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**Datasheet for the decision
of 11 December 2008**

Case Number: T 0738/04 - 3.4.01
Application Number: 95306977.0
Publication Number: 0708413
IPC: G06K 19/073; G07F 7/08
Language of the proceedings: EN

Title of invention:
Circuit and its method of operation

Patentee:
MICROCHIP TECHNOLOGY INC.

Opponent:
GIESECKE & DEVRIENT GmbH

Headword:
-

Relevant legal provisions:
EPC Art. 56
RPBA R. 13(3)

Relevant legal provisions (EPC 1973):
EPC Art. 100(b)

Keyword:
"Prior use (absolute conviction)"
"Late-filed evidence"
"Availability to the public (no)"
"Inventive step (yes)"
"Sufficiency of disclosure"

Decisions cited:
T 0472/92, T 0097/94, T 0202/97, T 0611/95, G 0009/91

Catchword:

In a situation in which the elaboration of a norm led to a multiplicity of factual situations possibly each constituting on its own a prior use (various printed versions of the norm, multiplicity of meetings, public enquiry, etc.), the opponent should, from the outset of the opposition proceedings or ensuing appeal proceedings, have identified those situations in respect of which he will be able to produce evidence complete enough to support the desired conclusion.

It would have been unfair to allow the appellant in the course of inter partes proceedings to extend the case originally put forward in relation to one specific situation to other situations, even if these situations arose in the framework of one and the same general elaboration process (cf. Point 3.5 of the decision).



Case Number: T 0738/04 - 3.4.01

D E C I S I O N
of the Technical Board of Appeal 3.4.01
of 11 December 2008

Appellant: GIESECKE & DEVRIENT GmbH
(Opponent) Prinzregentenstr. 159
D-81677 München (DE)

Representative: -

Respondent: MICROCHIP TECHNOLOGY INC.
(Patent Proprietor) 2355 West Chandler Boulevard
Chandler, AZ 85244 (US)

Representative: Patry, Didier Marcel Pierre
Baker Botts
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 5 April 2004
rejecting the opposition filed against European
patent No. 0708413 pursuant to Article 102(2)
EPC 1973.

Composition of the Board:

Chairman: B. Schachenmann
Members: P. Fontenay
G. Assi
F. Neumann
K. Garnett

Summary of Facts and Submissions

- I. By a decision notified on 5 April 2004, the opposition division rejected the opposition against the European patent No. 708 413.

In the reasons for its decision the opposition division held that the opponent had not provided sufficient evidence that the handbook (D6), which was relied upon to substantiate the ground of lack of novelty and inventive step, had indeed been made available to the public before the priority date of the patent in suit. The other available prior art was not considered sufficient to support the ground of lack of inventive step. The opposition division further held that the ground of insufficiency of disclosure raised under Article 100(b) EPC 1973 against dependent claims 2-4, 8 and 9 was not substantiated. Thus, the grounds for opposition raised did not prejudice the maintenance of the patent in its granted form.

- II. The appellant (opponent) lodged an appeal against the above decision by a notice of appeal filed on 8 June 2004 and on the same date paid the prescribed fee. The written statement setting out the grounds of appeal was received on 30 June 2004.

The appellant requested that the impugned decision be set aside and the European patent be revoked in its entirety.

- III. The respondent (patentee) requested in its reply dated 11 November 2004 that the appeal be dismissed, i.e. that the patent be maintained as granted.

Independent claim 1 reads as follows:

"1. A method of operating a circuit which includes the steps of

- a. accepting a challenge (74) and a count value decrement command;
- b. implementing the decrement command;
- c. generating a first response (78) to the challenge (74) using a first algorithm which operates on at least the challenge (74) and a secret key (16, 20A) derived from information identifying the individual circuit, characterized in that the first response (78) is generated only if the decrement command is implemented successfully."

Independent claim 7 relates to a corresponding circuit and reads:

"7. A circuit which includes

- a. means (72, 52) for accepting a challenge (74) and a count value decrement command;
- b. means (76) for implementing the decrement command;
- c. means (52) for generating a first response (78) to the challenge (74) using a first algorithm which operates on at least the challenge (74) and a secret key (16, 20A) derived from information identifying the individual circuit; characterized in that the means (52) for generating the first response (78) generates the first response only if the means (76) for implementing the decrement command implemented the decrement command successfully."

Claims 2-6 and 8-12 depend respectively on independent claims 1 and 7.

IV. The appellant reiterated, in its statement of grounds of appeal, its objections as to lack of novelty, lack of inventive step and insufficiency of disclosure. In addition to referring to the prior art which had been cited during the proceedings before the opposition division, reference was made to a new piece of evidence in the form of a copy of the norm prEN 726-3 (D10) which, in the appellant's view, provided further proof that the claimed subject-matter was not new in the sense of Article 54 EPC 1973. D10 bears in its header section the indication "September 1993".

V. In order to support the submission that this new document had effectively been made available to the public before the priority date of the patent - a fact which had been contested by the respondent - the appellant proposed that a witness, Mr K. Vedder, involved in the elaboration of the norm, be heard by the Board.

In a first communication of the Board, the appellant was asked to provide the contact details of the proposed witness in view of a possible decision on the taking of evidence pursuant to Rule 72(1) EPC 1973. The appellant was also requested to provide an official confirmation by the institute responsible for drafting document D10, the European Telecommunications Standards Institute (ETSI), concerning the date of publication of D10. Attention was further drawn to the fact that such evidence could possibly make the hearing of the witness superfluous.

The appellant produced neither the requested witness' address nor any official confirmation by ETSI but instead, in its reply dated 30 November 2007, filed additional documents (D11 to D15) relating to various meetings which took place in the framework of the elaboration of the norm prEN 726-3.

- VI. In a second communication of 1 August 2008, the Board indicated that it did not consider the submitted evidence to be conclusive since it established that various versions of the norm existed and that it was therefore not possible to determine which version D10 was actually being referred to. The appellant was therefore again requested to provide the contact details of the witness within a specified time limit.

The requested information was duly filed with letter of 4 August 2008.

- VII. On 22 August 2008, the Board issued a decision on the taking of evidence under Rule 117 EPC concerning the allegation of the appellant that document D10, as such, had been made available to the public before the claimed priority date. The taking of evidence took the form of questions put to Mr K. Vedder. It was held as part of the oral proceedings before the Board on 11 December 2008.

During the oral proceedings, the representative of the appellant filed, in connection with the hearing of the witness, two additional documents (D16, D17) referring to two further versions of the norm prEN 726-3. D16 concerned the draft version of the norm as addressed to

the European Committee for Standardization (CEN) for formal vote. D17 concerned version 14 of the norm and bore the date 21 September 1993. The representative requested that the two documents be introduced into the appeal proceedings, emphasizing that both documents merely substantiated the allegation that D10 had actually been made available to the public.

VIII. During the opposition procedure and ensuing appeal procedure, the following documents were referred to:

- D4: EP-A-427 465;
- D6: Referenzhandbuch STARCOS X 1.1, June 1994, pages 1, 2, 41, 109-112, 149;
- D7: "Chipkarten als Sicherheitswerkzeug"; A. Beutelspacher et al. Springer-Verlag 1991;
- D8: STARCOS® Smart card (Brochure from company GMD, March 1993);
- D9: STARCOS® V 1.1 (Brochure from Company GAO), 1993;
- D10: version of European norm prEN 726-3: September 1993; pages 1-15, 28, 29, 45-48, 72-74;
- D11-D15: Documents of SIMEG or SMG9 meetings and reports concerning some of these meetings;
- D16: version of European norm prEN 726-3: "Final Draft" April 1994, addressed to the members of CEN;
- D17: version of European norm prEN 726-3: Version 14, 21 September 1993.

Reasons for the Decision

In this decision references are to the provisions of the EPC 2000, which entered into force as of 13 December 2007, unless the former provisions of the

EPC 1973 still apply to pending applications and granted patents. Where Articles or Rules of the former version of the EPC apply, their citations are followed by the indication "1973".

1. The appeal is admissible.

2. *Admissibility of late-filed documents D16 and D17*

2.1 While the Board did not rule out the possibility of the appellant referring to documents D16 and D17 for supporting its assertions concerning the public availability of Document D10, it underlined that the introduction of D16 and D17 in the current proceedings should not create a new case. Just because the content of D16 or D17 is, in essence, identical to the content of D10 does not mean that a new case is not created: the introduction of D16 and/or D17 would necessitate the investigation of the public availability of both documents and would thus be tantamount to presenting not one but two fresh cases to the Board.

2.2 In reaching its conclusion, the Board noted that the appellant had always been in possession of both documents and was involved in the elaboration of both. The appellant therefore had the opportunity to file both documents with the notice of opposition in January 2003 or, at the latest, with the filing of the statement of the grounds of appeal on 30 June 2004, which statement should, pursuant to Article 10a(1) RPBA (in its version valid at that time), have contained the party's complete case. In order to avoid any surprise, the appellant should have reacted to the second communication of the Board of 1 August 2008 in which

the attention of the parties was drawn to the fact that any additional submissions or requests should have been at the Board's disposal at least one month before the date of the oral proceedings. The late filing of these documents during the oral proceedings can also not be seen as a reaction to new facts or submissions raised by the respondent, since no such submissions had been filed.

The only reason invoked by the appellant's representative was that he had only been informed of the existence of these documents the day before the oral proceedings. This reason, however, does not arise out of any external circumstances but relates exclusively to the appellant's internal organisation. The late filing can therefore not be excused.

Finally, the Board noted that the introduction of these two documents during the oral proceedings before the Board of appeal constituted a surprise for both the patentee and the Board, raising entirely new issues as to their actual availability to the public, which would have justified adjournment of the oral proceedings.

- 2.3 For these reasons, the Board decided not to admit documents D16 and D17 into the appeal proceedings (Rule 13(3) RPBA). This decision did not prevent the appellant from referring to D16 and D17 as possible evidence that D10 was effectively available to the public before the priority date.

3. *Admissibility of late-filed document D10*

3.1 D10 concerns a version of the norm prEN 726-3 containing, in its header, the indication "September 1993". In view of the appellant's involvement in the elaboration of this norm, as argued with respect to D16 and D17, the appellant could also have filed D10 during the opposition proceedings. However, D10 was only filed with the statement of grounds of appeal. The relevance of D10 and the fact that its filing was prompted by the lack of success of the line of argumentation relying on handbook D6 before the opposition division can reasonably be said to justify the late submission of this document. According to the decision of the opposition division, the appellant was, in effect, not able to provide absolute evidence that D6 had indeed been made available to the public before the claimed priority date.

Consequently, the admissibility of D10 hinged entirely on the question whether it had been made available to the public before the claimed priority date or not.

3.2 The witness proposed by the appellant (Mr K. Vedder) participated in regular meetings of the SIMEG committee in which draft documents issued by another committee responsible for the elaboration of the norm prEN 726-3 were regularly distributed for comments (cf. minutes of the taking of evidence, pages 4, 5). As put forward during the taking of evidence, according to the practice of the European Telecom Standard Institute (ETSI), which assumed the secretarial activities for these committees, the draft documents bore in their header the date corresponding to their print and

dispatch. The witness was, however, not able to confirm, due to the lack of the cover page and distribution list normally accompanying such documents, that the reference to "September 1993" in D10 did indeed correspond to its actual date of distribution (cf. minutes of the taking of evidence, pages 6,7). He was also not able to explain why the cover page was missing from D10.

- 3.3 D10 contains on page 6 the following statement: "*This document was submitted to the formal vote and the result of the formal vote was positive*", which according to Mr Vedder constituted evidence, despite the absence of a distribution list, that the document had been actually distributed. The Board is however not convinced that this mere indication is sufficient to establish its availability to the public. In fact, it is not clear whether this statement is really an indication that the contents of D10 had already been distributed for the formal vote or whether this statement is merely included in this specific version of prEN 726-3 such that this draft is as complete as possible. The fact that the following passage on page 6 in D10 contains blank spaces reserved for dates to be later determined attests namely that D10 constitutes a draft of the norm in question, the final version of which was still to be completed. This therefore casts doubt on whether D10 had actually, in September 1993, been distributed for formal vote.

In other words, with no knowledge of the precise circumstances associated with the distribution of D10, it cannot be concluded with certainty that the contents

of D10 had in fact been made available to the public prior to the priority date.

- 3.4 It is the established practice of the boards of appeal to apply the criterion of "absolute conviction" rather than the "balance of probabilities" in cases of prior public use for which the evidence lies entirely within the sphere of the opponent. In decision T 472/92 (OJ 1998, 92, cf. headnote), the Board held that "... *in those prior public use cases, where practically all the evidence in support of an alleged prior public use lies within the power and knowledge of the Opponent, the latter has to prove his case up to the hilt*", which view was later reiterated in decision T 97/94 (OJ 1998, 467, point 5.1).

This implies not only that the reasoning referred to by the appellant should be complete and conclusive but also that all facts supporting that reasoning be fully substantiated by corresponding evidence. This requirement is the consequence of the principle according to which parties representing opposite interests should be given equally fair treatment and derives from the contentious character of the post-grant opposition proceedings (cf. G 9/91, OJ 1992, 408, point 2). Usually the only possibility for a patentee who played no part in the alleged prior use is to take issue with the conclusive nature of the adduced evidence and consequently of the reasoning to which it gives rise; the unbalanced factual situation resulting from the unilateral access of the opponent to the available evidence is then compensated by the severe legal requirement developed by the case law that such

prior use should be established beyond any reasonable doubt.

A more liberal approach, which would accept that facts could be established on the basis of the less demanding criterion of "balance of probabilities" would, in unbalanced situations such as those referred to above, normally constitute a breach of said principle, since the patentee would be deprived of the opportunity to successfully challenge the opponent's reasoning, i.e. to question the conclusiveness of the adduced evidence.

- 3.5 It is therefore essential for the opponent to decide, when filing the notice of opposition or at the latest when filing the statement setting out the grounds of appeal, on which prior use the objection against the granted patent will be based. In a situation like the present one, in which the elaboration of a norm led to a multiplicity of factual situations possibly each constituting on its own a prior use (various printed versions of the norm, multiplicity of meetings, public enquiry, etc.), the opponent should, from the outset of the opposition proceedings or ensuing appeal proceedings, have identified those situations which for it have the highest chance of success, i.e. those situations in respect of which he will be able to produce evidence complete enough to support the desired conclusion. In the opinion of the Board, it would have been unfair to allow the appellant in the course of inter partes proceedings to extend the case originally put forward in relation to one specific situation - the drafting of D10 - to other situations, even if these situations arose in the framework of one and the same general elaboration process.

3.6 The Board observes, in this respect, that the appellant based its appeal exclusively on document D10, initially identified as OI_D9, (cf. statement of grounds of appeal, pages 4-6). In particular, the statement on page 5 according to which: "*Dokument OI_D9 konnte nach neuerlicher Recherche gefunden werden ... Sofern erforderlich, wird zum Nachweis der Öffentlichen Zugänglichkeit des Dokuments OI_D9 die Einvernahme des Zeugens ... angeboten*" clearly establishes that the appellant based its appeal on D10 (former OI_D9) and not on any other circumstances relating to the elaboration of the norm prEN 726-3.

The Board finally notes that neither the various documents D11 to D15 nor the testimony of the witness could establish beyond reasonable doubt that D10 had in effect been made available to the public. It could in particular not be established that D10 had been distributed during the TE9 or SIMEG meetings referred to by the appellant (cf. minutes of the taking of evidence, pages 6, 7). The present situation thus differs from the circumstances underlying case T 202/97 in which the communication of a draft concerning a norm was not questioned, as such, but rather whether such a communication, in view of discussions to be conducted later as to the further elaboration and adoption of the norm, actually constituted public availability.

The same conclusion applies to documents D16 and D17 which do not contain any explicit reference to D10. Consequently, the Board decided not to admit D10 into the current appeal procedure.

4. *Public availability of D6*

4.1 A disclosure can be considered to belong to the state of the art in the sense of Article 54(2) EPC if:
i) it has effectively been made directly available to the public before the reference date, i.e. in the present case, the priority date, or, by extension, if
ii) the public would have had the possibility to access the disclosure before said reference date.

4.1.1 Concerning the first alternative, it follows from the testimony of the witness - Dr. Franz Weikmann - before the opposition division (cf. the minutes of the taking of evidence before the opposition division) that the appellant could not establish beyond reasonable doubt that document D6 had effectively been distributed before the priority date of the opposed patent. While it was stressed that document D6 was very likely to have been distributed to customers before said priority date, the opponent could not provide convincing enough evidence that this was indeed the case.

The argument put forward by the appellant and reiterated during the oral proceedings before the Board of Appeal, namely that it is daily practice to distribute manuals like D6 immediately after their printing is, in this respect, not conclusive. While this argument would have indeed been of real weight when deciding a case according to the "balance of probabilities", it must be rejected when the stricter criterion of "absolute conviction" is applied. This is presently the case in view of the fact that Dr. F. Weikmann was, at least at the time of the opposition proceedings, an employee of the opponent and that the

manual D6 and the product it refers to relate to activities of "GAO", a subsidiary of the opponent.

- 4.1.2 Concerning the second alternative, it is noted that documents D8 and D9, which constitute advertising material for STARCOS® smart cards and which were distributed during trade fairs, do not expressly refer to the document D6. The indication in brochure D8 concerning the persons to be contacted in order to obtain additional information relating to the advertised products cannot be equated with an explicit reference to the handbook D6 and to the information which could be expected from it. The Board considers, in this respect, that D6 could only be regarded as having been made available to the public if the public would have found an explicit indication in D8 or in D9 concerning the existence of the handbook D6. The mere fact that a person, unaware of its existence, could have perhaps obtained a copy of it by asking the contact persons for additional information, is in this respect insufficient to establish the public nature of D6.

In decision T 611/95, the Board based its findings as to the availability of an item of prior art (a report concerning a survey conducted by a research institute) on the fact that other documents, which were available before the priority date of the opposed patent, contained a precise indication of the possibility for the public to consult or order the report established by the institute in the framework of this specific survey (point 4.1.1 of the decision). In the present case, however, the link between documents D8 or D9 and D6 is missing so that, in line with decision T 611/95,

the handbook D6 cannot be considered as belonging to the state of the art in the sense of Article 54(2) EPC.

4.2 Moreover, D6 comprises a statement on page 2 indicating that the information it contains should not be communicated to any other person without the explicit authorisation of its author. This indication appears thus to be in contradiction with the criteria required in order to establish the public availability of a disclosure. This view is further supported by the fact, confirmed by Mr Weikmann during the taking of evidence before the opposition division, that document D6 also contains sensitive information with respect to security aspects of the system.

4.3 For these reasons, the Board concurs with the first instance decision that the appellant did not provide sufficient evidence that D6 had actually been distributed before the priority date or that the public would have had sufficiently precise information as to the existence of D6 and as to the possibility of having access to its content.

5. *Inventive step - Article 56 EPC*

5.1 The view expressed by the appellant according to which the subject-matter of claim 1 of the opposed patent would not be inventive in view of document D4 or D7 is not convincing. While it is acknowledged that document D7 discloses a method reproducing the steps recited in the preamble of claim 1, the Board does not agree with the conclusion that the claimed method would derive in an obvious manner from said known prior art.

5.2 More specifically, applying the problem/solution approach to claim 1, the claimed method differs from the method disclosed in D7 by the characterising step of the claim i.e. in that the first response is generated only if the decrement command is implemented successfully.

The effect resulting from this additional step is that authentication of the circuit is only permitted after the decrement command has been successfully carried out.

5.3 The problem solved by said feature is to avoid fraud resulting from the possibility of cloning a circuit or of replaying transaction sequences between a terminal and a circuit (cf. patent specification, paragraph 0016).

Neither document D4 nor document D7 addresses this problem. The reference in D7 to a possible use of the card for prepaid phone services merely supports the view that the technical problem to be solved, as defined above, would indeed apply to at least some of the uses referred to in D7. The teaching of D7, contrary to the view defended by the appellant, does not extend beyond that finding. The statement put forward by the appellant that it would be obvious, in view of the problem to be solved, to first implement the decrement command before generating the first response constitutes a mere allegation devoid of any concrete support and is not persuasive.

The same finding applies to the subject-matter of independent claim 7 as to the circuit.

5.4 Consequently, the subject-matter of claims 1 and 7 is not rendered obvious by the teaching of D7 or D4.

6. *Sufficiency of disclosure*

6.1 The appellant objected to dependent claims 2-4, 8 and 9, which subject-matter was not, in its view, disclosed in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 100(b) EPC 1973). The Board observed, in this respect, that the passage on column 4, line 53 to column 6, line 50 of the published application, which related precisely to the embodiments of these dependent claims, has been deleted in the patent specification.

The Board notes, however, that the dependent claims 2-4, 8 and 9 relate to the same embodiment of the invention, namely a method or circuit wherein "the challenge is generated, and accepted, by the circuit, and a corresponding challenge is generated externally of the circuit" (cf. claim 2). Since claim 4 depends on claim 3 which itself depends on claim 2 and since claims 8 and 9 as to the circuit do not contain additional technical information as to this embodiment, the question which has to be decided is in fact, in the absence of further indications in the description, whether the information provided in claims 2 to 4 would be sufficient in order for the skilled person to reproduce the claimed subject-matter.

6.2 By specifying that the challenge is provided by a counter means in the circuit, claim 3 gives the answer as to the means actually required to generate the

challenge. The principle allowing a challenge to be generated in the circuit is defined in claim 4 which specifies that the counter means is controlled at least partly by means which is external to the circuit. It follows that the claims as such provide sufficient information as to the generation of the challenge inside the circuit. The only information actually missing in dependent claims 3 and 4 therefore concerns the generation of the corresponding challenge externally of the circuit as required by claim 2.

In the Board's view, however, the explicit reference to the "corresponding challenge" and the knowledge of the method actually carried out inside the circuit to generate a challenge makes it straightforward for the skilled person to apply the same method externally of the circuit. This implies that the skilled person looking for one way of implementing the invention would use the signals generated externally of the circuit, to control a corresponding external counter, thus generating the corresponding challenge. Therefore the information available in the patent specification (i.e. in the claims) is sufficient on its own to allow the skilled person to put the technical teaching of the invention into practice; there is not any necessity to refer to the common general knowledge in the technical field of smart cards.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

R. Schumacher

B. Schachenmann