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**Datasheet for the decision
of 3 September 2009**

Case Number: T 0910/07 - 3.5.03

Application Number: 01914243.9

Publication Number: 1269643

IPC: H04B 1/59

Language of the proceedings: EN

Title of invention:

Transponder and transponder system

Applicant:

Vavik, Geir Monsen

Opponent:

-

Headword:

Transponder/VAVIK

Relevant legal provisions:

EPC Art. 54, 84, 123(2)

Relevant legal provisions (EPC 1973):

EPC Art.

Keyword:

"Clarity - no"

"Added subject-matter - yes"

"Novelty - no"

"Oral proceedings held in the absence of the appellant"

Decisions cited:

-

Catchword:

-



Case Number: T 0910/07 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 3 September 2009

Appellant: Vavik, Geir Monsen
Ovre Vikeraunet 3
NO-7057 Jonsvatnet (NO)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 26 January 2007
refusing European patent application
No. 01914243.9 pursuant to Article 97(1) EPC
1973.

Composition of the Board:

Chairman: A. S. Clelland
Members: T. Snell
R. Moufang

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division refusing European patent application No. 01914243.9, with international publication number WO-A-01/67625. The examining division held that claim 1 of the applicant's request did not meet the requirements of clarity (Article 84 EPC) and inventive step (Articles 52(1) and 56 EPC).
- II. The appellant filed a notice of appeal containing a statement of grounds with comments on the reasoning given in the impugned decision. In addition, the appellant commented as follows:

"First of all, I insist on repeating as one of the main reasons for my reluctance [*sic*] to accept the decision being the fact that a nearly identical set of claims has become patent in the [*sic*] Eurasia and in the United States. It must be legitimate to expect that the patent authorities in these two world regions, representing both a number of countries, like EPO, as well as a number of states, must have expertise at a level comparable to that of the EPO.

Furthermore, I would like to point out the handicap that EPO seemeingly [*sic*] sets forth for small entities or inventors like myself. EPO makes it's [*sic*] process much more costly. It also has restrictions on the possiblilities [*sic*] for the inventor to represent himself. It can therefore be viewed as EPO practices a distinct

discrimination of small entities and independent inventors and this may seem as a contrast to the strict competition rulings carried by various EU organs, like for instance the ESA. If the bottom line is that processes though [sic] EPO only can be carried out and financed by large organisations, EPO distinguishes itself in this way versus many equally large and important countries or treaties. This works harshly [sic] against inventors who are obliged to work for many years to attract capital because the innovation and proof thresholds are extremely high, for example when the inventions imply establishing new technology standards."

No explicit request was included in the notice of appeal.

- III. In a communication accompanying a summons to oral proceedings the board gave a preliminary opinion in which objections under Articles 123(2), 84, and 52(1) in combination with Articles 54 and 56 EPC were raised. The board also indicated, with respect to the additional comments reproduced above, that it was unable to identify any procedural violation.
- IV. In response to the board's communication, the appellant filed new claims intended to replace the previous set of claims on file, together with supporting arguments with respect to novelty and inventive step.
- V. In a fax letter dated 26 August 2009, the board informed the appellant that the document

D2: US-A-3705385

referred to in the International Preliminary Examination Report established for this application was regarded as highly relevant and may be discussed at the oral proceedings. The board indicated the passages of D2 it regarded as particularly pertinent and gave reasons as to why the document was relevant for the discussion with respect to novelty and/or inventive step.

- VI. In a fax letter received on 2 September 2009, the appellant supplied a translation of a submission to the Norwegian Intellectual Property Office dated 30 April 2001 including comments with respect to document D2. Four cover pages of patent publications were also supplied, which were referred to as "patents with claims corresponding to our amended claims transmitted on citing the document USA patent-3,705,385" (ie D2).
- VII. Oral proceedings were held on 3 September 2009 in the absence of the appellant. The board inferred from the appellant's written submissions that he requested that the decision be set aside and a patent granted on the basis of claims 1-38 as filed with the letter of response to the summons to oral proceedings and received by fax on 2 August 2009. After deliberation, the board's decision was announced at the end of the oral proceedings.

VIII. Claim 1 of the appellant's request reads as follows:

"An analogue repeater and transponder system for any of wireless, wire and waveguide infrastructure based digital networks for at least one transmission medium, characterized by at least one of at least one repeater and at least one transponder and where each repeater/transponder has at least one port for connection via signal coupler arrangements to the transmission medium for signal reception and transmission, where each of the repeaters and transponders is of analogue type with positive and large signal gain applicable to wide bandwidth uses and implemented using any of solid state components and solid state integrated circuitry, and where selectivity requirements are adapted to any of information bandwidth and quench frequency or ideal interference isolation between system medium and air free space, wherein the repeaters and transponders are of regenerative type having at least one superregenerative circuit equipped with selectivity arrangements for both input and output signals, wherein the repeaters and transponders are capable of selecting frequency bands generated by the superregenerative circuit, by which bandpass-analogous characteristics of the repeaters and transponders are adapted to conform with selectivity requirements."

Independent claim 25 is a claim for "A repeater or transponder for *[sic]* analogue repeater and transponder system", otherwise having the same features as claim 1.

Reasons for the decision

1. *The appellant's absence at the oral proceedings and the right to be heard*

1.1 The board considered it to be expedient to hold oral proceedings in accordance with Article 116(1) EPC for reasons of procedural economy. Having verified that the appellant was duly summoned the board decided to continue the oral proceedings in the absence of the appellant (Rule 115(2) EPC and Article 15(3) RPBA).

1.2 In accordance with Article 15(3) RPBA, the board shall not be obliged to delay any step in the proceedings, including its decision, by reason only of the absence at oral proceedings of any party duly summoned who may then be treated as relying only on its written case.

1.3 The board's decision taken at the oral proceedings relies, in respect of novelty, on the disclosure of document D2, which the board cited by virtue of its power under Article 114(1) EPC approximately one week before the oral proceedings. This document is mentioned in the description of the application dealing with the background art and was cited in the International Preliminary Examination Report established for this application. Having been informed by the board in advance of the oral proceedings that D2 appeared to be highly relevant to the issue of novelty, the appellant submitted comments on this matter reproduced from earlier proceedings before the Norwegian Intellectual Property Office. Given the appellant's obvious familiarity with document D2, the board is satisfied that the appellant had sufficient time to respond to

its inclusion in these appeal proceedings both in writing and, had it chosen to attend the oral proceedings, orally. For these reasons, the board's reliance on this document is in compliance with Article 113(1) EPC.

1.4 The remaining grounds for this decision, ie those based on Articles 84 and 123(2) EPC, are either the same as those communicated to the appellant with the summons to oral proceedings, or occasioned by the inclusion in claim 1 of the term "selectivity arrangements" in response to the summons. The appellant therefore could have expected that all these points would be discussed at the oral proceedings, all the more so as it was pointed out in the communication accompanying the summons to oral proceedings that amended claims would have to be examined for compliance, *inter alia*, with Articles 84 and 123(2) EPC.

1.5 In the light of the above, the board considers that all necessary measures to respect the appellant's right to be heard have been observed. The board's decision taken at the oral proceedings in the absence of the appellant therefore complies with Article 113(1) EPC.

2. *Claim 1 - added subject-matter (Article 123(2) EPC)*

2.1 In the following analysis, the board refers to the published application (WO-A-01/67625), unless otherwise indicated.

2.2 Claim 1 comprises, *inter alia*, the feature "selectivity arrangements for both input and output signals".

There is however in the board's view no general disclosure of "selectivity arrangements" in the application as originally filed. The only disclosure of any selectivity arrangement appears to be either the bandpass filter 3 shown in Figs. 2-4 or the explicitly dual bandpass filter 3 shown in Fig. 6 (cf. original claims 10 and 19), which are disclosed only in the context of an embodiment comprising a bi-directional signal path leading from a single port to the superregenerative receiver. Claim 1 however embraces any type and any number of selectivity arrangements, as well as any number of ports. Since the board can find no basis for such a generalisation in the application documents as originally filed, claim 1 does not comply with Article 123(2) EPC.

2.3 Moreover, the expressions in claim 1 "where selectivity requirements are adapted to any of information bandwidth and quench frequency or ideal interference isolation between system medium and air free space" and "by which band-pass analogous characteristics of the repeaters and transponders are adapted to conform with selectivity requirements" do not occur in the application as originally filed. These expressions therefore also add technical content which extends beyond the content of the application as originally filed, contrary to Article 123(2) EPC.

2.4 The appellant has neither pointed out the basis for the above-mentioned features in the application as filed nor provided any other arguments that could lead to a different conclusion.

3. *Claim 1 - clarity (Article 84 EPC)*

3.1 Claim 1 defines an "analogue" repeater and transponder system. The board observes that the term "analogue" in the application as filed is frequently used to indicate that the apparatus consists of analogue components (see for example page 22, lines 18-19 and original claims 21 and 24). On the other hand, in the notice of appeal the appellant expresses the view that the term "analogue" signifies that the output signal is "a direct analogue representation [of] the input signal" (ie the signal is unmodified). The board observes that this interpretation is arguably supported by original claim 18. In the view of the appellant, expressed in the reply to the summons, the meaning of "analogue" is very well understood in this field. However, in the board's view, given that in the light of the description and original claims there are two plausible meanings of the term "analogue", claim 1 is not clear within the meaning of Article 84 EPC.

3.2 The examining division held that the terms "large signal gain" and "wide bandwidth" are relative terms which render the scope of protection conferred by claim 1 unclear (Article 84 EPC; cf. the impugned decision, point 12); the board agrees.

In this respect, the appellant argues in the notice of appeal as follows:

"The term wide bandwidth refers to relative bandwidth, that is bandwidth in relation to carrier frequency. Wide bandwidth is a physical reality and entity in that given a very low

carrier frequency, bandwidths larger than the carrier frequency in Hz are not physical [sic] possible. A wide bandwidth would therefore be considered to be a bandwidth made possible in practice by using a high carrier frequency. Practical examples of bandwidths [sic] uses are often not difficult to place in categories wide and narrow bandwidths. One example is narrow band FM and wide band FM, where the first is identical to VHF communication [sic] FM, the second broadcast FM. One suggestion might be to make the term "wide bandwidth uses" into "video bandwidths".

The board however considers that, given that claim 1 embraces the entire communications spectrum, there is no well-defined distinction which can be made between narrow and wide bandwidth. The same is true of the terms "large" and "small" signal gain. Hence the board finds the appellant's argument unconvincing.

As regards the appellant's suggestion to replace the term "wide bandwidth uses" by "video bandwidths", which is understood as a proposal for amendment, the board can find no basis in the application as originally filed for such an amendment (cf. Article 123(2) EPC).

- 3.3 The expressions in claim 1 "where selectivity requirements are adapted to any of information bandwidth and quench frequency or ideal interference isolation between system medium and air free space" and "by which band-pass analogous characteristics of the repeaters and transponders are adapted to conform with

selectivity requirements", in the board's view limit the claim, if at all, in an indeterminate manner.

These features appear to be intended to define particular characteristics of the transponder or repeater, plausibly relating to the design of the "selectivity arrangements", although the claim indicates no concrete measures by which these effects are achieved. In the board's view, the skilled person would have no way of determining to what extent an apparatus including all the explicit structural features of the claim provided these further characteristics. Hence, the scope of protection sought is not clearly defined, contrary to Article 84 EPC.

The appellant has not provided any arguments in this respect except to suggest that the expression "where selectivity requirements are adapted to any of information bandwidth and quench frequency or ideal interference isolation between system medium and air free space" might be deleted. However, the board is only in a position to decide on the basis of the pending request (Article 113(2) EPC).

4. *Claim 1 - novelty (Articles 52(1) and 54 EPC)*

- 4.1 Document D2 is regarded by the board as representing the closest prior art, as it is the only document available to the board which discloses a single-port transponder (ie with a single antenna) using a superregenerative circuit for both reception and transmission purposes.

4.2 Using the language of claim 1, D2 discloses an analogue repeater and transponder system for any of wireless, wire and waveguide infrastructure based digital networks for at least one transmission medium (cf. D2, Figs. 1a and 1b, which disclose a wireless transponder system; the transponder is adapted to amplify and retransmit the input signal, and hence is also a repeater - cf. Fig. 11a, whereby the transmission spectrum includes the interrogating carrier with 3kHz modulation).

The wireless repeater and transponder system of D2 further comprises at least one of at least one repeater and at least one transponder (Fig. 1b),

where each repeater/transponder has at least one port (41) for connection via signal coupler arrangements (41, 42) to the transmission medium for signal reception and transmission,

where each of the repeaters and transponders is of analogue type (the transmitter and receiving circuitry is analogue, cf. Fig. 3 which is a detailed circuit diagram of the transponder unit shown in Fig. 1b) with positive and large signal gain (cf. col. 30, line 57-60) applicable to wide bandwidth uses (cf. col. 30, lines 60-67 and Figs. 11a, 11b, whereby the transmission spectrum includes information-modulated sidebands extending over several multiples of the quench frequency, which is, in the board's view, a "wide" bandwidth) and implemented using any of solid state components (cf. Fig. 3, transistors 531, 543 etc) and solid state integrated circuitry, and

where selectivity requirements are adapted to any of information bandwidth and quench frequency (the sideband signals generated at multiples of the quench frequency appear across tuned circuit 567, cf. col. 31, lines 19-32; the selectivity requirements of the tuned circuit are therefore adapted to the quench frequency) or ideal interference isolation between system medium and air free space (this aspect is claimed as an alternative and is therefore non-limiting),

wherein the repeaters and transponders are of regenerative type having at least one superregenerative circuit ("locked oscillator" 76/510 and "quenching modulator" 75/511; cf Figs. 1b and 3, and col. 30, lines 30-38) equipped with selectivity arrangements (567) for both input and output signals (the locked oscillator 510 is equipped with a tuned circuit 567 which both receives and transmits a signal from antenna 301, cf. col. 30, lines 60-67),

wherein the repeaters and transponders are capable of selecting frequency bands generated by the superregenerative circuit, by which bandpass-analogous characteristics of the repeaters and transponders are adapted to conform with selectivity requirements (the transponder of D2 is inherently capable of selecting frequency bands with a bandpass-analogous characteristic determined by the design of the tuned circuit 567 of the superregenerative circuit; moreover, bandpass filter 305 selects frequency bands generated by superregenerative circuit 510, see col. 31, lines 28-34 and col. 12, lines 22-24).

Therefore, in the board's view document D2 discloses all the features of claim 1. In consequence, the board concludes that claim 1 does not comply with the requirement of novelty (Articles 52(1) and 54 EPC).

- 4.3 In the submission dated 2 September 2009, the appellant argued mainly that the transponder of D2 was arranged to amplify a narrowband and not a wideband signal, since the locked oscillator of D2 did not lend itself to wider bandwidths. The appellant also argued that D2 did not disclose a superregenerative circuit, but a quenched oscillator which is partly superregenerative but which works mainly as a locked oscillator. For these reasons the claimed arrangement was novel with respect to D2.

However, in the board's view the output of the transponder of D2, which as pointed out above consists of several sidebands spaced at multiples of the quench frequency, can be classified as wideband. Each of these sidebands moreover includes an amplified version of the input signal (see Fig. 11a). Hence the transponder of D2 also provides "positive and large signal gain applicable to wide bandwidth uses". In respect of the appellant's second point, even if it were correct that the circuit acted only part of the time as a superregenerative circuit, it would still be a superregenerative circuit. In fact in the board's view the circuit of D2 functions during these periods in the same manner as the claimed circuit. Hence the board finds these arguments unconvincing.

5. *Independent claim 25*

Above points 2-4 apply *mutatis mutandis* to independent claim 25.

6. *Miscellaneous procedural issues*

6.1 The appellant implicitly argues in the notice of appeal (cf. the statement reproduced above in the "Summary of Facts and Submissions") that the claims should be allowed because a nearly identical set of claims has been granted by the Eurasian and United States patent offices. In the submission dated 2 September 2009, the appellant appears further to imply that claims similar to those pending before the board have been granted in four other patent offices, whereby in each case document D2 has been considered and found not prejudicial to patentability.

However, the duty of the European Patent Office is to examine the claims for compliance with the requirements of the European Patent Convention (EPC), a system of law established for the grant of European patents (cf. Articles 1, 2 and 4(3) EPC). It is not legally relevant to the proceedings before the EPO that similar claims have been granted by different authorities under different jurisdictions.

6.2 The appellant further argues in the aforementioned statement in the notice of appeal that the EPO discriminates against small entities and independent inventors.

However, these comments seem to the board to represent more the appellant's personal view of the system of law established by the European Patent Convention rather than to refer to any specific procedural defect. The board is unable to recognise from these comments any action by an organ of the EPO which has given rise to a substantial procedural violation.

7. *Conclusion*

Since for the reasons given above claims 1 and 25 of the appellant's only request are not allowable, it follows that the request as a whole is not allowable. The appeal must therefore be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland