

**Internal distribution code:**

- (A) [ - ] Publication in OJ
- (B) [ - ] To Chairmen and Members
- (C) [ - ] To Chairmen
- (D) [ X ] No distribution

**Datasheet for the decision  
of 8 December 2021**

**Case Number:** T 1584/17 - 3.5.04

**Application Number:** 12004758.4

**Publication Number:** 2549770

**IPC:** H04N21/422

**Language of the proceedings:** EN

**Title of invention:**

Method and device for diagnosing interference noise problems

**Applicant:**

ARRIS Enterprises LLC

**Headword:**

**Relevant legal provisions:**

EPC Art. 56

EPC R. 115(2)

RPBA 2020 Art. 15(3), 15(6)

**Keyword:**

Oral proceedings - held in absence of appellant

Inventive step - (no)

**Decisions cited:**

R 0003/16

**Catchword:**



**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 1584/17 - 3.5.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.04**  
**of 8 December 2021**

**Appellant:** ARRIS Enterprises LLC  
(Applicant) 3871 Lakefield Drive  
Suwanee, GA 30024 (US)

**Representative:** Openshaw & Co.  
8 Castle Street  
Farnham, Surrey GU9 7HR (GB)

**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 9 February 2017  
refusing European patent application  
No. 12004758.4 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairwoman** B. Willems  
**Members:** M. Paci  
T. Karamanli

## **Summary of Facts and Submissions**

I. The appeal is against the examining division's decision refusing European patent application No. 12 004 758.4, published as EP 2 549 770 A1.

II. In the decision under appeal, the examining division referred to the following prior-art documents:

D1: US 2009/0245803 A1

D2: US 2011/0025453 A1

III. The decision under appeal was based on the following grounds:

- Claims 9 and 10 of the then main request did not meet the requirements of clarity of Article 84 EPC.
- The subject-matter of claim 1 of each of the then main request and then first to third auxiliary requests did not involve an inventive step (Articles 52(1) and 56 EPC) in view of document D2.

IV. The applicant (appellant) filed notice of appeal. In the statement of grounds of appeal, the appellant stated that the main request underlying the decision under appeal was no longer maintained and that the first to third auxiliary requests underlying the decision under appeal became its main request and first and second auxiliary requests, respectively. As a precaution, the appellant also requested oral proceedings.

V. The board issued a summons to oral proceedings and a communication under Article 15(1) of the revised version of the Rules of Procedure of the Boards of Appeal (RPBA 2020, OJ EPO 2021, A35). In this

communication, the board gave the preliminary opinion that the subject-matter of claim 1 of each of the main request and first and second auxiliary requests did not involve an inventive step in view of prior-art document D2 (Article 56 EPC).

- VI. By letter received on 19 November 2021, the appellant requested that, due to the pandemic situation, the oral proceedings scheduled for 8 December 2021 be held by videoconference.
- VII. By communication of the Registry dated 23 November 2021, the appellant was informed that the oral proceedings would be held by videoconference.
- VIII. By letter received on 30 November 2021, the appellant informed the board that it would not be attending the oral proceedings scheduled for 8 December 2021 and requested that the oral proceedings proceeded in its absence.
- IX. The board held oral proceedings on 8 December 2021. As announced, the appellant did not attend.

The chairwoman noted that the appellant's final requests were that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the main request corresponding to the first auxiliary request underlying the decision under appeal, or, alternatively, on the basis of the claims of the first or second auxiliary request corresponding to the second and third auxiliary requests underlying the decision under appeal, respectively.

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

X. Claim 1 of the appellant's **main request** reads as follows:

"A method of diagnosing problems experienced with remote control operation of electronic devices, comprising the steps of:

monitoring (32) background noise signals (N) with a receiver (18) of an internal remote control unit (16) of a signal processing electronic device (10), the receiver (18) of the remote control unit (16) used for receiving wireless remote control command signals (S) from a separate external remote controller (28), the signal processing electronic device (10) being for use in receiving and rendering multimedia content via a display monitor (12) and having the internal remote control unit (16) enabling remote control of the signal processing electronic device (10) via the wireless remote control command signals (S) emitted from the separate external remote controller (28);

analyzing (34) the background noise signals (N) received by the receiver (18) with a signal processing unit (20) residing internally within the signal processing electronic device (10);

generating (36) with the signal processing electronic device (10) a representation (22, 24) comprising a visual indication of a level or intensity of the background noise signals (N); and

transmitting the representation (22, 24) over a network for display at a remote location of a service provider."

XI. Claim 1 of the appellant's **first auxiliary request** reads as follows:

"A method of diagnosing problems experienced with remote control operation of electronic devices, comprising the steps of:

monitoring (32) background noise signals (N) with a receiver (18) of an internal remote control unit of a signal processing electronic device (10), the receiver (18) of the remote control unit (16) used for receiving wireless remote control command signals (S) from a separate external remote controller (28), the signal processing electronic device (10) being for use in receiving and rendering multimedia content via a display monitor (12) and having the internal remote control unit (16) enabling remote control of the signal processing electronic device (10) via the wireless remote control command signals (S) emitted from the separate external remote controller (28);

analyzing (34) the background noise signals (N) received by the receiver (18) with a signal processing unit (20) residing internally within the signal processing electronic device (10);

generating (36) with the signal processing electronic device (10) a representation (22, 24) comprising a visual indication of a level or intensity of the background noise signals (N); and

transmitting the representation (22, 24) in an upstream path of a network of a service provider, for display at a remote location of the service provider."

XII. Claim 1 of the appellant's **second auxiliary request** reads as follows:

"A method of diagnosing problems experienced with remote control operation of electronic devices, comprising the steps of:

monitoring (32) background noise signals (N) with a receiver (18) of an internal remote control unit (16) of a signal processing electronic device (10), the receiver (18) of the remote control unit (16) used for receiving wireless remote control command signals (S) from a separate external remote controller (28), the signal processing electronic device (10) being for use in receiving and rendering multimedia content via a display monitor (12) and having the internal remote control unit (16) enabling remote control of the signal processing electronic device (10) via the wireless remote control command signals (S) emitted from the separate external remote controller (28);

analyzing (34) the background noise signals (N) received by the receiver (18) with a signal processing unit (20) residing internally within the signal processing electronic device (10);

generating (36) with the signal processing electronic device (10) a representation (22, 24) comprising a visual indication of a level or intensity of the background noise signals (N); and

transmitting, responsive to a command from a service provider, the representation (22, 24) in an upstream path of a network of the service provider, for display at a remote location of the service provider."



## **Reasons for the Decision**

1. The appeal is admissible.

*Non-attendance of the appellant at the oral proceedings before the board*

2. In the case at hand, the board decided that it was appropriate to proceed by holding the oral proceedings as scheduled in the absence of the appellant in accordance with Rule 115(2) EPC and Article 15(3) RPBA 2020, particularly in view of the fact that the appellant had not withdrawn its precautionary request for oral proceedings but had merely notified the board of its intention not to attend the proceedings. On 8 December 2021, the board held oral proceedings by videoconference pursuant to Article 15a(1) RPBA 2020, which was applicable to the oral proceedings in the present case pursuant to Article 3 of the Decision of the Administrative Council of 23 March 2021 approving an amendment to the Rules of Procedure of the Boards of Appeal (CA/D 3/21) (see OJ EPO 2021, A19).

A party is free not to attend the oral proceedings but this choice is at its own risk since, in view of Rule 115 EPC and Article 15(3) RPBA 2020, a board is never obliged to postpone or cancel oral proceedings only because a duly summoned party does not appear, provided that it bases its decision on the facts and arguments on file (see also decision R 3/16, point 13 of the Reasons). According to Article 15(3) RPBA 2020, a duly summoned party who does not attend the oral proceedings may then be treated as relying only on its written case.

In the case at hand, by not attending the oral

proceedings, the appellant effectively chose not to avail itself of the opportunity to present its observations and counter-arguments orally but instead to rely on its written submissions. The board was in a position to announce a decision at the conclusion of the oral proceedings, as provided for in Article 15(6) RPBA 2020. The reasons on which this decision was based do not constitute a departure from grounds or evidence previously put forward which would require that the appellant be given a further opportunity to comment.

*The invention*

3. The invention relates to a method of diagnosing communication problems between a signal processing electronic device, such as a set-top box, and its remote control, which are caused by background noise signals.

*Main request - inventive step (Articles 52(1) and 56 EPC)*

4. Closest prior art

The board concurs with the examining division and the appellant that D2 represents the closest prior art for the subject-matter of claim 1.

5. Distinguishing features

- 5.1 The examining division and the appellant agree that document D2 discloses all the features of claim 1, except for the following ones:

- (a) the background noise signals are monitored by the same receiver which receives the wireless remote control command signals from the separate remote controller; and

(b) the representation of the level or intensity of the background noise signals is transmitted to a remote location of a service provider.

(See point 6.2.1 of the Reasons for the decision and page 1, penultimate paragraph, of the statement of grounds of appeal)

5.2 The board, however, disagrees that feature (a) is novel over document D2 for the following reasons:

The examining division interpreted feature (a) in a more limited manner than is actually claimed. It appears to have interpreted feature (a) in the light of paragraphs [0018] and [0019] of the description as implying that **the same detector, e.g. a photodiode**, is used for both monitoring background noise signals and receiving wireless remote control command signals (see point 6.2.2, second paragraph, of the Reasons for the decision under appeal).

However, the wording of claim 1 comprises no such limitation as to the structure of the receiver (18). Claim 1 thus also covers receivers which include two detectors: one for the wireless remote control command signals and another for background noise signals.

In D2, noise detector circuit 136 and transceiver 134 (both associated with the set-top box), taken together, form an IF receiver which both monitors background noise signals and receives wireless remote control command signals from remote controller 132 (see document D2, figure 1 and paragraphs [0014] and [0024] to [0026]). It thus anticipates the "receiver" defined in claim 1, including feature (a) above.

5.3 Hence the board regards feature (b) as the sole distinguishing feature of claim 1.

6. Technical effect and objective technical problem

6.1 In the board's view, the technical effect of feature (b) is that it allows a service technician at a remote location to assist the user in solving a problem of noise interference faster than if the technician had to come to the user's premises (see paragraph [0006], last sentence; paragraph [007], last two sentences; and paragraph [0028], first sentence, of the description of the application as filed).

The objective technical problem should thus be formulated, without a pointer to the solution, as how to reduce the time needed for a service technician to assist a user in solving a problem of noise interference.

6.2 The appellant argued that the objective technical problem should be that "*when assessing operation of a remote control unit, to render the assessment process more efficient and reduce errors in noise assessment*" (see statement of grounds of appeal, page 2, second full paragraph) and made reference to paragraph [0028] of the description of the application as filed.

The board does not agree with the appellant's formulation of the objective technical problem because feature (b) does not reduce errors in the noise assessment compared to D2. Indeed, due to the proximity between the noise detector circuit 136 and the transceiver 134 in D2 (see figure 1), the quality of the noise measurement is essentially the same in the invention and in D2.

7. Obviousness

7.1 The board concurs with the examining division that it would have been obvious to the skilled person that transmitting the representation of the level or intensity of the background noise signals to a remote location of a service provider would have allowed a service technician (or a call centre operator) to better assist the user remotely. Since the receiver 108 (hereinafter called "*set-top box (STB)*" to avoid confusion with the receiver of claim 1) of D2 is able to access a website and transfer files to a remote site (see paragraph [0018]) and to transmit messages to a service provider (see paragraph [0019]), it would have been straightforward for the skilled person to implement this additional functionality in the STB of D2. The board further notes that the decision as to whether to implement such a functionality in a STB is of a commercial nature, i.e. it is a weighing of the advantage of providing an additional service versus the additional cost of its implementation.

7.2 The appellant essentially argued that feature (b) was inventive because it was not suggested in D2.

The board agrees that there is no explicit suggestion of feature (b) in D2. However, the concept of remote assistance or remote support was well-known in the art and D2 discloses that the STB already comprises the means to implement it (access to websites, transfer of files to a remote site and transmission of messages to a service provider). In light of this, it would thus have been an obvious additional step for the skilled person to arrive at feature (b).

8. Additional observations regarding inventive step

Even if feature (a) above were interpreted in the light of the description as the examining division did (see point 5.2 above), this additional distinguishing feature would still not render the subject-matter of claim 1 inventive essentially for the reasons given in the decision under appeal (see point 6.2.2, last paragraph, and points 6.3.1 and 6.3.2 of the Reasons for the decision). In particular, it would have been obvious to share a common photodiode for both noise detection and command reception and to then separate noise and commands through appropriate known circuitry.

9. Conclusion on inventive step regarding the main request

For the above reasons, the method of claim 1 does not involve an inventive step in view of D2.

*First and second auxiliary requests - inventive step  
(Articles 52(1) and 56 EPC)*

10. Claim 1 of the first auxiliary request differs from claim 1 of the main request by the additional feature that the representation is transmitted "*in an upstream path of a network of a service provider*".

11. The board concurs with the examining division that the additional feature is disclosed in paragraph [0019] of D2 because a message to a service provider is always sent "*in an upstream path*" (see point 7.2 of the Reasons for the decision under appeal).

12. Claim 1 of the second auxiliary request further adds that the transmission is "*responsive to a command from a service provider*".

13. The board concurs with the examining division that the additional feature is obvious for the following reasons (see points 8.2 and 8.3 of the Reasons for the decision under appeal).

It was well-known that messages transmitted from a sender to a service provider may be transmitted automatically, at the initiative of the sender or in response to a request from the service provider. All three options have obvious pros and cons and choosing one of them depending on external circumstances cannot render the claimed subject-matter inventive.

14. The appellant has not submitted arguments relating to the above additional features of the first and second auxiliary requests.
15. For the above reasons, the subject-matter of claim 1 of each of the first and second auxiliary requests does not involve an inventive step.

*Conclusion*

16. Since none of the appellant's requests is allowable, the appeal must be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairwoman:



K. Boelicke

B. Willems

Decision electronically authenticated