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D E C I S I O N
of 19 March 2004

Case Number: T 0370/01 - 3.5.1
Application Number: 91912590.6
Publication Number: 0532682
IPC: H04N 9/64, H04N 5/262
H04N 5/44, H04N 5/45
Language of the proceedings: EN

Title of invention:
Synchronizing side by side pictures

Patentee:
THOMSON CONSUMER ELECTRONICS, INC.

Opponents:
MICRONAS INTERMETALL GmbH
Interessengemeinschaft für Rundfunkschutzrechte GmbH
Schutzrechtsverwertung & Co. KG

Headword:
Synchronizing pictures/THOMSON CONSUMER ELECTRONICS

Relevant legal provisions:
EPC Art. 56

Keyword:
"Admissibility of late-filed documents (yes)"
"Inventive step - all requests (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0370/01 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 19 March 2004

Appellant: THOMSON CONSUMER ELECTRONICS, INC.
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted 29 January 2001
revoking European patent No. 0532682 pursuant
to Article 102(1) EPC.**

Composition of the Board:

Chairman: S. V. Steinbrener
Members: W. E. Chandler
V. Di Cerbo

Summary of Facts and Submissions

I. This appeal is against the decision of the opposition division, dated 29 January 2001, to revoke European patent No. 0 532 682.

Two oppositions had been filed against the patent as a whole based on Articles 100(a) and 56 EPC.

The opposition division held that the subject-matter of claim 1 as granted or as amended according to the first, second or third auxiliary request did not involve an inventive step having regard to following documents:

D1: US-A-4 399 462

D5: JP-A-57 208772

D6: SMPTE Journal, August 1984, pages 726 to 729

D7: GB-A-2 153 626

II. Claim 1 of the main request read as follows:

"A video display system, comprising:

a first source (ANT1, ANT2, AUX1, AUX2) of a first video signal (Y_MN) representative of a first picture;
first signal processing means (304) for speeding up said first video signal;

a second source (ANT1, ANT2, AUX1, AUX2) of a second video signal (Y_AUX) representative of a second picture;
video display means (244) synchronized with said first and second video signals;

second signal processing means (306) for speeding up said second video signal; and,

means (312) for combining said first and second processed video signals for side-by-side display of said first and second pictures, said side-by-side pictures being of substantially comparable size, characterized by:

said first and second pictures having first and second display format ratios respectively (e.g. 4:3), said video display means (244) having a display area with a third display format ratio (e.g. 16:9) greater than each of said first and second display format ratios;

said first signal processing means (304) being adapted to crop said first video signal by reducing said first display format ratio;

said second signal processing means (306) being adapted to crop said second video signal by reducing said second display format ratio; and,

each of said first and second pictures being controlled in picture size and image aspect ratio, as displayed, by said first and second signal processing means respectively."

Claim 1 of the first auxiliary request essentially differed from claim 1 of the main request in that the last three features were replaced by:

"picture images of said first and second video signals being compressed by reason of said speeding up and being expanded by operation of said video display means having said greater format display ratio;

a first memory (356) in said first signal processing means (304);

a second memory (354) in said second signal processing means (306); and

means (300) for generating a first timing control signal (e.g. WR_EN_MN_Y) coupled to said first memory (356) and a second timing control signal (e.g. WR_CLK_AX) coupled to said second memory (354) for cropping left and/or right sides of each of said first and second pictures, said first and second timing control signals respectively controlling said first and second memories to provide only those portions of said first and second video signals (Y_MN, Y_AUX) required for subsequent display as said side-by-side pictures."

Claim 1 of the second auxiliary request added to claim 1 of the first auxiliary request essentially that the compression of the pictures compensated for the expansion in the display and was such as to give no image aspect ratio distortion.

Claim 1 of the third auxiliary request added to claim 1 of the first auxiliary request essentially that, when writing into the memories, the timing signals selected the portions of the video signals required for display.

III. In a letter dated 16 March 2001, the proprietor (appellant) lodged an appeal against the decision and paid the prescribed fee.

In a response, dated 17 April 2001, respondent 02 (opponent 02) requested that the appeal be dismissed. Subsequently, in the grounds of appeal, dated 7 June 2001, the appellant requested that the patent be maintained as granted, or on the basis of the first, second or third auxiliary request filed before the opposition division with the letter dated 17 November 2000.

In a letter, dated 10 August 2001, respondent 02 gave a reasoned response to the appellant's arguments and requested that the following document be admitted into the proceedings:

D9: WO-A-86 05644

Both parties made an auxiliary request for oral proceedings.

- IV. Following a communication from the Board containing an analysis of the issues to be discussed, oral proceedings were held on 19 March 2004. Respondent 01 (opponent 01) did not make any written submissions in the appeal proceedings, but attended the oral proceedings. Respondent 01 also requested that the appeal be dismissed.
- At the end of the oral proceedings, the Board announced its decision to the parties.

- V. The appellant argued as follows:

D9 should not be admitted into the proceedings. It was not being used to supplement the respondents' arguments, but had become the main document in some lines of argument. The use of D9 was not a reaction to any procedural step of the appellant since the claims were still the same as those revoked by the opposition division.

The opponent must have been aware of the existence and the content of D9 at the oral proceedings before the opposition division on 19 December 2000. This is because the opponent had attended another oral proceedings five days earlier concerning the European

patent derived from D9 itself. The opponent had therefore knowingly withheld D9, which was an abuse of procedure. The respondent could have also introduced D9 in the initial response to the appeal on 17 April 2001, rather than waiting until the second response on 10 August 2001.

It followed from the field and problems tackled by the patent that the relevant skilled person had to be a television developer. This skilled person would not have considered D1 because the document concerned a military application in a fighter aircraft for which different considerations were relevant. For example, the loss of image information could not be tolerated, and the cost of the system was not so important. Even if the skilled person had considered D1, the document did not suggest remedying the distortion caused by compressing the images, but stated that it was "tolerated".

If the use of a widescreen display had been obvious, it would have been mentioned in D1, especially in view of the fact that costs were not so important in military applications.

Cropping was not unavoidable as the two 4:3 images could have been displayed in letterbox format also without distortion.

Not every combination of the known techniques could be considered to be obvious since some of them would represent optimal solutions. In fact, another patent had been granted on the idea of displaying two 4:3 images on a widescreen display in letterbox format.

Concerning the first and second auxiliary requests, there was no suggestion in any of the prior art to

speed up the signal to compensate the expansion caused by the widescreen display. Furthermore, there was no evidence that the skilled person would have recognised that the same memory could have been used not only for speedup but also for cropping.

Concerning the third auxiliary request, none of the prior art disclosed writing into the memories only portions of the video signals to be displayed.

VI. At the oral proceedings, respondent 01 argued *inter alia* as follows:

D6 was a SMPTE article that showed that widescreen displays were becoming available at a time around its publication date (1984). D9 had a priority date one year after D6 and discussed the emerging compatibility problems between normal and widescreen images. Thus, the priority date of D1 (1981) was before widescreen displays were common, which is why there would have been no mention of them.

Respondent 01's further arguments are discussed in the reasons.

VII. Respondent 02 argued *inter alia* as follows:

Admissibility of D9

The opponent had not introduced D9 during the oral proceedings before the opposition division because it was thought that it would not have been allowed at such a late stage in those proceedings. It was thought better to introduce it at the beginning of the appeal proceedings. Regarding the appeal proceedings, it was

not usual to discuss substantive matters in the first formal response to the appeal, but in the full reasoned response.

Main and auxiliary requests

Respondent 02's arguments on substantive matters are detailed in the reasons.

Reasons for the Decision

1. The appeal complies with the requirements referred to in Rule 65(1) EPC and is, therefore, admissible.

2. *Admissibility of D9*

2.1 In the Board's view, any decision about whether and when to introduce an additional document into the proceedings to support a party's case is part of that party's overall responsibility for managing the case. It is then up to the particular Board of Appeal to decide on the admissibility of the document on the basis of the criteria given by established case law. It follows that if a document is not introduced early enough the party runs the risk of having it declared inadmissible.

In the present case, the opponent won before the first instance and the patent was revoked on the evidence already on file without the need for D9. Under these circumstances, the Board does not judge this course of action to be an abuse of procedure, nor as a reason, on its own, not to admit D9.

It was only after the appellant, in the grounds of appeal, dated 7 June 2001, contested the opposition division's finding that a skilled person would have considered speeding up the video signals to prevent distortion that respondent 02 sought to introduce D9, which showed this to be known. This action was therefore a reaction to the appellant's action and was, in fact, the first point in time when there was any reason for the respondent to rely on D9.

2.2 Moreover, the Board agrees with the respondents that D9 merely confirms what the skilled person was alleged to know at the priority date of the patent and does not raise entirely new issues. Thus, the document caused no undue difficulties or delay for the appellant.

2.3 For these reasons the Board admits D9 into the proceedings.

3. *Inventive step (main request)*

3.1 The Board agrees with respondent 02's line of argument that, starting from document D1, the subject-matter of claim 1 of the main request does not involve an inventive step.

3.2 The patent concerns displaying two pictures side-by-side and the same size on a widescreen display having a wider aspect ratio than the individual pictures (e.g. a widescreen television).

3.3 The Board agrees with respondent 02 that the closest prior art is D1 because it concerns the problem of displaying two 4:3 images side-by-side on a single

display. Although the main embodiment relates particularly to a military application, it is clear that the document as a whole applies equally to consumer video systems because of the general nature of the title "video split screen technique", the mention of a televised baseball game at column 1, lines 41 to 44 and the fact that the use in military aircraft is only said to be a preferred embodiment at column 3, lines 14 to 16.

3.4 D1 discloses two independent techniques for making side-by-side images fit on a single display. The first involves "chopping off" or cropping the sides of each image, and the second involves squeezing or compressing the images. D1 explains the consequences of and considerations applicable to each technique; cropping results in a loss of picture information, which may be useful for unimportant information (see column 1, lines 41 to 42), whereas compressing keeps all the content, but distorts the pictures (see column 1, lines 47 to 51 and column 5, lines 42 to 46).

3.5 The subject-matter of claim 1 of the main request differs from the cropping teaching of D1 in that the video signals of the two images are speeded up and that the video display has a greater format ratio (i.e. wider screen) than each of the images to be displayed. These differences solve the problem of displaying a larger area of each image without distortion. Since D1 mentions the problem of losing information at column 2, lines 7 to 11, and mentions that the minimum amount of each picture should be eliminated at column 1, lines 39 to 41, the skilled person would have considered ways of solving this problem.

- 3.6 It is common ground that widescreen displays were available at the priority date of the patent. The Board agrees with the respondents that the skilled person would have considered using a widescreen display to display the two cropped images because such displays are wider for the same height and could accommodate more of the images. It is obvious how much more of the two 4:3 images would fit on a 16:9 display than a 4:3 display purely from geometrical considerations. Having selected the information that could be physically fitted on the widescreen display, it follows from well known technical considerations how the signals representing these images should be displayed without distortion, namely that the video signals should be speeded up. These considerations are explained, for example, in D9 at page 14, last paragraph, lines 4 to 5, and page 15, last four lines of first paragraph.
- 3.7 Thus the Board judges that the skilled person would have considered compressing the cropped video signals of D1 and displaying them on a widescreen display to solve the problem posed, so that the subject-matter of claim 1 does not involve an inventive step.
- 3.8 The fact that the two 4:3 images could be displayed on a 16:9 display in letterbox format does not change this. The skilled person would have known that compressing, cropping and displaying in letterbox format are all possible solutions each having disadvantages, namely distortion of the images, loss of information and wasting space on the screen, respectively. The skilled person would have chosen the technique according to the

problem to be solved. If, as in the present case, the problem is to display a larger image area without distortion, it would have been obvious to consider cropping rather than letterbox format.

Furthermore, by stating that picture distortion is "tolerated" at column 5, line 46, D1 does not guide the skilled person only in the direction of compression and to ignore the possibility of cropping. Rather, the skilled person would have realised that the choice is dominated by the higher ranking consequences and considerations, mentioned above, that are applicable to the different techniques.

4. *Inventive step (auxiliary requests)*

4.1 The Board agrees with respondent 02 that the additional features of the first, second and third auxiliary requests are all well known or obvious elements functioning in their normal way.

4.2 Concerning the first auxiliary request, the expansion of the video signal by the display follows automatically from the use of a widescreen display. Secondly, the use of memories for cropping and compressing is routine in this field. Finally, the cropping in D7, in order to display a 5:3 image on a 4:3 display, is achieved by generating and using timing signals on FIFO memories (see page 3, lines 2 to 5, 67 to 69, and 90 to 97).

4.3 Thus, the Board judges that the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step.

- 4.4 Displaying the pictures on a widescreen display with no aspect ratio distortion, according to the second auxiliary request, is explicitly disclosed in D9 at page 14, paragraph 3, lines 4 to 5. It is also implicitly disclosed in D1 by the choice of cropping, which does not involve any distortion.
- 4.5 Thus, the Board judges that the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step.
- 4.6 The feature of writing into the memories only portions of the video signals to be displayed, according to the third auxiliary request, is one of only two obvious possible alternatives. These are disclosed in D9 at page 14, paragraph 1, lines 7 to 10.
- 4.7 Thus, the Board judges that the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step.
5. There being no other requests, it follows that the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

M. Kiehl

S. Steinbrener