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**Datasheet for the decision
of 10 December 2020**

Case Number: T 0213/16 - 3.5.03

Application Number: 07254947.0

Publication Number: 1942702

IPC: H04R25/00

Language of the proceedings: EN

Title of invention:

Wireless system for hearing communication devices providing
wireless stereo reception modes

Applicant:

Starkey Laboratories, Inc.

Headword:

Wireless stereo reception for hearing devices/STARKEY

Relevant legal provisions:

EPC Art. 56, 116(1)

RPBA Art. 12(4)

RPBA 2020 Art. 13(1)

Keyword:

Oral proceedings before the board - held by videoconference upon request

Admittance of requests filed after or with the grounds of appeal - main and second auxiliary requests (no): "fresh case" and no appropriate reaction to appealed decision

Inventive step - first auxiliary request (no)



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0213/16 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 10 December 2020

Appellant: Starkey Laboratories, Inc.
(Applicant) 6600 Washington Avenue South
Eden Prairie, MN 55344 (US)

Representative: Dentons UK and Middle East LLP
One Fleet Place
London EC4M 7WS (GB)

Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 18 August 2015
refusing European patent application
No. 07254947.0 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chair K. Bengi-Akyürek
Members: J. Eraso Helguera
R. Winkelhofer

Summary of Facts and Submissions

I. The appeal was lodged by the applicant against the decision of the examining division refusing the present European patent application for lack of inventive step (Article 56 EPC) with respect to the claims of a main request and a first auxiliary request and for added subject-matter (Article 123(2) EPC) with respect to the claims of second and third auxiliary requests.

II. In their decision, the examining division referred *inter alia* to the following prior-art documents:

D2: WO 2006/133158 A1 and

D7: EP 1 715 718 A2.

III. Oral proceedings were held on 10 December 2020 by videoconference in accordance with the appellant's request (cf. Article 116(1) EPC).

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of a **main request**, filed with the submission of 30 October 2019, or, in the alternative, on the basis of either of a **first auxiliary request**, corresponding to the main request of the decision under appeal, and a **second auxiliary request**, filed with the statement of grounds of appeal.

At the end of the oral proceedings, the board announced its decision.

IV. Claim 1 of the **main request** reads:

"A system (300) for a wearer having a first ear and a second ear, comprising:

a remote source (302) adapted to provide stereo audio wireless communications;

a first hearing communication device (304) adapted to receive wireless communications including first stereo channel audio information and second stereo channel information from the remote source, the first hearing device adapted to provide first stereo channel audio information to the first ear; and

a second hearing communication device (308) adapted to receive wireless communications, including the second stereo channel audio information as a relay signal (311) wirelessly from the first hearing communication device, the second hearing communication device adapted to provide second stereo channel audio information without the first stereo channel audio information to the second ear;

wherein the first hearing communication device includes a near field transmitter adapted for a magnetically coupled link (311); and

wherein the second hearing communication device is adapted to receive the second stereo channel audio information from the first hearing communication device through the magnetically coupled link, by near field communication."

Claim 1 of the **first auxiliary request** reads:

"A system (300) for a wearer having a first ear and a second ear, comprising:

a remote source (302) adapted to provide stereo audio wireless communications;

a first hearing aid (304) adapted to receive wireless communications including first stereo channel audio information and second stereo channel audio information from the remote source, the first hearing aid adapted to provide the first stereo channel audio information to the first ear; and

a second hearing aid (308) adapted to receive wireless communications, including the second stereo channel audio information wirelessly from the first hearing aid, the second hearing aid adapted to provide the second stereo channel audio information without the first stereo channel audio information to the second ear."

Claim 1 of the **second auxiliary request** reads:

"A system (300) for a wearer having a first ear and a second ear, comprising:

a remote source (302) adapted to provide stereo audio wireless communications;

a first hearing aid (304) adapted to receive wireless communications including first stereo channel audio information and second stereo channel information from the remote source, the first hearing device adapted to provide first stereo channel audio information to the first ear; and

a second hearing aid (308) adapted to receive wireless communications, including the second stereo channel audio information as a relay signal (311) wirelessly from the first hearing aid, the second hearing aid adapted to provide second stereo channel audio information without the first stereo channel audio information to the second ear;

wherein the first hearing aid includes a near field transmitter adapted for a magnetically coupled link (311); and

wherein the second hearing aid is adapted to receive the second stereo channel audio information from the first hearing aid through the magnetically coupled link, by near field communication."

Reasons for the Decision

1. FIRST AUXILIARY REQUEST

Claim 1 of the **first auxiliary request** comprises the following limiting features (board's outline):

A system for a wearer having a first ear and a second ear, comprising:

- (a) a remote source adapted to provide stereo audio wireless communications;
- (b) a first hearing aid adapted to receive wireless communications including first stereo channel audio information and second stereo channel audio information from the remote source, the first hearing aid adapted to provide the first stereo channel audio information to the first ear; and
- (c) a second hearing aid adapted to receive wireless communications, including the second stereo channel audio information wirelessly from the first hearing aid, the second hearing aid adapted to provide the second stereo channel audio information without the first stereo channel audio information to the second ear.

1.1 *Claim 1 - inventive step (Article 56 EPC)*

1.1.1 The subject-matter of claim 1 of the first auxiliary request does not involve an inventive step (Article 56 EPC) for the reasons set out below.

1.1.2 The appellant submitted that the technology disclosed in document **D7**, relating to *headphones* and considered to be the closest prior art in the impugned decision, was inappropriate for use, even with significant adaptations, for a pair of *hearing aids*.

1.1.3 Although at the filing date of the present application hearing aids and headphones were known to rely on similar techniques, e.g. in particular related to digital audio transmission and processing, document **D2**, which specifically relates to a wireless hearing aid, is considered, in the appellant's favour, as the starting point for the assessment of inventive step in the present case.

1.1.4 Based on the wording of claim 1 of the first auxiliary request (board's strikethrough indicating missing features), D2 discloses a system (figs. 1A, 1B) for a wearer having a first ear and a second ear, comprising:

(a) a remote source ("interface 110") adapted to provide stereo audio wireless communications (see figs. 1A, 1B);

(b) a first hearing aid ("wireless audio device 130") adapted to receive wireless communications including first stereo channel audio information and ~~second stereo channel audio information~~ from the remote source, the first hearing aid adapted to provide the first stereo channel audio information to the first ear (see figs. 1A, 1B); and

(c) a second hearing aid ("wireless audio device 140") adapted to receive wireless communications, including the second stereo channel audio information wirelessly ~~from the first hearing aid~~, (see page 6, lines 14-22; see page 6, lines 29-30).

1.1.5 The subject-matter of claim 1 of the first auxiliary request thus differs from the disclosure of D2 in that (board's emphasis):

- the first hearing aid is further adapted to receive second stereo channel audio information from the remote source (according to **feature (b)** above),
- the second hearing aid is further adapted to receive the second stereo channel audio information wirelessly from the first hearing aid, the second hearing aid adapted to provide the second stereo channel audio information without the first stereo channel audio information to the second ear (according to **feature (c)** above).

1.1.6 D2 discloses on page 6, lines 21-22, that "...[t]he interface 110 can transmit stereo information which is received by the proper wireless audio device to preserve the stereo nature of the information.". Although D2 does not provide any details as to how the stereo information is to be sent to each of the wireless audio devices, the number of available options for the choice of paths through which a particular "wireless audio device 130 or 140" can receive information is limited to two (see figures 1A and 1B):

- (i) either "path 2" (linking "interface 110" with wireless audio device 130) or "path 4" (linking wireless audio devices

130 and 140) for wireless audio device 130,

- (ii) either "path 3" (linking "interface 110" with wireless audio device 140) or "path 4" for wireless audio device 140.

Following the appellant's argumentation, the technical effect associated with the distinguishing features identified above is a reduction of the computational burden in the device set of D2. This is considered a credible effect, since, whilst "path 4" can be considered stable for as long as wireless devices 130 and 140 are used together, both "paths 2 and 3" need to be re-established every time a different interface 110 of "communication device 120" is linked. The introduction of the distinguishing features would indeed reduce the computational burden of one of the wireless audio devices since only a single path would be needed to be (re-)established with interface 110.

- 1.1.7 The objective technical problem can thus be defined as "how to reduce the computational burden for one of the hearing aids in D2".
- 1.1.8 D2 already foresees, on the one hand, the use of a communication "path 4" between wireless audio devices 130 and 140 "to transmit various information", and, on the other hand, the use of the Bluetooth protocol for the communication between the remote device and the wireless hearing assistance devices (see e.g. claim 20). Thus, the skilled person seeking to reduce the computational burden of a hearing aid would have found enough hints in D2 to come across D7, which likewise relates to the implementation of the distribution of stereo information using Bluetooth.

1.1.9 **D7** discloses e.g. in paragraph [0037], lines 47-53, that

"the portable terminal 10 transmits the sound signals to the first headset 101 through right and left channels of the music file selected by the user's demand in step 307. The first headset 101 which received the sound signals through the right and left channels in step 309 transmits the sound signals of the left channel to the second headset 102 in step 311."

The skilled person would, in view of that teaching, have arrived at a system which includes all the features of claim 1 of the first auxiliary request without the exercise of inventive skills.

1.1.10 The appellant submitted that there was no suggestion in D2 that the second hearing aid was adapted to receive the second stereo channel audio information (as a "relay signal" from the first hearing aid) and provide the second stereo audio information without the first stereo channel audio information, and that D2 made clear that the audio packets were received by *both* wireless audio devices 130 and 140. Although further information might be transmitted wirelessly between those two devices, such as the exemplified "information or control signals", this was not equivalent to the claimed invention.

This argument is not persuasive for the following reasons:

- First, feature (c) of claim 1 merely requires that the second hearing aid be adapted to receive wireless communications, including the second

stereo channel audio information wirelessly from the first hearing aid, i.e. claim 1 does not disclaim that the second hearing aid be adapted to also receive the first stereo channel audio information wirelessly from the first hearing aid.

- Second, D2 merely states on page 6, lines 21-22 that the stereo information is received by the proper wireless audio device to preserve the stereo nature of the information. Since it is apparent from the skilled person's common general knowledge that a non-forwarding hearing aid only needs to reproduce one stereo channel, it cannot be inferred that in D2 *both* wireless audio devices 130 and 140 should necessarily receive *both* stereo channels.
- Third, the feature of sending only the second stereo channel to the second hearing aid from the first hearing aid is present in D7. As to the combination of D2 and D7, the explicit reference to Bluetooth on page 4, line 26 of D2 is sufficient to lead the skilled person towards D7. Furthermore, feature (c) of claim 1 bears no limitation with respect to the link between the first and second hearing aids beyond it happening wirelessly.

1.1.11 The appellant finally argued that, in view of page 7, lines 4-8 of D2, which discloses that

"... this new topology can reduce certain processing and storage requirements of the wireless audio devices and can enhance the signal processing power of such devices using the system as a whole ...",

the skilled person would find no incentive to look for a solution other than sending the stereo channel information to each of the wireless audio devices 130 and 140 directly from interface 110.

This is not convincing either. **D2** also discloses on page 7, lines 24-25 that

"...[i]t is understood that a number of device and communication combinations may be supported. Many applications are possible without departing from the scope of the present subject matter, and those provided herein are intended to be demonstrative and not exclusive or exhaustive."

The fact that a certain scenario is claimed in D2 would not prevent the skilled person from seeking further optimisations starting out from this document.

1.1.12 With respect to the declaration of Mr. Jeffrey M. Solum, one of the inventors named in the application, filed with the statement of grounds of appeal in support of the present first and second auxiliary requests, the board notes that, firstly, no conclusive probative value can be attributed to the opinions expressed therein, and that, secondly, these opinions do not address the aforementioned combination of documents D2 and D7.

1.2 In conclusion, the first auxiliary request is not allowable under Article 56 EPC.

2. MAIN REQUEST AND SECOND AUXILIARY REQUEST

Claim 1 of the **second auxiliary request** comprises all the features of claim 1 of the first auxiliary request

and the following additional limiting features (board's outline):

- (d) wherein the first hearing aid includes a near-field transmitter adapted for a magnetically coupled link;
- (e) wherein the second hearing aid is adapted to receive the second stereo channel audio information from the first hearing aid through the magnetically coupled link, by near-field communication,

Furthermore, the second stereo channel audio information is received as a relay signal in feature (c).

Claim 1 of the **main request** comprises the same features as claim 1 of the second auxiliary request, except for the replacement of "hearing aid" by "hearing communication device".

2.1 *Admission into the appeal proceedings (Article 12(4) RPBA 2007 and Article 13(1) RPBA 2020)*

2.1.1 The claims of the **main request** were filed after the filing of the grounds of appeal, whereas those of the **second auxiliary request** were submitted with the grounds of appeal.

2.1.2 Hence, the admittance of the main request is, in principle, governed by Article 13(1) RPBA 2020, while that of the second auxiliary request is subject to Article 12(4) RPBA 2007. Under both regimes, subject-matter giving rise to a "fresh case" should not be admitted according to the established jurisprudence of the Boards of Appeal.

2.1.3 Claim 1 of the **main request** is, according to the appellant, "in line with" claim 1 of the former first auxiliary request (i.e. the present **second auxiliary request**), but with the term "hearing aid" having been reversed to "hearing *communication device*", purportedly "to provide more direct support for the pending claim set from the language of the application as filed, specifically the claims as filed".

2.1.4 In the examination proceedings, the change from the original wording "hearing communication device" to "hearing assistance device" was arguably intended to further delimit the claimed subject-matter from the available prior art (see the then applicant's submission dated 20 July 2012: "References D7 and D8 relate to Bluetooth headsets such as those used with cellular telephones, and do not disclose anything relevant to hearing assistance devices.").

In view of the above, the appellant evidently intends to modify their appeal case by reverting a limitation previously introduced into the claims. However, the decision under appeal states in point II.1.2 of the reasons that the main request "is found to be based on the application as originally filed as required by Article 123(2) EPC". Since the decision under appeal did not raise any objections under Article 123(2) EPC against this subject-matter, it cannot justify the provision of "more direct support from the application as filed". Hence, this amendment solely aims at broadening the scope of protection sought and cannot be considered as an appropriate reaction to the decision under appeal.

2.1.5 Moreover, when compared with claim 1 of the main request underlying the appealed decision (i.e. the

present first auxiliary request), claim 1 of both the **main request** and the **second auxiliary request** further includes features (d) and (e) and the addition of "as a relay signal" in feature (c). These features allegedly stem from claims 2 and 3 of the main request underlying the appealed decision, with the further clarification that the second hearing aid receives "a relay signal" from the first hearing aid, and that this is done by "near-field communication".

2.1.6 As a result, the incorporation into claim 1 of features (d) and (e), relating to the near-field communication between the first and the second hearing devices via a magnetically coupled link, and the two further clarifications result in subject-matter which was not present in any of the independent claims of the claim requests subject to the impugned decision, creating *de facto* a "fresh case". This is further evidenced by the fact that a substantial part of the appellant's submission of 9 October 2020 is predominantly devoted to fresh arguments about those newly incorporated features.

2.1.7 As to the **second auxiliary request**, the appellant submitted that the proposed amendments were made in direct response to the grounds of refusal and that they could not have been anticipated during the first-instance proceedings. Therefore, the additional features included in the second auxiliary request were submitted at the earliest opportunity by which the applicant could respond.

This is not convincing. As it is apparent from page 2, first to fourth paragraphs of the minutes of the oral proceedings before the examining division, after the then appellant had been notified of the reasons for

lack of inventive step of the new main request filed during the oral proceedings in reaction to the objection under Article 123(2) EPC, the applicant had filed a new first auxiliary request including further amendments based on page 4, line 10 and page 3 of the present application. Hence, the applicant could have filed the present **second auxiliary requests**, and also the additional amendments constituting the present **main request**, at that point in time, but expressly decided to file and maintain other claim requests instead. Therefore, both claim requests cannot be considered an appropriate reaction to the impugned decision.

- 2.1.8 The appellant further argued that the matter of the claims of the present **second auxiliary request** stemmed from the subject-matter of dependent claims on file, which did not necessitate any further search and could reasonably have been considered during the examination proceedings without any undue burden, and that the applicant's right to be heard in respect of the validity of dependent claims should not be summarily prejudiced on procedural grounds.

The board however holds that the examining division was not obliged to decide upon the subject-matter of the dependent claims once they found the subject-matter of the independent claims not allowable, which are intended to comprise the features essential for defining the invention. The fact that the decision under appeal cursorily discusses in point II.1.8 dependent claims 2 and 3 of the then main request is to be interpreted as an *obiter dictum* rather than a complete ruling, since this subject-matter had never been included in an independent claim before, nor were these objections discussed in detail during the written or oral proceedings.

Furthermore, claim 1 of the present **second auxiliary request** does not correspond to the mere combination of claims 1, 2 and 3 of the main request subject to the decision under appeal. The board would, if admitted, be confronted for the very first time in these appeal proceedings with the question of the claimed subject-matter's compliance with Articles 123(2) and 84 EPC, *inter alia*, in view of the two further alleged clarifications (i.e. "as a relay signal" in feature (c) and "by near field communication" in feature (e)).

- 2.1.9 The appellant further requested, in view of the board's preliminary opinion that D7 was not to be considered the closest prior art but that rather D2 should be considered "the most promising starting point", an additional reconsideration of the admittance of those requests on this further ground, since they addressed directly the newly formulated inventive-step objection raised for the first time in these appeal proceedings.

This argument is not persuasive either. Both the **main request** and the **second auxiliary request** were filed before the board issued their preliminary opinion, and, consequently, those requests cannot be considered as an immediate reaction to the inventive-step objection raised by the board.

- 2.2 For these reasons, the **main request** and the **second auxiliary request** were not admitted into the appeal proceedings under Articles 12(4) RPBA 2007 and 13(1) RPBA 2020.
3. As there is no allowable claim request, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated