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Aktenzeichen / Case Number / N° du recours : T 107/90 - 3.5.1

Anmeldenummer / Filing No / N° de la demande : 85 305 762.8

Veröffentlichungs-Nr. / Publication No / N° de la publication : 176 211

Bezeichnung der Erfindung: CMOS Schmitt trigger

Title of invention:

Titre de l'invention :

Klassifikation / Classification / Classement : H03K 3/353, H03K 19/094

ENTSCHEIDUNG / DECISION

vom / of / du 6 December 1990

Anmelder / Applicant / Demandeur : British Telecommunications PLC

Patentinhaber / Proprietor of the patent /

Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPO / EPC / CBE - Article 56

Schlagwort / Keyword / Mot clé : - "Inventive step (denied)"
- "Non-appearance at oral proceedings"

Leitsatz / Headnote / Sommaire



Case Number : T 107/90 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 6 December 1990

Appellant : British Telecommunications PLC
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Representative : Purell, Kevin John
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Decision under appeal : Decision of Examining Division 068 of the European Patent Office dated 2 October 1989 refusing European patent application No. 85 305 762.8 pursuant to Article 97(1) EPC.

Composition of the Board :

Chairman : P.K.J. van den Berg
Members : A.S. Clelland
M. Lewenton

Summary of Facts and Submissions

- I. European patent application No. 85 305 762.8 (publication No. 0 176 211) was refused by decision of the Examining Division dated 2 October 1989.
- II. The decision was based on Claims 1 to 5 filed with a letter of 15 May 1989.
- III. The reason given for the refusal was that the claimed subject-matter lacked an inventive step having regard to the prior art known from the following document:

D1: Abstract of JP-A-58-47 323, published in Patent Abstracts of Japan, Vol. 7, No. 132 (E-180) [1277] 9 June 1983.
- IV. An appeal against this decision was received on 2 December 1989. The Appellant (Applicant) requested cancellation of the decision and with a statement of grounds of appeal received 19 January 1990 filed a plurality of revised sets of claims, "auxiliary request A" to "auxiliary request H". Grant of a patent was requested on the following basis:
 - (i) in the event that the Board did not accept the Appellant's argument that D1 was not the correct starting point for assessing inventive step, auxiliary request H,
 - (ii) in the event that the Board did accept this argument, auxiliary requests A to H, in alphabetical order.
- V. In the statement of grounds the Appellant argued that the Examining Division had made a procedural error in refusing the application, in that a full substantive examination

had not been carried out and the refusal was accordingly based on grounds on which the applicant had not had an opportunity to present comments, Article 113(1) EPC. It was further argued that document D1 was not the closest prior art for the assessment of inventive step and that, even if the document were accepted as the closest prior art, it would not be obvious to modify its teaching in such a way as to arrive at a Schmitt trigger circuit falling within the scope of Claim 1 of any of the auxiliary requests.

VI. In a communication dated 27 June 1990 in accordance with Article 11(2) of the Rules of Procedure of the Boards of Appeal, accompanying a summons to oral proceedings, the Board referred to the following additional documents:

D2: English language translation of JP-A-58-47 323, supplied by Appellant with grounds of appeal;

D6: IEEE Standard Dictionary of Electrical and Electronics Terms, 3rd edition, 1984, page 805;

D7: US-A-3 769 523.

The Board furthermore informed the Appellant that in its provisional opinion:

- (a) the impugned decision complied with Article 113(1) EPC;
- (b) because of formal deficiencies auxiliary requests A, B, D, E, F, G and H were not admissible, the only admissible request being auxiliary request C. This was the request accordingly considered in the communication; and

(c) the subject-matter of Claim 1 of auxiliary request C, and that of each of Claims 2 to 4, did not involve an inventive step.

VII. The oral proceedings took place on 9 October 1990. No representative for the Appellant appeared and the proceedings were adjourned in order to investigate whether the Appellant had been correctly summoned.

VIII. It was confirmed by the British Post Office that the invitation to oral proceedings and communication had been delivered on the 29 June 1990.

IX. Claim 1 of auxiliary request C reads as follows:

"A Schmitt trigger comprising a first p-channel MOSFET (T2) whose drain is connected to a ground rail and a first n-channel MOSFET (T1) whose drain is connected to a voltage supply rail positive with respect to said ground rail, whose gates are connected to a common input, and whose sources are connected together; a second p-channel MOSFET (T3) whose source is connected to said voltage supply rail, and whose gate is connected to the source of said first p-channel MOSFET (T2), and a second n-channel MOSFET (T4) whose source is connected to the ground rail, whose gate is connected to the gate of the second p-channel MOSFET (T3) and whose drain is connected to the drain of the second p-channel MOSFET (T3) to form a common output; a third p-channel MOSFET (T5) whose source is connected to said voltage supply rail, whose drain is connected to the gate of the second p-channel MOSFET (T3) and whose gate is connected to the drain of the second p-channel MOSFET (T3); and a third n-channel MOSFET (T6) whose source is connected to said ground rail, whose drain is connected to the gate of the second n-channel MOSFET

(T4) and whose gate is connected to the drain of the second n-channel MOSFET (T4)."

Reasons for the Decision

1. The appeal is admissible.
2. Since the Appellant was correctly summoned to the oral proceedings the Board sees no reason to give a further opportunity to comment before deciding.
3. The Board confirms its preliminary view, stated at paragraph 7 of the communication, that Article 113(1) EPC was fulfilled by the reasoning given in the examining division's communication of 9 February 1989.
4. Since the Appellant has not commented on the objections raised against the various auxiliary requests the Board sees no reason to reconsider its view that auxiliary requests A, B, D, E, F, G and H are not admissible. The full reasons for this view can be found in the communication at paragraph 3. The only admissible request is accordingly auxiliary request C.
5. The Appellant has made no attempt to refute the arguments on inventive step contained in the Board's communication and these arguments are accordingly maintained. For the reasons given in the communication at paragraphs 8 and 9 the subject-matter of Claim 1 of auxiliary request C lacks an inventive step and the claim accordingly fails to comply with Articles 52(1) and 56 EPC.

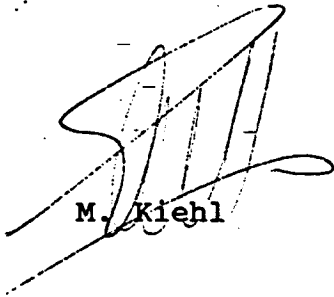
6. Claims 2 to 4 are not allowable in view of their dependence on Claim 1. Moreover, as indicated in the communication, the subject-matter of these claims also lacks an inventive step.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar:



M. Kiehl

The Chairman:



P.K.J. van den Berg

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