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**Datasheet for the decision
of 3 March 2010**

Case Number: T 0587/07 - 3.4.01

Application Number: 98932291.2

Publication Number: 0991951

IPC: G01R 23/16

Language of the proceedings: EN

Title of invention:

A spectrum analyser

Applicant:

Aeroflex International Limited

Opponent:

-

Headword:

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Relevant legal provisions:

EPC Art. 123(2), 111(1)

Relevant legal provisions (EPC 1973):

EPC Art. 84

Keyword:

"Added subject-matter (no; after amendment)"

"Clarity (yes; after amendment)"

Decisions cited:

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Catchword:

-

Case Number: T 0587/07 - 3.4.01

**DECISION
of the Technical Board of Appeal 3.4.01
of 3 March 2010**

Appellant: Aeroflex International Limited
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Representative: Gillard, Matthew Paul
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 17 November
2006 refusing European patent application
No. 98932291.2 pursuant to Article 97(1)
EPC 1973.

Composition of the Board:

Chairman: B. Schachenmann
Members: G. Assi
H. Wolfrum

Summary of Facts and Submissions

I. The European patent application No. 98932291.2 (European publication number 0 991 951; International publication number WO-A-98/59252) was refused by the examining division.

In the decision of the examining division, dispatched on 17 November 2006, the reasons for refusing the application are based on the objections raised in a communication of 26 May 2006 under Article 123(2) EPC 1973 (point 1), Article 84 EPC 1973 and Rule 35(13) EPC 1973 (point 2, whereby paragraph 2a refers to a previous communication of 17 June 2004), and Rule 27(1)(b) EPC 1973 (point 3 referring to a communication of 11 October 2002).

II. The applicant (appellant) lodged an appeal, received on 12 January 2007, against the decision to refuse the application. The fee for the appeal was paid on 12 January 2007. The statement setting out the grounds of appeal was received on 15 March 2007.

III. Oral proceedings took place on 3 March 2010.

IV. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of claims 1 to 8 filed at the oral proceedings

V. The application documents on file are:

Description pages 1, 3, 4, 9, 10, 12 to 18 of the published International application,
Description pages 2, 11 filed with a letter of 11 June 1999,
Description pages 5, 6 filed with a letter of 11 May 2001,
Description pages 7, 8 filed with a letter of
2 February 2010,

Claims 1 to 8 filed at the oral proceedings on 3 March 2010,
and

Drawing sheets 1/7 to 7/7 of the published International application.

VI. The wording of claim 1 reads as follows:

"A radio frequency RF spectrum analyser comprising:

a frequency converting means (7, 8, 11) operating on a received RF signal to produce a plurality of intermediate frequency IF signals, each IF signal being produced at a respective reference frequency F_{ref} to be set,

a band pass filter (9) filtering the output of the frequency converting means, said band pass filter thereby defining the range of frequencies supplied to an IF spectrum analyser (14),

wherein the IF spectrum analyser (14) carries out a frequency analysis of each said IF signal to produce a corresponding IF power spectrum of IF frequencies F_{IF} , each having a measured power level,

wherein the RF spectrum analyser further comprises a control processor (1),

wherein the control processor (1), for each reference frequency F_{ref} which it has set,

- calculates which frequencies of a candidate RF power spectrum could have given rise to power levels present in a corresponding IF power spectrum,
- assigns the respective measured power level of an IF frequency F_{IF} to the corresponding candidate RF frequency or frequencies, thus constructing the corresponding candidate RF power spectrum,
- stores in a table (15) the calculated candidate RF power spectrums, the table (15) being organised so as to have as many rows as IF spectrums are produced and as many columns as there are discrete RF frequencies to be resolved, and
- examines the entries of each column of the table (15) to reject by a robust estimation technique spurious entries and to determine the actual RF power spectrum of the received RF signal."

VII. Claims 2 to 8 are dependent claims.

VIII. The revised version of the European Patent Convention or EPC 2000 entered into force on 13 December 2007. In the present decision, reference is made to "EPC 1973" or "EPC" for EPC 2000 (EPC, Citation practice, pages 4-6) depending on the version to be applied according to Article 7(1) of the Revision Act dated 29 November 2000 (Special Edition No. 1 OJ EPO 2007, 196) and the decisions of the Administrative Council dated 28 June 2001 (Special Edition No. 1 OJ EPO 2007, 197) and 7 December 2006 (Special Edition No. 1 OJ EPO 2007, 89).

Reasons for the Decision

1. The appeal is admissible.
2. The wording of present claims 1 to 8 differs so substantially from that of the claims underlying the decision under appeal that the objections raised by the examining division under Articles 123(2) and 84 EPC 1973 become baseless.
3. The Board considers that present claims 1 to 8 have not been amended in such a way that they contain subject-matter which

extends beyond the content of the application as filed (Article 123(2) EPC).

In this respect, attention is drawn to the published International application, Figures 6 to 16 with the corresponding description, in particular:

- page 11, third paragraph,
- page 12, first sentence of the third paragraph,
- page 13, third and fourth paragraphs,
- page 14, last two paragraphs, and
- page 15, first two paragraphs.

4. The Board further considers that present claims 1 to 8 are clear and concise and are supported by the description (Article 84 EPC 1973).

In particular, there are no terminological inconsistencies, undue repetitions, confusing expressions or ambiguities. Moreover, claim 1 recites all the essential features of the RF spectrum analyser according to the invention as shown in Figure 6, which features may be shortly summarised as follows:

- a frequency converting means 7, 8, 11 operating on the RF input signal to produce IF signals,
- a band pass filter 9 defining the range of IF frequencies transmitted to an IF spectrum analyser 14 carrying out a frequency analysis of the IF signals to produce corresponding IF power spectrums, and
- a control processor 1 constructing candidate RF power spectrums, storing these candidate RF power spectrums in a table 15 and examining the entries of each column of the table to reject by a robust estimation technique spurious entries and to determine the actual RF power spectrum of the received RF signal.

5. In the present decision the Board only comes to the conclusion that claims 1 to 8 on file meet the requirements of Article 123(2) EPC and Article 84 EPC 1973.

In order to examine whether the application meets all the remaining provisions of the EPC, the Board remits the case to the examining decision for further prosecution pursuant to Article 111(1) EPC (second sentence, second alternative).

With regard to the issues of novelty and inventive step, in particular, the Board notes that these have only been addressed in the International Preliminary Examination Report of 22 September 1999 (points V.1 and V.2).

Order

For these reasons, it is decided that:

The decision under appeal is set aside.

The case is remitted to the examining division for further prosecution on the basis of claims 1 to 8 filed at the oral proceedings on 3 March 2010.

The Registrar

The Chairman:

R. Schumacher

B. Schachenmann