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**Datasheet for the decision
of 27 July 2007**

Case Number: T 0296/06 - 3.4.03

Application Number: 98909013.9

Publication Number: 0965121

IPC: G09G 5/08

Language of the proceedings: EN

Title of invention:

Wireless connectivity between a personal computer and a television

Patentee:

INTEL CORPORATION

Opponent:

IGR GmbH & Co. KG

Headword:

-

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (yes)"

Decisions cited:

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Catchword:

-



Case Number: T 0296/06 - 3.4.03

D E C I S I O N
of the Technical Board of Appeal 3.4.03
of 27 July 2007

Appellant: INTEL CORPORATION
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Decision under appeal: Decision of the Opposition Division of the
European Patent office posted 19 December 2005
revoking European Patent No. 0965121 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: R. G. O'Connell
Members: V. L. P. Frank
T. Bokor

Summary of Facts and Submissions

- I. This is an appeal against the revocation of EP 965 121 for lack of inventive step (Article 100(a) and 56 EPC).
- II. Independent claims 1 and 10 of the present claim request read as follows (board's emphasis marking amendments to the claims as granted and revoked):

"1. A method of remotely interacting with a personal computer (PC) (107) comprising the steps of:

transmitting through a first wireless link (417) a video output signal of the PC located at a local site to a television (TV) (109) located at a remote site;

displaying the video output signal on the TV (409) located at the remote site;

multiplexing (451) a plurality of remote input signals generated from a plurality of remote input devices (423A-E) into a remote data stream;

the plurality of remote input devices being at the remote site;

locally demultiplexing (345) the remote data stream into the plurality of remote input signals;

multiplexing (347A-E) each one of the plurality of remote input signals with a corresponding one of a plurality of local input signals generated from a plurality of local input devices (313A-E);

manipulating one of the plurality of remote input devices (423A-E) located at the remote site to control the PC (107);

updating the video output signal (425) displayed on the TV in response to the remote input signal

from said one of the plurality of remote input devices."

"10. A personal computer (PC) interface system, characterised by:

a local PC interface unit (207, 401) to be coupled to a PC (107), the local PC interface unit to be coupled to receive a video output signal from the PC, the local PC interface unit to be coupled to a plurality of local input devices (213A-E), each one of the plurality of local input devices to generate one of a plurality of local input signals to control the PC (207, 401), the PC to be coupled to receive the plurality of local input signals through the local PC interface unit;

a television (TV) interface unit (403) to be coupled to a TV (409), the TV interface unit to be coupled to receive the video output signal from the local PC interface unit through a first wireless link (417), wherein the TV is configured to display the video output signal;

a remote multiplexor (453) to be coupled to a plurality of remote input devices (423A-E) to generate a remote data stream from a plurality of remote input signals generated by the plurality of remote input devices to control the PC; **the plurality of remote input devices being at the remote site;**

a local demultiplexor (345) coupled (319, 419) to the remote multiplexor to demultiplex the remote data stream into the plurality of remote input signals; and

a plurality of local multiplexors (347A-E) to be coupled between the demultiplexor and the PC, the

plurality of local multiplexors to multiplex each one of the plurality of remote input signals with a corresponding one of the plurality of local input signals."

III. The following prior art documents *inter alia* were cited in the opposition procedure:

D1: EP 0 710 017 A

D8: EP 0 455 549 A

D9: hifi & tv - Extra, page 13, nr. 3, 1 February 1995

IV. In the decision under appeal the opposition division found that:

- It was obvious to the skilled person to integrate a PC in a home entertainment centre of the kind disclosed in D8 while adopting the wireless transmission of D1, as opposed to the BUS system of D8, to avoid cluttering the house with too many wires, and duplicating in the television room the usual input control devices of a PC. It was further obvious to multiplex the signals from the remote input devices for sending them to the PC. Demultiplexing the multiplexed datastream was required for recovering the signals of the remote input devices. These signals had then to be remultiplexed with the corresponding signals from the local input devices before feeding them to the PC. Claim 1 of the main request was therefore not inventive.

V. The appellant proprietor argued essentially as follows:

- The opposition division revoked the patent for the reason that it lacked an inventive step over a combination of D1, D8 and common general knowledge in the art. However, no evidence was presented by the division or the opponent that at the priority date of the patent there had been moves in industry to bring PCs and television closer together, as argued in the decision under appeal. There was, moreover, no motivation to combine documents D1 and D8 together and there was no legitimate basis in assuming a PC be one of the items of equipment in D8.

- The technical problem addressed by the patent was making the home computer, usually located in the den or home office, available for use in another room, such as the family or living room. Document D8 was concerned with a very different technical problem, namely to provide a signal transmission system in which time for processing control signals from remote controllers in respective rooms by a multi-link centre could be reduced considerably. The equipment addressed in D8 were eg CD players, tape cassette decks, VTR, ie equipment specifically dedicated to playing media but clearly not a PC. The equipment was located in a basement or parlour which should be equated to the family room, while the output of the equipment was to be found in the other rooms. Therefore if a PC were to be integrated with this known system, then it would also have been located in the master room. The distribution of the audio/visual information was unidirectional except for the signals of the relatively unsophisticated

remote controllers. This was not the same as the bidirectional communication required for integrating a PC.

- D1 disclosed the use of a television as a superior substitute display for a PDA. The television and the PDA were however located in the same room. Therefore any combination of D1 and D8 would lead to a television and a computer being co-located, contrary to the teaching of the opposed patent.

VI. The respondent opponent argued essentially as follows:

- The subject-matter of claim 1 differed from the disclosure of D8 in that (a) the video output signal was provided by a PC not a VTR and that (b) the signals were transmitted through a wireless link not a wired connection. Document D1, however, disclosed a wireless connection between a PC and a television screen. The skilled person would have recognized as a possible source of audio/video signals a PC located in another room and would have arrived at the invention by combining D1 and D8.
- Document D9 also disclosed a wireless transmission of audio/video signals between devices located remotely from each other. The method of claim 1 was not inventive over a combination of D8 and D9. The same was true for the PC interface system of claim 10, which essentially specified the same features.

VII. By letter of June 2007 the respondent opponent informed the board that he would not attend the oral proceedings and withdrew his request therefor.

VIII. At the oral proceedings before the board the appellant proprietor requested that the decision under appeal be set aside and that the patent be maintained on the basis of the following documents:

Claims 1 to 24 filed at the oral proceedings before the board;

Description columns 1 to 9 as granted;

Figures 1 to 5 as granted.

The respondent opponent had requested in writing that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Amendments*

Claims 1 and 10 have been amended to clarify that the plurality of remote input devices are located at the remote site. This is disclosed *inter alia* in Figure 1 and [0019]. No objections were raised against these amendments by the respondent opponent and the board is also satisfied that they are permissible having regard to Articles 84 and 100(c) EPC.

3. The sole remaining issue in this appeal is inventive step.

4. *Inventive step (Article 56 EPC)*

4.1 It is common ground that document D8 is the closest prior art on file. It discloses as its title says a signal transmission system for remote control of electronic apparatus.

A plurality of electronic apparatus to be driven by a multilink centre 3 is located in a master room 2 of a house. Examples of these apparatus are a compact disk player 4, a tape cassette deck 5, a digital audio tape 6, an AM-FM tuner 7, a video tape recorder 8, a laser disc player 9, a main amplifier 10 and a television receiver 13. These apparatus are connected to the multilink centre 3 to make their functions available in the other rooms 21 to 23 of the house. Loudspeakers and/or television screens are connected by cable to the multilink centre to receive the audio/video signals of the sources 4 to 13 in these rooms. The system also allows transmitting the signals of remote controllers 14 from the rooms to the multilink system to control the apparatus. Thus the full functionality of the remote signal sources is provided in each room of the house without the need for duplicating in each room the electronic apparatus (Figures 1 and 6 and the corresponding text).

4.2 The method of remotely interacting with a personal computer (PC) of claim 1 differs from the disclosure of D8 essentially in that

- (a) the electronic apparatus to be remotely controlled is a PC;
- (b) there exists a plurality of input devices at the remote site for interacting with the PC;
- (c) the signals from the remote and local input devices are multiplexed together at the local site before feeding them to the PC; and in that
- (d) a wireless connection is used to transmit the video signal from the PC to the television.

4.3 Features (a) to (c) address the problem of remotely interacting with a PC, while feature (d) addresses a different problem, namely how to avoid the required cabling ([0005] of the granted patent). The cabling however is not related to the problem of controlling a PC, since it is also relevant for the control of any other electronic apparatus. Both problems are independent from each other and can thus be treated separately.

4.4 As to feature (d): document D1 discloses a bidirectional wireless connection between PC and TV (column 1, lines 30 to 32; column 4, lines 5 to 8). Document D9 also discloses a bidirectional wireless connection between two devices which can transmit video/audio and control signals. The use of such wireless connection systems would not, in the view of the board, involve an inventive step, as the advantages achieved, namely avoiding any cabling, is immediately recognizable by the skilled person.

4.5 Features (a) to (c):

4.5.1 The opposition division had argued that "for many years, and certainly since a time before the priority date of the patent at issue, there have been moves in the industry to try to bring PCs and televisions closer together in an attempt to create what some would call an integrated home entertainment centre" (decision under appeal, reasons 1.1). The appellant proprietor objected that no evidence to this effect was present in the file. The board is also not persuaded that the statement of the opposition division can be accepted without supporting evidence. In such a fast evolving field as electronic devices in general and computers in particular care should be exercised when relying on memory instead of documentary evidence of what was possible and available at a given moment in the past.

4.5.2 Low cost PCs (eg Sinclair or Commodore 64), which notoriously existed before the priority date of the contested patent, allowed the use of a television screen instead of a monitor as output device. This possibility existed, however, for making these systems more affordable as the cost of an expensive monitor could be saved.

4.5.3 Another approach, illustrated by document D1, discloses the use of a television screen as the output device of a portable computer, such as a personal digital assistant, notebook or laptop computer. In this way the computer could take advantage of the larger screen and colour capability of the television set (column 1, lines 37 - 41; column 2, lines 46-51).

4.5.4 However, in the view of the board, the above use of a TV screen for a PC do not suggest a remote interaction with a personal computer located in a different room. In the cases mentioned under points 4.5.2 and 4.5.3 the PC and the screen are located in the same room and the user interacts with both by typing on the PC (or moving a mouse/joystick attached to it) and viewing the result on the TV screen. Separating PC and TV by locating them in different rooms renders the system unusable.

4.5.5 PCs are strongly interactive devices when used in their proper way, ie as a computer and not as a passive provider of audio/video signals. This contrasts with the electronic apparatus cited as examples in D8 which are essentially passive providers of audio/video signals receiving from time to time a control signal sent by the user (eg fast forward, rewind, change track, etc). Although at the time of writing PCs have the capability of being used as passive providers of audio/video signals in the same manner as CD or DVD players, the board is not persuaded that PCs at the priority date of the patent (March 1997) had similar capabilities and interprets therefore the remote interaction with the PC foreseen in the patent as the type of strong interaction necessary when using a PC for drafting a text or playing a game. The board however does not find any teaching, suggestion or motivation in the prior art for separating the PC from its input and output devices in the context of a requirement for such a strong interaction. Nor does the board consider that it would be an obvious problem for the person skilled in the art to formulate in an attempt to improve on the synergistic combination of

PCs and TVs known from D1 and the notorious Sinclair and Commodore 64 PCs mentioned at 4.5.2 above.

4.5.6 For these reasons the board agrees with the appellant proprietor that a skilled person would not have been prompted by document D8 to replace one of the electronic apparatuses connected to the multilink centre by a PC and duplicate its input devices at the remote site so that a user could remotely interact with it. It follows that the method of claim 1 involves an inventive step.

4.6 The above discussion is applicable *mutatis mutandis* to the personal computer interface system of claim 10, which therefore also involves an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent as amended in accordance with the request filed during oral proceedings before the board.

Registrar

Chair

S. Sánchez Chiquero

R. G. O'Connell