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**Datasheet for the decision
of 25 April 2007**

Case Number: T 0152/04 - 3.5.04

Application Number: 94910836.9

Publication Number: 0689751

IPC: H04N 5/91

Language of the proceedings: EN

Title of invention:

Copy protection for hybrid digital video tape recording and
unprotected source material

Patentee:

MACROVISION CORPORATION

Opponent:

IGR GmbH & Co. KG.

Headword:

-

Relevant legal provisions:

EPC Art. 54(3), 56

Keyword:

"Novelty - prior European application (yes)"
"Inventive step - problem and solution (yes)"

Decisions cited:

G 0010/91, G 0002/98

Catchword:

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Case Number: T 0152/04 - 3.5.04

D E C I S I O N
of the Technical Board of Appeal 3.5.04
of 25 April 2007

Appellant: IGR GmbH & Co. KG.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 15 December 2003
rejecting the opposition filed against European
Patent No. 0689751 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: F. Edlinger
Members: A. Dumont
B. Müller

Summary of Facts and Submissions

- I. The appeal is against the decision of the opposition division to reject the opposition against European patent No. 0 689 751.
- II. An opposition had been filed based on Article 100(a) EPC on the ground that the subject-matter of the patent lacked an inventive step *inter alia* with respect to the following documents:
- D1: DE 3 806 414 A1
D2: EP 0 501 792 A2
D3: US 4 631 603 A
D4: US 4 914 694 A
D5: US 4 907 093 A.
- III. In the statement of grounds of appeal the appellant raised the fresh ground for opposition that the subject-matter of the claims lacked novelty, Article 54(3) EPC, with regard to the document:
- D7: EP 0 580 367 A2
- and complemented his argumentation of lack of inventive step with the further document:
- D8: EP 0 224 929 A2.
- IV. In a letter of 2 September 2004 the respondent did not object to the introduction of the fresh ground, but filed a copy of the Japanese priority document of D7 with an English translation thereof (referred to as D7' in the following) and contested whether D7 was entitled

to its priority. He further contested whether D7 was novelty-destroying.

- V. In a letter of 26 October 2006 the appellant submitted a change of name and filed a copy of the corresponding excerpt from the German Register of Companies.
- VI. Oral proceedings before the board took place on 25 April 2007.
- VII. The appellant requested that the decision under appeal be set aside and that the patent be revoked.
- VIII. The respondent requested that the appeal be dismissed and that the patent be maintained unamended (main request). In the alternative, he requested that the patent be maintained in amended form in accordance with the auxiliary request 1 filed with the letter dated 23 March 2007.
- IX. The independent claims 1 and 14 according to the main request read as follows.

"1. Apparatus for playing back material recorded digitally on a recording medium, the recorded material including copy protection information, said apparatus comprising

a mechanism (10) for playing the recording medium and providing a digital output signal (20), and a digital to analog convertor (22) arranged to receive said digital output signal (20) and to convert said digital output signal to an analog output signal (24),

said apparatus being characterised by means (46, 50) arranged in response to the detection of said copy protection information to generate and insert an analog copy protection signal into said analog output signal."

"14. A method of playing back material recorded digitally on a recording medium, the recorded material including copy protection information, the method utilizing playback apparatus comprising

a mechanism (10) for playing the recording medium and providing a digital output signal (20), and a digital to analog convertor (22) arranged to receive said digital output signal (20) and to convert said digital output signal to an analog output signal (24),

characterised in that, to inhibit copying of the digitally recorded material, the method comprises the steps of

detecting copy protection information, and generating and inserting an analog protection signal into said analog output signal in response to the detection of said copy protection information."

The remaining claims are dependent claims.

- X. The appellant's arguments as regards novelty may be summarised as follows.

D7 discloses an apparatus according to the preamble of present claim 1, additionally comprising means for inserting, into a vertical blanking period of the already converted analogue video signal, an analogue copy protection signal in response to the detection of digital copy protection information. Both D7 (column 6, lines 37 to 42, and claim 13) and D7' (paragraphs [0002], [0003] and [0016] to [0021]) disclose the copy protection (ID) signal being present in the analogue video signal. It must therefore have been inserted into the analogue signal. The subject-matter of the independent claims of the patent in suit therefore lacks novelty.

- XI. The respondent's arguments as regards novelty may be summarised as follows.

According to Article 87(1) EPC, European patent application D7 enjoys a right of priority provided its priority document discloses directly and unambiguously the same invention (see also decision G 2/98). The subject-matter of the relevant claims in D7 is not disclosed in the Japanese priority document, so that D7 does not constitute prior art pursuant to Article 54(3) EPC.

Furthermore, D7 does not insert an analogue copy protection signal in the meaning of the present invention as it has no effect in the analogue domain and, in addition, is inserted into the digital video signal.

XII. The appellant's arguments as regards inventive step may be summarised as follows.

The closest prior art D2 discloses a playback apparatus according to the preamble of claim 1, which receives digitally recorded material and outputs audio signals in either analogue or digital form for subsequent recording. In the case where the material is digitally copy protected the analogue output, which is not copy protected, is used for recording at the expense of a decline in the sound quality. D2 therefore identifies and exploits the analogue hole. As confirmed by D8, analogue copies may however be qualitatively so good as to render analogue copy protection necessary. Also D7 and paragraph [0003] of D7', although not pre-published, are evidence of the fact that the problem of circumventing the copy protection in the digital domain was already known before the priority date of the opposed patent. The desire to close the analogue hole therefore arises in these circumstances and is likely to be brought to the attention of the person skilled in the art by copyright holders. As a result, the subject-matter of the independent claims, which merely set out the very general principle of closing the analogue hole, is obvious in view of D2 taken alone.

The insertion and detection of a digital copy protection signal is state of the art known from D1 and D2. Insertion of an analogue copy protection signal, for instance by manipulating the synchronisation pulse of an analogue video signal, is a well-known measure known from D3, D4 or D5. Applying such a technique to a digital to analogue converted signal in dependence on

the detection of a digital copy protection information is therefore an obvious measure.

XIII. The respondent's arguments as regards inventive step may be summarised as follows.

The features set out in the characterising portion of the independent claims are absent from the closest prior art D2. D2 specifically relates to digital tape recorders which provide good copies of copy protected material at an analogue output. D2 teaches a way to overcome digital copy protection measures by automatically making an analogue copy of a lesser quality when the digital material is copy protected. D2 circumvents digital copy protection in practice but it does not identify the problem underlying the present invention. D2 therefore teaches away from the analogue copy protection according to the characterising portion of the independent claims.

Although techniques for digital or analogue copy protection were known in isolation, the person skilled in the art would not have, although he theoretically could have, combined them, in the absence of a hint at the technical problem the invention solves. This problem arising with hybrid recorders which were not then available and its solution are part of the creative thinking of the inventor and do not constitute a matter of routine.

Reasons for the Decision

1. The appeal is admissible.

2. *Novelty (Article 54(3) EPC)*

2.1 It is not contested that this ground for opposition was raised for the first time on appeal and constitutes a fresh ground for opposition in the meaning of G 10/91, OJ EPO 1993, 420. The board, applying the principles set out in point 18 of G 10/91, found that an exception to the principle of not introducing the new ground was justified in the present case. The patentee had clearly shown his agreement to the ground being introduced by submitting D7' and by presenting detailed observations on the new issue. The fresh ground appeared *prima facie* highly relevant in view of a soundly based objection of lack of novelty. Nevertheless the board did not remit this old case (priority: 1993) to the first instance because the patentee did not request this and had contributed himself to reducing the procedural uncertainty at an early stage of the appeal procedure by showing that D7 was not entitled to priority for its whole content, in particular certain passages cited against the opposed patent (e.g. claim 11 of D7), which was commonly agreed. The board has therefore introduced this fresh ground into the proceedings. It is solely based on D7.

2.2 Both independent claims 1 and 14 of the opposed patent set out means arranged to generate and insert an analogue copy protection signal into the analogue output signal generated by a digital to analogue converter. They therefore set out that insertion takes place after D/A conversion.

2.3 D7 describes a device for reproducing a digital video signal in which an ID signal is inserted in response to the detection of copy protection information ("copy guard") into the vertical blanking interval of the expanded digital video signal prior to digital to analogue conversion (figure 1A; column 3, lines 27 to 49). The device disclosed in the description and drawings of D7 therefore contains the ID signal in the analogue output signal, as commonly agreed. However, this is different from the subject-matter of the opposed patent where the digital signal is first converted to an analogue one before an analogue copy protection signal is inserted "into said analog output signal".

2.4 D7 comprises a set of 114 claims, some of which appear to specify subject-matter where an ID signal is inserted into an analogue video signal. However it need not be decided whether D7 directly and unambiguously discloses such a combination because the skilled person could not derive such subject-matter directly and unambiguously, using common general knowledge, from the previous Japanese application as a whole, as evidenced by D7', filed by the respondent. The passages cited by the appellant (paragraphs [0002], [0003] and [0016] to [0021]) merely confirm what has been said in point 2.3 above. The requirement to claim priority of "the same invention", as set out in the conclusion of opinion G 2/98, OJ EPO 2001, 413, would therefore not be fulfilled.

2.5 In conclusion, D7 does not deprive the subject-matter of independent claims 1 and 14 of novelty. As the

objection under Article 54 EPC was based on D7 only, the present invention is considered to be new.

3. *Inventive step (Article 56 EPC)*

3.1 It is common ground that D2 discloses an apparatus and a method according to the preamble of independent claims 1 and 14, respectively. In D2 recorded material may be played back both as an analogue and a digital signal. It is further uncontested that the arrangement of D2 does not encompass analogue copy protection and automatically switches over to copy the analogue signal when a copy protection information is detected in the digital signal (see for instance D2, column 9, lines 26 to 31).

3.2 D2 sets out that digital audio recording of protected content causes no reduction in sound quality, so that serial duplication becomes a problem in terms of the author's copyright protection. Digital copy protection accordingly remedies this problem (see column 1, lines 18 to 33). In contrast thereto, analogue recording is accompanied by a reduction in sound quality (see column 5, lines 45 to 50), so that the copy quality will gradually degrade. In the board's view, D2 does not identify the possibility of (serial) analogue copying as a weakness or problem in terms of copy protection, even if the person skilled in the art had recognised at the priority date of the opposed patent that analogue copies may be of fairly good quality. The presence of an analogue hole is neither explicitly identified nor implicit in D2. Rather, D2 is concerned with a totally different problem, namely how to improve troublesome manual switching operations when

the recorded material has digitally protected portions. D2 aims at automatically selecting the best path (digital or analogue output) without the user being aware of whether the transcription of the digital information is authorized or not (D2, column 5, line 31, to column 2, line 32, and column 6, line 58, to column 7, line 10).

3.3 Accordingly, the person skilled in the art reading D2 is *a priori* not confronted with a binary choice of deliberately either leaving the analogue hole open (as is practiced in D2) or closing it (as is foreseen in the present invention). This analysis may certainly be arrived at in hindsight having knowledge of the present invention, but this is not permissible when judging inventive step.

3.4 The present application recognises a problem in hybrid digital and analogue systems "which will soon be commercially available for consumer use". Such systems "will have the capabilities" of analogue and digital recorders and of supplying an analogue signal resulting from the conversion of protected digital material, in that copy protection may be defeated by digital to analogue conversion (see the patent specification, paragraphs [0006] to [0008] and [0012]). The problem is solved by the features set out in the characterising portions of the independent claims, namely generating and inserting an analogue copy protection signal in response to the detection of digital copy protection information. In contrast, D2 is not concerned with problems which might arise from such configurations, but teaches automatic switching to the analogue path for recording digitally protected material when digital

copies are inhibited. The invention is therefore not obvious in view of the prior art disclosed in D2.

3.5 Nothing useful regarding the analogue hole can be gained from D8 either, which relates to preventing unauthorized recording of either a master tape or one of a large number of slave tapes (see D8, column 5, lines 5 to 15). The statements in D7 (column 1, lines 22 to 34) and D7' (paragraph [0003]), which may be summarised as meaning that even an analogue copy can be realised at a very good quality and should therefore be prevented, cannot be taken as proving that a person skilled in the art at the filing date of the Japanese priority application had knowledge of these facts because these statements are the result of an analysis made by the author of the priority application in relation to a particular piece of prior art cited therein.

3.6 The further prior art cited in the proceedings discloses various measures taken to implement either digital or analogue copy protection independently of each other. In particular D1 (Abstract) discloses measures to prevent second-generation digital copy using digital audio tape recorders. D3 and D5 teach inserting pseudo-sync pulses to effect copy protection of an analogue video signal, whereas D4 teaches modifying the vertical period (figure 1) and inserting identification data into the vertical blanking interval (figures 13A and 14) of an analogue video signal (see also paragraphs [0002] to [0004] and [0026] to [0033] of the patent specification where these documents are discussed in detail). None of these documents deals with a problem linked to the conversion of a copy

protected digital signal into analogue form, or vice versa, nor do they hint at the claimed invention. As a result these documents do not compromise the inventive step of the subject-matter of the claims.

3.7 As a consequence, the present invention is considered to involve an inventive step.

4. In these circumstances there is no need to consider the respondent's (patentee's) auxiliary request. The board therefore judges that the grounds for opposition do not prejudice the maintenance of the opposed patent unamended (Article 102(2) EPC) and has to dismiss the appeal.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

D. Sauter

F. Edlinger