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Datasheet for the decision of 2 March 2026

Case Number: T 1002/24 - 3.5.05

Application Number: 19153794.3

Publication Number: 3687188

IPC: H04R1/10, H04R25/00

Language of the proceedings: EN

Title of invention:
A noise cancellation enabled audio system and method for adjusting a target transfer function of a noise cancellation enabled audio system

Patent Proprietor:
Samsung Electronics Co., Ltd.

Opponent:
K/S HIMPP

Headword:
Tonal tinnitus treatment/SAMSUNG

Relevant legal provisions:
EPC Art. 56, 100(a), 123(2)
RPBA 2020 Art. 13(2)

Keywords:
Inventive step (no) - main request, 1st to 5th auxiliary requests: no technical effect derivable or equally likely alternative
Added subject-matter - 6th auxiliary request (yes): unallowable intermediate generalisation
Admittance of claim request filed after Art. 15(1) RPBA communication - 7th auxiliary request (no): no "exceptional circumstances"

Decisions cited:
G 0001/24, T 2027/23

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Case Number: T 1002/24 - 3.5.05

D E C I S I O N
of Technical Board of Appeal 3.5.05
of 2 March 2026

Appellant: (Opponent)	K/S HIMPP c/o WS Audiology A/S Nymøllevej 6 3540 Lynge (DK)
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Respondent: (Patent Proprietor)	Samsung Electronics Co., Ltd. 129, Samsung-ro Yeongtong-gu Suwon-si, Gyeonggi-do 16677 (KR)
Representative:	Venner Shipley LLP 200 Aldersgate London EC1A 4HD (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 27 May 2024 rejecting the opposition filed against European patent No. 3687188 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chair	K. Bengi-Akyürek
Members:	P. Tabery
	F. Bostedt

Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division to reject the opposition against the present European patent. The opposition division found that the claimed invention was sufficiently disclosed and that the claimed subject-matter was novel and involved an inventive step (Articles 83, 54 and 56 EPC).

II. The prior-art documents referred to by the opposition division included:

D1: EP 1 537 759 B1
D2: EP 2 533 550 B1.

III. Oral proceedings before the board were held on 2 March 2026. The final requests of the parties were as follows:

- The appellant-opponent ("the opponent") requested that the decision under appeal be set aside and that the patent be revoked.

- The respondent-proprietor ("the proprietor") requested that the appeal be dismissed, i.e. that the patent be maintained as granted (**main request**), or, in the alternative, that the patent be maintained in amended form in accordance with one of **auxiliary requests 1 to 7**.

At the end of the oral proceedings, the board's decision was announced.

IV. Claim 1 of the **main request** reads as follows (board's labelling):

F1 "A noise cancellation enabled audio system for tonal tinnitus treatment using ambient noise, comprising:

F2 an audio processor (PROC),

F3 at least one filter having an adjustable filter function, and

F4 an ear mountable playback device (HP)

F4.1 further comprising a speaker (SP) and

F4.2 at least one feedforward microphone (FF_MIC),

F5 wherein the audio processor (PROC) is configured to:

F5.1 receive an input signal (Z(s)) from the feedforward microphone (FF_MIC) indicative of ambient noise,

F5.2 determine a filter transfer function (HF(s)) to realize a predetermined target transfer function (HT(s)), wherein the target transfer function (HT(s)) is configured to attenuate and/or amplify the input signal (Z(s)) in a predetermined frequency range, and

F5.3 adjusting the filter function depending on the filter transfer function (HF(s)); and

F6 wherein the filter is configured to: provide a system output signal (Y(s)) by filtering the input signal (Z(s)) depending on the filter function, and

F7 wherein: the audio processor (PROC) is provided with acoustic transfer functions between an ambient sound source (ASS) creating the ambient noise and an eardrum (ED) exposed to the speaker (SP), and

F8 the audio processor (PROC) is configured to determine the filter transfer function

(HF(s)) by compensating for the acoustic transfer functions;

F9 the noise cancellation enabled audio system further comprising an amplifier (AMP) coupled between the audio processor (PROC) and the speaker (SP), and

F10 wherein the acoustic transfer functions comprise:

F10.1 a first acoustic transfer function (HM(s)) of the feedforward microphone (FF_MIC), denoted $H_M(s)$,

F10.2 a second acoustic transfer function (HA(s)) of the amplifier (AMP), denoted $H_A(s)$,

F10.3 a third acoustic transfer function (HS(s)) of the speaker (SP), denoted $H_S(s)$,

F10.4 a fourth acoustic transfer function (HH(s)) of the ear mountable playback device (HP), denoted $H_H(s)$; and wherein:

F10.5 the filter transfer function (HF(s)), denoted $H_F(s)$, is determined as

$$H_F(s) = \frac{H_T(s) - H_H(s)}{H_M(s) \cdot H_A(s) \cdot H_S(s)}$$

wherein $H_T(s)$ denotes the target transfer function (HT(s));

F10.6 the noise cancellation enabled audio system further comprising a feedback noise microphone (FB_MIC) located in proximity to the speaker (SP), and

F10.7 wherein the fourth acoustic transfer function (HH(s)) comprises a passive damping component due to the ear mountable playback device (HP) and an active damping component due to active noise cancellation by means of the feedback noise microphone (FB MIC)."

Claim 1 of **auxiliary request 1** differs from claim 1 of the main request in that, in **feature F5.2**, it further specifies "*a predetermined target transfer function HT(s) for tonal tinnitus treatment*" (proprietor's markup).

Claim 1 of **auxiliary request 2** differs from claim 1 of auxiliary request 1 in that, in **feature F5.2**, the alternative "*and/or amplify*" has been deleted.

Claim 1 of **auxiliary request 3** differs from claim 1 of the main request in that **features F5.2 and F5.3** now read as follows (board's labelling; amendments as underlined by the proprietor, deletions not shown):

F5.2' "determine a filter transfer function (HF(s)) to realize a predetermined target transfer function (HT(s)), wherein the target transfer function (HT(s)) is configured to attenuate the input signal (Z(s)) received through the feedforward microphone (FF_MIC) in a predetermined frequency range, and

F5.3' adjusting the filter function depending on the filter transfer function (HF(s)), wherein the adjusted filter function is established to reproduce the filter transfer function (HF(s)) and thereby the predetermined target transfer function (HT(s)) is realized".

Claim 1 of **auxiliary request 4** differs from claim 1 of the main request in that **features F3, F5.2 and F5.3** now read as follows (board's labelling; amendments as underlined by the proprietor, deletions not shown):

F3* "at least one filter having an adjustable filter function, wherein the at least one filter comprises at least one notch"

F5.2* "determine a filter transfer function (HF(s)) to realize a predetermined target transfer function (HT(s)), wherein the target transfer function (HT(s)) is configured to attenuate the input signal (Z(s)) received through the feedforward microphone (FF_MIC) in a predetermined frequency range, wherein the predetermined target transfer function (HT(s)) is configured to match a stop band of the at least one notch to a tinnitus frequency, and

F5.3* adjusting the filter function depending on the filter transfer function (HF(s)), wherein a center frequency of the at least one notch is adjusted to the tinnitus frequency."

Claim 1 of **auxiliary request 5** differs from claim 1 of auxiliary request 3 in that it further specifies (board's labelling):

F11 "wherein the active noise cancellation is used to improve the filter transfer function (HF(s)) such that the target transfer function (HT(s)) is realized and the input signal (Z(s)) is attenuated in the predetermined frequency range".

Claim 1 of **auxiliary request 6** comprises the amendments of auxiliary requests 1 and 2 and further specifies that (board's labelling):

F12 "wherein the audio system is configured to be operated in an active noise cancellation mode of operation and in a training mode of operation, wherein in the training mode of operation the ambient noise is used as the input signal to generate a training signal for tonal tinnitus treatment."

Claim 1 of **auxiliary request 7** comprises the amendments of auxiliary requests 1 and 2 and further specifies that (board's labelling):

F13 "wherein the audio system is configured to be operated in an active noise cancellation mode of operation and in a training mode of operation, wherein in the active noise cancellation mode of operation the audio system is configured to attenuate ambient sound by measuring the ambient noise before the ambient noise enters the ear, and wherein in the training mode of operation the ambient noise is used as the input signal to generate a training signal for tonal tinnitus treatment."

Reasons for the Decision

1. The present patent concerns adjusting a "filter function" of an audio system enabling noise cancellation. More specifically, the "filter function" is configured to match the stop band of a "notch

filter" to a user's tinnitus frequency range when processing an audio signal by the audio system.

2. Main request

2.1 Interpretation of claim 1

2.1.1 **Feature F1** implies that the claimed "audio system" is merely *suitable for* "tonal tinnitus treatment". The board is not convinced by the proprietor's argument that, as a consequence, all features of claim 1 had to be treatment functions, in line with paragraph [0058] of the opposed patent. Rather, the board holds that, as argued by the opponent, the claimed "audio system" has to be merely *suitable for* such treatments, i.e. exhibit capabilities allowing this intended use. On top of that, the board notes that the remaining features of claim 1 do not contain any features specific to "tonal tinnitus treatment". According to the wording of present claim 1, also the mentioned "*predetermined frequency range*" and "*amplify the input signal Z(s)*" according to feature F5.2 are not necessarily related to a tinnitus treatment. Hence, the board concurs with the opponent that the claimed subject-matter is not limited to "audio systems" having "tonal tinnitus treatment" as their only possible use. Also systems capable of but not actually performing "tonal tinnitus treatment" are thus encompassed by the subject-matter of claim 1.

2.1.2 With respect to **feature F5.2**, the proprietor submitted that the "filter transfer function" was determined dynamically for each input signal. This was evident from paragraph [0048] of the patent specification.

The board disagrees. As set out by the opponent, the patent description fails to explicitly specify *when* the "filter transfer function" is actually determined. Evidently, there are no distinct input signals, but only a continuous input stream. Therefore, in the absence of distinct "input signals", what is disclosed cannot imply that the "filter transfer function" is determined anew for each and every "input signal", as alleged by the proprietor. After all, claim 1 fails to specify any kind of a control loop and thus comprises even the case that the "filter transfer function" is only determined once. This interpretation is not changed by the fact that paragraph [0020] of the patent discloses that "*[t]he filter transfer function can be determined in real-time*". No limitation to this effect is derivable from claim 1.

2.1.3 The proprietor argued that **feature F5.3** had to be interpreted in the context of the other features of claim 1, not in isolation. Therefore, the phrase "*depending on*" had to be understood as implying that the characteristics of the "filter transfer function" were preserved. This was also evident when consulting the description for claim interpretation, in line with decision **G 1/24**.

However, the board considers that the formulation "*depending on*" is to be broadly interpreted such that the "filter function" encompasses functions which may be derived from the "filter transfer function" using an (unspecified) derivation function. It does however not mean that the "filter function" is adjusted such that it is actually equal or corresponds to the "filter transfer function" as mathematically defined in feature 10.5. Thus, when filtering is performed, some aspects of the claimed "filter transfer function" may

even be overridden. As to the interpretation and application of **G 1/24**, the board reiterates that the claims are the "starting point" and the "basis" for assessing patentability of the invention (G 1/24, order 1). Consulting the description and drawings cannot mean that a claim should be interpreted, based on features set out in embodiments of an invention, as having a meaning narrower than the wording of the claim as understood by the person skilled in the art (see **T 2027/23**, Catchword). Therefore, the difference in wording used in the underlying patent description (see paragraph [0048]: "*the filter function FF can be established to reproduce the filter transfer function*"; board's emphasis) and in feature F5.3 of claim 1 ("*filter function depending on the filter transfer function*"; board's emphasis) merely supports the interpretation of feature F5.3 given above.

2.1.4 As to **feature F10.7**, the proprietor submitted that the mentioned "*active damping component*" and "*passive damping component*" were explained in Figures 6a and 6b together with paragraph [0052] of the opposed patent. Additionally, "path b" in Fig. 3 shows a modelling of the "active and passive damping components".

The opponent emphasised that the "*passive damping component*" of feature F10.7 was not an electrical property of the claimed device. Rather, it concerned the damping caused by the device being placed in the user's ear canal. The latter interpretation is indeed a technically sensible one and is adopted by the board.

2.2 Novelty (Article 54(1) EPC)

2.2.1 In view of the interpretation of **feature F1** (see point 2.1.1 above), this feature is anticipated by the

system of document D1. In accordance with this interpretation, the alleged differences between the claimed subject-matter and the disclosure of document D1 relating to "tonal tinnitus treatment" cannot be derived from claim 1.

2.2.2 As to **feature F1** in combination with **feature F10.7**, the proprietor argued that document D1 "*teaches the skilled person away from configuring the disclosed audio system to perform active noise cancellation*". In an alternative line of reasoning, the proprietor argued that the "active noise cancellation" was not disclosed in document D1 in combination with the embodiments of paragraphs [0006] to [0008] of D1. Yet alternatively, it was argued that the "noise cancellation" performed in document D1 related only to the "cavity", which was however different from the present invention.

The board disagrees. As submitted by the opponent, document D1 discloses, in paragraph [0009], an "active noise cancellation" by use of an "additional microphone" which is "*coupled to the cavity*". This microphone is thus "*in proximity to the speaker*", as claimed in feature F10.6 of claim 1. Moreover, paragraph [0009] makes it clear that this microphone is an additional feature comprised in all embodiments. Consequently, the "*active damping component*" of feature F10.7 - in its entire breadth - is indeed directly and unambiguously disclosed by document D1 in combination with the other cited features. Furthermore, as to feature F10.7, the board is not convinced by the proprietor's argument that document D1 did not disclose the "*passive damping component*" of the "*fourth acoustic transfer function*". Rather, the board sides with the opponent that paragraph [0021] of document D1 actually teaches that the signal arriving through the "vent" is

taken into account by the underlying feedback system (see the interpretation set out in point 2.1.4 above). When passing through the "vent", the noise inevitably undergoes passive damping. Therefore, this constitutes a "*passive damping component*" within the meaning of feature F10.7, taken into account in addition to the "*active damping component*" (i.e. "active noise cancellation") disclosed in document D1. Consequently, also the "*passive damping component*" of feature F10.7 is already known from document D1. In what follows, the board adopts the opponent's labelling "H_{vent}" of the overall transfer function applicable to the noise coming through the "vent", wherein "H_{vent}" comprises the attenuation by the "vent" as well as the attenuation by the "active noise cancellation".

2.2.3 Likewise, the board does not subscribe to the proprietor's argument that document D1 did not disclose the "adjustable filter function" as claimed in **features F3 and F5.3** of claim 1. Rather, the board considers it to be commonly known that an audio filter of a hearing aid, like the one disclosed in document D1, is individually adjusted to a user's hearing impairment.

2.2.4 Having regard to **feature F5.2**, the proprietor also argued that the system of document D1 could not attenuate "high-pitch sounds" without modification of the configuration of the respective hearing aid.

The board is not persuaded. First, it is noted that feature F5.2 specifies "*attenuate and/or amplify*" as potential alternatives. Second, the system of document D1 is certainly capable of amplifying "high-pitch sounds", as it relates to a hearing aid and

amplifying sounds of any audible frequency is the very property of hearing aids in general.

2.2.5 As to **feature F6**, the board is not convinced by the proprietor's argument that, as opposed to what is claimed, "*the feedback controller (first filter) D_a of document D1 does not receive the input signal from the feedforward microphone 1*". Instead, it is evident from Figure 1 of document D1 that the signal from "microphone 1" is provided to "signal processor 2", comprising "hearing aid block H_{HA}" and "digital block H_C". These filter functions are assumed to be part of the claimed "filtering" step according to feature F6. The fact that "filter D_a" is not supposed to receive the signal from the feedforward microphone, according to document D1, has therefore no bearing on the question whether feature F6 is actually disclosed in document D1.

2.2.6 With respect to **feature F8**, the proprietor submitted that document D1 did not disclose the claimed "compensation" of the respective acoustic transfer functions.

The board however concurs with the opponent that the concept underlying document D1 already strives to achieve a certain predetermined "target transfer function" (namely one achieving active noise cancelling and actively compensating for the occlusion effect present in the system of D1) and thus necessarily takes into consideration all the "acoustic transfer functions".

2.2.7 Moreover, the proprietor brought forward that document D1 did not disclose **features F8 and F10.4**, as these

features were also referring to the "*fourth acoustic transfer function*".

The board disagrees, since the "*fourth acoustic transfer function*" is already known from document D1 (i.e. "H_{vent}") for the reasons identified in point 2.2.2 above with respect to feature F10.7 of claim 1.

2.2.8 Having regard to **feature F9**, the proprietor contested that document D1 discloses "*an amplifier coupled between the audio processor and the speaker*".

In that regard, the board notes that document D1 discloses that the amplification is performed by "signal processor 2" (see paragraph [0010], Fig. 1 and claim 1 of D1). It is immediately apparent to the skilled reader of D1 that the "signal processor 2" may either perform the *filtering* first and then the *amplification*, or *vice versa*. There is however no other option. In view of this restricted number of possibilities, the disputed feature is directly and unambiguously derivable from the disclosure of document D1.

2.2.9 On the other hand, the board concurs with the proprietor and the opposition division that document D1 indeed fails to disclose the precise type of calculation as defined in the formula of **feature F10.5** of claim 1. Although document D1 implies calculations which are taking, *inter alia*, the same physical properties into account, it cannot be derived directly and unambiguously therefrom that exactly the same calculation is indeed performed there. This is also confirmed by the opponent's own statement that - as opposed to document D1 - the equation according to

feature F10.5 takes into account neither the user's own voice "q_{OV}", nor body sounds, nor the occlusion effect.

2.2.10 Therefore, the subject-matter of claim 1 is novel over the disclosure of document D1, with **feature F10.5** being the sole distinguishing feature.

2.3 Inventive step (Article 56 EPC)

2.3.1 The proprietor argued that the distinguishing feature F10.5 caused the technical effect that the audio system became "acoustically invisible" to the user which increased wearability. The objective technical problem was thus "*how to enable tinnitus treatment and acoustic invisibility in the system of D1*". Following the could-would approach, the claimed solution was inventive over the cited prior art, which gave no respective hint to the skilled person towards adapting the underlying system accordingly.

2.3.2 The board however sides with the opponent that the distinguishing feature F10.5 fails to contribute to an inventive step. Notably due to the broadly defined "filter function" of feature F5.3 (see point 2.1.3 above), the alleged technical effect cannot be derived from present claim 1, let alone over its whole scope.

2.3.3 In consequence, the subject-matter of claim 1 is not inventive over the disclosure of document D1.

2.4 In view of the above, the ground for opposition under Article 100(a) in conjunction with Article 56 EPC prejudices the maintenance of the patent as granted.

3. Auxiliary requests 1 and 2

3.1 Although the amendment to claim 1 of **auxiliary requests 1 and 2** introduces a clear limitation, feature F5.3 remains unaltered.

3.2 Again, due to the broadly defined "filter function" according to **feature F5.3**, the alleged technical effect cannot be derived from the wording of claim 1, let alone over its whole scope. In consequence, the subject-matter of claim 1 of these auxiliary requests is not inventive over the disclosure of document D1, either.

3.3 In view of the above, neither auxiliary request 1 nor auxiliary request 2 is allowable under Article 56 EPC.

4. Auxiliary request 3

4.1 The proprietor argued that the amended **feature F5.3'** of claim 1 of auxiliary request 3 was a direct reaction to the board's interpretation of feature F5.3, raised for the first time in the board's preliminary opinion. The amended feature was clear insofar as the "filter function" possessed the relevant characteristics of the "filter transfer function". Moreover, since the alternative "*amplify*" of feature F5.2 had been deleted, the amended **feature F5.2'** was no longer disclosed in document D1.

4.2 The board concurs with the proprietor that **feature F5.2'** constitutes a further distinguishing feature over document D1, in addition to **feature F10.5** of claim 1.

4.3 As to the technical effect in view of distinguishing feature F5.2', the proprietor essentially submitted that it was rendering the hearing aid "acoustically invisible".

4.4 However, starting from document D1 and as opposed to what is stated by the proprietor, the objective problem merely relates to "*simplifying the calculation scheme of the filter transfer function of document D1 for tinnitus treatment*". The formula indicated in feature F10.5 of claim 1 is merely one of several equally likely alternative variants of the formula known from document D1, merely using the same input values in a slightly different manner. As this does not appear to convey any non-obvious properties to the claimed equation, it cannot contribute to an inventive step. In addition, distinguishing feature F5.2 follows from the adaptations necessary for tinnitus treatment. The board understands that it is commonly known that hearing-impaired users may also suffer from tinnitus and that attenuation of the signal in the frequency range surrounding the user's tinnitus frequency is known, e.g., from paragraph [0004] or [0037] of document **D2**.

More specifically, essentially following the opponent's analysis, the board holds that, in the system of document D1, for the case of "$H_C = 1 + D_a \cdot H_{TMa}$", the underlying transfer functions H_{EM}, H_{HA}, H_{Ta} and p_{ED}/p_{ES} correspond to the transfer functions H_M, H_F with H_A, H_S and H_T of claim 1, respectively. As to the transfer function "H_H" mentioned in claim 1, the board notes that such an acoustic transfer function (i.e. "H_{vent}" according to the opponent's labelling; see point 2.2.2 above) is implied in paragraph [0021] of document D1. Assuming that the occlusion effect may be neglected in

some practical circumstances (i.e. user's own voice "q_{OV}" and other internal sources "q_A" set to 0), the skilled person, starting from the formula of paragraph [0027] of D1, would readily end up with the mathematical function according to feature F10.5 of claim 1. After all, both the patent's equation and the formula of document D1 are modelling the identical physical arrangement of a hearing aid in the user's ear, only differing in that document D1 additionally considers, *inter alia*, the user's own voice.

4.5 In consequence, auxiliary request 3 is not allowable under Article 56 EPC, either.

5. Auxiliary request 4

5.1 The proprietor submitted that the amendment underlying claim 1 of **auxiliary request 4** better defined the aspects relating to "tonal tinnitus treatment". Since the skilled person would not have integrated the claimed "notch filter" into the "filter transfer function", the newly introduced distinguishing features rendered the subject-matter of claim 1 inventive.

5.2 The opponent argued that, as opposed to the preceding auxiliary request 3, the phrase "*depending on*" was again undefined. Rather, feature F5.3* reverted the amendment introduced with feature F5.2', because the "notch" was actually formulated as a property of the filter and did not specify how the "*filter function [is] depending on the filter transfer function*".

5.3 The board holds that, in addition to **feature F10.5**, also the amended **features F3*, F5.2* and F5.3*** (all referring to the "notch") constitute distinguishing features over document D1. The technical effect and

objective technical problem associated with these distinguishing features overall relate to "*how to modify the system of document D1 for treating a hearing-aid user suffering also from tinnitus*".

5.4 The board concurs with the opponent that having a "filter function" with a "notch" adapted to a user's tinnitus frequency range is already known from paragraphs [0004] or [0037] of document **D2**, which is from the same technical field, i.e. the field of hearing aids. As argued by the opponent, it is straightforward to include such a "notch" - which is adjusted to the user's tinnitus frequency - in the hearing aid disclosed in document D1 to enhance its functionality. Hence, depending on the circumstances, the skilled person would have readily arrived at distinguishing features F3*, F5.2* and F5.3* in an obvious manner.

5.5 Since feature F10.5 cannot support an inventive step in a synergistic way either (see the reasons provided in point 2.3 above), the subject-matter of claim 1 is not inventive over the disclosure of document D1 in combination with the teaching of document D2.

5.6 In consequence, auxiliary request 4 is likewise not allowable under Article 56 EPC.

6. Auxiliary request 5

6.1 The board holds that the first aspect of added **feature F11** (i.e. that the "feedback noise microphone" of the "active noise cancellation" is used by the "filter function") of claim 1 of **auxiliary request 5** constitutes an arbitrary modification of the system known from document D1. Feature F5.3' already recites

that the "filter function" is established such that "*the predetermined target transfer function ($H_T(s)$) is realized*". This leaves no room for the "active noise cancellation" to influence the way in which the "*target transfer function ($H_T(s)$) is realized*". This modification, therefore, cannot cause a technical effect and may thus not contribute to an inventive step.

6.2 The second aspect of **feature F11** (i.e. that the "*input signal is attenuated in the predetermined frequency range*") is effectively a repetition of features F5.2' and F5.3'. These features, however, were held to be obvious in the context of auxiliary request 3 for the reasons set out in point 4.4 above.

6.3 Hence, auxiliary request 5 is not allowable under Article 56 EPC, either.

7. Auxiliary request 6

7.1 As a basis for the amendment according to **feature F12** of claim 1 of **auxiliary request 6**, the proprietor referred to page 14, line 31 to page 15, line 12 as well as page 23, lines 6 to 22 of the description as originally filed.

7.2 The board agrees with the opponent that the first passage discloses that the "ambient noise" is measured "*before it enters the ear*". This limitation is however not reflected in feature F12. Instead, the second passage relates to a "feedback active noise cancellation system" and thus to a *distinct* embodiment. Accordingly, it cannot support the omission of the limitation "*before it enters the ear*" in feature F12.

This thus constitutes an unallowable intermediate generalisation (Article 123(2) EPC).

7.3 Consequently, the subject-matter of claim 1 extends beyond the content of the application as originally filed.

7.4 Hence, auxiliary request 6 is not allowable under Article 123(2) EPC.

8. Auxiliary request 7

8.1 The proprietor submitted that **auxiliary request 7** was a reaction to the objection as to added matter raised in the board's preliminary opinion under Article 15(1) RPBA.

8.2 Contrary to the proprietor's allegation, the opponent argued that this was not a newly raised objection. Rather, this objection had already been raised by the opponent with its letter dated 14 March 2024, in preparation for the oral proceedings before the opposition division.

8.3 Auxiliary request 7 is an "amendment" to the proprietor's appeal case within the meaning of Article 13(1) and (2) RPBA. Since this request was filed *after* the notification of the board's communication under Article 15(1) RPBA, Article 13(2) RPBA applies here. According to Article 13(2) RPBA, such an amendment shall, in principle, not be taken into account unless there are "exceptional circumstances", which have been justified with cogent reasons by the party concerned.

8.4 The only argument made by the proprietor in this regard is that auxiliary request 7 was a reaction to the board's objection raised against auxiliary request 3 in its communication under Article 15(1) RPBA. However, this does not constitute an "exceptional circumstance" in the present case. The mere fact that the board raises an objection in its communication is not sufficient for justifying the presence of "exceptional circumstances", in particular if this objection had previously been raised by the opponent. Indeed, the opponent raised the objection during the opposition proceedings against the then auxiliary request 3 that in the original description the relevant passage required that the "ambient noise" was measured "*before it enters the ear*" (see opponent's letter of 14 March 2024, page 17). The same objection was raised in the opponent's statement of grounds of appeal (see page 47). This objection, however, corresponds to what the board stated in its communication issued under Article 15(1) RPBA (see point 6.1.2). Therefore, the justification brought forward by the proprietor is not convincing.

8.5 In view of the above, the board decided not to admit auxiliary request 7 into the appeal proceedings (Article 13(2) RPBA).

9. With no allowable claim request on file, the opposed patent has to be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chair:

B. Brückner K. Bengi-Akyürek

Decision electronically authenticated