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D E C I S I O N
of 20 October 2005

Case Number: T 0055/03 - 3.5.03

Application Number: 93905948.1

Publication Number: 635179

IPC: H04H 1/00

Language of the proceedings: EN

Title of invention:
Signal transfer and power delivery system for a television camera station

Applicant:
Camplex Corporation

Opponent:
-

Headword:
Signal transfer and power delivery system/CAMPLEX

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - no (main request)"
"Late-filed auxiliary request (not admitted)"

Decisions cited:
-

Catchword:
-

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Case Number: T 0055/03 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 20 October 2005

Appellant: Camplex Corporation
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Representative: UEXKÜLL & STOLBERG
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Decision under appeal: **Decision of the examining division of the European Patent Office posted 29 July 2002 refusing European application No. 93905948.1 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: D. H. Rees
Members: F. van der Voort
R. Moufang

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse European patent application 93 905 948.1, which was published as international application WO 93/21702 A pursuant to Article 158(1) EPC.

II. The impugned decision referred, *inter alia*, to the following document:

D2: EP 0 271 969 A.

III. The examining division held, *inter alia*, that the subject-matter of independent claim 1 of both a main request and an auxiliary request did not involve an inventive step (Articles 52(1) and 56 EPC).

IV. With the statement of grounds of appeal the appellant filed a set of claims and requested that a patent be granted on the basis of these claims. Further, oral proceedings were conditionally requested.

V. The appellant was summoned by the board to oral proceedings. In a communication accompanying the summons, the board gave a preliminary opinion raising various objections under Articles 52(1), 56, 84 and 123(2) EPC.

VI. In response to the board's communication the appellant filed with a letter dated 20 September 2005 an amended set of claims and further arguments in support.

VII. At the start of the oral proceedings held on 20 October 2005 the appellant filed a further set of claims by way of an auxiliary request. The appellant requested that the decision of the examining division be set aside and that a patent be granted on the basis of the claims of the main request filed with the letter dated 20 September 2005 or, alternatively, of the auxiliary request. At the end of the oral proceedings the board's decision was announced.

VIII. Claim 1 of the main request reads as follows:

"An apparatus (10) for transferring signals from a control station (14) to a remote camera station (16) and for providing power to the remote camera station (16), wherein the control station (14) is coupled with a power delivery unit (34) operable to combine power with signals from the control station (14) for transfer via a single coaxial cable (30), and wherein the remote camera station (16) is coupled with a first signal separating circuitry (80) operable to receive the combined signals and power transferred from the power delivery unit (34) control *[sic]* and to separate them, the apparatus characterized by:

sensing and signaling means (28) coupled with the remote camera station (16) and operable to sense a voltage of the power and generate a power status signal indicative of the voltage;

second signal combining circuitry (80) coupled with the remote camera station (16) and operable to transfer the power status signal to the control station (14) via the coaxial cable (30); and

second signal separating circuitry (48) coupled with the control station (14) and operable to receive

the power status signal transferred from the second signal combining circuitry;

wherein the power delivery unit (34) includes means for receiving the power status signal, monitoring the power delivery, and controlling the delivery of the power in accordance with the power status signal."

Claim 1 of the auxiliary request reads as follows:

"An apparatus (10) comprising a control station (14) and a remote camera station (16) for transferring signals from the control station (14) to the remote camera station (16) and for providing power to the remote camera station (16), wherein the control station (14) is coupled with a power delivery unit (34) operable to provide power and a signal separator and power combiner (48) operable to combine the signals and power for transfer via a single coaxial cable (30), and wherein the remote camera station (16) is coupled with a signal combiner and power separator (80) operable to receive the combined signals and power transferred from the power delivery unit (34) and to separate them, the apparatus characterized by:

sensing and signaling means (28) coupled with the remote camera station (16) and operable to sense a voltage of the power and generate a power status signal indicative of the voltage of the power from the power delivery unit;

wherein the signal combiner and power separator (80) coupled with the remote camera station (16) is operable to transfer the power status signal to the control station (14) via the coaxial cable (30); and

wherein the signal separator and power combiner (48) coupled with the control station (14) is operable

to receive the power status signal transferred from the signal combiner and power separator (80);

wherein the power delivery unit (34) includes means for receiving the power status signal, monitoring the power delivery, and controlling the delivery of the power in accordance with the power status signal."

Reasons for the Decision

1. *Inventive step (main request)*

1.1 D2 is considered to represent the closest available prior art, since, like the subject-matter of claim 1, it relates to a DC-power-superposed multiplex transmission system for transferring signals from a power sending terminal to a power receiving terminal via a communication cable (see D2, the abstract).

1.2 More specifically, D2 (see Fig. 7 and the corresponding text at col. 10, line 28, to col. 11, line 30) discloses a transmission system for transferring signals from an indoor unit 100 including a control station (TV monitor 120, speaker 124, mike 106; col. 7, lines 49 to 56) to a remote camera station (camera 136, mike 132, speaker 150) at an outdoor unit 102 and for providing power to the remote camera station. The control station is coupled with a power delivery unit (DC power supply 126, variable voltage regulator 128', power choke coils 130 and 131) operable to combine power with signals from the control station for transfer via a single cable (104). The remote camera station is coupled with signal separating circuitry (152, 154, 155, 156, 144, 148) operable to receive the

combined signals and power transferred from the power delivery unit and to separate them. The apparatus further includes a sensing and signalling means (coils 154 and 155, voltage controlled oscillator 158) coupled with the remote camera station and operable to sense a voltage of the received power and to generate a power status signal indicative of the voltage (D2, col. 11, lines 2 to 11, col. 13, lines 10 to 14), signal combining circuitry (FM modulator 134, filter 139, line transformer 142) coupled with the remote camera station and operable to transfer the power status signal to the control station via the cable (104), and signal separating circuitry (line transformer 112, bandpass filter 119, FM demodulator 122) coupled with the control station and operable to receive the power status signal transferred from the signal combining circuitry. The power delivery unit has means (detector means 129, variable voltage regulator 128', power choke coils 130 and 131) for receiving the power status signal, monitoring the power delivery and controlling the delivery of the power in accordance with the power status signal. The described system constitutes a TV door phone system, though it also applicable to a TV telephone system (col. 7, lines 34 to 36).

1.3 The claimed apparatus differs from the transmission system of D2 in that according to claim 1 the cable is a coaxial cable.

1.4 However, the board notes that at col. 1, lines 20 to 27, of D2 it is explicitly acknowledged that a coaxial cable used for the transmission of both power and video signals was known. D2 further discloses that the cable 104 (Fig. 7) for connecting the indoor and outdoor

units is a telephone communication cable, e.g. a pair of parallel or twisted wires. With such a cable extra costs of a new cable installation could be saved, namely in those cases in which an existing interphone is to be replaced by the TV door phone system of D2, since the telephone communication cable already installed could be further used (see col. 1, lines 15 to 20 and 44 to 47, and col. 2, line 50 to col. 3, line 3). It is also noted that claim 1 of D2 generally refers to "a cable", which only in dependent claim 2 is more specifically defined as a typical telephone communication cable, to wit a pair of parallel or twisted wires (cf. col. 5, lines 11 to 16).

1.5 In the board's view, a person skilled in the art would derive from the above-mentioned passages of D2 that in a situation wherein a cable for connecting the indoor and outdoor units had not yet been installed, the coaxial cable as mentioned in D2 for the same purpose would be another possible implementation of the cable 104 of Fig. 7. At least under these circumstances it would thus be obvious to the person skilled in the art, faced with the problem of implementing the system according to D2, Fig. 7, to select a coaxial cable for the cable 104. On implementing the system accordingly he would thereby arrive at an apparatus including all the features as defined in claim 1 without the exercise of any inventive skill.

1.6 At the oral proceedings the appellant argued that D2 can not be taken as representing the closest prior art, since it did not relate to a television production system including a television broadcast camera and, consequently, that D2 related to a completely different

technical field. The board does not accept these arguments, since claim 1 is not limited to such a system; it merely defines "a control station" and "a remote camera station", the latter in the board's view including a camera for use in a TV phone system.

The appellant further argued that according to D2 the power voltage was measured at the indoor unit, which corresponded to the control station, whereas the claimed apparatus included means for measuring the power voltage at the remote camera station. Further, he argued that in the system of D2 no separate power status signal was generated. However, the board cannot agree with the argument. In the system of D2, Fig. 7, the power voltage is measured at the power receiving end, i.e. at the outdoor unit 102, via the coils 154 and 155 by means of the voltage controlled oscillator (VCO) 158 which thereupon generates a power status signal consisting of a control carrier of a frequency corresponding to the voltage drop (see also point 1.2 above). The coils and VCO 158 thus correspond to the sensing and signalling means coupled with the remote camera station as defined in claim 1.

1.7 The board therefore concludes that the subject-matter of claim 1 lacks an inventive step (Articles 52(1) and 56 EPC).

The main request must therefore be rejected and it is unnecessary to consider any other possible objections.

2. *Admissibility (auxiliary request)*

2.1 The appellant requested that the auxiliary request, despite being filed late, be admitted to the proceedings, since it served to overcome potential objections under Articles 84 and 123(2) EPC the board might still have in respect of the claims of the main request, which was filed with the letter of 20 September 2005 in response to the summons to the oral proceedings.

2.2 Claim 1 of the auxiliary request is *prima facie* of the same scope as claim 1 of the main request. It does not define any additional feature which would clearly make the claimed subject-matter as a whole inventive. It does not therefore clearly overcome the objections which led the board to reject the main request. The appellant did not contest this assessment. The board therefore decided not to admit the auxiliary request to the appeal proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano D. H. Rees