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**Datasheet for the decision  
of 19 November 2015**

**Case Number:** T 0884/11 - 3.4.01

**Application Number:** 07804412.0

**Publication Number:** 2047566

**IPC:** H01Q21/00

**Language of the proceedings:** EN

**Title of invention:**  
PHASED ARRAY ANTENNA

**Applicant:**  
SELEX ES LTD

**Headword:**

**Relevant legal provisions:**

EPC 1973 Art. 84  
EPC 1973 R. 29(6)  
EPC Art. 123(2)

**Keyword:**

Claims - clarity - main request (no) - clarity - auxiliary  
request (no)  
Amendments - auxiliary request - allowable (no)

**Decisions cited:**

**Catchword:**



**Beschwerdekammern  
Boards of Appeal  
Chambres de recours**

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Case Number: T 0884/11 - 3.4.01

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.01**  
**of 19 November 2015**

**Appellant:** SELEX ES LTD  
(Applicant) Christopher Martin Road  
Basildon, Essex SS14 3EL (GB)

**Representative:** Wojcik, Lucy Eleanor  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 22 October 2010  
refusing European patent application No.  
07804412.0 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** G. Assi  
**Members:** T. Zinke  
J. Geschwind

## **Summary of Facts and Submissions**

- I. The appeal filed on 22 December 2010 lies from the decision of the examining division, posted on 22 October 2010, refusing European patent application No. 07 804 412.0, published with publication No. 2 047 566 (WO-A-2008/015472). The appeal fee was paid on the same date. The statement setting out the grounds of appeal was filed on 1 March 2011.
  
- II. In its decision the examining division refused the application according to then pending single request (application as published), because claims 1, 3, 4 and 6 were considered not clear (Article 84 EPC 1973) and claim 1 was considered not novel (Article 54(1) and (2) EPC 1973).
  
- III. With the notice of appeal the appellant (applicant) requested that the decision under appeal be set aside and a patent be granted.
  
- IV. With the statement setting out the grounds of appeal, the appellant requested that a patent be granted based on the application documents underlying the decision under appeal (main request) or on amended claims and description as filed together with the grounds of appeal (auxiliary request).

The appellant provided arguments with regard to novelty of the claims according to the main request and the auxiliary request and with regard to disclosure of the amendments made for auxiliary request.

Moreover, as a further auxiliary request, the appellant requested oral proceedings.

V. By summons of 22 July 2015 the appellant was summonsed to oral proceedings due to take place on 19 November 2015. A communication under Article 15(1) RPBA was issued on 23 September 2015 drawing attention to the issues to be discussed during oral proceedings.

In particular, the Board expressed its preliminary opinion that the claims of the main request were not clear (Article 84 EPC 1973) and noted that due to the blurred character of the claim wording, the arguments provided by the appellant with regard to novelty and inventive step were not considered persuasive. Further, with regard to the claims of the auxiliary request, the Board raised doubts concerning the original disclosure of the amendments (Article 123(2) EPC) and clarity of the term *"the required power per unit area"*.

VI. The appellant did not provide any comments to the Board's communication.

With a letter dated 18 November 2015 the appellant confirmed that the representative would not be attending the oral hearing.

VII. The oral proceedings took place as scheduled in the absence of the appellant.

VIII. Claim 1 of the main request reads as follows:

*"1. A phased array antenna comprising:  
a plurality of communication modules;  
wherein a power density of said phased array antenna is equivalent to a power density of a second antenna that has fewer, higher power communication modules than the said phased array antenna."*

Claim 6 of the main request reads:

*"6. An array antenna as substantially hereinbefore described with reference to Figures 1 to 5."*

IX. Claim 1 of the auxiliary request reads as follows:

*"1. A phased array antenna comprising a plurality of radiating elements (410), each radiating element (410) being connected to a communication module (500), said radiating elements (410) being spaced apart horizontally and vertically by predetermined amounts D1 and D2 characterized in that the values of D1 and D2 are determined by the required overall power from the antenna and the required power per unit area required to accomplish said overall power such that for a calculated D1 and D2 the number of communication modules (500) is selected based on the lowest power per communication module not the lowest number of communication modules (500)."*

## **Reasons for the Decision**

1. The appeal is admissible.
2. Main Request
  - 2.1 Clarity (Article 84 EPC 1973)
    - 2.1.1 The feature *"wherein a power density of said phased array antenna is equivalent to a power density of a second antenna that has fewer, higher power communication modules than the said phased array*

*antenna*" of claim 1 does not meet the requirements of Article 84 EPC 1973.

First, this feature refers to a further "*second [phased array] antenna*" which is not part of the claimed phased array antenna. This claimed antenna is intended to be produced and marketed independently of the second antenna which, moreover, is not subject to standardisation and may vary in time. A feature of the claimed phased array antenna (power density) is therefore defined by reference to any other phased array antenna which could be arbitrarily chosen. This leads to a blurring as regards the definition of the claimed antenna and, moreover, the protection conferred by the claim.

Second, the wording "*a power density ... is equivalent to a power density ...*" is unclear in view of the use of the term "*equivalent*" the meaning of which is not defined.

Therefore, claim 1 of the main request lacks clarity (Article 84 EPC 1973).

- 2.1.2 According to Rule 29(6) EPC 1973 (corresponding to Rule 43(6) EPC), claims shall not rely on references to the description or drawings. In particular, they shall not contain such expressions as "*as described in part .. of the description*" or "*as illustrated in figure ... of the drawings*".

Claim 6, however, only refers to the description with reference to Figures 1 to 5, without further specifying any features.

Hence, claim 6 of the main request violates Rule 29(6) EPC 1973.

2.2 The main request is not allowable.

3. Auxiliary Request

3.1 Added subject-matter (Article 123(2) EPC)

In the statement setting out the grounds of appeal, as a basis for the amendments made the appellant provided the specification as amended on page 5, lines 3 to 13. This passage can be found on page 4, lines 15 to 25 of the specification as originally filed. The Board, however, does not find any reference to the amended feature "*the number of communication modules (500) is selected based on the lowest power per communication module*", neither in this passage, nor in other parts of the original disclosure.

Hence, the amendment is not originally disclosed (Article 123(2) EPC).

3.2 Clarity (Article 84 EPC 1973)

With regard to claim 1 of the auxiliary request, it is unclear, what is meant by "*the required power per unit area*", in particular, by what restrictions the power per unit area is "*required*".

Hence, claim 1 of the auxiliary request lacks clarity (Article 84 EPC 1973).

3.3 The auxiliary request is not allowable.

4. The reasons for the present decision are all mentioned in the Board's communication of 23 September 2015. The appellant, however, failed to make any submissions in reply. The Board has no reason to take another view.

## Order

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

1. The appeal is dismissed.

The Registrar:

The Chairman:



R. Schumacher

G. Assi

Decision electronically authenticated