

Internal distribution code:

- (A) Publication in OJ
(B) To Chairmen and Members
(C) To Chairmen
(D) No distribution

**Datasheet for the decision
of 15 December 2009**

Case Number: T 0810/07 - 3.4.02

Application Number: 01131006.7

Publication Number: 1220011

IPC: G02B 27/28

Language of the proceedings: EN

Title of invention:
Projector with polarization converter

Applicant:
LG Electronics, Inc.

Opponent:
-

Headword:
-

Relevant legal provisions:
-

Relevant legal provisions (EPC 1973):
EPC Art. 84, 54

Keyword:
"Claim 1 so far as clear - novel (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0810/07 - 3.4.02

D E C I S I O N
of the Technical Board of Appeal 3.4.02
of 15 December 2009

Appellant: LG Electronics, Inc.
20, Yoido-Dong, Youngdungpo-gu
Seoul (KR)

Representative: Heinze, Ekkehard
Meissner, Bolte & Partner GbR
Postfach 86 06 24
D-81633 München (DE)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 20 December 2006
refusing European application No. 01131006.7
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: A. G. Klein
Members: M. Rayner
M. J. Vogel

Summary of Facts and Submissions

I. The applicant appealed against the decision of the examining division refusing European patent application number 01 131 006.7. The patent application concerns a projector including a polarisation converter and rod lens. In the decision under appeal, reference was made, amongst others, to the following document

D2 JP-A-2000 206464.

II. In the decision under appeal, the examining division substantiated its refusal with lack of novelty of the subject matter of the claim before it over any one of a number of documents, including document D2. In particular and referring to the alphanumeric reference characters used in document D2 in parentheses, the division considered this document to disclose a projector comprising:

a light source (1 and 2) for emitting beams of lights;
a rod lens (3) for receiving the beams of lights from the light source for making a distribution of the beams uniform; and a polarization beam converter (4 to 7) having a lens part (4 and 5) for receiving the beams from the rod lens (3) and focusing onto a plurality of focusing points (G31, G32, G33), and "polarization beam sprite array (7)" for receiving the beams inclusive of a P wave and an S wave. In an embodiment of the polarizing array 7 described with relation to Figure 6, input beams are split by the array with P-waves transmitted (P1, P3) and S-waves reflected by films (15a,15b) and converted to P-waves (P2,P4) by half-wave plates (16a,16b). The output beams are thus all P-polarised.

III. The appellant requested that the decision under appeal be set aside and a patent granted on the basis of documents filed with the statement of grounds for appeal. Oral proceedings were also requested.

Claim 1 filed with the statement of grounds for appeal is worded as follows:

"A projector comprising:
a light source for emitting beams of lights;
a rod lens (24) for receiving the beams of lights from the light source for making a distribution of the beams uniform; and,
a polarization beam converter (26-30) having a lens part (26, 28) comprising a first illumination lens (26) and a second illumination lens (28) for receiving the beams from the rod lens (24) and focussing onto a plurality of focusing points, and polarization beam split array (30) for receiving the beams inclusive of a P wave and an S wave, and forwarding the P wave as it is, and converting the S wave into the P wave before forwarding, or forwarding the S wave as it is, and converting the P wave into the S wave, characterized in that the rod lens (24) and the polarization beam converter (26-30) are arranged to improve the quantity of the beams concentrated on the center part (38) of the illumination lenses (26, 28), so that the deterioration of the beam uniformity caused by fine movements of the illumination lenses (26, 28) and/or the polarization beam split array (30) is prevented."

- IV. In support of its case on patentability, the appellant argued that document D2 does not disclose the possibility of arranging two illumination lenses such that beams of light are concentrated in the centre of the lenses in order to prevent light losses in the system. The subject matter of claim 1, as amended, is therefore both novel and inventive and thus patentable.
- V. Oral proceedings were appointed consequent to the request of the appellant for the date set by the summons thereto. In a communication accompanying the summons, the board informed the appellant of its purely preliminary and unbinding comments on the case as follows.

The functional terminology used in the characterising part of claim 1 could not be considered clear within the meaning of Article 84 EPC because (a) the general terms used, such as "improve", "deterioration" and "fine" movements, were not quantified and thus obscure and (b) in the absence of any structure or quantification, it amounted to an obscure result to be achieved.

With respect to novelty, it seemed undisputed that the pre-characterising features of claim 1 were known from document D2 as explained by the examining division. In view of its obscurity, the feature "to improve the quantity of the beams concentrated on the centre part" could not be considered to provide novelty. Generally speaking, axial beam concentration is always a desideratum, and even if the board considered the terminology somehow limited to the configuration of Figure 9 of the application, this would not seem novel

over, for instance, Figure 4 of document D2. Equally no structure was present explaining non occurrence of "deterioration" of the beam consequent to "fine" movement, and whatever this may mean, the same structure in the prior art documents would appear also to achieve this result.

Accordingly, the board was not in a position to consider the subject matter of claim 1 to be novel. In the light of the state of the file, the board thus did not expect the appeal to be successful. At the end of the upcoming oral proceedings, it was intended, if possible, to decide the case, even if the appellant should not attend.

- VI. No response to the communication of the board was received. On the day of the oral proceedings itself, the representative of the appellant did not appear at the appointed time. The Registrar therefore contacted the firm of representatives concerned by telephone and was informed that the appellant would not be represented. The oral proceedings therefore took place in the absence of the appellant.
- VII. At the end of the oral proceedings, the board gave its decision.

Reasons for the Decision

1. The appeal is admissible.
2. Since no response was made to the communication of the board ahead of the oral proceedings, the comments

therein made have not been disputed by the appellant. The board has, of its own motion, seen no reason to change its position as set out in that communication. In particular, the board remains of the view that the features in the pre-characterising part of the claim are known from document D2 as explained by the examining division, whereby it can be observed that the division referred to lenses 4 and 5 and the word "sprite" mentioned in the analysis of the examining division has been corrected to "split" in the claim presented on appeal.

3. Likewise, the board remains of the view that the characterising features of claim 1 are not clear, and, do not provide novelty. Therefore, so far as the subject matter of claim 1 can be considered clear, it is not novel within the meaning of Article 54 EPC.

4. Accordingly, the application documents provided with the statement of grounds for appeal, the sole version up for decision, cannot be considered to comply with the requirements of the EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar

The Chairman

M. Kiehl

A. G. Klein