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**Datasheet for the decision  
of 16 April 2026**

**Case Number:** T 0658/24 - 3.5.05

**Application Number:** 18718241.5

**Publication Number:** 3603101

**IPC:** H04R1/10

**Language of the proceedings:** EN

**Title of invention:**

Intra ear canal hearing aid

**Applicants:**

Axign B.V.  
Noviosound BV

**Headword:**

Active sound canceller/AXIGN

**Relevant legal provisions:**

EPC Art. 83  
EPC R. 103(1)(a)  
RPBA 2020 Art. 13(2)

**Keywords:**

Sufficiency of disclosure - main request and first to third auxiliary requests (no): grant of a patent for a similar patent application by different patent offices cannot mean that the present examining division assessed sufficiency of disclosure in a subjective way

Admittance - claim request filed during oral proceedings before the board (no): no "exceptional circumstances" + amendments give rise to new objections

Reimbursement of appeal fee in full - (no): appeal not allowable

**Decisions cited:**

T 0149/21, T 0867/21



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Case Number: T 0658/24 - 3.5.05

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.05**  
**of 16 April 2026**

**Appellant I:** Axign B.V.  
(Applicant 1) De Spinnerij 2.11-2.12  
Rigtersbleek-Zandvoort 10  
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**Appellant II:** Noviosound BV  
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6862 WP Oosterbeek (NL)

**Representative:** Patent Business B.V.  
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7332 BP Apeldoorn (NL)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted/electronically  
transmitted on 29 November 2023 refusing  
European patent application No. 18718241.5  
pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** K. Bengi-Akyürek  
**Members:** K. Peirs  
F. Bostedt

## Summary of Facts and Submissions

- I. The appeal of the applicants (henceforth "appellants") lies from the decision of the examining division to refuse the present patent application.

The examining division deemed the main request and auxiliary requests 1 and 2 underlying the appealed decision not to be allowable under Article 83 EPC. In addition, the examining division did not admit auxiliary request 3 into the proceedings under Rule 137(3) EPC for lack of *prima facie* allowability under Article 83 EPC. Moreover, the examining division exercised its discretion under Rule 137(3) EPC not to admit auxiliary requests 4 and 5 into the proceedings on the grounds that these claim requests were not associated with any claim set and, therefore, did not address "*the objections at hand in substance*".

- II. Oral proceedings before the board were held on 16 April 2026.

The appellants requested that the decision under appeal be set aside and that a patent be granted on the basis of a set of claims according to the **main request** or according to the **first, second and third auxiliary requests**, all underlying the appealed decision, or on the basis of the **set of claims filed during the oral proceedings before the board dated 16 April 2026**. The appellants further requested that the appeal fee be reimbursed under Rule 103(1)(a) EPC.

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

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

- (a) "Intra ear canal hearing aid (200) comprising a housing (250),
- (b) the housing comprising at least one input opening (221) for receiving and at least one output opening (222) for transmitting audio-signals, wherein the at least one opening for receiving and the at least one opening for transmitting are located at a distance of 1-10 mm,
- (c) a power source (251), and
- (d) an audio processor,
- (e) the audio-processor comprising a clock (420) operating at a frequency of 1-100 MHz, at least one (1-16) low-latency high resolution sigma-delta analogue-digital converter (ADC) for providing a 1-bit output stream,
- (f) the ADC having at least one ADC analogue input, the ADC having at least one ADC digital output,
- (g) the at least one ADC digital output being in electrical connection with at least one digital loop filter,
- (h) the at least one digital loop filter (20') in digital connection with the at least one ADC,
- (i) at least one pulse width modulating (PWM) controller (40) for receiving digital output from the digital loop filter and providing PWM output (45) to at least one transducer (214), wherein the controller is programmable and adaptable,
- (j) wherein the ADC latency in use is one clock cycle,
- (k) at least one microphone (213) capable of receiving audio signals at a frequency of 5-25000 Hz, and adapted to provide input to the at least one ADC analogue input,

- (l) an active sound-canceller (211), for receiving input from the microphone and from the ADC, and for providing output to at least one output filter and the at least one transducer (214),
- (m) at least one output filter, the output filter for receiving input from the sound canceller, wherein the output filter provides feedback to the at least one ADC, and
- (n) the at least one transducer (214) adapted to receive input from the active sound-canceller (211) and capable of providing audio-signals at a frequency of 5-25000 kHz, and comprising at least one power stage."

IV. Claim 1 of the **first auxiliary request** differs from claim 1 of the main request in that feature (i) has been replaced by the following feature (board's feature labelling and underlining, the latter reflecting amendments vis-à-vis feature (i)):

- (o) "at least one pulse width modulating (PWM) controller (40) for receiving digital output from the digital loop filter and providing PWM output (45) to at least one transducer (214), wherein the PWM controller is programmable and adaptable, wherein the at least one loop filter (20), and at least one PWM (40) each are individually and independently programmable and adaptable,".

V. Claim 1 of the **second auxiliary request** differs from claim 1 of the first auxiliary request in that it further comprises, at the end, the following feature (board's feature labelling):

(p) ", wherein the active sound canceller comprises at least one audio feedback controller (218) and at least one audio feedforward controller (219), wherein at least one controller is adaptable".

VI. Claim 1 of the **third auxiliary request** is identical to claim 1 as filed upon entry into the European phase and reads (with amendments vis-à-vis claim 1 of the main request underlined and struck through by the board):

"Intra ear canal hearing aid (200) ~~comprising~~ a housing (250), the housing comprising at least one input opening (221) for receiving and at least one output opening (222) for transmitting audio-signals, wherein the at least one opening for receiving and the at least one opening for transmitting are located at a distance of 1-10 mm, a power source (251), and an audio processor, the audio-processor comprising a clock (420) operating at a frequency of 1-100 MHz, at least one (1-16) low-latency high resolution sigma-delta analogue-digital converter (ADC) for providing a 1-bit out put stream, ~~the ADC having~~ at least one ADC analogue input, ~~the ADC having~~ at least one ADC digital output, ~~the~~ at least one ~~ADC digital~~ output being in electrical connection with ~~at least one~~ digital loop filter, ~~the~~ at least one digital loop filter (20) in digital connection with at least one ADC, having at least one digital output (25), the at least one digital loop filter preferably operating in a time domain, at least one pulse width modulating (PWM) controller (40) for receiving digital output from the digital loop filter and providing PWM output (45) ~~to at least one transducer (214),~~ wherein the controller is programmable and adaptable, wherein the ADC latency in use is one clock cycle, at

least one microphone (213) capable of receiving audio signals at a frequency of 5-25000 Hz, ~~and adapted to provide input to the at least one ADC analogue input,~~ an active sound-canceller (211), for receiving input from the microphone and from the ADC, and for providing output to at least one output filter and at least one transducer,  
optionally an amplifier,  
at least one output filter, the output filter for receiving input from the sound canceller, wherein the output filter provides feedback to the at least one ADC, and  
at least one transducer (214) capable of providing audio signals at a frequency of 5-25000 kHz, ~~and comprising at least one power stage."~~

VII. Claim 1 of the **set of claims filed during the oral proceedings before the board** dated 16 April 2026 reads as follows (board's feature labelling; the board also introduced strike-through and underlining to reflect amendments vis-à-vis claim 1 of the main request; bold face introduced by the board to emphasise claim wording that is relevant for points 4.3.2 and 4.3.3 below):

"Intra ear canal hearing aid (200) comprising a housing (250), the housing comprising at least one input opening (221) for receiving and at least one output opening (222) for transmitting audio-signals, wherein the at least one opening for receiving and the at least one opening for transmitting are located at a distance of 1-10 mm,  
a power source (251), and  
an audio processor, the audio-processor comprising  
a clock (420) operating at a frequency of 1-100 MHz,  
at least one (1-16) low-latency high resolution sigma-

delta analogue-digital converter (ADC) for providing a 1-bit output stream,

the ADC having at least one ADC analogue input,

the ADC having at least one ADC digital output, the at least one ADC digital output being in electrical connection with at least one digital loop filter,

the at least one digital loop filter (20') in digital connection with the at least one ADC,

at least one pulse width modulating (PWM) controller (40) for receiving digital output from the digital loop filter and providing PWM output (45) to at least one transducer (214), wherein the controller is programmable and adaptable,

wherein the ADC latency in use is one clock cycle,

at least one microphone (213) capable of receiving audio-signals at a frequency of 5-25000 Hz, and adapted to provide input to the at least one ADC analogue input,

an active sound-canceller (211) forming part of the digital loop filter, for receiving input from the microphone and from the ADC, and for **providing output to at least one output filter and the at least one transducer (214), the at least one transducer forming part of the at least one output filter**,

at least one output filter, the output filter for receiving input from the sound canceller, wherein the output filter provides feedback to the at least one ADC, and

the output filter comprising the at least one transducer (214) adapted to receive input from the digital loop filter comprising the active sound-canceller (211) and capable of providing audio-signals at a frequency of 5-25000 kHz, and comprising at least one power stage,

wherein the active sound canceller comprises at least one audio feedback controller (218) and at least one audio

feedforward controller (219), wherein the feedforward controller is configured to provide noise reduction by improving the signal to noise ratio at the vicinity of the ear drum, wherein at least one controller is adaptable, and/or

comprising at least one spaced apart transducer/sensor pair (213,214), wherein the feedback controller (218) is adapted to obtain an input of an at least one sensor of the at least one transducer/sensor pair (213) for noise reduction in the intra ear canal, and is adapted to obtain multiple inputs of the at least one sensor (213) of the at least one transducer/sensor (213,214), and is adapted to control output from the transducer (214) of the at least one transducer/sensor pair in the intra ear canal, and is adapted to control multiple outputs from the at least one transducer (214) of the at least one transducer/sensor (213,214), **and is adapted to provide at least one transfer function with reduced variability to the feedforward controller**".

## **Reasons for the Decision**

1. *Application - technical background*
  - 1.1 The present application relates to an intra ear-canal hearing aid. In such a device, the physical distance between the receiving microphone and the transmitting transducer ("speaker", also referred to as "receiver" in the art) is extremely short, claimed to be between 1 and 10 mm.
  - 1.2 Because sound travels this short distance in a matter of microseconds, the associated audio signal must be processed quickly. This represents a significant technical challenge and is particularly critical when

attempting to perform active noise cancellation (ANC). If the corresponding digital-processing latency exceeds the acoustic travel time, the generated anti-noise will arrive out of phase, potentially amplifying the ambient noise rather than cancelling it.

1.3 To minimise this digital-processing latency, the present application proposes a mixed-signal audio-processor architecture that seeks to avoid the group delays traditionally associated with standard analogue-digital and digital-analogue conversion stages. As defined in claim 1 of the main request, the proposed architecture comprises a high-frequency clock, a low-latency high-resolution sigma-delta analogue-digital converter (ADC) providing a 1-bit output stream, a digital loop filter, a pulse-width-modulating (PWM) controller, an active sound canceller, an output filter and a transducer.

1.4 The present application illustrates aspects of this architecture in various figures, most notably Figure 10 and Figure 14 (both figures are reproduced below):

1.4.1 Figure 10 depicts a multi-channel hardware architecture including a "digital loop filter", a "PWM controller", a "power stage", an "output filter" and an "ADC" receiving analogue inputs.

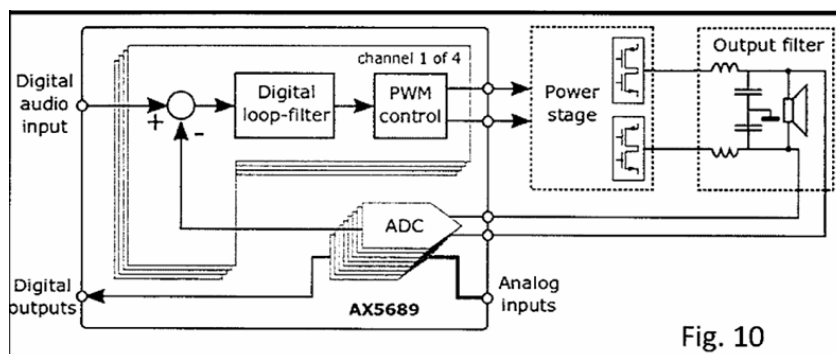


Fig. 10

1.4.2 Figure 14 presents a conceptual signal flow depicting a microphone, a "sound cancelling" block, a loop filter, a PWM stage and a transducer, alongside a feedback path (218) and a feedforward path (219).

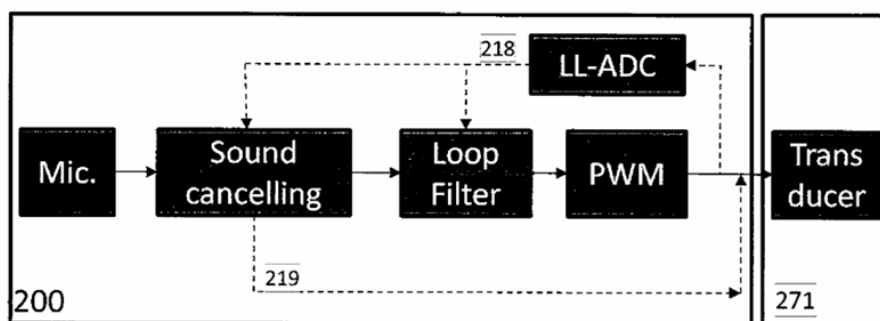


Fig. 14

2. *Main request: claim 1 - sufficiency of disclosure*

In Reasons 1.1 to 1.3 of the appealed decision, the examining division found that the present invention defined in claim 1 of the main request did not comply with Article 83 EPC. The board's judicial review of this finding in the light of the appellants' arguments is as follows:

2.1 It is recalled upfront that the requirement of sufficiency of disclosure under Article 83 EPC requires that the application in question discloses, in a manner sufficiently clear and complete, at least one way for the skilled person to carry out the invention covering the whole scope claimed (see **T 149/21**, Reasons 3.3; **T 867/21**, Reasons 3.2).

2.1.1 The board concurs with the finding in Reasons 1.1 of the appealed decision that the invention as defined in claim 1 of the main request is insufficiently disclosed (Article 83 EPC) regarding the integration and function of the "active sound canceller" (ASC). The present

description provides some concepts but lacks specific technical details enabling the skilled person to implement the claimed "hearing aid", particularly the "ASC", without undue burden.

Some ambiguities surrounding

- the Figures of the application,
- the roles of the "output filter", the "digital loop filter" and the way in which "feedback" is provided to the "analogue-digital converter" in the "hearing aid" according to claim 1

as well as

- the link between the "ASC" and "*any other components*" of the claimed hearing-aid components

and

- the potential technical implications of providing audio signals at a frequency of "5-25000 kHz", which literally extends up to 25 MHz,

corroborate this finding.

2.1.2 The appellants' statement of grounds of appeal focuses predominantly on procedural matters and topics that are objectively irrelevant to the appealed decision's grounds for refusing the present application (namely Article 83 EPC). Instead, it addresses aspects such as clarity objections, inter-office procedures (e.g. the so-called "PPH scheme"), alleged procedural flaws and the standard for assessing sufficiency of disclosure. Regarding the latter, the board confirms that the

reference person in the context of sufficiency of disclosure is the "*person skilled in the art*" as expressly enshrined in Article 83 EPC and as correctly applied in Reasons 1.1 of the appealed decision. This reference person does not relate to any of the alternative benchmarks (e.g. students, specific experts, "*attorney performance when drawing a figure based on the claims*") as suggested by the appellants. Hence, the board finds little assistance in the statement of grounds of appeal to identify potential errors in the reasoning of the appealed decision with respect to the assessment under Article 83 EPC.

- 2.1.3 During the oral proceedings before the board, the ambiguities in claim 1 regarding Figures 10 and 14, as well as the roles of the output filter, the digital loop filter, the way in which feedback is provided to the "ADC" and the link between the "ASC" and "any other components", were further discussed.

The board notes that Figure 14 is the only Figure disclosing the "active sound canceller" as per **feature (l)**, but this Figure does not disclose the "output filter" mentioned in **feature (m)**. Conversely, Figure 10 does mention the latter "output filter" but is silent on any "active sound canceller". Thus, it would not be apparent to the skilled person how these two figures are to be combined. As established during the oral proceedings before the board, the signal routing in the two Figures is fundamentally misaligned. In Figure 10, the analogue input goes directly to the "ADC". However, in Figure 14, the microphone output is routed directly to a "Sound cancelling" stage – presumably corresponding to the "ASC" defined in feature (l) – rather than to the "ADC". Furthermore, Figure 10 depicts two distinct filters (a "digital loop

filter" and an "output filter"), whereas Figure 14 depicts only a single "loop filter". Hence, the skilled person is left guessing whether the "loop filter" depicted in Figure 14 corresponds to the "digital loop filter" illustrated in Figure 10, and if so, where the mandatory "output filter" is situated in the architecture of Figure 14.

- 2.1.4 The appellants posited that the combination of these figures would be immediately apparent to a professional representative or an undergraduate student.

However, as set out in point 2.1.2 above, these persons do not qualify as the "skilled person" addressed in the context of Article 83 EPC.

- 2.1.5 To resolve the issue with the missing "output filter" in Figure 14, the appellants stated that the skilled person would immediately understand that the transducer (271) shown in Figure 14 inherently incorporated the "output filter" shown in Figure 10 as a simplified block.

The board cannot agree with this argument. The application as filed makes no mention of the "transducer" incorporating the "output filter". More importantly, claim 1 defines the "output filter" and the "transducer" as two distinct components. According to feature (1), the "active sound canceller" provides output to both the at least one "output filter" and the at least one "transducer". The appellants argued that relying on this separation constituted a purely "literal reading" and that the skilled person would adopt a broader interpretation. However, a claim must be read in a technically sensible way. In the board's view, this means that the explicit structural

separation of the features defined in claim 1 cannot be ignored. Furthermore, feature (m) requires the "output filter" to receive input from the "sound canceller", yet Figure 10 shows the "output filter" receiving input from the "power stage" (after the "PWM control" unit). Consequently, it is impossible for the skilled person to reconcile the functional constraints of claim 1 with the disparate wiring diagrams of Figure 10 and Figure 14 of the present application.

- 2.1.6 Regarding the "error microphone", which the examining division deemed to be necessary in the appealed decision (cf. page 6, first dash) for a feedback loop such as loop 218 shown in Figure 14, the appellants argued that the "ADC" digitises the run-time error signal to be minimised. In this regard, the appellants submitted that loop 218 merely concerned a linearisation process necessary for any feedback loop. They asserted that the feedback loop was used to ensure a linearity of the transducer, representing non-linearities in the electrical domain and therefore absolutely did not need an acoustic "error microphone". The appellants argued that the skilled person would use the architecture of Figure 10 in various ways to serve all the needs for an ANC application.

This is not convincing. As the examining division correctly held in the appealed decision, if the ANC is to be implemented as a feedback ANC system, the skilled person would expect the presence of an acoustic error signal to be minimised, typically provided by an "error microphone". The board acknowledges that using an electrical feedback signal is indeed standard practice for correcting non-linearities introduced by Class-D switching amplifiers (which are effectively implemented by the combination of the "PWM control", "power stage"

and "output filter" depicted in Figure 10). From this perspective, an electrical loop such as loop 218 in Figure 14 could make technical sense to linearise electrical or hardware distortions. However, this purely *electrical* feedback signal cannot function as the *acoustic* error signal required for a feedback implementation of the "active *sound* canceller". Furthermore, there is no associated teaching in the application as filed for the skilled person to interpret feedback loop 218 as an electrical linearisation loop in the context of the "ASC". On the contrary, from page 11, lines 23 to 34 of the application as filed, and in particular the phrases "*the sound-canceller can be used to reduce the audio signal travelling through the intra ear canal*" and "*subsequently an opposite audio signal may be generated to cancel the audio signal or part thereof*", the skilled person is expressly taught that the claimed "sound canceller" operates to cancel an *acoustic* signal, rather than merely linearising an *electrical* signal as the appellants posited. As a result, the examining division was correct in finding that an "ASC" would require an input from an error microphone to perform acoustic feedback cancellation, yet loop 218 in Figure 14 fails to demonstrate this, and the entire application as filed is silent on such an error microphone either.

2.1.7 In a further response to Reasons 1.3 of the appealed decision, the appellants argued that the purpose of feedback loop 218 was clear from its position depicted in Figure 14: to provide an "error correction signal" back to the controller to stabilise the system, which they asserted was a fundamental concept in conventional ANC systems. The appellants contended that the examining division's assessment made in Reasons 1.3 of

the appealed decision was based on an overly literal claim interpretation. Furthermore, the appellants argued that the examining division's approach was subjective, as a different examining division had indeed granted a patent (EP 3 443 667 B1) using similar terminology and figures. The same applied to a patent application granted by the USPTO.

The board is not convinced by these arguments. The granting of a different European patent by a different examining division of the EPO or of another patent by the USPTO has certainly no binding effect on the board's objective assessment of the present application. Similarly, the fact that the present application has been cited as prior art by the EPO in other patent proceedings (e.g. EP 4 058 137 as referred to by the appellants) merely indicates that its textual contents form part of the state of the art. It does not establish that the specific combination of features claimed in the present main request is sufficiently disclosed within the meaning of Article 83 EPC. Instead, the board must evaluate sufficiency based on the disclosure of the application as filed and the skilled person's common general knowledge. While the appellants assert that the topology in Figure 14 represents a standard hybrid system, the present application fails to disclose how the "ASC" mentioned in feature (1) could process both an instantaneous acoustic feedforward signal (from the microphone, as set out in feature (1)) and a delayed electrical feedback signal (from the "output filter" via the "ADC", as required by features (1) and (m)) without the system becoming unstable. Without any specific algorithmic teaching to untangle these signals, the skilled person is left facing an undue burden.

2.1.8 Moreover, during the oral proceedings before the board, the appellants made submissions regarding the identity and the relevant common general knowledge of the skilled person. They argued that the examining division had underestimated the skilled person's common general knowledge. Because the technology involves complex acoustic-signal processing, the appellants submitted that the skilled person should be considered an "expert" specifically in the art of ANC (for whom feedforward and feedback topologies are standard), or alternatively, a "team of experts", rather than a "specialist" strictly in the field of hearing aids.

The board notes that the title, the description and claim 1 all explicitly direct the invention to an "*intra ear canal hearing aid*". Therefore, as pointed out by the board during the oral proceedings before it, the present application is addressed to the person skilled in the field of "hearing aids", who is expected to possess common general knowledge in the related field of "audio processing", including ANCs. However, even if the board were to adopt the appellants' broader definition of the skilled person as an "ANC expert" or a multidisciplinary "team of experts", the outcome remains unchanged. An "ANC expert" would immediately recognise that combining an instantaneous acoustic feedforward reference signal with a purely electrical feedback loop – within the extreme of 1 to 10 mm physical constraints of an intra ear-canal hearing aid – creates severe phase and latency contradictions. Because the present application lacks any specific technical instruction on how to resolve these contradictions, even a team of experts would be unable to carry out the claimed invention without undertaking a research programme.

2.2 Hence, there is no reason for the board to find fault with the examining division's conclusion set out in Reasons 1.1 of the appealed decision that the main request is not allowable under Article 83 EPC.

3. *First to third auxiliary requests: claim 1 - sufficiency of disclosure*

3.1 As to the **first and second auxiliary requests** underlying the appealed decision, the board endorses Reasons 2.2, 2.4, 3.2 and 3.4 of the appealed decision.

In particular, the board notes the following:

3.1.1 Regarding Reasons 3.4 of the appealed decision, the appellants argued that the positive preliminary opinion issued by the EPO acting as the International Searching Authority (ISA) during the PCT phase should be *binding* on the examining division.

The board disagrees. It is an established principle under the EPC that a preliminary written opinion issued by the ISA – even when the EPO acts in this capacity – is not binding on the examining division during the subsequent European regional phase. The examining division is mandated to carry out an independent substantive examination of the European patent application.

3.1.2 Regarding the substantive objections raised under Article 83 EPC in Reasons 2.2, 2.4 and 3.2 of the appealed decision, the appellants did not provide any additional arguments, other than those already addressed in point 2 above, that would overcome the examining division's finding that the skilled person would be unable to carry out the claimed invention

without undue burden.

3.2 Moreover, the amendments introduced in claim 1 of the **third auxiliary request** do not resolve the issues raised in point 2 above regarding claim 1 of the main request. As is apparent from the claim wording reproduced in point VI above, claim 1 of the third auxiliary request is in essence a broader formulation of the architecture defined in claim 1 of the main request. Apart from explicitly stating that the "digital loop filter" has "*at least one digital output (25)*" – a feature which is implicitly and functionally present in claim 1 of the main request – it retains optional features (such as the digital loop filter "preferably" operating in a time domain and the claimed intra ear-canal hearing aid "optionally" comprising an amplifier) that were deleted in claim 1 of the main request. Because claim 1 maintains the same fundamental, insufficiently disclosed topology regarding the ANC, the output filter and the feedback loop, it gives rise to the same objections under Article 83 EPC as set out for claim 1 of the main request.

3.3 Therefore, also the first to third auxiliary requests are not allowable under Article 83 EPC.

4. *Set of claims filed during the oral proceedings before the board: admittance*

4.1 The claim request including the set of claims filed during the oral proceedings before the board constitutes an "amendment" of the proprietor's appeal case pursuant to Article 13(2) RPBA. According to this provision, any "amendment" to a party's appeal case shall, in principle, not be taken into account unless

there are "exceptional circumstances", which have been justified with cogent reasons by the party concerned.

- 4.2 During the oral proceedings, the appellants invoked "exceptional circumstances", submitting that their main representative's capacity to work had been severely limited due to personal circumstances.

The board acknowledges the unfortunate nature of these personal circumstances. However, to justify an amendment at the very last stage of the appeal proceedings, the circumstances must be, for example, newly arising or unforeseeable. In the present case, the appellants stated that this limited capacity to work had existed since December 2024. Furthermore, the board notes that during the written phase of the appeal proceedings, the EPO explicitly informed the appellants that certain claim sets referenced in the statement of grounds of appeal were missing from the file. In reply, the appellants acknowledged the missing submissions and indicated they would be taken care of, whilst also noting the absence of the main representative. Despite this clear notification, the appellants remained inactive and failed to provide any submissions until the oral proceedings before the board. Considering this sequence of events, and the fact that the representative's firm had sufficient time to arrange for another attorney to take over the case, the board cannot recognise the existence of "exceptional circumstances" within the meaning of Article 13(2) RPBA justifying the late filing of the claim request.

- 4.3 Moreover, even if "exceptional circumstances" were acknowledged, the board, when exercising its discretion under Article 13(2) RPBA, may rely on criteria set out in Article 13(1) RPBA. One such criterion is whether

the party making the amendment has demonstrated that the amendment, *prima facie*, overcomes the issues raised and does not give rise to new objections.

This criterion is not fulfilled, for the following reasons:

- 4.3.1 The amendments introduced in claim 1 of the set of claims filed during the oral proceedings before the board do not resolve the fundamental issue that it constitutes an undue burden for the skilled person to carry out the invention defined by this claim based on the disclosure in the application as filed and their common general knowledge, for the same reasons as set out for claim 1 of the main request in point 2 above.
- 4.3.2 Furthermore, the amendments even lead to new objections under Articles 84 and 123(2) EPC:
  - For instance, the appellants amended claim 1 to specify that "*the at least one transducer [forms] part of the at least one output filter*", arguing that this was derivable from Figure 10 of the present application. However, this amendment introduces a *prima facie* lack of clarity (Article 84, second sentence, EPC). It directly contradicts the preceding wording of the very same claim, which explicitly requires the "ASC" to provide output to *both* the "*at least one output filter*" and the "*at least one transducer*". As the board pointed out during the oral proceedings, defining these as separate structural entities receiving distinct inputs, while simultaneously claiming that one forms part of the other, renders the claim unclear and exacerbates the present

insufficiency of disclosure.

- In addition, this specific amendment gives rise to a new objection under Article 123(2) EPC. While Figure 10 of the present application shows different signal slices, only one slice is depicted in detail, illustrating exactly one "transducer" and one "output filter" enclosed together. This provides, at most, a basis for a strict one-to-one relationship. Generalising this highly specific disclosure to encompass scenarios such as *multiple* "transducers" forming part of a *single* "output filter", or *vice versa* – which are encompassed by the broad wording "*at least one transducer forming part of the at least one output filter*" – constitutes an unallowable generalisation of the original disclosure.

4.3.3 Additionally, regarding Article 123(2) EPC and the amendment specifying that the feedback controller "*is adapted to provide at least one transfer function with reduced variability to the feedforward controller*", the appellants referred to page 15, lines 32 to 36 of the application as filed. However, this passage relates strictly to an "exemplary embodiment". It is not directly and unambiguously apparent to the skilled person that features from this specific exemplary embodiment can be isolated and combined with the specification of other, distinct embodiments set out in the application as filed in the general manner claimed.

4.4 Hence, the board exercised its discretion under Article 13(2) RPBA not to admit the claim request with the set of claims filed during the oral proceedings before the board into the appeal proceedings.

5. *Reimbursement of the appeal fee*

5.1 For the reasons set out in points 2 to 4 above, the board does not deem the appeal to be allowable.

5.2 Consequently, the requirement under Rule 103(1)(a) EPC that the appeal be allowable is not met. Hence, the appellants' request for a reimbursement of the appeal fee in full is refused.

**Order**

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

1. The appeal is dismissed.
2. The request for reimbursement of the appeal fee is refused.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated