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Bezeichnung der Erfindung:
Title of invention:
Titre de l'invention : A method of processing useful signals in a four-wire videointerphone and relative circuitry

Klassifikation / Classification / Classement : H04 N 7/18

ENTSCHEIDUNG / DECISION

vom / of / du 10 January 1989

Anmelder / Applicant / Demandeur : Comelit S.p.A.

Patentinhaber / Proprietor of the patent /
Titulaire du brevet :

Einsprechender / Opponent / Opposant :

Stichwort / Headword / Référence :

EPÜ / EPC / CBE Art. 56

Schlagwort / Keyword / Mot clé : "inventive step (no)"

Leitsatz / Headnote / Sommaire

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Case Number : T 9/88 - 3.5.1

D E C I S I O N
of the Technical Board of Appeal 3.5.1
of 10 January 1989

Appellant : COMELIT Compagnia Elettronica Italiana S.p.A.
I-24020 Rovetta S. Lorenzo (Bergamo) (IT)

Representative : Dr. Ing. A. Racheli & C.
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Decision under appeal : Decision of Examining Division 058 of the European Patent Office dated 27 July 1987 refusing European patent application No. 84 102 363.3 pursuant to Article 97(1) EPC

Composition of the Board :

Chairman : P.K.J. van den Berg
Members : W.P.H. Riewald
F. Benussi

Summary of Facts and Submissions

I. European patent application No. 84 102 363.3 was filed on 5 March 1984, claiming a priority from an application in Italy of 11 March 1983.

The application was refused by a decision of the Examining Division dated 27 July 1987. The decision was based on Claims 1 to 6 filed with letter of 4 June 1987.

The reason given for the refusal was that the subject-matter of the claims lacked an inventive step having regard to the prior art known from the following documents:

D1: FR-A-2 496 377,
D2: Funkschau, Vol. 48, No. 23, November 1976, page 1013.

II. The Appellant filed a notice of appeal on 24 September 1987 and paid the appeal fee on the same day.

A statement of grounds of appeal was received on 25 November 1987 by telecopy and confirmed by letter on 1 December 1987.

In a communication dated 19 May 1988, the Rapporteur informed the Appellant about the provisional opinion that the subject-matter of the claims lacked an inventive step and that, therefore, the appeal was likely to be dismissed.

In his reply of 15.11.88 the Appellant challenged the Rapporteur's view and filed new Claims 1 to 6 together with amended pages 2, 2a and 9 of the description.

III. The independent Claim 1 reads as follows:

"1. A circuit for processing useful signals in a four normal wire (VI, V2, P, N) not screened video interphone system comprising as many further wires (C1, C2, .. Cn) as there are connected inside monitor apparatuses, inter alia performing the functions of:

(a) providing an audio call signal;
(b) providing phonic forward and backward signals;
(c) transmitting door lock opening signal;
(d) transmitting and receiving the video signal between the outside central unit and at least one inside monitor apparatus;
(e) disconnecting the supply (P) to any inside monitor apparatus (B1, B2, .. Bn) previously connected with the outside unit should a call signal for any other inside monitor apparatus occur;

characterized in that:

- the video signals taken by the television camera (TC) are split by a video-differential amplifier device (IT1), included in the outside unit, into two part-signals and supplied on the first two wires (V1, V2) to the inside monitor apparatuses (B1, B2 .. Bn) where the video signal is reformed by combining the two part-signals on the wires by a video-differential amplifier device (IC1) identical to the one in the outside unit;

- the pair of wires which provide the supply of the inside monitor apparatuses (P, N) are different than the pair of wires which transmit the video signals (V1, V2);

- each inside monitor apparatus (B1, B2 .. Bn) is provided with at least one switch device connected to the supply (P) and to the wires on which the video signals (V1, V2) are transmitted so as to enable the supply of video signals to the kinescope (12) in each inside monitor apparatus (B1, B2 .. Bn) only if the audio call signal (wire input C1) and the supply voltage at input P(+) are simultaneously present;

- the transmission of the audio call signal, the transmission of the phonic forward and backward signals and the transmission of the electric door lock opening signal for each inside apparatus, are carried out by a single normal wire (C1)."

IV. The Appellant argues essentially as follows:

The replacement of the "medium frequence video" - transmission in the videointerphone system of D1 by a low frequency video transmission via double-wire lines and a pair of video differential amplifiers (disclosed in D2) provides essential advantages over the prior art. These advantages concern mainly

- the possibility of greater distances between telecamera and monitor;

- lower production of noises with respect to other electric and/or electronic systems;

- insensitiveness to noises produced by other electrical and/or electronic systems, e.g. to video signals produced by other possible telecameras of the same system;

- possibility to carry out very complex video interphone systems.

These advantages, together with the fact that D2, despite its publication seven years before the priority date of the present application has not incited the experts to apply its teaching to a videointerphone system, and an exceptional commercial success should support a finding of inventive step, In support of this view reference is made to the earlier decision T 271/84 of a Technical Board of Appeal.

Further decisions (T 39/82, T 113/82, T 106/84) show that inventions which are certainly no more original than the present invention have been considered by the Board as being outside the field from which the expert may find new ideas easily.

Reasons for the Decision

1. The appeal is admissible.

2. The amendments made in the newly filed Claim 1 deal with the Rapporteur's objection in the communication of 19.5.88 as to the vague term "particular conditions" in the third group of characterizing features in the former Claim 1 of 4.6.87 (Article 84 EPC).

In line with the Rapporteur's finding of section 3 of the communication the Appellant has specified in the new feature (e) of the preamble (comprised in the prior art), that the supply to any inside monitor is interrupted if any other inside monitor is called. In the third group of the characterizing features the feature that the switch device for the kinescope in each inside monitor enables

the supply of video signals to the kinescope "only if the audio call signal (wire input C1) and the supply voltage at input P(+) are simultaneously present" is maintained. This is to be regarded as a matter of normal discretion as already indicated in the communication, section 5, last para..

3. Notwithstanding the said amendments, present Claim 1 still lacks inventive step (Article 56 EPC).

3.1 The most essential difference to the videointerphone system disclosed in D1 is the replacement of a transmission of the video signal via a modulated carrier wave by direct transmission of the video signal, i.e. without modulation of a carrier wave. The details of such a transmission, as specified in the first group of the characterizing features, are known from a television line for an airport search system disclosed in D2. It is important to note that in both systems the installation of special coaxial cables is avoided by using standard wires previously installed for a telephone system (D1: page 1, lines 13 to 30 and page 2, lines 11 to 22; D2: page 101, chapter "Videosignale über Fernsprechleitungen"). This similarity in respect of problems encountered with the provision of appropriate video-connections makes it already obvious to a skilled man that the video-transmission of D2 can substitute the video-transmission in D1.

3.2 The Board is satisfied that the further steps specified in the characterizing part follow as a consequence of the first step without the application of inventive considerations:

The transmission of the video signals without using a carrier wave does not easily allow the transmission of the

power supply on the same wires because of the low frequencies to be transmitted. Therefore a different pair of wires is necessary for providing the supply of the inside monitor apparatuses. The number of wires in D1 is 4 wires in common to all inside monitor apparatuses plus "n" selection wires for the respective monitor apparatuses. The signal distribution on the wires is such that the power supply and the video signals share a common pair of wires (D1: page 3, lines 15 to 17; page 4, lines 19 to 21 and page 5, lines 31 to 35). Therefore, without any further measure the application of the carrier free video transmission, known from D2, would require a number of 6+n wires. It is clear that the skilled person will try to avoid this, and the Board is satisfied that there is no real difficulty, that might require inventive considerations, to overcome this problem. It is absolutely common practice in telephone systems to use a simple two-wire connection for the transmission of phonic signals as well as control signals.

Therefore, the mere suggestion to transmit the remaining signals of the videointerphone system, viz. the audio call signal, the phonic signals and the door lock opening signal, through the further wire per inside monitor (together with one return path, e.g. through one of the two power supply conductors) is only a routine consideration of the expert in telephone systems. The fact that no specific details have been disclosed, how the different signals can be transmitted via a single wire, indicate that also the Appellant regards such details as matters of routine.

3.3 The Appellant aims to support his case by asserting an unusual national and international success thanks to surprising advantages of his invention. However, the alleged advantages can, for the most part, only be

regarded as inherent properties of the video-signal transmission method described in D2. It is only a matter of normal skill to find out the possibilities of the method in respect of the distance that can be covered, the suppression of noise production, the insensitiveness to noises from outside and the possibilities to carry out complex systems. The said signal distribution on the wires being a mere matter of design, specific measures to improve the said inherent properties of the transmission method known from D2 in an inventive way are not subject of the present application.

The Appellant's argument that the claimed solution has not been described by the owner of D1 despite the fact that D2 had been known for many years cannot convince the Board since such considerations may only serve as "supporting" a finding of inventive step in cases of reasonable doubt about the steps necessary to arrive from the prior art at the invention. The Board is, however, satisfied that, for the above reasons, in the present case the steps leading from the prior art to the claimed subject-matter are straightforward.

3.4 For these reasons the Board cannot perceive an inventive step in the subject-matter of Claim 1. The former decisions of Technical Boards of Appeal referred to by the Appellant have not led the present Board to any other conclusion.

In particular, T 39/82/OJ EPO 11/1982, 419) relates to a case in which, in addition to a document reflecting the closest prior art (reduction of light reflection on traffic lights), a further document was cited that was directed to solve a different problem (avoidance of dazzlement by car headlights when one vehicle passes another). The second document was regarded as not

destroying patentability because of the different problem solved despite its conformity with the technical features claimed.

The situation is different in the present case because the problem to be solved in D2 is the same as in D1 in respect of the transmission of video signals on standard wires on telephone connections.

T 113/82 (OJ EPO 1/1984, 10) relates to the omission of a pair of rollers in an operator-controlled recording device which had been regarded necessary in the prior art till then. Since no further document or any general background knowledge had been cited in support of the omission, a comparison with the present case is not possible, in which the disclosure of a second document is relevant for the decision.

With regard to T 106/84 (OJ EPO 5/1985, page 132) it appears that, there, a known element (PTC-element) was used in quite a new technical context (temperature controlled heating rod for tearing-off plastic foil in a packing machine). The present case is, again, different because the teaching of D2 is used in the same technical context as the teaching of D1 (transmission of video signals on standard wires).

3.5 Thus, the subject-matter of Claim 1 is not considered to involve an inventive step within the meaning of Article 56 EPC, and Claim 1 is, therefore, not allowable under Article 52(1) EPC.

4. Claims 2 to 6 are dependent on Claim 1 and for this reason also not allowable.

Moreover, the Board, as indicated in the communication of 19.5.88, cannot find patentable subject-matter in any of them.

5. The Appellant has been given full opportunity to comment on his case. There are no questions of doubt left in respect of the subject-matter claimed. Therefore, the Board is satisfied that there is no need for further statements or proof of facts offered by the Appellant in his reply of 15.11.88.

Order

For these reasons, it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Fabiani P.K.J. van den Berg