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**Datasheet for the decision
of 4 February 2013**

Case Number: T 0655/08 - 3.5.04

Application Number: 05253686.9

Publication Number: 1608155

IPC: H04N5/232

Language of the proceedings: EN

Title of invention:

Image pickup apparatus having a display panel and an image pickup method

Applicant:

Sony Corporation

Relevant legal provisions:

EPC 1973 Art. 56

RPBA Art. 13(1), 13(3)

Keyword:

Inventive step - main request, first and second auxiliary requests (no)

Third auxiliary request - admitted (no)



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Chambres de recours**

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Case Number: T 0655/08 - 3.5.04

**D E C I S I O N
of Technical Board of Appeal 3.5.04
of 4 February 2013**

Appellant: Sony Corporation
(Applicant) 1-7-1 Konan
Minato-ku
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 9 January 2008 refusing European patent application No. 05253686.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: M. Paci
Members: A. Dumont
T. Karamanli

Summary of Facts and Submissions

- I. The applicant appealed against the decision to refuse European patent application No. 05253686.9.
- II. The examining division refused the application *inter alia* on the grounds that the subject-matter of claim 1 then on file lacked inventive step starting from prior-art document:

D4: EP 1 158 785 A2.

The examining division also referred to prior-art documents:

D1: US 5,729,289 A, and

D5: US 5,801,774 A.

- III. In a communication under Article 15(1) RPBA (Rules of Procedure of the Boards of Appeal, OJ EPO 2007, 536), annexed to the summons to oral proceedings, the board indicated that it tended to agree with the reasons of the decision under appeal as concerns the analysis and relevance of D4. The board additionally referred to:

D6: EP 1 063 843 A2.

A copy of document D6 was annexed to the aforementioned communication.

- IV. Oral proceedings before the board took place on 4 February 2013.
- V. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of one of the main request and first to

third auxiliary requests, in this order, all filed with letter of 11 December 2012.

VI. Claim 1 according to the main request reads as follows:

"An image pick up apparatus (10) having a panel display (40) attached thereto in a freely openable and closable manner, comprising:

a first operation unit (12) provided on a body side of the image pick up apparatus; and

a second operation unit (42) provided at the panel display;

wherein the first operation unit (12) and the second operation unit (42) have a same operation function."

VII. Claim 1 according to the first auxiliary request reads as follows:

"An image pick up apparatus (10) having a panel display (40) attached thereto in a freely openable and closable manner, comprising:

a first operation unit (12) provided on a body side of the image pick up apparatus for operation by a user's supporting hand; and

a second operation unit (42) provided at the panel display on a side of the image pick up apparatus for operation by the user's other hand;

wherein the first operation unit (12) and the second operation unit (42) have a same operation function."

VIII. Claim 1 according to the second auxiliary request reads as follows:

"An image pick up apparatus (10) having a panel display (40) attached thereto in a freely openable and closable manner, comprising:

a first operation unit (12) provided on a right-hand body side of the image pick up apparatus for operation by a user's supporting right hand; and
a second operation unit (42) provided at the panel display on a left hand side of the image pick up apparatus for operation by the user's left hand;
wherein the first operation unit (12) and the second operation unit (42) have a same operation function."

IX. Claim 1 according to the third auxiliary request reads as follows:

"An image pick up apparatus (10) having a panel display (40) attached thereto in a freely openable and closable manner, comprising:

a first operation unit (12) provided on a right-hand body side of the image pick up apparatus for operation by a user's supporting right hand; and

a second operation unit (42) provided at the panel display on a left-hand side of the image pick up apparatus for operation by a user's left hand;

wherein the first operation unit (12) and the second operation unit (42) each have a zoom operation unit controlling a zoom function and a shutter operation unit controlling a shutter operation at the time of taking a still image; and

a controller (28) for generating control signals based on operation signals from said first operation unit and said second operation unit, said controller being configured to determine whether said shutter operation unit has been pressed half-way down or all the way down in a still image mode and to control recording of a still image in response to determining said shutter operation unit has been pressed all the way down and to adjust focus and exposure in response to detecting said shutter operation unit has been pressed half-way down."

- X. The reasoning on inventive step in the appealed decision may be summarised as follows:

D4 discloses a camera with a panel display attached thereto in a freely openable and closable manner and with an operation unit provided at the panel display on the left-hand side of the camera for operation by the user's left hand. In one particular configuration ("fifth combination"), the apparatus is operated with the panel display closed (i.e. facing the camera body), so that (second) operation functions provided at the panel display are not accessible. In such a configuration, it would be obvious to provide an equivalent function, for instance focus control, as a (first) operation unit on a side of the camera body, in order to enable the user to further operate the camera. Moreover, documents D1 and D5 describe a camera with operation units having identical functions, one at the panel display, one on the camera apparatus, both being operable when the panel display is open in order to improve operability.

- XI. In its communication under Article 15(1) RPBA, the board observed that it tended to agree with the reasons in the appealed decision as regards the analysis and relevance of D4. It further observed that D6 provided a similar but more general teaching than D4, with a panel display being configurable to offer various operations. The board provisionally concluded that the subject-matter of claim 1 according to the requests then on file also lacked inventive step over a combination of D6 with D5.

- XII. The appellant essentially argued as follows regarding inventive step:

The only two cited documents that explicitly disclose two operation units having the same function are D1 and D5. In these two documents, a second operation unit is provided at a panel display for use when the first operation unit is difficult to access. D5 relates to a rather old and cumbersome camera.

D4 and D6 are similar documents, which both disclose image pickup apparatus with openable and closable screens that have operation buttons on the panel display.

D4 is concerned with operating a camcorder using a touch-sensitive panel display which can be operated blind, i.e. even when the user is not looking at the screen. D4 discloses a "fifth combination", in which the panel display is closed and a user can take a picture through the electronic viewfinder. The appellant, Sony Corporation, which is also the applicant in D4, has indicated that in fact operation in this mode was controlled in commercialised Sony products by a separate remote controller, not by operation units (e.g. buttons) on the camera. Thus an additional (first) operation unit on the camera body with the same function as a (second) operation unit at the panel display is not needed in D4. The skilled person would have no motivation to adapt the device of D4 to add a (first) operation unit, since such an adaptation would add costs and complexity to the device and yet would not seem to provide any benefits or address any problems associated with D4. There was also a prejudice against unnecessary duplication of operation units on a (video) camera.

D6 indicates that the camera is not operational when the panel is closed (see Figure 14 and the description of the first and second switches (20, 21)). In other words, when the operation unit on the panel display is not available, no mode of operation is possible. This provides a strong indication that the only operation units are those on the panel display. Furthermore, D6 teaches the reconfiguration of the operation units on the panel display to improve ease of use. There is no indication that further operation units could be provided and might improve ease of use.

In conclusion, neither D4 nor D6 suggests providing first and second operation units (e.g. buttons) having a same operation function in order to solve the technical problem of improving ease of use when looking through the electronic viewfinder. As a result, the apparatus according to the main request involves an inventive step.

The apparatuses according to the first and second auxiliary requests provide operation units that are accessible by different hands in order to address the problem of ease of use mentioned in paragraph [0005] of the description of the present application. By contrast, D1 and D5 both suggest providing duplicated operation units that are accessible by the same hand.

XIII. The appellant essentially argued as follows regarding the admissibility of the third auxiliary request:

Claim 1 of the third auxiliary request consists of claim 1 of the second auxiliary request with additional features from claims 2 and 3, combined with features from Figure 4 and from the corresponding description (paragraphs [0027] to [0032]) relating to a mode of

operation of the shutter operation unit which takes into account how far down the unit is pressed by the user ("half-way down" or "all the way down"). By contrast, the second operation units in the devices of D4 and D6 are soft buttons on a touch screen which cannot be operated in such a manner.

The third auxiliary request was filed as a legitimate reaction to the summons to oral proceedings by the board, which introduced a new prior-art document D6, in order to clearly distinguish the first and second operation units of claim 1 from the soft buttons of D4 and D6. Furthermore, D4 was also introduced into the examination proceedings at a very late stage, i.e. with the summons to attend oral proceedings before the examining division. Thus no opportunity was given to file claims corresponding to the third auxiliary request at an earlier stage. The third auxiliary request should thus be admitted into the appeal proceedings.

Reasons for the Decision

1. The appeal is admissible.
2. Main request, first and second auxiliary requests.
 - 2.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request in that it is limited to the first operation unit being (suitable) for operation by the user's supporting hand and to the second operation unit being (suitable) for operation by the user's other hand. Claim 1 of the second auxiliary request is further limited by the user's supporting hand being the right hand, and by the second operation

unit being provided on the left-hand side of the image pick-up apparatus for operation by the user's left hand. Claim 1 according to the second auxiliary request thus defines the most limited invention. In the following, inventive step will be assessed with respect to this most limited invention first.

- 2.2 Document D6 discloses a hand-held image pick-up apparatus (video camera 6 in Figures 7 to 10) having a touch panel display (external display monitor 7) attached thereto in a freely openable and closable manner usable during both image pick-up and reproduction as an alternative to an electronic viewfinder (8) and a second operation unit (19_{x4} in figures 11 to 13) provided at the panel display, suitable for operation by the user's left hand when the apparatus is held in front of the user's face and with the user's eyes and the optical axis of the camera lens pointing in the same direction (see Figure 8). This is not disputed by the appellant.

Figures 7 to 10 of D6 show three sides of the camera body, none of which comprises any buttons ("operation units" in the claim terminology). However, it is left undisclosed in D6 whether buttons are provided on any of the other three sides of the camera not shown in the figures, including the side for the user's supporting right hand (see the wrist strap partially visible in figures 7 to 10). Although it was a common feature of prior-art cameras to be equipped with buttons which could be controlled by the user's right hand, the board is prepared to accept, in the appellant's favour, that such buttons were not absolutely necessary in the camera of D6 and thus were not implicitly disclosed in document D6.

- 2.3 The apparatus of claim 1 thus differs from the apparatus of D6 by first and second operation units provided on the right-hand side and the left-hand side of the apparatus, respectively, and having a same operation function.
- 2.4 The appellant formulates the objective technical problem as improving ease of use when looking through the electronic viewfinder. Since the apparatus of claim 1 does not comprise such a viewfinder, the technical problem solved by the present invention, as claimed, should, in the board's view, be formulated in more general terms, namely as improving ease of use of the camera. This formulation is in line with the description of the present application, paragraph [0006].
- 2.5 The panel display is freely openable and closable in D6 as well as in the present invention. Switches (20, 21 in Figures 5 and 14) are provided in D6 to detect whether the monitor is accessible and oriented in one of the configurations shown in Figures 8 to 10, and to maintain the coordinate position of the second operation unit(s) on the panel display (see paragraphs [0004] and [0007]). When both switches (20, 21) are off, the second operation unit(s) at the panel display is (are) not accessible. This corresponds to the configuration where the panel display is closed, as shown in Figure 7 (see also paragraphs [0040] to [0043]). The board does not agree with the appellant's argument based on Figure 14 that the camera would not be operational in that latter configuration. Indeed, in the board's view, Figure 14 and the corresponding description merely state that the camera cannot be operated from the panel display when the panel display

is closed. This does not, however, exclude the camera being operated by other means, as explained below.

2.6 When the panel display is closed, a user can still look through the electronic viewfinder but the soft buttons provided at the panel display are no longer accessible (this corresponds to the "fifth combination" dealt with in the appealed decision with respect to document D4). Thus, in this configuration, the use of the camera is impaired.

2.7 The skilled person confronted with this problem would have envisaged improving, or restoring, the ease of use of the camera by making (at least one of) these commands accessible (again), for instance in the well-known manner of providing buttons on the camera body which can be reached by the user's supporting right hand. Various locations are in principle possible for providing these buttons, with the most obvious location being on the right-hand side of the camera, because that is where the user's right hand is. The skilled person would be expected to provide buttons for at least basic essential functions such as on/off, recording/stop, zooming in/zooming out. Since at least some of these functions would have also been provided as soft buttons on the touch panel display of the camera of D6 (see paragraph [0003]), the skilled person would have arrived at the subject-matter of claim 1.

2.8 The appellant argued that duplicating an operating unit would have added costs and (technical) complexity to the device. The board agrees. However, regarding the issue of costs, the skilled person designing consumer electronic products, such as video cameras, has constantly to balance these considerations with ergonomic aspects such as ease of use, and to find an

appropriate compromise. The compromise might be different for a low-end product than for a high-end device. As to complexity, the board considers that duplicating an operating unit is technically straightforward and thus hardly adds any technical complexity.

Accordingly, the board cannot see a technical prejudice against duplicating operation units, when necessary or appropriate, as practiced in D1 and D5. Nor has the appellant demonstrated such a prejudice.

- 2.9 As a result, the skilled person would have arrived at the apparatus of claim 1 according to the second auxiliary request without an inventive step, starting from D6. Claim 1 according to the second auxiliary request is thus not allowable under Article 52(1) EPC together with Article 56 EPC 1973.
- 2.10 Claim 1 of both the main request and the first auxiliary request is broader than claim 1 according to the second auxiliary request. As a result, these claims are *a fortiori* also not allowable for the same reasons.
- 2.11 In conclusion, neither the main request, nor first or second auxiliary requests is allowable.
3. Third auxiliary request
- 3.1 According to Article 13(1) RPBA, any amendment to a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the board's discretion. The discretion shall be exercised in view of *inter alia* the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy. According to Article 13(3)

RPBA, amendments sought to be made after oral proceedings have been arranged are not to be admitted if they raise issues which the board or the other party or parties cannot reasonably be expected to deal with without adjournment of the oral proceedings.

- 3.2 Claim 1 of the third auxiliary request was filed with letter dated 11 December 2012, i.e. approximately eight weeks before the date of the oral proceedings, as a reply to the board's communication under Article 15(1) RPBA. Claim 1 was amended to add *inter alia* the features that the first and second operation units each have a shutter operation and that a controller is configured to determine whether the shutter operation unit has been pressed half-way down or all the way down, and to control recording in response to determining that said shutter operation unit has been pressed all the way down and to adjust focus and exposure in response to detecting that said shutter operation unit has been pressed half-way down.

These features were disclosed in the description and drawings of the application as filed. However, they were present neither in the claims of the application as filed nor in any of the claims filed in the examination or appeal proceedings prior to the filing of the letter dated 11 December 2012.

Under these circumstances the board cannot assume that these features were searched when the European Search Report was drawn up or during examination by the examining division. Thus, if the board were to admit these amended claims into the proceedings, it would be unable to assess inventive step because an additional search for relevant prior art would first have to be performed. The board would therefore have had to remit

the case to the department of first instance for further prosecution (including a search). This course of action would be contrary to procedural economy and the provisions of Article 13(3) RPBA.

3.3 The appellant argued that these amendments were made in reaction to the citation of D6 by the board for the first time in the board's communication under Article 15(1) RPBA and, thus, could not have been filed earlier. According to the appellant, the above amendments established an inventive departure from the operation units of D6, which use soft buttons on a touch panel display.

3.4 The board is not convinced by these arguments for the following reasons:

First, the appellant did not dispute that European patent applications D4 and D6 (both applications filed by the present appellant) have similar disclosures.

Second, the considerations leading to the conclusion of lack of inventive step of claim 1 according to the auxiliary requests were essentially the same when starting from either D4 or D6. Furthermore, the appellant treated D4 and D6 on an equal footing when arguing in favour of inventive step for claim 1 of the third auxiliary request, in reaction to the board's communication under Article 15(1) RPBA (see in particular page 5 of the appellant's letter of 11 December 2012).

Third, when invited by the board during the oral proceedings to identify at least one feature of claim 1 distinguishing the subject-matter of claim 1 from D6, but not from D4, the appellant was unable to do so.

3.5 Hence the board does not regard the amendments to claim 1 of the third auxiliary request, filed at such a late stage of the appeal proceedings, as justified by a substantially different factual situation arising from the citation of D6. These amendments could have been filed at an earlier stage in reaction to the citation of D4 by the examining division in the summons to oral proceedings.

3.6 For the above reasons, the board, exercising its discretion in accordance with Articles 13(1) and 13(3) RPBA, decided not to admit the third auxiliary request into the appeal proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



K. Boelicke

M. Paci

Decision electronically authenticated