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**D E C I S I O N**  
of 28 October 1996

**Case Number:** T 0032/95 - 3.5.2

**Application Number:** 86309318.3

**Publication Number:** 0234103

**IPC:** H03D 7/00

**Language of the proceedings:** EN

**Title of invention:**  
Tuner circuit

**Applicant:**  
KABUSHIKI KAISHA TOSHIBA

**Opponent:**  
-

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 54(2), 56

**Keyword:**  
"Alleged prior art document - consisted of sheets taken from  
different documents"  
"Availability to the public of relevant sheets of alleged prior  
art document - not established"  
"Inventive step (yes) "

**Decisions cited:**  
-

**Catchword:**  
-



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Boards of Appeal

Chambres de recours

Case Number: T 0032/95 - 3.5.2

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.2  
of 28 October 1996

**Appellant:** KABUSHIKI KAISHA TOSHIBA  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 29 April 1994  
refusing European patent application  
No. 86 309 318.3 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** W. J. L. Wheeler  
**Members:** R. G. O'Connell  
M. Lewenton

## Summary of Facts and Submissions

I. The appellant contests the decision of the examining division to refuse European patent application No. 86 309 318.3. The reason given for the refusal was that the subject-matter of all the claims of the main request and of an auxiliary request then on file did not involve an inventive step, having regard to the prior art known from the following documents:

D6: Otto Limann: Fernsehtechnik ohne Ballast, 7th edition, Franzis-Verlag, Munich, pages 76 to 81; and

D7: Service Manual for the Hewlett Packard 8554B spectrum analyzer, figures 8-6 and 8-7.

II. The following prior art documents were also considered in the proceedings before the examining division:

D1: FR-A-2 368 827

D2: US-A-4 553 264

D3: US-A-4 491 976.

III. With the statement of grounds of appeal, the appellant filed claims 1 and 2 (main request) and claims 1 to 5 (auxiliary request) and requested that the decision under appeal be set aside and that a patent be granted on the basis of the main or auxiliary request.

IV. According to the main request, the application comprises the following documents:

Claims 1 and 2 (main request), as filed with the statement of grounds of appeal on 2 September 1994;

Description: pages 1 to 7 and 10 to 23, as filed with the letter of 21 November 1991, received 22 November 1991, and pages 8 and 9, as filed with the letter of 11 September 1992, received 17 September 1992; and

Drawings: sheets 1/6 to 6/6, as originally filed.

V. Claims 1 and 2 of the main request are worded as follows:

"1. A tuner circuit for converting the frequency of an input signal with a local oscillator to a predetermined channel frequency, comprising:

receiving means (IN) for receiving the input signal;

amplifier means (50) connected to the receiving means (IN) for amplifying the input signal;

frequency conversion means (70,80) coupled to the amplifier means (50) for converting the frequency of the amplified input signal to a corresponding predetermined channel frequency; and

attenuation means (10,30) connected between the receiving means (IN) and the amplifier means (50) for attenuating the input signal;

characterised in that, for reducing cross modulation and intermodulation distortion of the circuit, and for reducing distortion from the interference of the local oscillation the attenuation means includes:

first and second attenuators (10,30) for reducing the amplitude of the input signal;

a low-pass filter (20) connected between the first and second attenuators (10,30); and

a tuned circuit (40) connected between the second attenuator (30) and the amplifier means (50)."

"2. A method of reducing cross modulation and intermodulation distortion of a frequency converted radio frequency signal comprising the steps of:

attenuating a received radio frequency input signal in an attenuation step to reduce the amplitude of the signal;

amplifying the attenuated signal; and

converting the frequency of the amplified signal to produce a signal having a frequency corresponding to a predetermined channel frequency;

characterised in that:

the attenuation step comprises a first and second attenuation stage; that

the attenuation step further includes a low pass filtering stage to narrow the frequency band of the received signal, said filtering being carried out between said first and second attenuation stages; and in that

the signal from the second attenuation stage is subsequently filtered prior to the amplification step."

VI. The appellant argued substantially as follows:

Document D7 should be excluded from the proceedings because it had not been established that it was available to the public before the priority date of the present application. The first sheet of D7 was headed "OPERATING INFORMATION" and carried the date "February 1973", but as stated by the examining division in the oral proceedings, the second and third sheets of D7 (showing Figures 8-6 and 8-7) were not copies of pages of the OPERATING INFORMATION of the HP 8554B spectrum analyzer. They came from a different document, the

service manual for this instrument. Therefore the date February 1973 could not be attributed to the second and third sheets of D7. The service manual may have been available only to a restricted group, such as the company's service engineers. There could be no presumption that it had been made available to the public before the priority date of the present application. The version of the service manual from which the second and third sheets of D7 were copied may have contained updates only introduced after the priority date of the present application, so it could not be assumed that the figures 8-6 and 8-7 were in the earlier versions. Absent good prima facie indications of public availability, the burden of proof of prior publication remained with the EPO.

Even if, for the sake of argument, D7 were taken into account, D6 (relating to TV circuitry) and D7 (service manual for a spectrum analyzer) were, at best, distantly related. The skilled person would not have looked to D7 for an alternative solution to the problem arising from received TV signals of widely differing strengths, as this problem had already been solved in TV technology by D1 by means of a variable attenuator controlled by the output of the amplifiers. The variable attenuator in D7 was manually operated, so it would not have made sense to use it for solving the stated TV signal problem.

## Reasons for the Decision

1. The appeal is admissible.
2. The claims of the main request are the same as the claims of the main request considered at the oral proceedings before the examining division. Claim 1 is effectively a combination of original claims 1, 2 and 3. Claim 2 is based on a combination of original claims 4, 5, 6 and 7 with further specification of the order of the attenuation and filtering stages, in accordance with figures 1 and 2 of the drawings and the corresponding description. The description has been amended to acknowledge the prior art known from D2 and to adapt it to the amended claims. The amendments do not contravene Article 123(2) EPC, and in the judgement of the board, the requirements of Articles 83 and 84 EPC are met.
3. The board agrees with the appellant that the examining division did not provide adequate proof that D7 had been made available to the public before the priority date of the present application, and that consequently it has not been established that this document belongs to the state of the art as defined in Article 54(2) EPC. A telephone call to Hewlett Packard, a potentially interested third party, (see point 1 of the reasons of the decision under appeal) is at best hearsay (which cannot be questioned by the appellant) and does not provide an adequate proof that the service manual was available to the public. Once the appellant showed sound reasons for doubting whether D7 belonged to the state of the art, the course of action recommended in the Guidelines for Examination, C-IV, 5.2, fourth sentence, should have been followed.

Indeed, the attachment of the first sheet (bearing the date February 1973) to the second and third sheets (taken from a different document) was a serious lapse from the standard to be expected from the EPO when citing documents: a less astute applicant might well have been misled by this into thinking that the whole of D7 had been published in February 1973. However, the examining division admitted the error in the oral proceedings, thereby removing the possibility of deception, albeit at a very late stage. In view of this, the board, although certainly not condoning the examining division's conduct, does not consider that a **substantial** procedural violation has occurred.

4. As it has not been established that D7 belongs to the state of the art as defined in Article 54(2) EPC, it must be left out of consideration. Nevertheless, the board notes in passing that even if, for the sake of argument, document D7 were taken into consideration, it would not have been obvious to a skilled person to turn to it for help in improving the TV tuner circuits shown in D6. As pointed out by the appellant, D7 concerns an input circuit for a spectrum analyzer. The requirements to be met by such a circuit are certainly different from those for a TV tuner circuit.
5. Prior art tuner circuits according to the preamble of claim 1 of the main request are disclosed in documents D1, D2, D3 and D6. None of these documents discloses, or even remotely suggests attenuation means in accordance with the characterising part of claim 1 of the main request. There is no basis on which to build a logical argument demonstrating that the claimed subject-matter is obvious.



6. The board therefore concludes that the subject-matter of claim 1 (main request) involves an inventive step within the meaning of Article 56 EPC. The same is also true for claim 2, for analogous reasons.
  
7. In the judgement of the board, the application in its form according to the main request meets the requirements of the EPC. It is not necessary to consider the auxiliary request.

**Order**

**for these reasons it is decided that:**

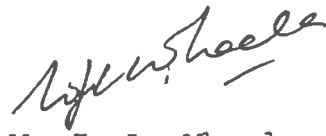
1. The decision under appeal is set aside.
  
2. The case is remitted to the department of first instance with the order to grant a patent on the basis of the main request (see paragraph IV above).

The Registrar:



M. Kiehl

The Chairman:



W. J. L. Wheeler

