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**Datasheet for the decision
of 19 September 2023**

Case Number: T 1341/20 - 3.5.02

Application Number: 15736741.8

Publication Number: 3314757

IPC: H03F1/52, H03F3/08, H03F3/217,
H04B10/80

Language of the proceedings: EN

Title of invention:
Input protection circuit for an analog optocoupler

Applicant:
Micro Motion, Inc.

Relevant legal provisions:
EPC Art. 84
RPBA 2020 Art. 15(1), 15(2)

Keyword:
Clarity - all requests (no)



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Case Number: T 1341/20 - 3.5.02

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 19 September 2023

Appellant: Micro Motion, Inc.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 3 January 2020
refusing European patent application No.
15736741.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairwoman J. Hoppe
Members: C.D. Vassoille
H. Bronold

Summary of Facts and Submissions

- I. The appeal of the applicant is against the decision of the examining division with which European patent application no. 15 736 741.8 was refused.
- II. With its grounds of appeal the appellant requested to grant a patent based on the main request, underlying the decision under appeal and filed three auxiliary requests.
- III. In a communication under Article 15(1) RPBA 2020, annexed to the summons to oral proceedings, the board informed the appellant of its preliminary opinion according to which claim 1 of all the requests on file did not meet the requirements of Article 84 EPC.
- IV. In a letter dated 16 August 2023 the appellant requested postponement of the oral proceedings in view of opposition proceedings concerning the European patent no. 3227257 and provided further arguments in this respect with their letters of 17 August 2023 and 1 September 2023. In these letters the appellant also requested that the board issued an additional comment on novelty and inventive step.
- V. With communication of 13 September 2023 the board refused the appellant's request for postponement and provided the reasons therefore.
- VI. With letter of 13 September 2023 the appellant repeated its request for an additional comment on novelty and inventive step and commented on the board's reasoning for refusing the postponement.

VII. Oral proceedings before the board were held on 19 September 2023 as a videoconference.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims which was submitted on 17 April 2019 (main request) or as an auxiliary measure that a patent be granted on the basis of one of the first, second or third auxiliary requests, each of them filed with the statement of grounds of appeal on 13 May 2020.

The appellant also maintained its request for a further comment of the board with respect to novelty and inventive step.

VIII. Claim 1 of the main request has the following wording:

"An input protection circuit (110) for an optocoupler (20), comprising: a first voltage limiter (D1) with a first terminal that is electrically coupled to an input terminal of an amplifier circuit (120), wherein: the input terminal of the amplifier circuit (120) is configured to receive a PWM signal; and the amplifier circuit (120) is configured to provide a voltage to the optocoupler (20); and a second voltage limiter (D2) having a first terminal, wherein the first terminal of the second voltage limiter (D2) is electrically coupled to a voltage reference (112) that provides a protected reference voltage to the optocoupler (20) relative to a ground."

IX. Claim 1 of each of the first, second and third auxiliary requests recites a "protected reference voltage" in accordance with claim 1 of the main request.

- X. The appellant essentially argued that claim 1 met the requirements of Article 84 EPC, because the term "protected reference voltage" had a normal technical meaning, which the skilled person would recognise from the wording of claim 1 alone and which was also consistent with the description.

Reasons for the Decision

1. *Appellant's comments on postponement of the oral proceedings in the letter of 13 September 2023*

With their letter of 13 September 2023, the appellant did not request a further decision with respect to postponement but merely commented the board's decision refusing their former request.

In its communication dated 13 September 2023, the board had already decided on the appellant's request for postponement of the oral proceedings with respect to the opposition proceedings concerning the European patent no. 3 227 257 according to Article 15(2) RPBA 2020. It was not necessary to further address the appellant's comments of the same day on the board's aforementioned communication, nor was it necessary to decide on the substance of this matter again.

It is the onus of the party to provide all relevant facts and arguments already in the request for postponement. Once the board has issued a decision with respect to the subject-matter invoked for the postponement, the board is not forced to issue a further decision each time the party provides

additional arguments relating to the same subject-matter.

The appellant's comments in the letter of 13 September 2023 concerned the same opposition proceedings and thus should have been submitted in advance. However, just for the sake of argument and as discussed during oral proceedings, the board notes that none of the further arguments provided in the appellant's letter of 13 September 2023 would have been suitable to refute the board's reasoning for refusing the request for postponement. The oral proceedings in the opposition proceedings were to be held as videoconference and it was not the representative of the present case who was summoned as representative in the opposition proceedings so that a postponement was not justified.

2. *Request to receive comments of the board on novelty and inventive step*

2.1 In their letters of 16 August 2023, 1 September 2023 and 13 September 2023, the appellant essentially requested that the board issues a further summons including a detailed discussion on novelty and inventive step of the subject-matter of claim 1 in view of document D2.

2.2 Article 15(1) RPBA 2020 states the following: "In order to help concentration on essentials during the oral proceedings, the board shall issue a communication drawing attention to matters that seem to be of particular significance for the decision to be taken. The board may also provide a preliminary opinion..."

It follows that the board is not obliged to give a preliminary opinion but *may* do so. Moreover, since the

main objective of the communication under Article 15(1) RPBA 2020 is to help concentration on the essentials during the oral proceedings, Article 15(1) RPBA 2020 does not require an assessment of *all* objections that might become relevant in the communication.

- 2.3 In the communication under Article 15(1) RPBA 2020 of 28 April 2023, the board stated that, in view of the serious deficiencies of the main request under Article 84 EPC, a detailed examination under Article 54 EPC did not seem to be appropriate at this stage.

The board thus exercised its discretion and gave its preliminary opinion on the basis of the assessment of Article 84 EPC in order to emphasise the main issues to be discussed in the oral proceedings.

Consequently, the board's communication was in compliance with Article 15(1) RPBA 2020, and there was no need to issue a further communication.

- 2.4 For the reasons set out above, the board rejected the appellant's request to issue further provisional comments with respect to novelty and inventive step of the subject-matter of claim 1.

3. *Main request - Clarity (Article 84 EPC)*

- 3.1 Claim 1 of the main request does not comply with the requirements of Article 84 EPC, since it does not define the invention in a sufficiently clear manner.
- 3.2 Claim 1 *inter alia* recites "a voltage reference (112) that provides a protected reference voltage to the optocoupler".

3.3 It is a well-established principle that the claims must be clear in themselves when read by the person skilled in the art, without any reference to the content of the description (see Case Law of the Boards of Appeal, 10th edition 2022, II.A.3.1). This condition is not fulfilled in the present case. However, even if the description is consulted, the board does not come to a different conclusion in the present case, as will be explained below.

3.4 The appellant has essentially argued that a person skilled in the art would, following ordinary grammar rules, interpret a "protected reference voltage" to mean that the reference voltage is a voltage "that is limited to protect a load from an overload condition" or that the reference voltage is protected from an overvoltage condition. In other words, the appellant is of the opinion that it is clear from the wording in question that the voltage reference 112 provides a limited reference voltage to an optocoupler when there is an overvoltage condition. They further argued that without the voltage reference 112, the reference voltage +3.3 VREF was not protected. This meaning would be clear from the wording of claim 1 alone and would also be consistent with the description.

The appellant cited several passages of the description, which the board considered. In particular, reference was made by the appellant to the description on page 10, lines 18 to 24 (see WO 2016/209239 A1), where it is stated, *inter alia*, that the voltage reference 112 may maintain a reference voltage in the amplifier circuit 120 and that the voltage reference 112 may also provide the protected voltage to the second input pin 2. Reference has also been made to page 11, lines 27 to 32 of the original description,

where it is described that the safety regulation requires that the voltages on input pins 1-4 are limited to the safety regulation voltage.

- 3.5 The board is not persuaded that the term "protected reference voltage" has a normal technical meaning or that a clear technical meaning is at least derivable by a person skilled in the art from the description as originally filed. In particular, the board is not convinced that the skilled person would clearly identify the technical meaning of "protected reference voltage" as being that the reference voltage is protected from an overvoltage condition. This also applies in consideration of basic grammar rules. In any case, it is not clear how the additional term "protected" is to be understood with regard to the reference voltage, because it is not clear from what and how the reference voltage is to be protected.

From the wording "protected reference voltage" alone, it is in particular not evident in which sense protective measures are required in view of the additional term "protected" and in particular against which external influences or impacts the reference voltage is to be protected. A reference voltage could not only be protected from overvoltage, as was argued by the appellant, but equally from undervoltage, short-circuits, temperature variations or simply from reference voltage variations. These interpretations would not be nonsensical but could be reasonable from a technical point of view. This understanding is even supported by the website extracts submitted by the appellant in their letter of 16 August 2023.

- 3.6 The appellant has argued that protecting the reference voltage against overvoltage is the only technically

reasonable interpretation of a "protected reference voltage". However, they have not convincingly explained why this was the only reasonable interpretation.

For the board, it is not apparent for what reasons overvoltage protection of the reference voltage should be the only technically logical interpretation of the wording in question, as explained above. Neither claim 1 in its entirety nor the description and the figures provide any indication that the reference voltage is protected against overvoltage. It is also not apparent from the application as a whole which technical structural and functional limitations are associated with a "protected reference voltage".

3.7 As regards the appellant's reference to the description on pages 10 and 11 (see point 3.4 above), the board notes that page 11, lines 27 to 32, does not disclose that the voltage on the input pins 1-4 is limited to the safety regulation voltage by providing the protected reference voltage on the second input pin 2. On the contrary, the entire paragraph refers to the second voltage limiter D2 which prevents the voltage on the second input pin 2 from exceeding a breakdown voltage of the second voltage limiter D2 that is lower than the safety regulation voltage. There is thus nothing in this paragraph that could lead the skilled person to believe that the voltage reference 112 contributes to the overvoltage protection of the input pin 2 by providing the "protected reference voltage".

3.8 Furthermore, it may be true, as stated by the appellant, that terms such as "circuit protection" or "overvoltage protection" may have a normal meaning for the person skilled in the art. However, the term "protected reference voltage" is completely different

and, apart from the term "protected", has no recognisable connection with the two aforementioned terms. The relevant argument therefore does not convince the board.

3.9 Moreover, the original application distinguishes in some passages between a reference voltage and a protected voltage (see, for example, the description on page 6, lines 2 to 3, page 10, line 23 and original claim 14). This casts further doubt on the meaning of the expression "protected reference voltage". For this reason, the person skilled in the art cannot derive a clear and unambiguous meaning of the term "protected reference voltage" from the description. Apart from stating that the skilled person would easily be able to understand that the "protected voltage" described is a "protected reference voltage", the appellant did not put forward any convincing arguments in that regard.

3.10 As regards the appellant's query to chat.openai.org: "what is a protected reference voltage", the board considers that -irrespective of its general suitability to serve as evidence - the corresponding computer-generated reply included in the letter of 16 August 2023, does not even support the appellant's argument in any way. On the contrary, the reply merely confirms that a reference voltage should be kept stable in the face of possible external disturbances. It does not, however, support the appellant's view that the term "protected reference voltage" in the context of the present application would be understood by a person skilled in the art to mean protection of the reference voltage in an overvoltage situation.

Since the submission in question is in any case not convincing on the merits, the question of its

admissibility under Article 13(2) RPBA 2020 could be left unanswered.

3.11 In the light of the above considerations, the board has arrived at the conclusion that, in view of the wording "a voltage reference (112) that provides a protected reference voltage", the exact distinctions which delimit the scope of protection cannot be learned from claim 1. Claim 1 of the main request therefore lacks clarity within the meaning of Article 84 EPC.

4. *First, second and third auxiliary requests - Clarity (Article 84 EPC)*

4.1 Claim 1 of each of the first, second and third auxiliary request comprises the wording "a voltage reference (112) that provides a protected reference voltage". Furthermore, the amendments carried out in claim 1 of each of these requests do not change the board's reasoning as regards the lack of clarity of the main request.

The appellant did not provide further arguments as regards clarity of claim 1 of the first, second and third auxiliary request.

4.2 Since none of the auxiliary requests is allowable, the question of whether these requests were to be admitted into the appeal procedure could therefore remain open.

5. *Result*

Since neither the main request nor the auxiliary requests met the requirements of Article 84 EPC, the board could not accede to any of the appellant's requests.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



U. Bultmann

J. Hoppe

Decision electronically authenticated