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Datasheet for the decision of 12 May 2017

Case Number: T 1153/12 - 3.4.01

Application Number: 06769318.4

Publication Number: 1915757

IPC: G10L19/00

Language of the proceedings: EN

Title of invention:
METHOD FOR PROCESSING AUDIO SIGNAL

Applicant:
LG Electronics Inc.

Headword:

Relevant legal provisions:
EPC 1973 Art. 83
EPC R. 103(2)

Keyword:
Sufficiency of disclosure - (no)
Reimbursement of appeal fee - (no)

Decisions cited:
T 1155/12

Catchword:

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Case Number: T 1153/12 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 12 May 2017

Appellant: (Applicant)	LG Electronics Inc. 20, Yoido-dong Youngdungpo-gu Seoul 150-721 (KR)
Representative:	Katérle, Axel Wuesthoff & Wuesthoff Patentanwälte PartG mbB Schweigerstraße 2 81541 München (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 25 November 2011 refusing European patent application No. 06769318.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	G. Assi
Members:	P. Fontenay
	R. Winkelhofer

Summary of Facts and Submissions

I. European patent application No. 06 769 318 was refused by decision of the examining division remitted to the post on 25 November 2011.

II. In the Reasons for the decision, the examining division held that the claimed subject-matter did not comply with the requirements of Article 83 EPC 1973 in combination with Rule 42(1)(e) EPC. Concretely, the examining division held that the application did not contain sufficient information to carry out the steps recited in independent claims 1 and 8 of the request then on file of "*generating a fixed output channel using the down-mix signal and configuration elements of a basic matrix; and generating an arbitrary output channel using the fixed output channel and configuration elements of a post matrix*".

The examining division refused to consider document A2 (Audio Engineering Society, Convention Paper 6447, presented at the 18th Convention in Barcelona (Spain), 28-31 May 2005) as evidence of common general knowledge. In addition, the examining division observed that the content of A2, anyway, did not disclose the information actually missing from the present application.

III. An appeal was filed against the decision of the examining division.

With the statement of grounds, the appellant requested that the decision of the first instance be set aside in its entirety and a patent be granted on the basis of a set of enclosed claims 1 to 11.

IV. In accordance with an appellant's further request, a summons to attend oral proceedings was issued. A Board's communication under Art. 15 RPBA was sent on 14 March 2017.

V. In a reply dated 20 April 2017, the appellant announced that it did not intend to comment on the preliminary opinion issued by the Board and that it would not attend the oral proceedings.

The appellant further requested partial refund of the appeal fee under Rule 103(2)(a) EPC.

VI. Oral proceedings before the Board took place on 12 May 2017 in the absence of the appellant.

VII. Claim 1 of the appellant's request reads:

"*1. A method for processing an audio signal comprising:*

receiving an audio signal including a downmix signal generated by downmixing a multi-channel audio signal;

generating a fixed output channel, having multiple channels, using the downmix signal and configuration elements of a basic matrix; and

generating an arbitrary output channel using the fixed output channel and configuration elements of a post matrix,

wherein the configuration elements of the basic matrix are acquired by using basic data including channel level difference and inter-channel correlation, and fixed channel configuration information,

the configuration elements of the post matrix are acquired by using extension data including channel

level difference and arbitrary channel configuration information,

a number of the multiple channels of the fixed output channel is greater than a number of channels of the downmix signal,

the post matrix is useable to extend the number of the multiple channels of the fixed output channel, and

the arbitrary channel configuration information indicates a presence or absence of a channel division using a division identifier and a non-division identifier."

Claims 2 to 7 depend on claim 1.

Independent claim 8 relates to an apparatus for processing an audio signal. It reads:

"*8. An apparatus for processing an audio signal, comprising:*

a receiving unit receiving an audio signal including a downmix signal generated by downmixing a multi-channel audio signal;

a first channel generating unit generating a fixed output channel, having multiple channels, using the down-mix signal and configuration elements of a basic matrix; and

a second channel generating unit generating an arbitrary output channel using the fixed output channel and configuration elements of a post matrix,

wherein the configuration elements of the basic matrix are acquired by using basic data including channel level difference and inter-channel correlation, and fixed channel configuration information,

the configuration elements of the post matrix are acquired by using extension data including channel

level difference and arbitrary channel configuration information,

a number of the multiple channels of the fixed output channel is greater than a number of channels of the downmix signal,

the post matrix is useable to extend the number of the multiple channels of the fixed output channel, and

the arbitrary channel configuration information indicates a presence or absence of a channel division using a division identifier and a non-division identifier."

Claims 9 to 11 depend on claim 8.

Reasons for the Decision

1. *Admissibility*

The appeal is admissible.

2. *Sufficiency of disclosure (Art. 83 EPC 1973)*

2.1 In parallel case T 1155/12, objections similar to those raised in the present case, regarding sufficiency of disclosure under Art. 83 EPC 1973, were raised. In a letter of reply filed in said case, the appellant provided a copy of working draft standard ISO/IEC JTC 1/SC 29/WG 11 N7136 (text of Working Draft for Spatial Audio Coding (SAC)), as evidence of common general knowledge.

During the oral proceedings held for the present case, the Board decided not to introduce, *ex officio*, said document into the appeal proceedings for the following reasons.

Firstly, the appellant had not requested the introduction of said document into the present proceedings and had not even mentioned it in its submissions. Secondly, the public availability of said document at the priority date of the application appeared questionable in view of the nature of said document representing a "*Working Draft*". Thirdly, although possibly relevant, there were doubts as to whether the content of said document would have been conclusive for the issue to be decided.

2.2 Contrary to the appellant's view, the claims alone do not contain sufficient information to carry out the invention.

While it is acknowledged that the independent claims establish that the configuration elements may be obtained from parameters such as the Channel Level difference (CLD) and inter-channel correlation (ICC), the skilled person would still be at a loss to determine how said information contributes to the definition of each configuration element of both the basic matric and the post matrix.

If the notion of correlation suggests that a certain relationship would exist between two signals originating from different sources and might indeed be used to re-create a signal, it is not straightforward how a parameter reflecting the difference between signals of different channels could define the configuration elements of both matrices. The appellant submitted that "*for each channel to be generated a configuration element may indicate which difference the levels of two of these channels have*" (cf. statement of grounds, page 4, last two lines). In the Board's communication under Art. 15 RPBA, the appellant was

invited to elaborate on this submission and to provide some more specific and concrete information in this respect. The appellant, however, did not react to the invitation of the Board.

The mere identification of the parameters which are taken into account for the definition of the configuration elements does not suffice to define said elements. Indeed, the output and arbitrary channels to be generated have a specific relationship to the input channels on the encoding side. Said relationship is described by the matrices and their configuration elements, the configuration elements permitting to retrieve for each of the various output and arbitrary channels the original input signals before the down-mixing operations. A prerequisite consists, in this respect, in defining the dimensions of the two matrices involved in the complete process. The application is, however, silent as to this aspect of the invention.

2.3 According to an alternative line of argumentation developed by the appellant, the information required to carry out the invention would derive from the description. It was stressed, in this respect, that the embodiment described with regard to Figures 2 and 3, as well as the embodiment of Figure 4, would constitute valuable sources of information allowing the skilled person to reproduce the claimed subject-matter.

2.3.1 This argumentation is rejected for the following reasons. It is doubtful whether the embodiment of Figures 2 and 3 would indeed fall under the definition of independent claims 1 and 8. In this respect, a discrepancy between this embodiment and the claimed subject-matter appears in the terminology used. Namely,

no feature could be identified which could be equated with a "*basic matrix*" or a "*post matrix*".

2.3.2 Concerning the embodiment of Figure 4, the skilled person would, firstly, wonder about the necessity of a basic matrix followed by a post matrix since, from a purely mathematical point of view, one single matrix corresponding to the product of the two matrices m1*m2 would have been sufficient. Moreover, the presence of two matrices increases the number of configurations elements required as compared with one single matrix and, thus, the difficulty faced by the skilled person in order to define the various configuration elements.

2.4 In the Board's communication, the appellant was invited to expound on the whole process, starting from the encoding of multi-channel data to the final steps of generating fixed and arbitrary output channels, for the embodiment of Figure 4 or, alternatively, the embodiments of Figures 2 and 3. The appellant did not, however, make any submissions in this respect.

The submissions filed by the appellant with the statement of grounds do not extend beyond mere statements regarding the parameters intervening in the process of generating the output channels. As a matter of fact, neither the application nor the statement of grounds explain how said parameters effectively contribute to the elaboration of the output and arbitrary channels.

Moreover, the appellant did not comment on the fact that the examining division did not consider document A2 as evidence of common general knowledge. As the assessment of A2 made by the examining division appears

to be correct, there is no reason to reverse said findings.

Hence, in the absence of evidence regarding the existence of common knowledge which might have compensated for the missing information in the application, the skilled person would not be in a position to carry out the claimed invention.

2.5 In conclusion, the application does not meet the requirements of Art. 83 EPC 1973.

3. *Reimbursement of the appeal fee (R. 103(2)(a) EPC)*

Partial refund of the appeal fee was requested under R. 103(2)(a) EPC.

R. 103(2)(a) EPC specifies that "*The appeal fee shall be reimbursed at 50% if the appeal is withdrawn after expiry of the period under paragraph 1(b), provided withdrawal occurs:*
(a) if a date for oral proceedings has been set, at least four weeks before that date".

By submissions of 20 April 2017, the Board was informed of the appellant's intention not to attend oral proceedings scheduled for 5 May 2017.
The appeal, however, was not withdrawn.

For this reason, the appellant's request for partial refund of the appeal fee is devoid of any legal basis.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

R. Schumacher G. Assi

Decision electronically authenticated