Case Number: T 1712/07 - 3.5.04
Application Number: 98105670.8
Publication Number: 0856994
IPC: H04N 7/16, H04N 7/173
Language of the proceedings: EN
Title of invention: Digital cable headend for cable television delivery system
Patentee: Sedna Patent Services, LLC
Opponent: Reuteler, R.W.
WILLIAM BLANC & CIE Conseils en Propriété Industrielle SA
Headword: -
Relevant legal provisions (EPC 1973): EPC Art. 56
Keyword: "Inventive step (yes)"
Decisions cited: -
Catchword: -
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DECISION
of the Technical Board of Appeal 3.5.04
of 24 May 2012

Appellant: Reuteler, R.W.
(Opponent)
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
8 August 2007 concerning maintenance of
European patent No. 0856994 in amended form.

Composition of the Board:
Chairman: M. Paci
Members: A. Dumont
C. Vallet
Summary of Facts and Submissions

I. The opponent appealed against the interlocutory decision by the opposition division concerning maintenance of European patent No. 0 856 994 in amended form.

II. An opposition had been filed on the ground that the subject-matter of the claims as granted lacked inventive step (Article 56 together with Article 100(a) EPC 1973).

III. The opponent had referred to the following prior-art documents:

   E1: US 4 302 771 A;
   E2: EP 0 419 137 A2;
   E3: EP 0 140 593 A2;
   E4: US 4 943 854 A;

IV. The opposition division had maintained the European patent on the basis of a third auxiliary request, the subject-matter of the claims according to higher-ranking requests having been found to lack inventive step.

V. Oral proceedings before the board took place on 24 May 2012. As announced by letter of 10 May 2012 the respondent (patent proprietor) did not attend the oral proceedings. No one was present on the appellant's behalf.
VI. The appellant (opponent) had requested in writing that the decision under appeal be set aside and that the European patent be revoked. The respondent (patent proprietor) had requested in writing that the appeal be dismissed.

VII. Claim 1 as maintained reads as follows:

"A television cable headend for receiving and processing program signals, the headend comprising a central processing unit (CPU), a demultiplexer and a combiner, characterised in that the CPU manages, monitors, ensures that desired digital programs or channels are cherry-picked from a plurality of signal multiplexes, the CPU further manages and monitors the demultiplexer and the combiner, the demultiplexer receives the signals, performs selection of the desired programs or channels according to instructions sent from the CPU and outputs the selected programs or channels, wherein the instructions are based on information received from a remote site and including data on identities of the desired digital programs or channels, and the combiner accepts the outputted selected programs or channels from the demultiplexer and combines the selected programs or channels into a combined signal for transmission according to instructions sent from the CPU."
VIII. The reasoning in the decision under appeal may be summarised as follows.

The subject-matter of independent claims 1, 2 and 13 of the main request as well as of the first and second auxiliary requests lacked inventive step with regard to the disclosure of El alone or in combination with the disclosure of E2 for the following reasons. El rendered obvious the concept of receiving one or more multiplexed signals, each being for instance a time-division multiplex of programmes, selecting or cherry-picking programmes or channels, and combining them for transmission. Between 1979 (date of El) and 1992 (date of the patent in suit), digital headends with digital controllers had become more commonplace, as evidenced by E2, so that the realisation of El's teachings in a digital context under the control of a CPU was not inventive.

The amendments in the claims according to the third auxiliary request, i.e. as maintained, satisfied the requirements of Articles 84 and 123 EPC.

None of the prior-art documents E1 to E5 rendered the subject-matter of the claims as maintained obvious, for the following reasons.

El did not disclose outside control (by the subscriber) of the headend demultiplex or multiplex operations, since the selection of channels in the headend was fixed for a given output cable.

According to the claims as maintained, programmes or channels could be individually selected or cherry-
picked, which was significantly more flexible that allowing the connection of sources to the upconverters and thence to the combiner in E2, where selecting individual programmes from a particular signal source was not possible.

E3 disclosed the selection of desired audio signals in a set-top box at the subscriber's home. E4 was, as the opponent had pointed out, only superficially relevant. E5 related to the insertion of commercials into time-division multiplexes rather than to the selection of channels or programmes in a headend.

IX. The grounds of appeal may be summarised as follows.

The "information received from a remote site" of claim 1 should be interpreted as representing the instructions received in a standard way from a set-top box at the subscriber's home, as was the case for instance in E2.

Claim 1 as maintained set out that "desired digital programs or channels" were cherry-picked or selected. This covered two alternatives, in particular one alternative where only channels could be selected, which alternative the opposition division had considered not inventive in view of E2. Thus claim 1 was invalid at least in respect of this alternative. Furthermore, since a subscriber normally related programmes to channels, providing a further alternative where programmes could also be selected was trivial.
X. The respondent's arguments may be summarised as follows.

The appellant's allegations that certain claimed features were standard or trivial were not supported on verifiable evidence or prior art at the priority date of December 1992.

The "remote site" of claim 1 was described by way of example as a "national site", which was different from the subscriber's site referred to by the appellant.

In E1, a fixed wiring was used in the headend, so that the channel selection could only be changed by a hardware reconfiguration by a technician. In other words, no selection from a remote site was possible in the headend. In E2 one incoming television signal source was either forwarded as a whole to one of the subscriber terminals, or not at all. E2 disclosed no means for receiving and selecting desired digital channels or programmes from a plurality of signal multiplexes. Furthermore, the reasons for cherry-picking a particular programme or a particular channel could differ. Hence, it was difficult to follow the appellant's allegation that the selection of a channel should normally be based on the selection of a particular programme on said channel. Thus the combination of the features in the independent claims as maintained was not derivable from E1 and/or E2.
Reasons for the Decision

1. The appeal is admissible.

2. Claim construction

2.1 The invention relates to a headend for receiving and processing digital programmes or channels. In the context of the patent in suit, a digital television channel is construed as a signal typically received as a data stream and comprising a plurality of separately identifiable digital television programmes, for instance on a packet basis (see paragraphs [0030] and [0115] in the patent specification).

2.2 Claim 1 as maintained states that the demultiplexer operates on the basis of information received from a "remote site". The respondent is correct in arguing that this covers information received from a "national site", for instance in order to insert local programmes such as commercials (see paragraphs [0083] and [0084] in the patent specification). However, it also encompasses information received for a set-top box located at a remote subscriber's home (see paragraphs [0149], [0153] and [0155] in the patent specification), as argued by the appellant.

2.3 Claim 1 as maintained further sets out that "desired programs or channels" may be selected, or cherry-picked, according to instructions based on information "including data on identities of the desired programs or channels". The board construes these expressions as meaning that the headend has means for identifying and selecting individual programmes (in particular
transmitted on a channel) and means for identifying and selecting individual channels. A headend with means for identifying and selecting only programmes, or only channels, but not both, is not covered by claim 1.

3. Inventive step (Article 56 EPC 1973)

3.1 In the decision under appeal, E1 was considered to represent the closest prior art. E1 reflects old technology (priority date of 1979) for a purely analogue system with distinct headend and exchanges. Subscribers may select channels at the exchange level, whereas the selection in the headend is hardwired. A selection on a programme basis is not disclosed.

3.2 E2 discloses a headend comprising a digital switch (40 in figure 2) configurable on the basis of information (service request signals) from a remote site (subscribers' terminals) to select television signals from a plurality of different sources, such as satellite and local television or a library of pre-recorded videos (see column 4, lines 37 to 51). The management is thus digital in E2, whereas the signal sources (termed "frequency channels" or "programs") are analogue in the embodiment of figure 2.

3.3 The exchanges of E1 and the headend of E2 essentially select one or more incoming sources. They neither suggest nor disclose identifying and selecting individual programmes from a given source. The headend according to claim 1 provides much greater capability and flexibility, by making it easier to adapt and limit the data volume in the combined signal transmitted by the headend to the subscribers (see paragraphs [0027]
to [0029] in the patent specification). The appellant has not provided any evidence of this improvement being trivial or standard at the priority date of the patent in suit.

Accordingly, the skilled person considering E1 and E2 in isolation or in combination would not have arrived in an obvious way at a system having the features of the headend according to claim 1 as maintained.

3.4 The further prior-art documents E3 to E5 were regarded in the decision under appeal as even less relevant than E1 and E2 for the assessment of inventive step. The board agrees with this finding, and the appellant has not argued to the contrary.

3.5 As a result, none of the prior-art documents E1 to E5, taken alone or in combination, renders the subject-matter of claim 1 obvious. The above reasoning applies mutatis mutandis to independent claims 2 and 13. The appellant has not provided specific reasons as to why the finding on these further independent claims should be any different.

In conclusion, the (sole) ground for opposition under Article 56 together with Article 100(a) EPC 1973 does not prejudice the maintenance of the patent in amended form and the appellant has not submitted any other reason as to why the patent in amended form does not meet the requirements of the EPC.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

K. Boelicke

The Chairman

M. Paci