7, 9, 11, 13, 15},

reduced the number of values of the code group indicator to 4 values, thus making it possible to spare 1 bit of the code group indicator of the specification, which could then be used for the 16QAM/64QAM signalling, and to leave the formula for the code offset indicator unchanged.

However, the board agrees with O8 that the above-mentioned single sentence in D14 is totally silent about any such way of signalling P and O. Moreover, it is unclear how it is signalled to the user equipment that the HS-PDSCH codes used are those with odd numbers between 1 and 15, since the specification is based on 15 codes with numbers between 1 and 15. Since P defines the number of consecutive codes that are used after the starting code defined by O, the user equipment should be informed of the numbers of the HS-PDSCH codes which should be used as the P consecutive codes.

- 5.3.3 For these reasons, the board holds that the second implementation example relied on by PP does not represent clear and complete teaching with which the skilled person can implement the claimed invention without undue burden.

- 5.4 As a consequence of the findings in points 5.2 and 5.3 above, the board decided at the oral proceedings that the priority document D14 was not an enabling disclosure, meaning that the priority claim based on D14 was not valid (Article 87 EPC).

- 6. Novelty of the main request and auxiliary requests 1 and 2

Documents D3 and D4 were published before the filing date of the PCT application on which the patent is based and are thus prior art under Article 54(2) EPC.

The board agrees with the findings of the decision in point 12.2.1.1 of the Reasons that all the features of claim 1 of the main request are already disclosed in D3 or D4. PP has not challenged these findings in its written and oral submissions on appeal.

The main request is thus not allowable (Article 54 EPC). Since claim 1 of auxiliary requests 1 and 2 is identical to claim 1 of the main request, auxiliary requests 1 and 2 are not allowable either (Article 54 EPC).

7. Admission of auxiliary request 3

PP submitted this request with its statement setting out the grounds of appeal and thus before O8's notice of intervention raising the issue of non-enabling disclosure of the priority document.

PP acknowledged at the oral proceedings that this request was no longer directed to the development of the case, due to the board's opinion about the validity of the priority claim. PP referred to its written submissions.

Taking into account the fact that auxiliary request 3 was not suitable to address the issues related to the validity of the priority claim, the board exercised its discretion under Article 12(4) RPBA and decided at the oral proceedings not to admit auxiliary request 3 into the appeal proceedings.

8. Referral to the Enlarged Board of Appeal

At the oral proceedings, PP raised the following question under Article 112(1)(a) EPC:

"In a situation where a mathematical formula in an example of the description contains errors, is it immaterial to the sufficiency of the disclosure (Art. 83 EPC) if the skilled person could recognize and rectify the errors using his common general knowledge, as laid out by T 171/84?"

In decision T 171/84 of 24 October 1985, the board in charge decided in substance that the application met the requirements of Article 83 EPC because the skilled person could recognise an error in the description, involving an incorrect numerical value in the sole example, and rectify it using their common general knowledge.

In the case in hand, the board found that the skilled person, using their common general knowledge, could neither recognise nor rectify the errors in the formula giving $x_{CCS,4}$, $x_{CCS,5}$, $x_{CCS,6}$, on page 9 of D14 (see point 5.2.2 above). Therefore, the facts in the case in hand are different from in T 171/84, so a decision on the above question is not required under Article 112(1)(a) EPC.

For these reasons, the board decided at the oral proceedings to refuse the request to refer the above-mentioned question to the Enlarged Board of Appeal.

9. Conclusion

The main request and auxiliary requests 1 and 2 are not allowable under Article 54 EPC.

Auxiliary request 3 is not admitted under Article 12(4) RPBA.

The request for a referral to the Enlarged Board of Appeal is refused (Article 112(1)(a) EPC).

Order

For these reasons it is decided that:

1. The request for a referral to the Enlarged Board of Appeal is refused.
2. The decision under appeal is set aside.
3. The patent is revoked.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated