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**Datasheet for the decision  
of 14 November 2011**

**Case Number:** T 1237/09 - 3.5.03

**Application Number:** 05019452.1

**Publication Number:** 1675359

**IPC:** H04M 1/02

**Language of the proceedings:** EN

**Title of invention:**

Mobile terminal comprising a transversely sliding housing carrying a display unit

**Applicant:**

LG Electronics Inc.

**Opponent:**

-

**Headword:**

Mobile terminal/LG

**Relevant legal provisions:**

EPC Art. 56

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

-

**Keyword:**

"Inventive step - yes"

**Decisions cited:**

-

**Catchword:**

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Case Number: T 1237/09 - 3.5.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.03  
of 14 November 2011

**Appellant:** LG Electronics Inc.  
20, Yeouido-dong  
Yeongdeungpo-gu  
Seoul 150-721 (KR)

**Representative:** Beyer, Andreas  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 5 December 2008  
refusing European patent application  
No. 05019452.1 pursuant to Article 97(2) EPC.

**Composition of the Board:**

**Chairman:** A. Madenach  
**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. 05019452.1, with publication number EP-A1-1675359.

The refusal was based on the ground, *inter alia*, that the subject-matter of claim 1 of the second auxiliary request (which is the request most relevant to these appeal proceedings) did not meet the requirement of inventive step pursuant to Article 52(1) in combination with Article 56 EPC with respect to the disclosures of the documents DE-U1-20317865 (D6) and EP-A1-1220517 (D3) viewed in combination.

II. The appellant filed a notice of appeal against the above decision. The appellant requested that "the decision of the first instance be set aside in its entirety". A new set of claims was subsequently filed together with a statement of grounds of appeal.

Oral proceedings were conditionally requested.

III. In a communication accompanying a summons to oral proceedings scheduled to be held on 28 October 2011, the board gave a preliminary opinion in which, *inter alia*, objections under Articles 123(2), 84, and 52(1) in combination with Article 56 EPC were raised against claim 1.

IV. In response to the board's communication, the appellant filed four new claim sets of a main request and first to third auxiliary requests, together with supporting arguments. The appellant requested that [the board]

"indicate the intention to the [sic] grant a European Patent" either on the basis of the main request or, alternatively, one of the auxiliary requests.

V. The appellant was informed by telephone and fax letter on 27 October 2011 that the oral proceedings were cancelled and the procedure would be continued in writing.

VI. The board understands from the appellant's written submissions that the appellant requests that the impugned decision be set aside and a patent granted on the basis of claims 1-10 of the main request, or, alternatively, the claims of one of the first to third auxiliary requests, all as filed on 28 September 2011. As indicated in the appellant's letter dated 28 September 2011, all requests include the following documents of description and drawings:

Description:

pages 4-6 as filed on 6 April 2009;  
page 17 as filed on 4 April 2007;  
page 9 as filed on 11 July 2008;  
pages 1-3, 7, 8 and 10-16 as originally filed.

Drawings:

Sheets 1/9 - 9/9 as originally filed.

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

"A mobile terminal (505), comprising:  
- a body (400) having a length and a width different from each other, and having a keypad (410) thereon, the

keypad (410) having letter keys and/or symbol keys arranged on the body (400);

- a slider (500) having the same width and length as the body (400) and comprising, on an outer surface of the slider (500), a display unit (530) for enabling image information to be displayed, at least one of a receiver (540) and a microphone (550), and a number keypad (510) and operating keys (520);

- a transverse sliding unit (600) disposed between the body (400) and the slider (500) and coupling the body (400) with the slider (500), so as to allow the slider (500) to slide with respect to the body (400) in a width direction, the transverse sliding unit (600) comprising:

-- a rail body (610) coupled to the body (400) or the slider (500); and

-- a rail guide (620) slidably coupled to the rail body (610) and fixedly coupled to the body (400) or the slider (500),

wherein an inner surface of the body (400) includes a first section where the keypad (410) is located and a second section where one of the rail body (610) and the rail guide (620) is located, and further

wherein the slider (500) is moveable between a first position, in which the slider (500) covers the first section, and a second position, in which the first section is exposed, such that the keypad (410) is covered by the slider (500) when the slider (500) is in the first position, and the keypad (410) is exposed and said one of the rail body (610) and the rail guide (620) is covered by the slider (500) when the slider (500) is in the second position."

In view of the board's decision, there is no need to reproduce the claims of any of the auxiliary requests.

## **Reasons for the decision**

1. *Articles 84 and 123(2) EPC - main request*
- 1.1 When referring to subject-matter "as filed", the board makes reference to the published application EP-A-1675359.
- 1.2 The board considers the claims to be clear within the meaning of Article 84 EPC.
- 1.3 Claim 1 is based on claims 10, 12, 14, 20 and 22 as filed, except for the following features: The feature that the slider comprises a display unit, at least one of a receiver and a microphone, and a number keypad and operating keys is supported by column 7, lines 20-22 and paragraph [0029] of the description as filed. The feature that an inner surface of the body includes a first section where the keypad is located and a second section where one of the rail body and the rail guide is located is supported by column 5, lines 39-43 of the description as filed. The feature that said one of the rail body and the rail guide is covered by the slider when the slider is in the second position is supported by Figure 7 as filed.  
  
Claim 1 therefore complies with Article 123(2) EPC.
- 1.4 Dependent claims 2 to 10 correspond to claims 16-18, 21 and 23-27 as filed.

These claims therefore also comply with Article 123(2) EPC.

2. *Inventive step (Article 52(1) and 56 EPC) - main request*

2.1 The present invention relates to a mobile terminal having a sliding cover ("slider") which has a display and a number keypad on its outer surface. The slider has the same width and length as the main body of the terminal and is arranged to move in a lateral direction to reveal a keypad (eg an alphanumeric keypad) on the inner surface of the body. The slider is connected to the body by means of a rail body and rail guide assembly mounted on underside of the slider and on the inner surface of the main body, located on a section of the inner surface of the body such that the rail body/guide assembly is covered by the slider when in the lateral (open) position.

2.2 The examining division considered that document D6 represents the closest prior art; the board agrees.

Using the wording of claim 1, document D6 discloses a mobile terminal, comprising:

- a body (13) having a length and a width different from each other, and having a keypad (131) thereon (cf. Fig. 3), the keypad having letter keys and/or symbol keys arranged on the body;
- a slider (11, 12) having the same width and length as the body and comprising, on an outer surface of the slider, a display unit (111) for enabling image information to be displayed, and operating keys (112);

- a transverse sliding unit (19) disposed between the body and the slider and coupling the body with the slider, so as to allow the slider to slide with respect to the body in a width direction, the transverse sliding unit comprising:

-- a rail body coupled to the body or the slider; and  
-- a rail guide slidably coupled to the rail body and fixedly coupled to the body or the slider (cf. D3, left-hand column, lines 45-56).

2.3 The subject-matter of claim 1 differs from the disclosure of document D6 in the following features:

(i) The outer surface of the slider comprises a number keypad.

(ii) The slider comprises at least one of a receiver and a microphone.

(iii) An inner surface of the body includes a first section where the keypad is located and a second section where one of the rail body and the rail guide is located, and the slider is moveable between a first position, in which the slider covers the first section, and a second position, in which the first section is exposed, such that the keypad is covered by the slider when the slider is in the first position, and the keypad is exposed and said one of the rail body and the rail guide is covered by the slider when the slider is in the second position.

2.4 The problem to be solved starting out from document D6 is regarded by the board as to provide a mobile



- terminal with an improved look and feel, and improved operability with respect to the dialling of calls.
- 2.5 The examining division in its analysis of claim 1 of the second auxiliary request essentially regarded the problem (which it worded differently to the board) as being comprised of two separate partial problems which would be solved in an obvious way by combining the mobile terminal of document D6 with the respective teaching of document D1 in respect of feature (i) and document D3 in respect of feature (iii) (NB: feature (ii) was added to claim 1 during these appeal proceedings). The board is not persuaded of this argumentation for the following reasons.
- 2.6 Feature (iii) concerns the manner in which the slider is attached and able to slide over the body. As shown in Fig. 3 of D6, this problem is solved by a rail 19 formed at the edge of the slider (regarding the slider as the combination of layers 11 and 12) which slides in a guide provided by a flange formed at the edge of the body 13 (cf. D6, left-hand column, lines 45-56). When the slider is in the "open" position, the rail/guide assembly is partially exposed, which may detract from its look and feel and allow dirt particles to interfere with the sliding motion.
- 2.7 In order to mitigate these problems, in the board's view the skilled person would be unlikely to find a solution from document D3. Document D3 discloses a mobile telephone which comprises two parts, namely a first part housing a display (which can be regarded as a "slider" using the terminology of the present application) and a second part provided with a number

keypad (which can be regarded as the "body"). However, the overall construction is quite different from that of document D6, in that the slider slides into a cavity formed in the body rather than sliding over the body. Although the slider and the body are attached to each other by a sliding mechanism consisting of two short "rails" (cf. D1, Fig. 1, reference sign 36) on the inside surface of the body which slide within rail guides (cf. Figs. 1 and 3, reference sign 64) located on the underside of the slider, and which are thus covered when the slider is in the "open" position (as required by claim 1 of the main request), by sliding into a cavity of the body rather than sliding over it, the slider of D3 is additionally guided and supported by the cavity. As the slider of D6 has no provision to be supported at its lower end, the skilled person would reject the solution provided by document D3, since the short rails used therein without further support seem unsuited to securely attach a sliding cover of the type disclosed in document D6. In fact, the interaction between the slider and body of document D3 is of such a different nature to that shown in document D6 that the board regards these documents as inherently incompatible as regards the slider to body attachment. The board therefore concludes that the skilled person starting out from document D6 would not be led by document D3 to incorporate distinguishing feature (iii) without inventive skill.

- 2.8 In addition, the board notes that no other document at its disposal discloses a sliding unit having the characteristics of distinguishing feature (iii). Hence no other combination of documents would lead to the claimed subject-matter either. Further, as feature (iii)

already relates to inventive subject-matter, it is not necessary to consider any possible contribution to inventive step provided by the remaining distinguishing features (i) and (ii).

2.9 The board concludes that the subject-matter of claim 1 involves an inventive step (Articles 52(1) and 56 EPC).

2.10 As all the remaining claims of the main request are dependent on claim 1, they also meet the requirement of inventive step.

2.11 As the claims of the main request are allowable, it is not necessary to consider any of the auxiliary requests.

2.12 The board has not examined whether the description and drawings require any further amendment to meet the requirements of the EPC. This matter is best dealt with by the examining division.

**Order**

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

1. The decision under appeal is set aside.
  
2. The case is remitted to the department of first instance with the order to grant a patent based on claims 1 to 10 of the main request filed with the letter dated 28 September 2011, and a description and drawings to be adapted as necessary.

The Registrar:

The Chairman:

G. Rauh

A. Madenach