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**Datasheet for the decision
of 27 June 2014**

Case Number: T 0063/11 - 3.5.03

Application Number: 06008800.2

Publication Number: 1725004

IPC: H04M1/725

Language of the proceedings: EN

Title of invention:

DMB terminal for enabling simultaneous DMB viewing and phone call and method therefor

Applicant:

Samsung Electronics Co., Ltd.

Headword:

DMB viewing and phone call/SAMSUNG

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - (no)

Decisions cited:

Catchword:



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Case Number: T 0063/11 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 27 June 2014

Appellant: Samsung Electronics Co., Ltd.
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Suwon-si, Gyeonggi-do, 443-742 (KR)

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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 11 August 2010 refusing European patent application No. 06008800.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman F. van der Voort
Members: K. Schenkel
R. Cramer

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division refusing European patent application No. 06008800.2, publication number EP 1 725 004 A.
- II. The reason given for the refusal was that the subject-matter of claims 1, 7 and 10 of a main request and claims 1, 5 and 6 of an auxiliary request did not involve an inventive step (Articles 52(1) and 56 EPC) having regard to the disclosure of:

D1: EP 1 501 221 A.
- III. In the notice of appeal the appellant requested that the decision be set aside and that a patent be granted on the basis of the claims, description and drawings on file. Oral proceedings were conditionally requested. With the statement of grounds of appeal the appellant filed a new set of claims by way of a main request.
- IV. In a communication accompanying a summons to oral proceedings the board, without prejudice to its final decision, raised objections under Article 123(2) EPC in respect of the subject-matter of claims 1 and 9 of the main request and under Articles 52(1) and 56 EPC (lack of inventive step) in respect of the subject-matter of claims 1, 7 and 9 of the main request and claims 1, 5 and 6 of the auxiliary request.
- V. In response to the summons, with a letter dated 27 May 2014 the appellant filed a new set of claims for the main request.
- VI. Oral proceedings were held on 27 June 2014.

In the course of the oral proceedings the auxiliary request was withdrawn.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims filed as main request with the letter dated 27 May 2014.

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

VII. Claim 1 reads as follows:

"A communication method for enabling simultaneous DMB viewing and a call function in a digital multimedia broadcasting, DMB, terminal, where a DMB module provides a DMB service and a modem module provides mobile communication functionality in a DMB terminal, the DMB module and the modem module are able to operate separately, and the modem module switches an image output path, an audible sound output path, and a key input path to one of the DMB module or the modem module, comprising the steps of:

(1) switching (400) the image output path, the audible sound output path, and the key input path to the DMB module by the modem module, upon user selection of a DMB reception mode;

(2) outputting (404) DMB data through the audible sound output path and the image output path and receiving a key input from a user through the key input path by the DMB module;

(3) switching (500) the image output path, the audible sound output path, and the key input path to the modem module by the modem module, upon incoming of a call,

wherein the DMB module continues to receive and process the DMB data;

(4) processing the incoming call by the modem module to allow the user to conduct a conversation comprising processing the incoming call;

determining whether the incoming call has been terminated;

determining whether an output switching key has been input if the incoming call still goes on;

switching the image output path and the key input path to a module other than the current connected module, if the output switching key has been input; and

(5) switching (414) the image output path, the audible sound output path, and the key input path to the DMB module by the modem module, after processing the incoming call;

wherein the DMB terminal includes the output switching key in a keypad for allowing the modem module to switch the image output path to a module other than a current connected module, upon processing the incoming call, and

wherein switching of the image output path and the key input path is performed whenever input of the output switching key is detected."

Reasons for the Decision

1. *Inventive step*

- 1.1 D1 is taken as representing the closest prior art, since it relates to a mobile communication device with a multimedia receiver and is concerned with the allocation of hardware resources when an incoming or outgoing call is to be processed during multimedia content reproduction (paragraphs [0001] and [0005] to

[0009]).

- 1.2 D1 discloses, using the language of claim 1, a communication method for enabling simultaneous DMB viewing and a call function (paragraph [0006]) in a digital multimedia broadcasting, DMB, terminal, where a DMB module (Fig. 1, receiver 115 and demultiplexer 117) provides a DMB service (paragraph [0021]) and a modem module (RF module 111 and controller 113) provides mobile communication functionality in the DMB terminal (paragraph [0019]), in which the DMB module and the modem module are able to operate separately¹⁾, and in which the modem module switches an audible sound output path (audio processor 125 and speaker SPK) to one of the DMB module or the modem module (paragraph [0047]). The known method includes the steps of:
- (1) switching an image output path (videoprocessor 121 and display 123) and the audible sound output path to the DMB module by the modem module, upon user selection of a DMB reception mode²⁾;
 - (2) outputting DMB data through the audible sound output path and the image output path and receiving a key input from a user through a key input path (keypad 127) by the DMB module (paragraphs [0027], [0033] and [0034] and Fig. 2);
 - (3) switching the audible sound output path to the modem module by the modem module, upon incoming of a call, wherein the DMB module continues to receive and process the DMB data (Fig. 2 (steps 221 and 223) and paragraphs [0032] and [0035]);
 - (4) processing the incoming call by the modem module to allow the user to conduct a conversation comprising processing the incoming call and determining whether the incoming call has been terminated (Fig. 2 (step 223) and paragraph [0035]); and

(5) switching the audible sound output path to the DMB module by the modem module, after processing the incoming call (Fig. 2 (step 227) and paragraph [0035]).

1): The fact that in D1 a call can be processed while DMB signal processing continues (paragraph [0050] and [0051]) implies that the DMB module and the modem module are able to operate separately.

2): In D1 it is implicit that, upon user selection of a DMB reception mode, the audio and video output paths are switched to the DMB module in order to be able to watch a multimedia broadcast.

1.3 The subject-matter of claim 1 thus differs from the communication method disclosed in D1 in that it includes the following additional features:

- i) in method step (3):
additionally switching the image output path and the key input path to the modem module by the modem module, upon incoming of a call;
- ii) in method step (4):
determining whether an output switching key has been input if the incoming call still goes on; and switching the image output path and the key input path to a module other than the current connected module, if the output switching key has been input;
- iii) in method step (5):
additionally switching the image output path and the key input path to the DMB module by the modem module, after processing the incoming call; and

iv) the DMB terminal includes the output switching key in a keypad for allowing the modem module to switch the image output path to a module other than a current connected module, upon processing the incoming call, wherein switching of the image output path and the key input path is performed whenever input of the output switching key is detected.

These distinguishing features may be summarised as follows: During DMB viewing the image output path and the key input path are automatically switched to the modem module upon an incoming call (feature i)) and automatically switched back to the DMB module when the call is ended (feature iii)). Further, the keypad is provided with a key which offers the possibility to manually switch the image output path and the key input path back and forth between the DMB module and the modem module during an ongoing call (features ii) and iv)).

A technical effect of features i) and iii) is that the user may be provided with visual information associated with the incoming call, for example video during a video call in which the key input is used to control the video call. Features ii) and iv) give the user the further possibility to toggle during the call between the DMB video output and, in the case of a video call, video call output, and to control the respective outputs via the keypad.

1.4 Starting out from D1, the technical problem underlying the subject-matter of claim 1 may therefore be seen in adapting the method of D1 to the reception of video calls and in providing an increased flexibility as to selection between the DMB signal and an ongoing call.

Since at the priority date of the application in suit video calls were generally known, which was not contested by the appellant, the formulation of the above technical problem does not contribute to an inventive step.

- 1.5 When faced with the problem of adapting the known method to video calls, it would have been evident to a person skilled in the art to switch not only the sound output path but also the video output path upon incoming of a video call and, hence, to switch both the sound and video output paths back to DMB viewing after processing of the video call (features i) and iii)).

As to increasing flexibility in selection between the DMB signal and an ongoing call, the board notes that D1 already proposes to ask the user upon an incoming call whether to discontinue the DMB audio signal processing, upon which the user may respond using a predetermined key on the keyboard (paragraph [0033]). In order to further increase the selectable options for the user in the case of an incoming video call during DMB viewing, the skilled person would have considered the possibility of allowing the user to repeatedly switch during the ongoing call between the DMB signal and the video call, since this function corresponds to the common possibility of switching on/off the video camera during an ordinary video call, i.e. one without simultaneous multimedia broadcasting. Having regard to the above-mentioned disclosure of D1, providing an output switching key for this toggle function is then a straightforward implementation (features ii) and iv)).

- 1.6 The appellant argued that in D1 the switching of the sound output path does not imply or suggest a switching of the key input path, since instead of switching the

key input path there would be also the possibility of using different keypad sections for the different functions. For the following reasons the board does not find this argument convincing.

Indeed, D1 does not exclude the possibility of providing dedicated keypad sections for each function of the communication device, which, in turn, would imply that no switching of the key input path would be required.

However, paragraph [0027] refers to a keypad with "a separately designated function key or a multi-function key for receiving digital multimedia data and requesting a voice call". Thus, in the case of a multi-function key, D1 discloses one key which is assigned to both the DMB receiving and the telephone call processing function, which in the board's view implies key input path switching at least for this key. The use of such a multi-function key or softkey is also disclosed in the embodiments shown in figures 2, 4 and 6 (Fig. 2 (step 215) and paragraph [0030]; Fig. 4 (step 415) and paragraph [0045]; and Fig. 6 (step 615) and paragraph [0059]).

Further, in paragraph [0002], reference is made to digital TV broadcasts as an example of DMB services. Since TV broadcasts are commonly transmitted via multiple channels, a means for manually selecting a TV channel would be required. In view of the compact size of mobile communication devices, the skilled person would consider an implementation which requires a small number of keys, for example by switching the input path of multi-purpose keys. This would also be in line with the fact that at the priority date of the present application it was common practice with respect to

mobile communication devices to assign multiple functions to the keys, one example being the use of the number keys both for entering a telephone number when making a phone call and for entering characters when composing a text message.

In the present case, it would therefore have been obvious to the person skilled in the art to use the number keys of a single keypad for both dialling a telephone number and selecting a TV channel and, hence, to switch the key input path accordingly.

- 1.7 The board concludes that, when starting out from D1 and taking into account the common general knowledge of a person skilled in the art, the skilled person would have arrived at a communication method which includes all the features of claim 1 without the exercise of inventive step.
- 1.8 The subject-matter of claim 1 therefore does not involve an inventive step (Articles 52(1) and 56 EPC).
2. As there is no 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:



S. Sánchez Chiquero

F. van der Voort

Decision electronically authenticated