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**Datasheet for the decision  
of 1 October 2019**

**Case Number:** T 1462/14 - 3.4.01

**Application Number:** 09792908.7

**Publication Number:** 2340511

**IPC:** G06K19/07

**Language of the proceedings:** EN

**Title of invention:**  
CONTACTLESS INTERFACE

**Applicant:**  
WISeKey Semiconductors

**Headword:**  
Contactless circuit/WISeKey Semiconductors

**Relevant legal provisions:**  
EPC Art. 123(2)

**Keyword:**  
Amendments - extension beyond the content of the application  
as filed (yes - main request; no - auxiliary request)  
Deletion of features essentiality test  
Skilled person vs lawyer

**Decisions cited:**

G 0002/10, T 1852/13, T 0331/87, T 0667/08



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Case Number: T 1462/14 - 3.4.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.01**  
**of 1 October 2019**

**Appellant:** WISEKey Semiconductors  
(Applicant) Rue de la Carrière de Bachasson  
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13590 Meyreuil (FR)

**Representative:** de Jong, Jean Jacques  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 16 January 2014  
refusing European patent application No.  
09792908.7 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** P. Scriven  
**Members:** P. Fontenay  
D. Rogers

## **Summary of Facts and Submissions**

- I. This decision relates to the applicant's appeal against the Examining Division's decision to refuse European patent application 09 792 908.
  
- II. The application was refused on the ground that the claimed subject-matter extended beyond the content of the originally-filed application, contrary to Article 123(2) EPC. Concretely, the Examining Division held that the deletion, from the independent claim, of the features regarding the ability of the claimed circuit to be coupled to an antenna and the presence within said claimed circuit of a rectifier circuit led to a generalisation for which no basis could be found in the original disclosure.
  
- III. The appellant requested that the decision under appeal be set aside and that the patent be granted on the basis of the set of claims 1-4 filed on 11 December 2013, i.e. the set of claims underlying the impugned decision.

Alternatively, the grant of a patent on the basis of a set of claims 1 - 3 according to a "subsidiary set of claims", filed with the statement of grounds, was requested. The independent claim of this auxiliary request differed from claim 1 of the main request by the inclusion of the features that the Examining Division considered lacking.

IV. In the appellant's view, Claim 1 of the main request had not been generalised beyond its content as filed. The appellant submitted, in essence, that the features regarding the use of the claimed circuit in the context of contactless communication devices did not define an essential feature of the invention.

Reference was made to the guidelines for examination, and, more specifically, to the three-point test to be applied when deciding on the allowability of amendments resulting from the deletion of features in a claim (cf. section H-V-3.1, November 2018).

It was further emphasised that the context of an invention was usually disclosed in an exemplary situation in which some problem arose. Under the present circumstances, the skilled person would have realised that the technical problem to be solved was not limited to contactless communication circuits. The appellant thus considered that the deletion of the features regarding the input being configured for coupling to an antenna and the presence of a rectifier circuit was allowable.

V. In a communication pursuant to Article 15 RPBA, the appellant was informed of the Board's preliminary opinion.

The appellant's argument that the application referred to an example of the use of the invention that could be further generalised did not persuade the Board.

With regard to the three-point essentiality test, invoked by the appellant, the attention of the

applicant was drawn to a critical analysis of said test in decision T 1852/13.

VI. In reply to the Board's communication, the appellant reiterated its view that the case had been studied "too formally up to now, without regard to the actual technical content of the application, and especially to the teachings the skilled person can derive from that content". It was argued that this approach reflected a general tendency at the EPO, when deciding on issues regarding "essential features" or "undue generalisations". It was stressed that the skilled person was not a lawyer and that, unlike a lawyer, the skilled person would recognise teachings that were not described literally. Under the circumstances, the amendments made were allowable under the "gold standard", provided the correct reference person, i.e. the skilled person, was used.

In view of his general electronics background, the representative argued that he, himself, was a "pretty good standard for an objective Skilled Person". This allowed him to recognise that the problem statement in the description was irrelevant to the originally-claimed features and to find "a new problem relevant to a subset of the initially claimed features, i.e. the internal structure of the voltage regulator".

VII. Oral proceedings were cancelled, after the appellant announced that it would not be represented.

VIII. A new version of the auxiliary request was filed on 30 September 2019. It differs from the previous version

of the request in that clerical errors affecting the numbering of the claims have been corrected.

IX. Original claim 1 reads:

*A circuit comprising:  
an input configured for coupling to an antenna and for receiving an alternating voltage from the antenna;  
a rectifier circuit coupled to the input, the rectifier circuit operable for rectifying the alternating voltage;  
a shunt coupled to the rectifier and operable for regulating the rectified voltage; and  
a second regulator circuit coupled to the shunt and operable for receiving the shunt current and using the shunt current to output a first regulated voltage.*

X. Claim 1 of the main request reads:

*A circuit comprising:  
• first and second input terminals (RF1, RF2);  
• a first supply rail (118) energized from the first input terminal for providing a first supply voltage (rfvdd);  
• a shunt regulator (204, 106) operable to regulate the first supply voltage by establishing a shunt current ( $I_s$ ) between the first and second input terminals (RF1, RF2); and*

- a second supply rail (116) for providing a second supply voltage (vdd); characterized in that it comprises:
  - a switching circuit (208, 210) coupled to the shunt regulator and operable by a switch control signal (222) to direct the shunt current ( $I_s$ ) to flow to the second supply rail (116) or to bypass the second supply rail to the second input terminal (RF2); and
  - a regulator circuit (104, 108) configured for regulating the second supply voltage (vdd) in switched mode through the switch control signal (222).

XI. Claim 1 of the auxiliary request reads:

A circuit comprising:

- first and second input terminals (RF1, RF2) connected to an antenna;
- a first supply rail (118) energized from the first input terminal for providing a first supply voltage (rfvdd);
- a shunt regulator (204, 106) operable to regulate the first supply voltage by establishing a shunt current ( $I_s$ ) between the first and second input terminals (RF1, RF2);
- a rectifier circuit (202, 206, 212) connected for energizing the first supply rail (118) and the shunt regulator (204) from an alternating signal provided by the antenna; and
- a second supply rail (116) for providing a second supply voltage (vdd);



*characterized in that it comprises:*

- a switching circuit (208, 210) coupled to the shunt regulator and operable by a switch control signal (222) to direct the shunt current ( $I_s$ ) to flow to the second supply rail (116) or to bypass the second supply rail to the second input terminal (RF2); and*
- a regulator circuit (104, 108) configured for regulating the second supply voltage ( $v_{dd}$ ) in switched mode through the switch control signal (222).*

## **Reasons for the Decision**

*Main request - Added subject-matter*

1. Claim 1 of the main request specifies that the claimed circuit comprises first and second input terminals. The indication in original claim 1 according to which the circuit comprises an input "configured for coupling to an antenna and for receiving an alternating voltage from the antenna" has been deleted.
2. The circuit of claim 1 further differs from the originally claimed circuit by the deletion of "a rectifier circuit coupled to the input, the rectifier operable for rectifying the alternating voltage".
3. Both amendments lead to a generalisation of the claimed subject-matter. The absence of reference in the independent claim to the antenna means that protection is sought for a voltage supply circuit that is not necessarily limited to the field of contactless

communication devices. A further generalisation results from the fact that, in the absence of rectifying means in the claim, the claimed subject-matter encompasses circuits which could operate with signals that have already been rectified, or with a DC signal provided by, for example, a battery.

4. The appellant submitted that the resulting generalisation is allowable under Article 123(2) EPC. Its submissions were twofold. It was, firstly, stressed that the criteria specified in the guidelines regarding the allowability of amendments resulting from the deletion of features in a claim were met. Secondly, much emphasis was put on the interpretation that the skilled person, in particular a technically-skilled person as opposed to a lawyer, would have made of the original disclosure.

#### *Essentiality test*

5. The mere fact that the conditions defining the essentiality test, referred to in the guidelines for examination are met, is not conclusive.
6. The conditions defining the essentiality test were first defined in the context of case T 331/87, "Removal of a feature", OJ EPO 1991, 22. Contrary to the general statement later incorporated into the Guidelines for Examination, the original English text of the decision did not state that meeting the three conditions would be sufficient for the amendment to be allowable; but rather that such an amendment *may not violate Article 123(2) EPC* (see T 331/87 point 6, and also T 1852/13, points 2.2.3 and 2.2.7; Case Law of the Boards of appeal, Section II.E.1.4.4 c), 9th edition 2019).

7. As underlined in decision T 1852/13, the correct approach is the so-called "gold standard" as summarised in G 2/10, "Disclaimer/SCRIPPS", OJ EPC 2012, 376: "... any amendment to the parts of a European patent application or of a European patent relating to the disclosure (the description, claims and drawings) is subject to the mandatory prohibition on extension laid down in Article 123(2) EPC and can therefore, irrespective of the context of the amendment made, only be made within the limits of what a skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of these documents as filed" (G 2/10, point 4.3).

*Gold standard - the skilled person*

8. The definition of the invention, contained in paragraphs [0006] and [0007] of the published application, albeit imperfect, confirms that the claimed invention is to be used with antennas.
9. The patent application as originally filed is, in effect, devoid of ambiguity as to the fact that the claimed circuit is to be used in the context of contactless communication devices, the communication being established by means of antennas.
10. The appellant's reference to paragraph [0014] of the published application, in particular to the statement that "In some implementations, LC circuit 110 comprises antenna 112", is not persuasive. Indeed, it would be misleading to say that, in other implementations, there may be no antenna. The whole sentence reads "In some implementations, LC circuit 110 comprises antenna 112

(e.g., a coil) coupled in parallel to capacitor 114." What is optional is not the antenna, but the specific arrangement consisting of the antenna in parallel to the capacitor.

11. Many of the appellant's arguments rely on the knowledge to be attributed to the skilled person, as opposed to that of a lawyer.
12. In the appellant's view, the skilled person would have recognised that the claimed circuit could be used in various environments. It was thus not limited to the field of contactless communication devices. Similarly, the skilled person would have also recognised that the claimed circuit could be used with a signal already rectified or provided by a DC source. Contrary to a lawyer's, the skilled person's understanding would not be limited to the literal content of a written disclosure.
13. The Board concurs that literal support is not required under Article 123(2) EPC: what is relevant is the actual teaching conveyed by the original disclosure, i.e. the technical information that the skilled person, reading the original disclosure, would have derived from its content (description, claims and drawings) considered in its entirety. This approach might lead to the identification of subject-matter which has not been explicitly stated as such in the application as filed, but nevertheless derives directly and unambiguously from its content (cf. T 667/08, point 4.1.4). What the skilled person will derive from the content of an application or other written disclosure depends, however, on both his skills and inabilities.

14. The Board notes that the skilled person is a notional entity that has been elaborated by the jurisprudence of the boards of appeal in order to serve as an objective reference when deciding on various issues under the EPC. The jurisprudence makes it clear that this notional person cannot be equated with any real person in the technical field of the invention.
15. Neither an inventor, nor an opponent, nor an examiner, nor a member of a board of appeal, can be equated with the skilled person. This also applies to a representative, independently of any qualification.
16. The question to be answered is thus whether this fictional skilled person would have derived from the application as a whole that the disclosed circuit is not limited to the field of contactless communication devices. In other words, it should be established whether the reference to an antenna would have been construed by the skilled person as referring to a mere example of use of the claimed circuit.
17. As stressed above, the original application is consistent as to the fact that the claimed voltage supply circuit is to be used in association with an antenna input i.e. in the context of contactless communication devices. The wording of original claim 1 is corroborated by the statement in the description regarding the definition of the invention (cf. paragraphs [0006], [0007]). Nothing in the description suggests that some other applications might have been envisaged. In particular, paragraph [0014] does not suggest it.
18. The Board thus has no doubt that the skilled person would have construed the invention as a voltage

supplying circuit to be used in the context of contactless communication devices only.

19. The Board finds further support for this view in the following observations.
20. Rule 42 EPC specifies the requirements which apply to the patent description. A distinction is made therein between the technical field of the invention (Rule 42(1)(a) EPC), the disclosure of the invention (Rule 42(1)(c) EPC) and the possibility of incorporating examples when describing in detail at least one way of carrying out the invention (Rule 42(1)(e) EPC).
21. In the present case, the subject-matter is defined in paragraph [0001] as relating "generally to electronic interfaces, and more particularly to contactless interfaces..." in accordance with Rule 42(1)(a) EPC. As underlined above, the disclosure of the invention is disclosed in paragraphs [0006] and [0007] in relation with an inductive antenna in accordance with Rule 42(1)(c) EPC. In accordance with Rule 42(1)(e) EPC, the detailed description of the invention incorporates examples of the contactless interface, switching regulator circuit and timer for switch control.
22. The reading in accordance with Rule 42(1) EPC confirms thus that contactless communication devices define the field of the invention and not a possible example of its use.
23. It follows that the deletion of the reference to the antenna leads to a non-allowable generalisation of the claimed subject-matter, contrary to Article 123(2) EPC.

*Subsidiary set of claims - Added subject-matter*

24. The independent claim of the auxiliary request differs from claim 1 of the main request in that the features considered to be missing in claim 1 of the main request have been reintroduced.
25. The Board is satisfied that overcomes the objection under Article 123(2) EPC.
26. Since the decision to refuse the application relied exclusively on this objection, the case is remitted to the Examining Division for further prosecution.

## Order

### For these reasons it is decided that:

The case is remitted to the department of first instance for further prosecution on the basis of the set of claims 1 to 3 according to the subsidiary set of claims filed on 30 September 2019.

The Registrar:

The Chairman:



D. Hampe

P. Scriven

Decision electronically authenticated