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**Datasheet for the decision
of 19 February 2019**

Case Number: T 1178/13 - 3.4.01

Application Number: 08805079.4

Publication Number: 2274793

IPC: H01Q1/24, H01Q1/38, H01Q5/00,
H01Q21/30

Language of the proceedings: EN

Title of invention:
ANTENNA ASSEMBLY

Applicant:
Sony Ericsson Mobile Communications AB

Headword:
Antenna assembly with two radiating patterns / Sony Ericsson

Relevant legal provisions:
EPC Art. 123(2)

Keyword:
Amendments - disclosure in drawings (no)

Decisions cited:
T 0906/97, T 0667/08, T 0801/13



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Case Number: T 1178/13 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 19 February 2019

Appellant: Sony Ericsson Mobile Communications AB
(Applicant) Nya Vattentorget
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Representative: Aera A/S
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 6 March 2013
refusing European patent application No.
08805079.4.**

Composition of the Board:

Chairman P. Scriven
Members: P. Fontenay
D. Rogers

Summary of Facts and Submissions

I. The Examining Division refused European patent application No. EP-08 805 079.

II. The Examining Division held that the subject-matter of claim 1 according to the main request then on file lacked inventive step.

The feature according to which the dielectric substrate was mounted flush with the edge, or flush with the edges constituting a corner of the printed wiring board (PWB), which had been introduced in claim 1 of the auxiliary request, was considered to define subject-matter extending beyond the content of the application as filed, contrary to Article 123(2) EPC.

The Examining Division further observed, without making it part of their decision, that the subject-matter of claims 5 and 6 of both requests was not clearly defined, contrary to Article 84 EPC.

III. In the statement setting out the grounds of appeal, the appellant requested that the Examining Division's decision be set aside and that a patent be granted on the basis of an amended set of claims 1 - 7 filed as a main request, and a description to be adapted at a later stage.

Claim 1 had been amended with regard to claim 1 of the main request underlying the impugned decision. It specified, in its characterising portion, that "said dielectric substrate (14) is a rectangular block and is

mounted in a corner of said PWB (12), whereby two edges of said dielectric substrate (14) are mounted flush with two edges of said PWB (12) constituting said corner of said PWB (12)". Support for the amendments was to be found in figures 1 and 3 and page 6, line 30, of the published application.

Arguments in favour of inventive step with regard to the various documents of the prior art cited by the Examining Division were put forward.

IV. In a communication under Article 15(1) RPBA, the appellant was informed of the Board's preliminary view.

The Board endorsed the observations of the Examining Division as to lack of clarity of claims 5 and 6. The objection concerned the inadequate claims structure and the misleading references in claims 5 and 6 to the previous claims.

With regard to the issue of added subject-matter, the Board acknowledged that a sufficient basis existed for the feature of the dielectric substrate being a rectangular block mounted in a corner of the PWB (Printed Wiring Board). However, in the absence of a literal basis for the edges of the substrate being mounted flush with the edges of the PWB constituting a corner, the Board doubted whether a sufficient basis existed in the application as filed (Article 123(2) EPC).

V. In reply to the communication of the Board, the appellant filed an amended main request (request A), a new auxiliary request 1, incorporating two alternatives

(requests B1 and B2), and a new auxiliary request 2 (request C). The choice between the alternatives B1 and B2 depends on the Board's decision on the issue of added subject-matter in respect of request A. B1 is to be considered if A *does not* involve added subject matter; B2 is to be considered if A *does*.

The claims 5 and 6, objected to under article 84 EPC, had been deleted in all requests. These requests define the appellant's final requests on which the Board has to adjudicate.

The appellant reiterated its view that the claimed subject-matter did not extend beyond the content of the application as filed and elaborated on the existence of an inventive step with regard to the various items of prior art referred to by the Board in its provisional opinion.

With regard, specifically, to the feature of the two edges of the dielectric substrate being mounted flush with two edges of the PWB constituting its corners, reference was made to Figures 1 and 2 of the application as filed.

VI. In a further communication, the appellant informed the Board that it did not intend to attend the oral proceedings, which were, therefore, cancelled.

VII. Claim 1 of the main request reads:

Antenna assembly (10) comprising a printed wiring board (PWB) (12) and a dielectric substrate (14) having a relative dielectric constant (ϵ_r) greater

than one and comprising a first antenna pattern, said dielectric substrate (14) being arranged to be mounted on said PWB (12), wherein said antenna assembly (10) also comprises a second antenna pattern (16) that is arranged to be used as a radiating element of an FM Tx antenna or a Near Field Communication (NFC) antenna, whereby said second antenna pattern (16) is provided partly on a surface of said dielectric substrate (14) and partly on a surface of said PWB (12), wherein said dielectric substrate (14) comprises said first antenna pattern and part of said second antenna pattern (16) and said PWB comprises part of said second antenna pattern (16), and wherein said dielectric substrate (14) is a rectangular block and is mounted in a corner of said PWB (12), whereby two edges of said dielectric substrate (14) are mounted flush with two edges of said PWB (12) constituting said corner of said PWB (12).

Claim 1 according to the first branch of the first auxiliary request (request B1) incorporates the additional limitations of claim 2 of the main request.

Claim 1 according to the second branch of the first auxiliary request (request B2) differs from claim 1 of the main request essentially in that it further recites that the PWB is rectangular and, at the end of the claim, that a length of the dielectric substrate and a length of the PWB extend in a same direction.

Claim 1 according to the second auxiliary request differs from claim 1 of the main request in that it incorporates the amendments made in claim 1 of both requests B1 and B2.

Reasons for the Decision

Admissibility of the appellant's requests

1. The main request, the first auxiliary requests (B1 and B2) and the second auxiliary request have been amended with regard to the request filed with the statement of grounds, in that claims 5 and 6 have been deleted, thus remedying the objection of lack of clarity raised by the Board in its preliminary opinion.

The appellant elaborated on the merits of the amendments in so far as the issues of added subject-matter and the existence of an inventive step were concerned.

The Board is satisfied that the amendments made in the main request and auxiliary requests constitute fair attempts to address the issues raised by the Board in its provisional opinion.

The main request (request A) and first and second auxiliary requests (requests B1, B2 and C) are thus admitted into the appeal proceedings.

Allowability

2. Claim 1 according to all the requests on file (A, B1, B2, and C) defines the feature "said dielectric substrate (14) is a rectangular block and is mounted in a corner of said PWB (12), whereby two edges of said dielectric substrate (14) are mounted flush with two edges of said PWB (12) constituting said corner of said

PWB (12)".

The statement on page 4, lines 18 - 19 of the published application (WO-A-2009/127267) according to which "*Positioning a dielectric substrate of an antenna assembly in a corner of the PWB facilitates the manufacture and assembly of an antenna*" is not sufficient to establish that the edges of the dielectric substrate are mounted flush with two edges of said PWB. The dielectric substrate can be positioned in a corner, at a distance from its edges. In the absence of any information as to the manufacturing and assembly processes, no further conclusion can be drawn from the indication that the selected location for the dielectric substrate "facilitates the manufacture and assembly of an antenna".

3. The appellant also referred to Figures 1 and 3 of the published application as basis for the added features.

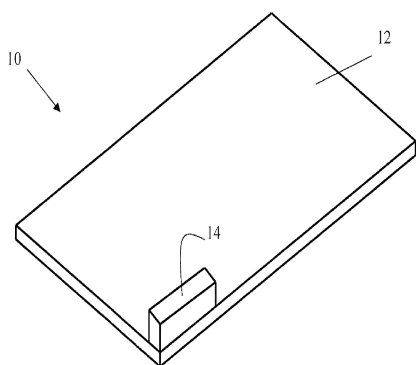


Figure 1

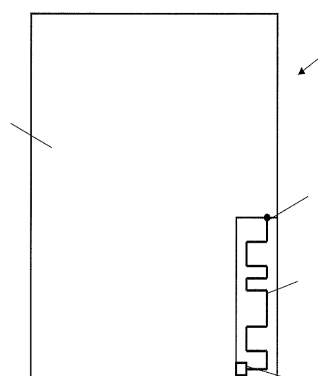


Figure 3

It is acknowledged that literal support is not required by the wording of Article 123(2) EPC for an amendment to be considered allowable under this provision. The approach, when deciding on issues of added subject-matter, is to identify the actual teaching conveyed by

the original disclosure, i.e. the technical information that the skilled person, reading the original disclosure, would have derived from its content (description, claims and drawings) considered in its entirety (see, for example, T 667/08 and T 801/13).

In the present case, the technical information resulting from the added features in claim 1 of the appellant's requests does not result directly and unambiguously from the original disclosure.

4. Figures 1 and 3 are schematic representations of the antenna assembly. It is doubtful whether the skilled person would have recognised that the mounting of the dielectric substrate with two edges mounted flush with two edges of said PWB constituting said corner of said PWB is meant as a feature of the invention. As in T 906/97, the configuration illustrated in Figures 1 and 3 may simply reflect the choice made by the draughtsman.
5. Claim 1 of request A, therefore, contains subject-matter that extends beyond the content of the application as filed.
6. As the decision on added subject-matter is negative for request A, it is alternative B2 that has to be considered.
7. Requests B2 and C both contain the same problematic text as request A, and cannot be allowed for the same reasons.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



I. Aperribay

P. Scriven

Decision electronically authenticated