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**Datasheet for the decision  
of 4 July 2016**

**Case Number:** T 2098/13 - 3.5.05

**Application Number:** 05791214.9

**Publication Number:** 1805960

**IPC:** H04L27/26

**Language of the proceedings:** EN

**Title of invention:**

OFDM system with code spreading of signalling data

**Applicant:**

QUALCOMM INCORPORATED

**Headword:**

Underlaid signalling data/QUALCOMM

**Relevant legal provisions:**

EPC Art. 84

RPBA Art. 15(3)

**Keyword:**

Oral proceedings - non-attendance of the party

Claims contain essential features - (no)

Raising new objections in ex parte appeal proceedings -  
admissible (yes)

G 3/14 applicable to ex parte appeal proceedings - (no)

**Decisions cited:**

G 0010/93, G 0001/04, G 0003/14



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Case Number: T 2098/13 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 4 July 2016**

**Appellant:** QUALCOMM INCORPORATED  
(Applicant) 5775 Morehouse Drive  
San Diego, CA 92121 (US)

**Representative:** Heselberger, Johannes  
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Patentanwälte, Rechtsanwälte  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted on 26 April 2013  
refusing European patent application  
No. 05791214.9 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chair** A. Ritzka  
**Members:** K. Bengi-Akyuerek  
D. Prietzel-Funk

## **Summary of Facts and Submissions**

- I. The appeal is against the decision of the examining division to refuse the present European patent application on the ground of lack of inventive step (Article 56 EPC), having regard to the disclosure of D6: DE-A-3644175.
- II. With the statement setting out the grounds of appeal, the appellant filed an amended set of claims (main request). It requested that the decision of the examining division be set aside and that a patent be granted on the basis of those new claims. In addition, oral proceedings were requested as an auxiliary measure.
- III. In an annex to the summons to oral proceedings pursuant to Article 15(1) RPBA, the board gave its preliminary opinion on the appeal. In particular, it raised objections under Articles 84 (lack of essential features) and 56 EPC, mainly having regard to D6.
- IV. By a letter of reply dated 4 May 2016, the appellant submitted amended claims according to a first and second auxiliary request along with counter-arguments to the objections raised in the board's communication under Article 15(1) RPBA. It requested that the decision under appeal be set aside and that
- 1) a patent be granted on the basis of the claims of the main request, as filed with the statement setting out the grounds of appeal;
  - 2) a patent be granted on the basis of the claims of the first or second auxiliary request, both filed with the letter dated 4 May 2016;

- 3) the case be remitted to the examining division, "in particular when the main request or the auxiliary requests are rejected based on the clarity issues raised in the summons, because these clarity issues have not been raised in the appealed decision, as such it is the first time these issues have been raised";
- 4) the case be referred to the Enlarged Board of Appeal if the main request or the auxiliary requests are rejected based on the raised clarity issues, "since it is questionable if in view of G 3/14 an assessment of clarity is reasoned here, when the features were already present and were not objected by the Examining Division. The question to answer here would be whether or not G 3/14 is only applicable in opposition proceedings or also in other proceedings".

In addition, the appellant maintained its request for oral proceedings.

- V. By its letter of 28 June 2016, the appellant withdrew its request for oral proceedings and informed the board that it would in any case not be attending the scheduled oral proceedings.
- VI. Oral proceedings were held as scheduled on 4 July 2016 in the absence of the appellant. The board established from the file the appellant's final requests (see point IV above). After due deliberation on the basis of those requests and the written submissions, the decision of the board was announced at the end of the oral proceedings.
- VII. Independent claim 27 of the **main request** reads as follows:

"A method of transmitting data and signaling using a wireless communication system utilizing orthogonal frequency division multiplexing, OFDM, comprising:

spreading signaling data over M frequency sub-carriers used for signaling transmission, the M frequency sub-carriers being selected from among N frequency sub-carriers usable for transmission, where M and N are each greater than one and M is less than or equal to N and generating signaling chips;

mapping data symbols onto L frequency sub-carriers used for data transmission, where L is one or greater [sic] and is less than or equal to N, wherein the M frequency sub-carriers used for signaling transmission include the L frequency sub-carriers used for data transmission and generating data chips; and

scaling the signaling chips and data chips to generate output chips, wherein the scaling of the signaling chips and data chips is performed individually."

Independent claim 27 of the **first auxiliary request** is identical to claim 27 of the main request.

Independent claim 13 of the **second auxiliary request** reads as follows (amendments compared with claim 27 of the main request underlined by the board):

"A method of transmitting data and signaling using a wireless communication system utilizing orthogonal frequency division multiplexing, OFDM, comprising:

spreading signaling data for a given wireless terminal (120) with a pseudo-random number, PN, sequence assigned to the wireless terminal (120),

wherein the signaling data is spread over M frequency sub-carriers used for signaling transmissions for all wireless terminals (120), the M frequency sub-carriers being selected from among N frequency sub-carriers usable for transmission, where M and N are each greater than one and M is less than or equal to N and generating signaling chips;

mapping data symbols onto L frequency sub-carriers used for data transmission, where L is one or greater [sic] and is less than or equal to N, wherein the M frequency sub-carriers used for signaling transmission include the L frequency sub-carriers used for data transmission and generating data chips;

scaling the signaling chips and data chips, wherein the scaling of the signaling chips and data chips is performed individually and wherein the scaling of the signaling chips is selected to achieve a target received signal quality for the signaling data at the given wireless terminal (120); and

summing the individually scaled signaling chips and data chips to generate output chips."

## **Reasons for the Decision**

### *1. Non-attendance of the appellant at oral proceedings*

The appellant decided not to attend the scheduled oral proceedings before the board and withdrew its request for them (cf. point V above). Pursuant to Article 15(3) RPBA, the board is not "obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party

duly summoned who may then be treated as relying only on its written case".

In the present case, the appellant filed amended sets of claims, and provided comments in support of their patentability in response to the objections raised in the board's communication under Article 15(1) RPBA. The board considered the new claim requests and noted that the independent method claims of all those requests still gave rise to objections under Article 84 EPC (cf. point 2 below). Hence, in the exercise of its discretion under Article 15(3) RPBA, the board took a final decision at the end of the oral proceedings, in the absence of the appellant.

2. *Essential features (Article 84 EPC)*

2.1 An independent claim should explicitly specify all of the essential features needed to define the invention (see e.g. G 1/04, OJ EPO 2006, 334, point 6.2).

2.2 In the present case, the technical problem underlying the application consists in efficiently transmitting signalling information in a wireless OFDM system dependent on different terminal-specific reception requirements (see e.g. paragraph [0005] of the application as filed). In order to solve that problem, the present application recurrently and consistently proposes *separate* processing of the respective data symbols (by a "data modulator") and the signalling data (by a "signalling modulator") within the underlying OFDM transmission process (cf. Figures 6 to 8 in conjunction with paragraphs [0069] to [0082] of the application as filed; see also claim 1 of the present claim requests). It is apparent to the board that separate processing of different types of information



(i.e. signalling data and data symbols) is, in the present case, essential for achieving the desired effect of efficiently transmitting signalling information in the presence of different terminal-specific reception requirements.

2.3 However, independent method claim 27 of the **main request** and the **first auxiliary request** and independent method claim 13 of the **second auxiliary request** lack (at least) the above essential feature for a proper definition of the present invention.

2.4 In this regard, the appellant argued that claim 1 (directed to an apparatus) of all the present claim requests defined a signalling modulator and a data modulator, which processed signalling data and data symbols respectively, and that therefore it was clear to a person skilled in the art that this processing was performed separately, in particular since two separate modulators were claimed (cf. appellant's letter dated 4 May 2016, section B.1, third paragraph). The board notes, however, that this does not apply to the independent *method* claims 27 and 13 of the present claim requests, since they - for whatever reasons - fail to incorporate the corresponding separate signal processing performed by two different modulators.

2.5 In conclusion, the main request as well as the first and second auxiliary requests are not allowable under Article 84 EPC.

3. *Request for remittal of the case*

3.1 The appellant requested that the case be remitted to the examining division for further prosecution if the main request or the auxiliary requests are rejected

based on the clarity issues raised in the summons (cf. point IV above, third request).

3.2 Although the present main request as well as the auxiliary requests have indeed to be rejected based on the clarity issues raised in the board's communication under Article 15(1) RPBA (see in particular section 3.1.1), the board, exercising its discretionary power under Article 111(1) EPC, nevertheless decides not to remit the case to the department of first instance for further prosecution, in view of the following observations:

- a) the board may indeed include new grounds in *ex parte* appeal proceedings regardless of whether those grounds relate to patentability requirements which the examining division did not take into consideration in the examination proceedings (as in the present case) or to those which it indicated as having been met (see in particular **G 10/93**, OJ EPO 1995, 172, Reasons 3);
- b) even if this case were to be remitted, the board's decision on issues under Article 84 EPC as regards the present claim requests would be binding on the examining division pursuant to Article 111(2) EPC, thus rendering such a remittal entirely pointless.

#### 4. *Request to refer the case to the Enlarged Board*

4.1 The appellant also requested that the case be referred to the Enlarged Board of Appeal to answer the question "whether or not G 3/14 is only applicable in opposition proceedings or also in other proceedings", if the main request or the auxiliary requests are rejected based on the clarity issues raised (cf. point IV above, fourth

request).

- 4.2 This procedural request likewise must be refused since the question posed is considered to be sufficiently and unequivocally answered by cited case **G 3/14** of 24 March 2015 (to be published in the OJ), as it is concerned expressly and solely with the authority to examine the requirements of Article 84 EPC in respect of amended claims in *inter partes* (appeal) proceedings, and in particular with the interpretation of Article 101(3) EPC (see e.g. Reasons 8 and the Order). It does however not apply to *ex parte* appeal proceedings (which are dealt with in G 10/93; see point 2.2a) above).

## Order

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

The appeal is dismissed.

The Registrar:

The Chair:



L. Malécot-Grob

A. Ritzka

Decision electronically authenticated