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**Datasheet for the decision  
of 19 October 2010**

**Case Number:** T 1388/07 - 3.5.02

**Application Number:** 01302216.5

**Publication Number:** 1137189

**IPC:** H03M 1/12

**Language of the proceedings:** EN

**Title of invention:**

A high power selective signal attenuator and method of attenuation

**Applicant:**

LUCENT TECHNOLOGIES INC.

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 84, 123(2)

RPBA Art. 15(3)

**Relevant legal provisions (EPC 1973):**

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**Keyword:**

"Cancellation of the oral proceedings (no)"

"Added subject-matter (yes)"

"Lack of support (yes)"

**Decisions cited:**

-

**Catchword:**

see reasons, point 2



Case Number: T 1388/07 - 3.5.02

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.02  
of 19 October 2010

**Appellant:** LUCENT TECHNOLOGIES, INC.  
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**Representative:** Sarup, David Alexander  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 23 March 2007  
refusing European patent application  
No. 01302216.5 pursuant to Article 97(1) EPC  
1973.

**Composition of the Board:**

**Chairman:** M. Ruggiu  
**Members:** J.-M. Cannard  
P. Mühlens

## Summary of Facts and Submissions

- I. The appellant contests the decision of the examining division to refuse European patent application No. 01 302 216.5. The reason for the refusal was that the application did not meet the requirements of Article 52(1) EPC because the subject-matter of the independent claims 1 and 12 then on file did not involve an inventive step in the sense of Article 56 EPC.
  
- II. With a communication dated 22 June 2010 annexed to summons to oral proceedings, the Board observed, *inter alia*, that the features: an attenuator (12) attenuating analog main signals "exceeding a maximum power level of a dynamic range of a first analog-to-digital converter (ADC)(16)" and a converter converting "to isolate high-power signals in the analog main signals" recited in claim 1 of the request then on file seemed to lack support by the description and to contravene Article 123(2) EPC.
  
- III. With a letter faxed on 20 September 2010 in response to the communication of the Board, the appellant filed, *inter alia*, a replacement set of nineteen claims to replace the previous set of claims. The appellant further announced that he would not be attending the oral proceedings set for 19 October 2010, and requested that the oral proceedings be cancelled and the procedure be continued in writing.
  
- IV. As announced the appellant did not attend the oral proceedings before the Board held on 19 October 2010.

V. It can be understood from the file as it stands that the appellant requests that the decision under appeal be set aside and that a patent be granted on the basis of claims 1 to 19 filed with the letter dated 20 September 2010.

VI. Claims 1 and 3 of the current request read as follows:

Claim 1:

"An apparatus to selectively attenuate high power signals of analog main signals received at an input characterized in that:

an attenuator (12) attenuating analog main signals such that signals, within the analog main signals, exceeding a maximum power level of a dynamic range of a first analog-to-digital converter (ADC) (16) are adjusted to fall within the dynamic range of the first ADC;

said first ADC converting analog output of said attenuator to a digital output, the digital output representing the high-power signals in the analog main signals;

a digital-to-analog converter (DAC) (18) converting digital output of said first ADC to analog; and

a cancellor (24) receiving said analog main signals and said analog output from said DAC, and cancelling said analog output of said DAC from said analog main signals to attenuate the high-power signals in the analog main signals."

Claim 3:

"The apparatus of claim 1, further comprising:

a coupler (10) coupling a portion of said analog main signals from a transmission line; and wherein

said attenuator attenuates output from said coupler."

VII. The applicant's arguments can be summarized as follows:

Claim 1 of the current request had been amended to recite "an attenuator (12) attenuating analog main signals such that signals within the analog main signals exceeding a maximum power level of a dynamic range of a first analog-to-digital converter (ADC) (16) are adjusted to fall within the dynamic range of the first ADC; said first ADC converting analog output of said attenuator to a digital output, the digital output representing the high-power signals in the analog main signals" (page 3 of the letter of 20 September 2010). Support for these amendments could be found in column 3, lines 31 to 37 and column 1, lines 45 to 49 of the published application EP 1 137 189 A2. Claim 1 of the current request was supported by the description and did not extend beyond the content of the application as filed, in accordance with Article 123(2) EPC.

## Reasons for the Decision

1. The appeal is admissible.

### *Procedural matters*

2. According to the communication of the Board dated 22 June 2010 (points 3 to 3.2), the features: an attenuator (12) attenuating analog main signals "exceeding a maximum power level of a dynamic range of a first analog-to-digital converter (ADC)(16)" and a converter converting "to isolate high-power signals in the analog main signals" recited in claim 1 of the request then on file did not seem to be supported by the application as filed and seemed to contravene Article 123(2) EPC. Therefore, the Board is in a position to decide on the current request on grounds and evidence on which the applicant has had an opportunity to present in writing its comments in response to the Board's communication. Moreover, according to Article 15(3) of the Rules of Procedure of the Boards of Appeal (OJ EPO 2007, 536 to 547), "The Board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of any party duly summoned who may then be treated as relying only on its written case". Accordingly, the Board decided not to grant the appellant's requests to cancel the oral proceedings and to continue the procedure in writing.

### *Current claim 1 - Lack of support by the description*

3. Claim 1 of the current request is not supported by the description and contravenes Article 84 EPC.

3.1 As observed in the Board's communication (paragraphs 2, 3.1 and 3.2) and explained in the appellant's reply, in the described invention (published application, figure 1 and paragraph [0011]), the attenuator 12 attenuates all the signals coupled to a secondary pathway and the "control circuitry 32 adjusts the power level threshold of the attenuator 12 such that the amplitudes of the coupled signals exceeding the maximum power level in the dynamic range of the secondary ADC 16 fall within the dynamic range of the secondary ADC 16" and that, as "a result of this attenuation operation, some signals which fell within the dynamic range of the secondary ADC 16 prior to attenuation, will no longer fall within the dynamic range of the secondary ADC 16" (emphasis added).

3.2 More specifically, the apparatus according to the sole embodiment disclosed in the originally filed description includes a primary pathway 6 and a feed forward pathway which is coupled to the primary pathway 6 by a first coupler 10 and a second coupler 24. This feed forward pathway includes an attenuator 12, which not only performs the functions specified by the features incorporated in current claim 1, but is such that some signals which fell within the dynamic range of the secondary ADC 16 prior to attenuation, will no longer fall within the dynamic range of the secondary ADC 16 (published application, figure 1; paragraphs [0008], [0010] and [0011]).

3.3 However, claim 1 of the current set of claims (as claim 1 of the originally filed set of claims) neither specifies that the attenuator 12 is included in a feed

forward pathway distinct of a primary pathway, nor makes clear that some signals which fell within the dynamic range of the secondary ADC 16 prior to attenuation, will no longer fall within the dynamic range of the secondary ADC 16 as a result of the attenuation. Nor is the scope of claim 1 limited to an apparatus according to the sole described embodiment, as it appears, for instance, from the dependent claim 3 of both sets of claims which specifies an additional feature according to which the attenuator attenuates the output from a coupler coupling a portion of the analog main signals. Accordingly, claim 1 of the current request covers an apparatus which is not supported by the originally filed description, at least because it may comprise an attenuator attenuating the analog main signals (received at the apparatus input) as a whole (Article 84 EPC).

*Current claim 1 - contravention of Article 123(2) EPC*

4. Claim 1 of the current request relates to subject-matter which extends beyond the content of the application as originally filed and contravenes Article 123(2) EPC.
  - 4.1 Claim 1 of the current request is based on claim 1 as originally filed from which it differs, *inter alia*, in that it incorporates the additional features: "such that signals, within the analog main signals, exceeding a maximum power level of a dynamic range of a first analog-to-digital converter (ADC) (16) are adjusted to fall within the dynamic range of the first ADC" and the digital output of the first ADC "representing the high-power signals in the analog main signals". These added



features (which may be disclosed as such in the original description, as explained by the appellant) are not contained in any of the originally filed claims.

- 4.2 Moreover, claim 1 of both the current request and the originally filed request covers an apparatus which is not supported by the originally filed description since it may comprise an attenuator attenuating the analog main signals received at the apparatus input as a whole (see foregoing paragraph 3.3).
- 4.3 Accordingly, claim 1 of the current request comprises a combination of features, i.e. features of an apparatus according to the originally filed claim 1 which are not supported by the originally filed description and features which are only included in the apparatus as originally described, that covers an apparatus which is not disclosed in the application as originally filed. Therefore, the subject-matter of claim 1 of the current request extends beyond the content of the application as filed, contravening Article 123(2) EPC.
5. Since the application amended according to the main and auxiliary requests on file does not meet the requirements of the EPC, the appeal has to be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chairman:

U. Bultmann

M. Ruggiu