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**Datasheet for the decision  
of 16 January 2020**

**Case Number:** T 1059/16 - 3.5.05

**Application Number:** 12002702.4

**Publication Number:** 2515464

**IPC:** H04L5/00

**Language of the proceedings:** EN

**Title of invention:**

Downclocking with adaptive sub-carriers for single user,  
multiple user, multiple access and/or MIMO wireless  
communication

**Applicant:**

Avago Technologies International Sales Pte. Limited

**Headword:**

Sub-carriers numbers signalling/AVAGO

**Relevant legal provisions:**

RPBA 2020 Art. 25(3)  
RPBA Art. 13

**Keyword:**

Late-filed request - change of subject-matter - amendments  
after arrangement of oral proceedings

**Decisions cited:**

**Catchword:**



**Beschwerdekammern**  
**Boards of Appeal**  
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Case Number: T 1059/16 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 16 January 2020**

**Appellant:** Avago Technologies International Sales  
(Applicant) Pte. Limited  
1 Yishun Avenue 7  
Singapore 768923 (SG)

**Representative:** Bosch Jehle Patentanwaltsgesellschaft mbH  
Flüggelstraße 13  
80639 München (DE)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 21 December  
2015 refusing European patent application No.  
12002702.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** A. Ritzka  
**Members:** P. Cretaine  
D. Prietzel-Funk

## **Summary of Facts and Submissions**

- I. The appeal in this case is against the decision of the examining division posted on 21 December 2015 and refusing European patent application No. 12002702.4. The application was refused for lack of inventive step (Article 56 EPC) over the disclosure of
- D7: EP 1 533 963.
- D4: WO 01/82543 was also cited in the decision as an illustration of common general knowledge.
- II. Notice of appeal was received on 29 February 2016, and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was received on 21 April 2016. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or the auxiliary request submitted with the statement setting out the grounds of appeal. In the alternative, oral proceedings were requested.
- III. A summons to oral proceedings was issued on 6 June 2019. In a communication pursuant to Article 15(1) RPBA attached to the summons, the board gave its preliminary opinion that independent claim 7 of the main request did not meet the requirements of Article 56 EPC in light of the disclosure of D7 or that of D4. As to the auxiliary request, the board raised doubts as to whether it could be admitted under Article 12(4) RPBA, and expressed the opinion that it too did not meet the requirements of Article 56 EPC over D7 or D4.
- IV. In a letter of response dated 16 December 2019, the appellant withdrew the previous main and auxiliary

requests and submitted claims according to a new main request.

V. Claim 1 of that main request reads as follows:

"An apparatus (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 1200, 1202, 1204, 1206), comprising:

A1) at least one antenna (82, 84, 86) configured to receive a signal wirelessly from at least one additional apparatus;

A2) a baseband processing module (64) configured to:

B) process a signal field, SIG, of a packet within the signal to identify an operational mode, of a plurality of operational modes, by which at least one other portion of said packet is to be processed,

C) wherein said operational mode identifies a respective number of data sub-carriers within the packet, and

D) process the respective data sub-carriers within the packet,

E) wherein the operational mode, of the plurality of operational modes, identifies a first number of data sub-carriers within the packet; and

F1) wherein at least one additional operational mode, of the plurality of operational modes, identifies a second number of data sub-carriers within the packet that is greater than the first number of data sub-carriers,

F2) wherein the number of data sub-carriers is increased relative to said operational mode by additional data sub-carriers symmetrically around a given frequency such that the signal bandwidth is increased; and

G) wherein the location and spacing of sub-carriers in the signal field, SIG, is the same regardless of the

operational mode associated with the at least one other portion of the packet."

The main request comprises a further independent claim relating to a corresponding method (claim 6).

### **Reasons for the Decision**

1. The appeal is admissible (see point II).
2. Main request - admissibility

The main and sole request was filed late in response to the summons to oral proceedings. By comparison with the withdrawn previous main request, the following feature was added to claim 1:

"F2) wherein the number of data sub-carriers is increased relative to said operational mode by additional data sub-carriers symmetrically around a given frequency such that the signal bandwidth is increased;"

This additional feature finds support in the application documents as originally filed, in particular on page 41, lines 8 to 13 and 23 to 27.

However, the board holds that the request is not admissible under Article 25(3) RPBA 2020 and Article 13 RPBA 2007, for the following reasons.

It follows from Article 13(1) RPBA 2007 that the board has discretion not to admit the main request in view of, inter alia, the complexity of the new subject-matter submitted, the current state of the proceedings

and the need for procedural economy. Further, it follows from Article 13(3) RPBA 2007 that the main request is not to be admitted if it raises issues with which the board cannot reasonably be expected to deal without adjournment of the oral proceedings.

The appellant argued that the additional feature F2, which merely defined a symmetrical arrangement of sub-carriers around a central frequency, was not technically complex, as clearly explained in the written submission. Further, according to the appellant, the symmetrical placement of the additional sub-carriers solved the problem of minimising the adaptation of the FFT used for extracting the sub-carrier information from the baseband signal when the operational mode was changed. As a first point, the board notes that the additional feature F2 was taken from the description only. Secondly, the board notes that the technical effect alleged by the appellant is not mentioned anywhere in the description, in particular not in the single passage on page 42, line 17 ff, mentioned by the appellant. The board therefore has serious doubts as to whether feature F2 has been searched in combination with the other features of the claims. Furthermore, the alleged technical effect has never been discussed in the course of the examination proceedings so far. The board thus holds that the main request represents a "fresh case" and, exercising its discretion under Article 13(1) RPBA 2007, decides not to admit the main request into the proceedings.

### 3. Conclusion

Since there is no other request on file, the appeal is not allowable.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



K. Götz-Wein

A. Ritzka

Decision electronically authenticated