Datasheet for the decision
of 3 February 2012

Case Number: T 0280/10 - 3.5.03
Application Number: 00110595.6
Publication Number: 1156639
IPC: H04M 1/02
Language of the proceedings: EN
Title of invention:
Keyboard cover for mobile communication handsets
Applicant:
IPCom GmbH & Co. KG
Headword:
Keyboard cover/IPCom
Relevant legal provisions:
EPC Art. 56
Relevant legal provisions (EPC 1973):
-
Keyword:
"Inventive step (no)"
Decisions cited:
-
Catchword:
-
Case Number: T 0280/10 - 3.5.03

DECISION
of the Technical Board of Appeal 3.5.03
of 3 February 2012

Appellant: IPCom GmbH & Co. KG
(Applicant)
Zugspitzstrasse 15
D-82049 Pullach (DE)

Representative: Schneider, Günther Martin
Bettinger Schneider Schramm
Patent- und Rechtsanwälte
Postfach 86 02 67
D-81629 München (DE)

Decision under appeal: Decision of the examining division of the European Patent Office posted 23 September 2009 refusing European patent application No. 00110595.6 pursuant to Article 97(2) EPC.

Composition of the Board:
Chairman: A. S. Clelland
Members: F. van der Voort
R. Moufang
Summary of Facts and Submissions

I. This appeal is against the decision of the examining division refusing European patent application No. 00110595.6 (publication number EP 1 156 639 A).

The reason given for the refusal was that the subject-matter of claim 1 lacked an inventive step (Articles 52(1) and 56 EPC).

II. The following documents which were referred to in the decision under appeal and in the European search report are relevant to the present decision:

D1: EP 0 846 999 A;

D3: WO 00/04437 A; and

D4: WO 97/03511 A.

III. In the notice of appeal the appellant requested that the decision be set aside and a patent be granted on the basis of the claims on file. Oral proceedings were conditionally requested. With the statement of grounds of appeal the appellant filed by way of a main request a first set of claims, intended to replace the claims on file, and three further sets of claims by way of auxiliary requests I to III. Arguments in support of each of these requests were also submitted.

IV. The appellant was summoned to oral proceedings. In a communication annexed to the summons to oral proceedings the board raised, without prejudice to its final decision, objections against claim 1 of all requests
under, inter alia, Article 52(1) EPC in combination with Article 56 EPC (lack of inventive step).

V. In preparation for the oral proceedings the appellant filed with a letter dated 11 January 2012 new sets of claims according to a main request and two auxiliary requests I and II. Auxiliary request III on file was withdrawn.

VI. Oral proceedings were held on 3 February 2012 in the course of which the appellant filed new auxiliary requests II and III.

The appellant requested that the decision under appeal be set aside and a patent granted on the basis of claims 1 to 11 of the main request as filed with the letter dated 11 January 2012 or, in the alternative, claims 1 to 10 of auxiliary request I as filed with the letter dated 11 January 2012, or claims 1 to 8 of auxiliary request II as filed at the oral proceedings, or claims 1 to 7 of auxiliary request III as filed at the oral proceedings.

At the end of the oral proceedings, after deliberation, the board's decision was announced.

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

"A mobile telephone handset (10), having a keyboard (20), a body cover (11) and a flap (15), the flap (15) being disposed upon a reel (17) and being capable of wrapping itself around the reel (17), the reel (17) being disposed inside the body cover (11) of the mobile telephone handset (10), wherein the flap has a top side
and a bottom side, wherein the flap (15) has a right side which is located between the top side and the bottom side and the flap (15) has a left side located between the top side and the bottom side, the right and left sides of the flap (15) contain a push button (14a, 14b), wherein the flap (15) is released from a closed position, when the push button (14a) on the right side of the flap (15) or the push button (14b) on the left side of the flap (15) is pushed.

Claim 1 of auxiliary request I reads as follows (amendments in comparison with claim 1 of the main request being underlined by the board):

"A mobile telephone handset (10), having a keyboard (20), a body cover (11) and a flap (15) for covering the keyboard (20) of the mobile telephone handset (10), the flap (15) being disposed upon a reel (17) and being capable of wrapping itself around the reel (17), the reel (17) being disposed inside the body cover (11) of the mobile telephone handset (10), and the flap (15) being integrated in a lower end of the body cover (11) of the mobile telephone handset (10), wherein the flap has a top side and a bottom side, wherein the flap (15) has a right side which is located between the top side and the bottom side and the flap (15) has a left side located between the top side and the bottom side, the right and left sides of the flap (15) contain a push button (14a, 14b), wherein the flap (15) is released from a closed position, when the push button (14a) on the right side of the flap (15) or the push button (14b) on the left side of the flap (15) is pushed, and wherein the top side of the flap (15) has a [sic] embossed surface (13), the embossed surface (13) being capable of
being used as a grip for opening and closing the flap (15) over the keyboard (20)."

Claim 1 of auxiliary request II reads as follows:

"A mobile telephone handset (10) having a body cover (11), a keyboard (20) and a flap (15), the flap (15) being disposed upon a reel (17) and being capable of wrapping itself around the reel (17), the reel (17) being disposed inside the body cover (11) of the mobile telephone handset (10), wherein the flap (15) is elastic so that the flap is capable of enwrapping itself around the reel inside the casing of the mobile telephone handset (10)."

Claim 1 of auxiliary request III differs from claim 1 of auxiliary request II only in that the following feature is added:

"the reel (17) is placed in a casing, the casing being disposed at a lower area of the mobile telephone handset (10)".

Reasons for the Decision

1. Inventive step - main request

1.1 Document D4 is considered to represent the closest prior art, since it relates to a mobile telephone handset provided with protective cover in the shape of a slidable flap. More specifically, D4 discloses, using the language of claim 1 of the main request, a mobile telephone handset (D4, page 1, lines 7 to 9, page 10,
lines 23 to 28, and Fig. 5) having a keyboard, a body cover, and a flap 39 (page 10, line 23 ("Abdeckung 39", "Jalousie")). The flap has a top side, a bottom side, right and left sides located between the top and bottom sides, and contains a push button 41 ("Griff 41") which is located centrally at the bottom side of the flap. When the push button 41 is pushed, the flap is released from a closed position (page 10, line 27 ("Ein Griff 41, zum Lösen einer Verriegelung, ..."))).

1.2 The subject-matter of claim 1 of the main request differs from the mobile telephone handset disclosed in D4 in that according to claim 1:

i) the push button is located at the right side of the flap and a second push button for releasing the flap is located at the left side of the flap; and

ii) the flap is disposed on a reel and is capable of wrapping itself around the reel, the reel being disposed inside the body cover of the mobile telephone handset.

1.3 The location of the first push button according to feature i) makes it easier, when holding the handset, to release the flap by using one's thumb. The second push button gives the same advantage when holding the handset in the other hand. Further, whereas in D4 the flap is slid away over the top end of the body cover towards the back side of the body cover, according to feature ii), the flap is wrapped around a reel inside the body cover. Hence, when holding the handset, the flap does not interfere with the palm of the hand as would be the case with the flap of the handset of D4.
1.4 The technical problem to be solved, when starting out from the disclosure of D4, may therefore be seen in improving the ergonomic design of the handset in order to enhance the operability of the handset, in particular of the flap.

The formulation of this problem does not contribute to an inventive step, since at the filing date improving the ergonomics of a mobile telephone handset was a common aim in the field of mobile telephony. Further, in the present case, the ergonomic disadvantages of the handset of D4 would immediately be encountered in practice and, hence, would have motivated the person skilled in the art to overcome them.

1.5 Re. feature i):

In the board's view, when starting out from D4 and faced with the above-mentioned technical problem, a relocation of the push button to a right or left side of the flap would have been obvious to a person skilled in the art, since this solution would already be suggested when using the handset of D4 in practice. The same applies to providing a second button at the opposite side of the flap, namely when holding the handset in the other hand (feature i)).

In any case, the board notes that D4 itself already suggests feature i), since it discloses in a more general context that for releasing a slidable or movable cover for protecting an LCD-display a button may be provided at the long side of the body cover such that the button can be operated by the user's thumb (see page 12, line 26, to page 13, line 7 ("Zum Entriegeln..." C6551.D
der Abdeckung kann z.B. an der Längsseite des Gehäuses eine Taste oder ein Knopf vorgesehen sein, welcher – je nach Positionierung – mit dem Daumen (oder einem anderen Finger) betätigt werden kann"). Hence, in connection with the specific embodiment of Fig. 5 of D4, in which the push button 39 for releasing the flap is located centrally at the bottom side of the flap, it would have been obvious for the skilled person to relocate the push button to a long side of the flap and to provide a second button at the opposite side for use with the other hand, in order to achieve the same effect, i.e. the flap being releasable by using the left or right thumb, respectively.

1.6 Re. feature ii):

In order to further improve the ergonomics of the known handset, the skilled person would consider document D1, since D1 is concerned with the problem of providing a protective cover for a portable electronic information instrument, in which the cover "can be opened and closed without interfering with the operation of the portable information instrument body" (D1, col. 2, lines 33 to 37). The solution proposed in D1 consists in providing a cover or cover sheet 3 (Fig. 1B) which is disposed on a reel (roller 4) inside the body cover (housing 5) and which is capable of wrapping itself around the reel under the action of a spiral spring 8 (D1, col. 11, lines 25 to 50, col. 12, lines 23 to 39, and Fig. 1B).

When faced with the problem of further improving the ergonomic design of the handset in order to enhance the operability of the flap, it would have been obvious to the person skilled in the art to apply the solution
taught in D1 for the same purpose to the handset of D4, i.e. by modifying the flap 39 of the mobile telephone handset such that the flap is disposed on a reel inside the body cover of the mobile telephone handset and is capable of wrapping itself around the reel (feature ii)).

1.7 In view of the above, when starting out from D4 and faced with the above-mentioned technical problem, the skilled person would have arrived at a mobile telephone handset which includes all the features of claim 1 of the main request without the exercise of inventive skill.

1.8 The subject-matter of claim 1 of the main request does not therefore involve an inventive step (Articles 52(1) and 56 EPC).

1.9 The main request is therefore not allowable.

2. Inventive step - auxiliary request I

2.1 Claim 1 of auxiliary request I adds the following features (see point VII above):

a) the flap is for covering the keyboard of the mobile telephone handset;

b) the top side of the flap has an embossed surface which is capable of being used as a grip for opening and closing the flap over the keyboard; and

c) the flap is integrated in a lower end of the body cover of the mobile telephone handset.
2.2 None of these additional features contribute to an inventive step for the following reasons.

Features a) and b) are known from D4, since the push button 39 is used for both releasing and opening/closing the flap (page 10, lines 23 to 28, and Fig. 5).

The board further notes that, at the filing date of the application in suit, a mobile telephone handset provided with a cover sheet which is attached to a lower end of the body cover of the mobile telephone handset was known per se (D3, page 6, lines 9 to 16, and Fig. 3). Further, even though in the drawings of the first embodiment of D1 the cover sheet 3 is shown as being disposed on a reel which is accommodated in an upper end of the portable instrument and, hence, as being integrated in an upper end of the body cover (housing 5) of the portable information instrument, D1 generally teaches that the cover must be accommodated inside the housing (D1, the abstract, col. 3, lines 3 to 5, col. 11, lines 37 to 47, and claim 1). Even in connection with the embodiment shown in Figs 1A and 1B, D1 describes in more general terms that "One end 3C of the cover sheet 3 is a free end, and the other end 3D of the cover sheet 3 is fixed to the roller 4, which is rotatably located within the housing 5 at one side of the portable information instrument 1." (col. 5, lines 33 to 36 (underlining by the board)).

Hence, in the absence of any evidence supporting a prejudice against it, alternatively implementing feature ii) referred to at point 1.6 above by accommodating the reel in a lower end of the housing and thereby integrating the flap in the lower end of the body cover,
2.3 The appellant argued that according to the invention the flap is suitable for covering only part of front surface of the handset, namely the keyboard, whilst leaving the display uncovered. The board notes however that the claim does not include this feature and, consequently, that a cover for covering both the keyboard and a display is not excluded by the claim. In any case, a cover for covering only the keyboard of a telephone handset was at the filing date known per se (application in suit, Figs 1 and 2).

2.4 In view of the above and the reasoning given at point 1 in respect of claim 1 of the main request, the board concludes that the subject-matter of claim 1 of auxiliary request I does not involve an inventive step (Articles 52(1) and 56 EPC).

2.5 Auxiliary request I is therefore not allowable.

3. **Inventive step - auxiliary request II**

3.1 The board considers D1 to be the appropriate starting point for a consideration of inventive step in relation to claim 1 of auxiliary request II.

D1 discloses a portable information instrument 1 (Figs 1A and 1B) which may be a personal digital assistant (PDA) and which has a body cover (housing 5), an input interface section occupying a major portion of
a front surface of the PDA (col. 4, line 52, to col. 5, line 1), and a flap (cover 3). The flap is disposed upon a reel (roller 4) inside the body cover and is flexible so that the flap is capable of enwrapping itself around the reel inside the casing of the PDA under the action of a spiral spring 8 (D1, col. 11, lines 25 to 50, col. 12, lines 23 to 39, and Fig. 1B). The flap may be made of a soft back sheet and a plurality of small elongated rectangular hard pieces bonded to an upper surface of the soft back sheet. The soft back sheet may be formed of a resilient resin sheet (col. 5, lines 16 to 32).

3.2 Giving the term "resilient" the meaning it normally has in the relevant art, i.e. capable of regaining its original shape or position after bending, stretching, compression, or other deformation, and taking into account that in the application in suit no details of the elastic material are given, the term "resilient" is considered as a synonym of the term "elastic" as used in claim 1 of auxiliary request II. It is further noted that the claim does not require that the flap is completely made of an elastic material. The claimed subject-matter thus differs from the instrument disclosed in D1 in that according to claim 1 the instrument is a mobile telephone handset, in which the input interface section is a keyboard.

3.3 Implementing the portable information instrument of D1 as a mobile telephone handset rather than a PDA does not contribute to inventive step, since in terms of their size, design, electronic components used (display screen, operating buttons), and the desirability to protect the display screen against scratches, a PDA and a mobile
telephone handset are comparable devices. In any case, in D1, an example of a portable telephone provided with a cover is explicitly mentioned as relevant prior art (D1, col. 1, lines 32 to 38). Further, it was well-known at the filing date that a mobile telephone handset commonly includes an input interface section in the form of a keyboard.

3.4 The appellant argued that according to the invention the flap is wrapped around the reel solely due to the elastic properties of the flap, i.e. without any further means, such as a spring, being required.

In the context of the application as filed, the feature "the flap (15) is elastic so that the flap is capable of enwrapping itself around the reel" in claim 1 of auxiliary request II is however understood by the board as meaning that the flap is capable of being wrapped around the real due to, in this case, its elastic properties. The application as filed describes various alternative materials, e.g. flexible, leather, nylon, by which the same capability is achieved (see, e.g., paragraph [0018] of the application as published ("Another embodiment of the present invention provides that the flap is flexible so that the flap is capable of enwrapping itself around the reel inside the cylinder of the device"), claim 1 ("the flap [15] being disposed upon a reel [17] and being capable of wrapping itself around the reel [17]"), and dependent claim 5 ("the flap [15] is made of rubber material, plastic material, leather material, nylon material or a combination of the aforesaid materials"). In any case, neither present claim 1 nor claim 1 as originally filed excludes the presence of further means, such as a spring or a motor,
for wrapping the flap around the reel (cf. dependent claim 9 as filed, which defines a soft string which assists in the wrapping of the flap around the reel, and claim 13 as filed, which defines that the flap is elastic and which is, inter alia, dependent on claim 9 as filed).

The appellant's arguments are therefore not convincing.

3.5 The board therefore concludes that the subject-matter of claim 1 of auxiliary request II lacks an inventive step (Articles 52(1) and 56 EPC).

3.6 Auxiliary request II is therefore not allowable.

4. Admissibility - auxiliary request III

4.1 Auxiliary request III was filed during the oral proceedings before the board. In accordance with Article 13(1) of the Rules of Procedure of the Boards of Appeal, any amendment to a party's case after it has filed its grounds of appeal may be admitted and considered at the board's discretion. In line with the established case law of the boards of appeal, one of the criteria for admitting further amendments to a claim at a late stage of the appeal proceedings, in the present case in the course of the oral proceedings, is whether or not the claim is clearly allowable. In the board's judgement, claim 1 of auxiliary request III is not clearly allowable for the following reasons:

4.2 Claim 1 of auxiliary request III differs from claim 1 of auxiliary request II only in that the following feature is added:
"the reel (17) is placed in a casing, the casing being disposed at a lower area of the mobile telephone handset (10)".

The feature that the reel is placed in a casing is, as noted at point 1.6 above, known from D1 (cf. Fig. 1B), it being noted that the claim does not exclude that the casing is part of the body cover. The remaining part of the added feature merely concerns the location of the casing and, hence, of the reel. In connection with claim 1 of auxiliary request I the board had already held that alternatively accommodating the reel in the lower end of the body cover of the mobile telephone handset did not contribute to an inventive step. Further, the board did not see any synergistic effect in combining the distinguishing features of claim 1 of auxiliary requests I and II. Nor did the appellant argue otherwise.

4.3 The board therefore concluded that prima facie the subject-matter of claim 1 of auxiliary request III lacked inventive step and, hence, was not clearly allowable. Exercising its discretion pursuant to Article 13(1) RPBA the board did not therefore admit auxiliary request III to the appeal proceedings.

5. There being no admissible and allowable request, it follows that the appeal must be dismissed.
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:  The Chairman:

G. Rauh       A. S. Clelland