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**Datasheet for the decision
of 6 September 2023**

Case Number: T 0943/22 - 3.5.05

Application Number: 18181360.1

Publication Number: 3402108

IPC: H04L1/16

Language of the proceedings: EN

Title of invention:

TERMINAL DEVICE AND RETRANSMISSION CONTROL METHOD

Patent Proprietor:

Godo Kaisha IP Bridge 1

Opponents:

TCT Mobile Germany GmbH (opposition withdrawn on 26 June 2023)

LG Electronics Deutschland GmbH (intervention withdrawn on
30 November 2020)

Tesla Germany GmbH (intervention withdrawn on 2 August 2021)

Daimler AG (intervention withdrawn on 17 January 2022)

Headword:

Terminal device selecting resources for a bundled response
signal / Godo Kaisha IP Bridge 1

Relevant legal provisions:

EPC Art. 76(1)

Keyword:

Amendments - added subject-matter (no)

Decisions cited:

G 0008/91, G 0008/93



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Case Number: T 0943/22 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 6 September 2023

Appellant:
(Patent Proprietor)
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Representative:
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
1 April 2022 concerning maintenance of the
European Patent No. 3402108 in amended form.**

Composition of the Board:

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

Summary of Facts and Submissions

- I. The appeal is directed against the opposition division's decision to maintain the European patent in amended form.
- II. The opponent requested in its notice of opposition that the patent be revoked in its entirety based, *inter alia*, on the ground for opposition under Article 100(c) EPC in conjunction with Article 76(1) EPC.
- III. The opposition division decided that the claims as granted did not meet the requirements of Article 76(1) EPC; however, auxiliary request 1 was considered to meet the requirements of the EPC.
- IV. After the nine-month time limit under Article 99 EPC had expired, three interveners joined the opposition proceedings. They all withdrew their interventions before the opposition division issued its decision.
- V. Both the patent proprietor and the sole remaining opponent appealed the opposition division's decision. In the following, the appellant-proprietor will be referred to as the proprietor and the sole remaining appealing opponent as the opponent.
- VI. The proprietor requested, in its statement of grounds of appeal, that the decision be set aside and that the patent be maintained as granted (main request) or on the basis of the claims of one of auxiliary requests 0A, 0B, 1, 2-22, 2A-22A, 2B-22B or 3C-22C, all of which were submitted with the statement of grounds of appeal. Therefore, auxiliary request 1 was identical to auxiliary request 1 according to which the patent was maintained. In the event that the main request was not found to be allowable, oral proceedings were requested.

- VII. The opponent requested, in its statement of grounds of appeal, that the opposition division's decision be set aside and that the patent be revoked. Furthermore, oral proceedings were requested.
- VIII. In a reply dated 13 December 2022, the opponent further requested that the proprietor's appeal be dismissed and provided arguments regarding the proprietor's requests.
- IX. In a reply dated 21 December 2022, the proprietor filed new auxiliary request 1*, to be inserted in rank between auxiliary requests 1 and 2.
- X. In a reply dated 20 February 2023, the proprietor submitted further comments on the opponent's reply.
- XI. On 3 March 2023, the board issued a summons to oral proceedings.
- XII. On 26 June 2023, the opponent withdrew the opposition and the appeal.
- XIII. In a communication pursuant to Article 15(1) RPBA, the board set out its preliminary opinion on the case.
- The board preliminarily concurred with the opposition division's findings that the **main request** did not meet the requirements of Article 76(1) EPC. The same reasoning applied to **auxiliary requests 0A and 0B**. The board indicated that, due to the prohibition of *reformatio in peius*, the appeal case was limited to these requests, i.e. the requests higher in rank than auxiliary request 1.
- XIV. In a reply dated 14 August 2023, the proprietor provided further arguments regarding auxiliary requests 0A and 0B.
- XV. Oral proceedings were held on 6 September 2023. The proprietor requested that the decision under appeal be set aside and that the patent be maintained as granted (main request) or on the basis of any one of auxiliary

requests 0A and 0B, both as filed with the statement setting out the grounds of appeal.

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

"A terminal apparatus configured to communicate with a base station using a plurality of downlink component carriers, including a primary component carrier and a non-primary component carrier, and an uplink component carrier and to transmit a response signal indicating an error detection result of downlink data to the base station, where resources and constellation points to be used are determined through operation of Channel Selection, through an uplink control channel of the uplink component carrier based on an error detection result of a plurality of pieces of downlink data arranged in the plurality of downlink component carriers, the apparatus comprising:

an extraction section (204) configured to extract a downlink control channel signal from a received signal and extract downlink data from the received signal based on information on downlink data allocation resources;

a decision section (208) configured to make a blind decision as to whether or not control information is control information directed to the terminal apparatus, output information on the downlink data allocation resources for the terminal apparatus included in the control information directed to the terminal apparatus to the extraction section (204) and identify a Control Channel Element, CCE, to which the control information directed to the terminal apparatus is mapped;

a downlink data receiving section (210, 211) configured to receive the downlink data transmitted through at least one downlink data channel of the plurality of downlink component carriers;

an error detection section (212) configured to detect the presence or absence of a reception error of the received downlink data; and

a control section (409) configured to determine which PUCCH resource is used to transmit the response signal and which constellation point is set for the response signal based on success/failure in reception of a downlink allocation control signal in each downlink component carrier and error detection results from the error detection section (212);

wherein when the error detection result regarding downlink data transmitted in the primary component carrier shows "no error" and when a downlink allocation control signal is not detected in the non-primary component carrier, the control section (409) is configured to transmit the response signal using a first PUCCH resource determined in association with CCEs occupied by the downlink allocation control signal transmitted to the terminal apparatus in the primary component carrier, and

wherein when a downlink allocation control signal is not detected in the primary component carrier and the error detection result regarding downlink data transmitted in the non-primary component carrier shows "no error", the control section (409) is configured to transmit the response signal using a second PUCCH resource that is shared beforehand between base station and the terminal apparatus."

XVII. The claims of the auxiliary requests are not relevant to this decision.

Reasons for the Decision

1. The present application concerns carrier aggregation in which a bundled response signal is transmitted over a resource that is selected from a primary and a non-primary component carrier.

2. Main request

 - 2.1 Extension beyond the content of the earlier application (Articles 100(c) and 76(1) EPC)
 - 2.1.1 In the decision under appeal, the opposition division held that claim 1 did not fulfil the requirements of Article 76(1) EPC. First, it contained an unallowable intermediate generalisation due to the phrases "*having a high probability of occurrence*" and "*having a low probability of occurrence*" having been deleted compared with claim 1 of the parent application as originally filed. Notably, it was specified that ACK/DTX was mapped to the first PUCCH resource and DTX/ACK was mapped to the second PUCCH resource, without defining the mapping of any other reception situation patterns. Second, claim 1 did not exclude the fact that there could be more than the two reception states per carrier (i.e. a first transport block of the primary carrier could show "*no error*", while a second transport block of the primary carrier could show "*error*"); however, the parent application did not disclose such embodiments and consistently referred to a single reception state per component carrier.
 - 2.1.2 The proprietor argued that it was not necessary to make explicit reference to "*probabilities*" in the claims. Notably, the fact that different reception patterns exhibited different probabilities of occurrence did not have any influence on the functionality of the claimed terminal beyond the terminal being able to function with the different probabilities. In other words, from

the perspective of the terminal, it did not matter how often a specific reception pattern occurred, since the terminal did not base the decision on how to transmit the response signal on any probability considerations. This was evident from paragraphs [0164]-[0171] of the parent application, which disclosed that when the terminal detected a specific ACK/NACK/DTX combination, the terminal transmitted a specific response signal and did not mention probabilities. The feature "*a reception situation pattern having a low probability of occurrence*" had been replaced by DTX/ACK (in full: '*when a downlink allocation control signal is not detected in the primary component carrier and the error detection result regarding downlink data transmitted in the non-primary component carrier shows "no error"*'), which was supported by paragraph [0179] of the parent application as originally filed. On the other hand, ACK/DTX (in full: '*when the error detection result regarding downlink data transmitted in the primary component carrier shows "no error" and when a downlink allocation control signal is not detected in the non-primary component carrier*') had a high probability of occurrence (see paragraph [0176]), and therefore it could also serve as a replacement.

In addition, claim 1 referred to "the error detection result regarding downlink data" (emphasis added by the proprietor) with respect to the transmission in the primary component carrier and the non-primary component carrier, respectively. Therefore, it was clear to the skilled person that there was only one error detection result for the downlink data in the component carrier in question.

- 2.1.3 The opponent argued that the probabilities disclosed in paragraph [0191] of the parent application were not applicable in general; however, the disclosure of the parent application was based on these probabilities

(see paragraphs [0175]-[0179]). A terminal applying the claimed rules irrespective of these probabilities would thus operate arbitrarily, beyond the disclosure of the parent application. In addition, the wording of claim 1 was not limited to a single detection result, as confirmed by the proprietor's own submission to the Landgericht Düsseldorf.

2.1.4 The board holds that, as argued by the proprietor, the parent application indeed discloses that the terminal operates according to a mapping of a reception pattern to a specific response signal which, according to specific examples disclosed in paragraphs [0164] to [0171] and [0175] to [0179] and [0191], does not take into account the probabilities mentioned as a general principle in the application. As regards the aspect of whether the claimed subject-matter extends beyond the content of the earlier application, it is not decisive whether the terminal would operate differently under different circumstances. Therefore, the opponent's argument in this regard fails to convince the board. In addition, as regards the aspect of the error detection results, the board holds that claim 1 mentions two error detection results, one for the primary component carrier and one for the non-primary component carrier, respectively. The fact that this wording allows for the interpretation of having more than these two error detection results does not mean that the subject-matter extends beyond the content of the earlier application, since the same applies to the interpretation of claim 1 of the earlier application.

2.1.5 Therefore, the board holds that claim 1 fulfils the requirements of Articles 100(c) and 76(1) EPC.

2.2 In view of the above, the objection pursuant to Articles 100(c) and 76(1) EPC does not prejudice the maintenance of the patent in suit.

3. With respect to the main request, the decision under appeal dealt only with the issue of Articles 100(c) and 76(1) EPC. Hence, the appeal is allowable and the decision under appeal has to be set aside.

4. Procedural issues

After the opponent withdrew its opposition and its appeal on 26 June 2023, the proprietor remained as the sole party in these opposition and appeal proceedings. While Rule 84(2) EPC (Rule 60(2) EPC 1973) provides that, after withdrawal of an opposition, the European Patent Office may continue the opposition proceedings of its own motion, this option to continue the proceedings after withdrawal of the opposition does not apply in appeal proceedings (G 8/91, OJ EPO 1993, 346, point 7 of the Reasons). The Enlarged Board of Appeal concluded in G 8/93 (OJ EPO 1994, 887) that the withdrawal of the opposition by an opponent who is the sole appellant immediately and automatically terminates the appeal proceedings, even if in the board's view the requirements under the EPC for maintaining the patent are not satisfied.

In this case, the opponent was not the sole appellant, and therefore the appeal proceedings had to be continued in view of the still-pending appeal by the proprietor; however, after allowing the proprietor's appeal, taking into account the above-quoted principles established by the Enlarged Board of Appeal, the board may not assess the remaining grounds of opposition raised by the former opponents/intervenors. The board's

finding that the ground for opposition under Article 100(c) EPC does not preclude the maintenance of the patent as granted implies that the patent is to be maintained as granted.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is maintained as granted.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated