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D E C I S I O N
of 29 April 2005

Case Number: T 0703/02 - 3.5.2

Application Number: 94305350.4

Publication Number: 0642220

IPC: H03H 9/64

Language of the proceedings: EN

Title of invention:
SAW filter

Applicant:
Tekelec Temex

Opponent:
-

Headword:
-

Relevant legal provisions:
EPC Art. 56, 83, 123(2)

Keyword:
"Added subject-matter (yes); lack of inventive step (yes) -
main request"
"Lack of clarity (yes); insufficiency of disclosure (yes) -
auxiliary request"

Decisions cited:
G 0001/03, T 0608/96

Catchword:
-



Case Number: T 0703/02 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 29 April 2005

Appellant:

Tekelec Temex
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Representative:

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Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 19 February 2002
refusing European application No. 94305350.4
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: W. J. L. Wheeler
Members: J.-M. Cannard
B. J. Schachenmann

Summary of Facts and Submissions

I. The appellant contests the decision of the examining division to refuse European patent application No. 94 305 350.4. The reason given for the refusal was that the application had been amended in a manner which contravened Article 123(2) EPC.

II. The document:

D1: 1974 Ultrasonics Symposium proceedings, 1974, NY, US, pages 282 to 285, S.C.-C. Tseng et AL., "SAW Planar Network",

considered in the first instance proceedings, remains relevant to the present appeal.

III. Claim 1 according to the present main request corresponds to claim 1 refused by the examining division and reads as follows:

"A SAW filter comprising a first pair and a second pair of SAW impedance elements electrically coupled to form a bridge circuit, wherein a centre frequency of each SAW impedance element of the first pair of SAW impedance elements is different to a centre frequency of each SAW impedance element of the second pair of SAW impedance elements, and the product of the static capacitance of the SAW impedance elements of the first pair is substantially equivalent to the product of the static capacitance of the SAW impedance elements of the second pair; with the proviso that this does not include a SAW filter in which the static capacitance of all the impedance elements is exactly equal."

Claims 2 to 13 are dependent on claim 1.

- IV. With the statement of grounds of appeal, the appellant filed an amended claim 1 and dependent claims 2 to 12 according to an auxiliary request. Claim 1 of this request reads as follows:

"A SAW filter comprising a first pair and a second pair of SAW impedance elements electrically coupled to form a bridge circuit, wherein a centre frequency f_1 , of each SAW impedance element of the first pair of SAW impedance elements is different to a centre frequency f_2 , of each SAW impedance element of the second pair of SAW impedance elements, and the product of the static capacitance of the SAW impedance elements of the first pair is substantially equivalent to the product of the static capacitance of the SAW impedance elements of the second pair, and wherein the fractional difference, $\frac{|f_1 - f_2|}{f_{av}}$, between the centre frequency, f_1 , of each SAW impedance element of the first pair of impedance elements and the centre frequency, f_2 , of each SAW impedance element of the second pair of impedance elements is substantially half the electro-mechanical coupling coefficient K^2 of the substrate."

- V. With a summons to oral proceedings, which had been requested by the appellant, the Board issued a communication in which it was pointed out, *inter alia*, that claim 1 according to the main request appeared to contravene Article 123(2) EPC and the patent application amended in accordance with the auxiliary

request did not meet the requirements of Articles 83 and 84 EPC.

VI. Oral proceedings were held on 29 April 2005. Nobody appeared on behalf of the appellant. The Board had not been notified that the appellant would not be represented at the oral proceedings. Nor had any written reply to the Board's communication been received.

VII. The written submissions made in the statement of grounds of appeal may be summarized as follows:

There was no teaching or suggestion in document D1 that any impedance elements other than elements having exactly equal static capacitances could be used to achieve a balanced SAW filter. The SAW filter according to claim 1 of the main request was novel. D1 was not relevant for the assessment of inventive step of this filter, because D1 was an accidental novelty-destroying disclosure in respect the SAW filter according to claim 1 as originally filed. The disclaimer introduced in claim 1 was allowable following decision T0608/96.

Claim 1 according to the auxiliary request was based on the combination of originally filed claim 1 with the features recited in original dependent claim 3. These features were neither disclosed, nor suggested in D1.

VIII. According to the file the appellant requests that the decision under appeal be set aside and a patent be granted in the version refused by the examining division, or, as an auxiliary request, on the basis of

the claims filed with the statement of grounds of appeal.

Reasons for the Decision

1. The appeal is admissible.
2. Inquiries revealed that the appellant had been duly summoned to the oral proceedings. The Board is therefore able to take a decision.

Allowability of the disclaimer introduced in claim 1 according to the main request

3. Following decision G 1/03 (OJ 2004, 413) of the Enlarged Board of Appeal, a disclaimer which is or becomes relevant for the assessment of inventive step adds subject-matter contrary to Article 123(2) EPC.
4. The disclaiming feature "with the proviso that this does not include a SAW filter in which the static capacitance of all the impedance elements is exactly equal" introduced in claim 1 is not supported by the application as filed according to which the static capacitances of the SAW impedance elements of both the first and second pair impedance elements are equal or substantially equal (application as published, column 5, lines 31 to 37; column 7, lines 19 to 22). This was not disputed by the appellant.
5. D1 is quite clearly in the same technical area as the subject-matter of the present application, and therefore not an "accidental" disclosure. D1 has to be

considered when addressing the question of whether or not the SAW filter according to claim 1 involves an inventive step.

- 5.1 It is common ground that D1 discloses a SAW filter comprising a first pair and a second pair of SAW impedance elements (respectively devices A and B) coupled to form a bridge circuit, wherein the centre frequency of the devices A is different to the centre frequency of the devices B and the static capacitances of the two devices are exactly equal. Products of static capacitance which are equal are not excluded by the expression "substantially equivalent" in claim 1. The filter according to claim 1 therefore differs from the filter disclosed in D1 only by the disclaiming feature introduced in claim 1. However, according to D1 (page 283, "Complementary resonator" and in particular the last four lines of this section; bridge circuit of figure 4), the static capacitances of the two arms of the bridge circuit have to be balanced in lattice network applications.
- 5.2 It is part of the basic knowledge of a student in the electricity field, and thus part of the common knowledge of the skilled man, that a bridge circuit is balanced when the product of the impedances of two diagonally opposed arms of the bridge circuit is equal to the product of the impedances of the two other arms.
- 5.3 In view of this common knowledge, the skilled person reading D1 would thus understand, without exercising any inventive skill, that the bridge circuit according to figure 4 of D1 would not only form a SAW filter when the static capacitance of all the devices A and B are

exactly equal, but more generally when the circuit is balanced, namely when the product of the static capacitance of each of two diagonally opposed devices of the circuit is equal to the product of the static capacitance of the two other devices. Therefore, even if the disclaiming feature introduced in claim 1 could be taken into account, the subject-matter of claim 1 does not involve an inventive step.

6. Furthermore, since the disclaimer introduced in claim 1 is not supported by the application as filed and is relevant for the assessment of inventive step (i.e. D1 is not an **accidental** novelty-destroying disclosure), the amendment introduced in claim 1 by this disclaimer contravenes Article 123(2) EPC and claim 1 of the main request is not allowable.

Auxiliary request

7. Claim 1 according to the auxiliary request differs from claim 1 according to the main request in that the disclaimer has been replaced by features which specify a difference between the centre frequencies of the SAW impedance elements of the first and second pairs of impedance elements as a function of the electro-mechanical coupling coefficient K^2 of the substrate, as recited in claim 3 of the application as filed. According to the description of this application (published application, column 3, lines 40 to 51), this difference is a feature of a preferred embodiment of the invention. In another embodiment of realisation described with reference to figures 1 to 3 and the description, column 6, lines 5 to 18 and column 7, lines 30 to 43, the difference between the centre

frequencies of the SAW impedance elements of the first and second pairs of impedance elements is such that the anti-resonance frequency in the second pair occurs at approximately the resonant frequency in the first pair, as specified by the features of present dependent claim 3. It is not clear whether the features recited in claim 3 are cumulative to those recited in claim 1, or whether they define an alternative embodiment of the invention involving an alternative definition of the difference between the centre frequencies. The set of claims according to the first auxiliary request as a whole is therefore unclear (Article 84 EPC). Moreover, a SAW filter comprising the features of claims 1 and 3 taken in combination is not disclosed in a manner sufficiently clear and complete for it to be carried out by a skilled person as required by Article 83 EPC, because **on the basis of the description**, the features of claims 1 and 3 belong to different embodiments.

8. Since claim 1 according to the appellant's main request and claim 1 according to the auxiliary request do not meet the requirements of the EPC, neither of these requests can be granted and the appeal must be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Sauter

W. J. L. Wheeler