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# Datasheet for the decision of 15 April 2010

**Case Number:** T 1080/07 - 3.5.04

**Application Number:** 99111927.2

**Publication Number:** 0967797

**IPC:** H04N 5/44

**Language of the proceedings:** EN

**Title of invention:**
An image display and remote control system capable of displaying two distinct images

**Patentee:**
Sharp Kabushiki Kaisha

**Opponent:**
-

**Headword:**
-

**Relevant legal provisions:**
EPC Art. 123(2)
RPBA Art. 13(1)

**Relevant legal provisions (EPC 1973):**
EPC Art. 56

**Keyword:**
"Amendments - added subject-matter (no)"
"Inventive step - no"

**Decisions cited:**
-

**Catchword:**
-

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**Case Number:** T 1080/07 - 3.5.04

# D E C I S I O N
**of the Technical Board of Appeal 3.5.04**
**of 15 April 2010**

**Appellant**: Sharp Kabushiki Kaisha
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**Representative**: Müller - Hoffmann & Partner
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**Decision under appeal:** **Decision of the Examining Division of the European Patent Office posted 26 January 2007 refusing European patent application No. 99111927.2 pursuant to Article 97(1) EPC 1973.**

**Composition of the Board:**

**Chairman:** F. Edlinger
**Members:** C. Kunzelmann
T. Karamanli

## Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse European patent application No. 99 111 927.2.

II. The application was refused on the ground of lack of inventive step (Article 56 EPC 1973), having regard to the following prior art documents:

D1: JP 09 298677 A and abstract and
D3: EP 0 658 009 A1.

III. The applicant appealed and submitted arguments in support of inventive step in the statement of grounds of appeal. The applicant also filed claims 1 and 13 according to an auxiliary request with the statement of grounds of appeal.

IV. The board issued a communication pursuant to Article 15(1) of the Rules of Procedure of the Boards of Appeal (RPBA) annexed to a summons to oral proceedings dated 10 November 2009. In this communication the board raised objections under Article 123(2) EPC against claim 1 of both the main request and the auxiliary request. Furthermore the board gave its provisional opinion concerning the issue of inventive step.

V. In response to the summons to oral proceedings the appellant filed only arguments in support of inventive step in a letter dated 15 March 2010.

VI. Oral proceedings were held on 15 April 2010. During the oral proceedings the appellant withdrew the previous requests filed in writing and submitted claims 1 to 19 according to a single final request. The appellant requested that the decision under appeal be set aside and a patent granted on the basis of claims 1 to 19 submitted in the oral proceedings of 15 April 2010. At the end of the oral proceedings the chairman announced the board's decision.

VII. Claim 1 of the single final request reads as follows.

"A remote control system for use with an image display device, wherein the image display device is associated with a first image and a corresponding first image signal, the remote control system comprising:
a transmitter (108) for transmitting a second image signal; and
a remote control (170) having a display (156) for displaying a second image corresponding to said second image signal, wherein said second image is distinct from said first image;
characterized in that

- said remote control (170) is a learning remote control being adapted to receive an original command signal sent by an original remote control, wherein the original command signal corresponds to an original command of said original remote control; and
- in that said learning remote control (170) comprises
  a) a memory (308) for storing said original command signal;
  b) said display (156) for indicating whether said

original command signal has been stored successfully in said memory (308); and

c) a means for associating said stored original command signal with a desired command."

VIII. The reasons for the decision under appeal can be summarised as follows.

Document D1 was regarded as the closest prior art and disclosed a remote control system having the features of the preamble of claim 1. The problem solved by the features of the characterising portion of claim 1 could be regarded as avoiding the use of different remote control units for different apparatuses to be remotely controlled through an emulation process. According to D1, the unique remote control controlled different apparatuses, such as a television tuner and a printer. The use of learning remote controls was well-known to a person skilled in the art at the priority date of the application. In particular, D3 described a learning remote control having the features of the characterising portion of claim 1. Thus the subject-matter of claim 1 lacked an inventive step. The two problems solved by the features of the preamble of claim 1 and the characterising portion of claim 1, respectively, were different and not linked to each other.

IX. The appellant's arguments can be summarised as follows.

D1 described a remote control system having the features of the preamble of claim 1. According to D1, the unique remote control controlled different apparatuses, but it was not of a learning type. The

different apparatuses formed together a single apparatus. Having in mind the teaching of D1, a person skilled in the art would not have thought of using a remote control of the learning type. The objective problem in view of D1 was: "How to modify the system of D1 such as to avoid the use of different remote control units for different apparatuses to be remotely controlled with improved user-friendliness". When trying to solve this problem a person skilled in the art would not have considered the first embodiment of D3. This embodiment related to a wrist watch having the function of a remote control. A wrist watch had nothing to do with a remote control for an image display device. A person skilled in the art would not have combined the devices of D1 and D3, since a complete redesign of the remote control of D1 would have been necessary to implement a learning functionality. The infrared receiver in the remote control of D1 was designed to receive only image signals, not control signals. A person skilled in the art would not have provided a second infrared receiver and associated electronics for providing the remote control of D1 with a learning functionality. A combination of the teachings of D1 and D3 would result in a remote control having two displays: one for displaying television images, and one for providing feedback in the learning process of the remote control. The problem to be solved was a very general one, and there was a plurality of possibilities of how to improve the feedback and thereby the user-friendliness of the learning process in a remote control. According to the invention, specifically the image display of the remote control was used to improve the feedback. This selection involved an inventive step.

## Reasons for the Decision

1. The appeal is admissible.

2. *Admission of amendments (Article 13(1) RPBA)*

The claims filed in the oral proceedings differ from the claims of the main request previously on file in that a feature has been deleted from the independent claims following a debate in which the board again set out its objection under Article 123(2) EPC. This amendment did not raise new issues. Instead it could be anticipated that it would allow the debate in the oral proceedings to focus on the inventive step issues already discussed in the board's communication. Hence the board admitted the claims in the appeal proceedings when exercising its discretion under Article 13(1) RPBA.

3. *Amendments (Article 123(2) EPC)*

The board sees no reason for raising an objection under Article 123(2) EPC against the claims filed in the oral proceedings.

4. *Claim construction*

According to claim 1, the remote control is a learning remote control being adapted to receive an original command signal sent by an original remote control. Claim 1 neither specifies which kind of device may be controlled by the original remote control, nor if the device controlled by the original remote control is related to the image display device. However, in the

context of the application as a whole, the learning remote control may be capable of controlling multiple video components by learning control signals associated with the various remote controls for the video components (see paragraph [0037] of the application as published). In favour of the appellant, the board construes claim 1 so that the remote control specified in claim 1, for the purposes of this decision, is a learning remote control capable of emulating the commands of other remote controls in the terminology used in the present application (see paragraph [0006] of the application as published).

5. *Inventive step (Article 56 EPC 1973)*

5.1 The closest prior art

It is undisputed, and the board agrees, that document D1 discloses a remote control system having the features of the preamble of claim 1 and that D1 can be considered as the closest prior art. It is also undisputed, and the board also agrees, that the remote control of D1 may control different apparatuses but has no learning mode.

5.2 The technical problem to be solved

5.2.1 It is established case law that, when the "problem and solution approach" is used to assess inventive step, the technical problem to be formulated for this assessment is the objective technical problem as determined by assessing the technical results (or effects) achieved by the claimed invention when compared with the closest prior art. The objective

technical problem must be formulated in such a way that it does not contain pointers to the solution or partially anticipate the solution, since including part of the solution offered by an invention in the formulation of the problem necessarily results in an ex post facto view being taken of inventive step when the state of the art is assessed in terms of that problem (see Case Law of the Boards of Appeal of the European Patent Office, 5th edition 2006, I.D.2 and I.D.4.3.1).

5.2.2 In the present case, the learning remote control is a feature characterising the remote control system of claim 1 when compared with the remote control system disclosed in D1. Therefore the objective problem formulated for assessing inventive step may not comprise a pointer towards a learning remote control, such as a reference to an emulation process (see point VIII above). Moreover, contrary to the view expressed by the examining division, the board does not see a relevant second problem which is solved by the features of the preamble of claim 1, since these features in combination have the same technical effects as the corresponding features in D1, and the objective technical problem has to be derived from a comparison of the claimed invention and the closest prior art.

5.2.3 The technical effects of learning remote controls over non-learning remote controls (such as that disclosed in D1) were well-known at the priority date of the present application. This is also acknowledged in the present application. For instance, learning remote controls which can emulate the commands of other remote controls may reduce the number of remote controls required for controlling all the video devices connected to a

television. They may also be able to emulate original commands of new original remote controls as new models of televisions, video recorders, and other video devices are released. Thus they may have better compatibility than non-learning remote controls. However the programming of such learning remote controls may be difficult (see paragraphs [0006] and [0007] of the application as published).

5.2.4 Furthermore claim 1, in addition to common features of a learning remote control, specifies in feature b) of the characterising portion that the display is for indicating whether the original command signal has been stored successfully in a memory. Thus a technical effect of the remote control system of claim 1 is that, in the process of learning an original command signal, the feedback to the user may be given by means of the display of the remote control (see also paragraphs [0038] and [0049] of the application as published). In a general learning remote control, other feedback mechanisms may be conceived, such as acoustic feedback or feedback by an indicator LED. Furthermore, both visual and acoustic feedback may be provided via the remotely controlled device, for instance via a television screen. Such feedback mechanisms assist in assuring that all of the commands are properly received and stored by the learning remote control (see paragraph [0041] of the application as published). By use of the image screen of the remote control, the present invention makes it possible to simplify the procedure of having the present invention emulate multiple remote controls (see paragraph [0068] of the application as published).

5.2.5 Simplifying the programming of the learning remote control by use of the image screen of the remote control may be considered as an aspect of improving the user-friendliness of the remote control system, in particular in view of the difficulties and the limited feedback with programming learning remote controls (see paragraph [0006] of the application as published). Hence the board's assessment of inventive step will be based on the problem formulated by the appellant (see point IX above), namely "How to modify the system of D1 such as to avoid the use of different remote control units for different apparatuses to be remotely controlled with improved user-friendliness".

5.3 The solution suggested in D3

5.3.1 Learning remote controls and their technical effects over non-learning remote controls were well-known at the priority date of the present application (see point 5.2.3. above). Hence a person skilled in the art starting from the teaching of D1 and faced with the above problem (see point 5.2.5), would have considered the well-known learning remote controls as a solution to avoid the use of different remote controls. In particular, he would have considered the learning remote control of D3, since it may be used to control an image display device such as a television set (see D3, column 6, lines 51 to 58, or column 9, lines 34 to 38), and it is concerned with improving user convenience by giving visual feedback on the successful storing of learned user commands (see D3, column 1, lines 37 to 47, column 7, lines 18 to 34, and column 8, lines 29 to 34). Another example of an electronic device which can be controlled by a remote control

according to D3 is a video tape recorder (see D3, column 9, lines 34 to 38).

The learning remote control of D3 is adapted to receive an original command signal sent by an original remote control, wherein the original command signal corresponds to an original command of said original remote control (the "pure" remote control device in the terminology of D3, see for instance column 3, line 52, to column 4, line 8). It comprises a memory (RAM 5, see, for instance, column 6, lines 51 to 56) for storing said original command signal. The remote control itself also comprises a display for indicating whether said original command signal has been stored successfully in said memory (see figure 4E and figure 5: P5, and column 7, lines 18 to 27), and a means (CPU 2) for associating said stored original command signal with a desired command (see figure 5 and column 7, lines 14 to 17).

5.4 Thus a person skilled in the art would have modified the remote control of D1 by implementing features known from D3 in an obvious manner. In doing so he would have arrived at a remote control as specified in claim 1.

5.5 The appellant's arguments

The appellant's arguments did not convince the board for the following reasons.

5.5.1 The argument that a person skilled in the art would not have considered D3, since it disclosed a wrist watch, did not convince the board. A person skilled in the art starting from a remote control system of D1 would

primarily look for a solution to his problem in this technical field to which also D3 relates (see e.g. claim 1). The fact that the remote control device of D3 may take the form of a wrist watch (see e.g. claim 2 of D3) would not discourage him from considering the useful teaching about visual feedback in a remote control.

5.5.2 The argument that a complete redesign of the remote control of D1 would have been necessary to implement a learning functionality (because the infrared receiver in the remote control of D1 was designed to receive only image signals, not control signals) is also not convincing. It is self-evident that a learning remote control of the type disclosed in D3 requires a receiver for the original signals which have to be emulated. This can be achieved without a complete redesign by a second infrared receiver with associated electronics in the remote control of D1. The further modifications required for associating the received control signal with a desired command were well-known in the technical field of learning remote controls. And the appellant has not submitted any arguments why a person skilled in the art would not have provided a second infrared receiver.

5.5.3 The argument that a combination of the teachings of D1 and D3 would have resulted in a remote control having two displays (one for displaying television images, and one for providing feedback in the learning process of the remote control) does not take into account that a display capable of displaying a television image (as in D1) would also have been capable of indicating whether an original command has been stored successfully in a

memory, as disclosed in D3. Hence a person skilled in the art would have had good reasons to use the existing display to also provide the desired feedback.

5.5.4 The argument that a selection from the multiple possibilities of improving the feedback was made in an inventive manner does not take into account that also a selection from multiple possibilities may be obvious to a person skilled in the art. In the present case, the selection was obvious to a person skilled in the art for the reasons given above (see sections 5.2 to 5.4).

5.6 Hence the board judges that the remote control system of claim 1 does not involve an inventive step (Article 56 EPC 1973). Thus the decision under appeal cannot be set aside, and the appeal must be dismissed.

## Order

## For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

L. Fernández Gómez F. Edlinger