BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS | BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE | CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

Internal distribution code:
(A) [ ] Publication in OJ
(B) [ ] To Chairmen and Members
(C) [X] To Chairmen

D E C I S I O N
of 15 September 1995

Case Number: T 0239/94 - 3.5.1

Application Number: 86302473.3

Publication Number: 0197768

IPC: G05B 19/04

Language of the proceedings: EN

Title of invention:
Digital control systems for electronic apparatus

Patentee:
SONY CORPORATION

Opponent:
Philips Electronics N.V.

Headword:
-

Relevant legal provisions:
EPC Art. 54, 56, 100(a)

Keyword:
"Novelty (yes) - new functional feature in system claim"
"Inventive step (yes) - no incentive to solve new problem by new functional feature"
"Teaching of prior art document incorporated by reference in another document (taken into account)"

Decisions cited:
-

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0239/94 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 15 September 1995

Appellant: (Opponent)
Philips Electronics N.V.
Groenewoudseweg 1
NL-5621 BA Eindhoven (NL)

Representative:
Schouten, Marcus Maria
INTERNATIONAAL OCTROOIBUREAU B.V.,
Prof. Hostlaan 6
NL-5656 AA Eindhoven (NL)

Respondent: (Proprietor of the patent)
SONY CORPORATION
7-35 Kitashinagawa 6-chome
Shinagawa-ku
Tokyo 141 (JP)

Representative:
Thomas, Christopher Hugo
D. Young & Co.
21 New Fetter Lane
London EC4A 1DA (GB)

Decision under appeal: **Decision of the Opposition Division of the European Patent Office dated 18 January 1994 rejecting the opposition filed against European patent No. 0 197 768 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: P. K. J. van den Berg
Members: W. B. Oettinger
G. Davies

Summary of Facts and Submissions

I. The appeal contests the Opposition Division's decision to reject the opposition that was admissibly filed against the European patent No. 0 197 768 granted on patent application No. 86 302 473.3 having a filing date of 3 April 1986.

II. The independent Claim 1 of that patent is worded as follows (some repeated reference numerals not recited, others added, and format emphasised by the Board):

A digital control system for use in electronic apparatus (1), the system comprising:

master control means (6) for the electronic apparatus;

a plurality of operational circuit elements (2 to 5) of the electronic apparatus arranged to be controlled by said master control means; and

control bus lines (8) interconnecting said master control means and said plurality of operational circuit elements, said control bus lines forming a two-wired [9, 10] internal bus of said electronic apparatus for transmission of a clock signal and data respectively;

characterized by:

said electronic apparatus (1) being audio-visual apparatus; and

auxiliary master control means (12) to be connected to said control bus lines (8) via an external terminal (11) for initializing, as follows:

sending data inhibiting said master control means (6) from functioning as the master;

controlling said operational circuit elements (2 to 5) in place of said master control means;

holding said master control means in a slave mode, as long as said operational circuit elements are controlled by said auxiliary master control means; and

sending data causing said master control means to resume functioning as the master after the operations of said auxiliary master control means have been completed.

III. In the description, the prior art sought to be improved by the claimed invention is described with reference to the following document:

D0: EP-A-0 051 332.

IV. In the decision under appeal, the opponent's prior art citations

D1: Technische Informationen für die Industrie, VALVO 811215, December 1981, pages 1 to 25 (in particular 7, 9/10, 19/20),

D2: Video cassette recorder VR2414/00 Service Manual, pages 1-1, 1-2,

D3: Integrierte Digitalschaltungen für die Unterhaltungselektronik 1982, VALVO Datenbuch, March 1982, pages 5 to 9 (in particular 8),

were considered neither to anticipate nor to render obvious the claimed system because it was found that the claimed invention would, although making use of the arbitration procedure known from D1, differ therefrom by the fact that its use as claimed would guarantee that it is always the auxiliary master which wins the arbitration. That would not be rendered obvious by D3 or by D2 either.

V. The appeal against this decision, issued on 18 January 1994, was lodged (in Dutch, with a translation) on 4 March 1994 by the opponent with a request that the decision be set aside and the patent revoked. The appeal fee was paid on the same day.

On 11 May 1994, the appellant filed a statement of grounds of appeal.

VI. In that Statement, the appellant contended that the claimed system lacked novelty vis-à-vis D1. Furthermore, it submitted that, even if in view of the Enlarged Board's decisions G 2/88 and 6/88 the claim were formulated as a method claim, it would lack novelty or, at least, an inventive step.

VII. The respondent (proprietor of the patent), in response, contested this view and requested that the appeal be dismissed.

VIII. In further letters, both the appellant (referring also to D3) and the respondent (referring also to D0) confirmed their respective submissions.

IX. As an auxiliary request, the respondent requested oral proceedings.

Reasons for the Decision

1. The appeal (cf. paragraph V) is admissible.

2. *Interpretation*

2.1 As the submissions of the parties have shown, Claim 1 as worded (cf. II) would seem to require some interpretation in accordance with Article 69 (1), second sentence, EPC.

2.2 In the first place, this appears to be the case in respect of the category of "system" Claim 1.

Apparently, the "matter for which protection is sought" (Article 84 EPC) by that claim is a digital control apparatus defined, apart from structural features, by functional features formulated in terms of method steps as well.

2.3 As a second point, it was mentioned that the expression "for use" should be interpreted as "suitable for use", i.e. as not restricting the claim.

However, it is noted that the claimed system is defined as comprising, ia, operational circuit elements "of the electronic apparatus" and control bus lines forming a bus "of said electronic apparatus". Thus, apparently, the claim requires that the system **is** used in the electronic apparatus (1).

Consequently, according to the first characterising feature, the apparatus in which it **is** used **is** audio-visual apparatus.

2.4 As a further point, it is noted that the claim would seem to require only that auxiliary master control means is "to be" connected to the control bus lines but not that it "is" connected thereto.

However, from the context ("system ... characterized by ... auxiliary master control means") it follows that the system sought to be protected comprises the said auxiliary master control means. Furthermore, from the functional ("initializing") features of the system it follows that, at least in its operation, the auxiliary master control means **must** be connected to the external terminal.

3. *Novelty*

3.1 There was no dispute about the fact that the subject-matter of Claim 1 (worded as in II and interpreted as in 2) is new against D0.

3.2 Clearly, even if it is assumed that a digital control system comprising such means as claimed is implied in the audio-visual apparatus of D2, that subject-matter is new also against this document, because no such functional features as claimed can be derived from it.

3.3 The same applies to D3, if taken alone.

3.4 D1 as well, if taken alone, cannot be regarded as anticipating the claimed subject-matter. In its last reply of November 1994, the appellant appeared to accept this fact.

3.5 However, it was submitted that D3 not only discloses the first characterising feature of Claim 1 but, in addition, explicitly refers (page 7) to D1 from which, in the appellant's opinion, all the other features of Claim 1 would be known.

The Board accepts this reference in D3 to D1 as meaning that the teachings of D1 should be considered as being incorporated by reference in D3 (as if they were explicitly known from that document). The respondent would seem to agree with this consideration.

In effect, this means that the first characterising feature of Claim 1 will have to be regarded as being known in the context of its preamble from the prior art as documented by D3 with D1 incorporated.

3.6 Turning now to the second characterising feature, it is noted that in the known system (D3) the external terminal (serial I^2C bus I/O interface) serves to control peripheral circuitry (page 8).

Apparently, thus, whilst D3 clearly discloses some "means to be connected to said control bus lines via an external terminal", that means will not be "master control" means and cannot therefore be termed "auxiliary master control means".

3.7 Moreover, even if it were assumed that the means to be connected to the external terminal of D3 can be control means, or more particularly even master control means in the sense of D1 such as those connected internally to the control bus lines, so that they are "auxiliary master control means", it is still to be determined whether or not a difference from this prior art can be found in any of the functional features claimed, i.e. in the "initializing" steps.

In the Board's view, this is indeed the case, as follows:

Claim 1 requires that the auxiliary master control means (12):
- sends data inhibiting the master control means from functioning as the master,
- controls the operational circuit elements in place of the master control means while holding the latter in a slave mode, and
- sends data causing the master control means to resume functioning as the master after completion of the control operations of the auxiliary master control means.

Thus, according to the first of these steps, the auxiliary master control means sends data specifically having the purpose and effect of putting the master control means into a "no operation" mode (cf. column 5,line 51 to column 6,line 9) which is maintained, according to the third of said steps, until the auxiliary master control means sends data allowing the master control means to resume its control functions. As expressed in the description (column 5 lines 52/53), the internal master is prevented from starting its own control sequence during external control. There is thus an absolute preference of control by the external (auxiliary) master control means over control by the internal master control means.

This is not so, if an auxiliary master control means is assumed to be connected to the external terminal (serial I^2C bus I/O interface) of D3. Applying the teaching of D1 to such auxiliary master control means would only mean that this auxiliary master is included in the arbitration process known from D1 (page 9). That arbitration process gives control always to that master which is the first to successfully occupy the bus. There is thus not an absolute preference of one particular out of all the masters but only a priority of the "first come".

In this regard, the "inhibiting" data of the patent in suit is not just the same as the "Startbedingung" of D1. Both parties have rightly referred, in this respect, to the fact that in D1 masters do not inhibit other masters but, when a master detects that the bus is occupied, it inhibits itself.

3.8 The Board agrees with the respondent that the claimed sytem is, for this reason, novel.

4. *Inventive step*

4.1 It follows directly from the above considerations that the essential difference between the claimed system and the known one coming nearest to it, ie. the one known from D3 in conjunction with D1 to which it refers, is to be seen in the absolute **preference** of a particular one of the master control means, namely the external (auxiliary) master control means, over all the others (connected internally to the bus), rather than a temporal **priority** of the first to be successful.

4.2 There is nothing in either D3 or D1 that would suggest that a particular master control means should play such a principal master role.

4.3 Nor can any incentive in that direction be derived from the other prior art documents on file, D0 and D2.

4.4 It is noted, in respect of the said essential difference, that its application, as pointed out in the description (cf. column 5 lines 51 to 53), solves the specific problem to avoid operational difficulties that would arise if the internal master(s) were permitted to start control during external control.

No such problem being addressed in D3 or D1, or any of the other prior art documents, it is itself new and can, for this reason, be regarded as an additional indication, corroborating the afore-mentioned findings (4.2, 4.3), that the claimed invention is not obvious.

4.5 The subject-matter of Claim 1 is, therefore, regarded as involving an inventive step.

5. *Conclusions*

5.1 The requirements for patentability (Articles 52 to 57 EPC) of the subject-matter of Claim 1 as granted being met, the respective ground for opposition (Article 100(a) EPC) does not apply to this claim.

Necessarily the same applies to the dependent claims.

5.2 The appellant's request (cf. V) cannot, in these circumstances, be allowed.

Rather, the respondent's main request (cf. VII) is allowable.

5.3 This being so, the respondent's auxiliary request (IX) does not need to be considered.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

M. Kiehl P. K. J. van den Berg