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**Datasheet for the decision
of 14 October 2020**

Case Number: T 0596/19 - 3.5.04

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Language of the proceedings: EN

Title of invention:
Method of connecting to internet via broadcast receiving
device and apparatus for the same

Applicant:
Samsung Electronics Co., Ltd.

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (no)

Decisions cited:

Catchword:



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Case Number: T 0596/19 - 3.5.04

D E C I S I O N
of Technical Board of Appeal 3.5.04
of 14 October 2020

Appellant: Samsung Electronics Co., Ltd.
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Representative: Appleyard Lees IP LLP
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on
23 November 2018 refusing European patent
application No. 15158232.7 pursuant to
Article 97(2) EPC.**

Composition of the Board:

Chairwoman T. Karamanli
Members: B. Willems
M. Paci

Summary of Facts and Submissions

I. The appeal is against the decision of the examining division dated 23 November 2018 refusing European patent application No. 15 158 232.7, which was published as EP 2 897 359 A1.

II. The documents cited in the decision under appeal included the following:

D1: WO 99/63759 A2;

D2: US 2003/033607 A1;

D5: WO 2004/038538 A2;

D6: "*ATSC Standard: Program and System Information Protocol for Terrestrial Broadcast and Cable (Revision B)*", Doc. A/65B, 18 March 2003, pages 1 to 157, XP001202457.

III. The application was refused on the grounds that the subject-matter of claims 1 to 14 of the main and the auxiliary request then on file did not meet the requirements of Article 56 EPC, and claims 1, 9, 10 and 14 of the auxiliary request did not meet the requirements of Article 84 EPC.

IV. The applicant (hereinafter: appellant) filed notice of appeal. In the statement of grounds of appeal, the appellant maintained the main request filed on 28 August 2018 and requested that the decision to refuse the main request be set aside and a European patent be granted on the basis of the main (sole)

request. The appellant provided arguments to show why the claims met the requirements of Article 56 EPC.

As a precautionary measure, it requested oral proceedings.

- V. On 13 December 2019, the board issued a summons to oral proceedings. In a communication under Article 15(1) of the revised version of the Rules of Procedure of the Boards of Appeal (RPBA 2020, OJ EPO 2019, A63), dated 9 April 2020, the board introduced the following document into the appeal proceedings:

D7: US 2003/0051246 A1.

The board gave the following provisional opinion.

- The subject-matter of claim 1 of the main (sole) request did not meet the requirements of Article 56 EPC because it lacked inventive step over the combined disclosures of D1 and D5 and the common general knowledge of the person skilled in the art.
- The subject-matter of claim 1 of the main (sole) request did not meet the requirements of Article 56 EPC because it lacked inventive step over the combined disclosures of D7 and D1 and the common general knowledge of the person skilled in the art.

- VI. By a communication of the Registry dated 24 July 2020, the appellant was asked whether, considering the current precautionary measures against the spread of the coronavirus (COVID-19), in particular the existing travel restrictions in Europe, it expected to be affected by these travel restrictions and would therefore be unable to come to the premises of the

Boards of Appeal to attend the oral proceedings scheduled for 3 September 2020.

- VII. By letter dated 3 August 2020, the appellant withdrew its request for oral proceedings and requested that the appeal proceedings be continued in writing.
- VIII. The board notified the appellant that the oral proceedings to be held on 3 September 2020 had been cancelled.
- IX. It appears from the file that the appellant's final (sole) request is that the decision under appeal be set aside and that a European patent be granted on the basis of the claims of the main request filed on 28 August 2018.
- X. Claim 1 reads as follows:

"A method of connecting to the Internet via a broadcast receiving device, comprising:

extracting a transport stream (TS) from a received broadcast signal;

obtaining mapping information between channel numbers and web addresses from the TS;

connecting to the Internet via a web address mapped to a channel number selected by a user if the selected channel number is included in the mapping information;

obtaining information on a website corresponding to one of the web addresses from the TS, wherein the information on the website includes guide information;
and

displaying an EPG screen which includes names of channel number allocated broadcast programs and a channel number allocated website,

wherein, in response to a user operated selection tool moving to the channel number allocated website, displaying the guide information about the website."

XI. The examining division's arguments, where relevant to the present decision, may be summarised as follows.

(a) Document D1 was the closest prior art for the assessment of inventive step (see decision under appeal, point 2.1.1).

(b) The subject-matter of claim 1 differed from the disclosure of D1 in that the mapping information was provided as additional information within the transport stream (see decision under appeal, point 2.1.2).

(c) The person skilled in the art would consider including mapping information in the transport streams (see decision under appeal, point 2.2.3).

(d) Transmitting program guides in transport streams was well known in digital broadcasting (see decision under appeal, point 2.1.2).

XII. The appellant's arguments, where relevant to the present decision, may be summarised as follows.

(a) The problem to be solved might be defined as providing an improved electronic program guide (see statement of grounds of appeal, point 3.12.1).

(b) The person skilled in the art would not consider including mapping information in the transport streams (see statement of grounds of appeal, point 3.7).

(c) Document D1 taught away from the claimed invention (see statement of grounds of appeal, point 3.8.1).

Reasons for the Decision

1. The appeal is admissible.
2. *Claim 1 of the main (sole) request - inventive step starting from D1 (Article 56 EPC)*
 - 2.1 The board agrees with the examining division that D1 is an appropriate starting point for the assessment of inventive step (see point XI(a) above).
 - 2.2 Document D1 discloses a method of connecting to the Internet via a broadcast receiving device (page 6, lines 22 to 26: "*The subscriber can access the TV broadcast with either a computer 30 having an associated CPU or a television 32 with a set top box 22. The set top box 22 in this implementation includes decoding circuitry for decoding MPEG-1 and/or MPEG-2 as well as IP Multicast*"), the method comprising the following steps:

extracting a transport stream from a received broadcast signal (page 6, lines 24 to 26: "*The set top box 22 in this implementation includes decoding circuitry for decoding MPEG-1 and/or MPEG-2 as well as IP Multicast*"; page 10, lines 22 to 26: "*The live MPEG encoder 62 is a component which provides real time MPEG-1 or MPEG-2 encoding. It encodes analog video and audio inputs to*

produce MPEG-1 system at MPEG-2 Transport Streams for delivery via an IP multicast network");

obtaining mapping information between channel numbers and web addresses (page 15, lines 9 to 17: "It is also within the scope of the invention for a service provider to assign a URL to a channel number [...] Using this feature a subscriber could view a URL channel on the IPG similar to a video channel. Customers would be able to scan through URL channels and select a desired URL by entering the associated numbers from the remote device in the same way as video channels are selected");

connecting to the Internet via a web address mapped to a channel number selected by a user if the selected channel number is included in the mapping information (page 10, lines 6 to 12: "the IPG is client software that [...] provides a link to the client MPEG-1/MPEG-2 decoder and [...] access to all broadcast content on the broadband multicast IP network"; page 15, lines 17 to 19: "Going through a URL channel would switch the client device (STB, for example) to a web browser and thereby access a selected web page");

obtaining information on a website corresponding to one of the web addresses, wherein the information on the website includes guide information (Figure 8, page 9, line 25, to page 10, line 4: "The DTVM in conjunction with IPG provides a subscriber with the ability to channel browse for TV programs and Web sites [...] Figure 8 illustrates a second example of an IPG including a program detail banner containing information representing a highlighted channel", wherein the banner presents guide information); and

displaying an EPG screen which includes names of channel number allocated broadcast programs and a channel number allocated website (page 9, lines 9 to 13: *"The IPG has access to TV program scheduling information such as TVGuide and makes this information available in electronic form for use by the subscriber. The IPG also provides access to VOD, NVOD, Internet programming as well as video and audio content"*;
page 15, lines 9 to 17: *"It is also within the scope of the invention for a service provider to assign a URL to a channel number [...] Using this feature a subscriber could view a URL channel on the IPG similar to a video channel. Customers would be able to scan through URL channels and select a desired URL by entering the associated numbers from the remote device in the same way as video channels are selected"*),

wherein, in response to a user operated selection tool moving to the channel number allocated website, displaying the guide information about the website (Figure 8, page 9, lines 31 to 33: *"Clicking on a highlighted selection displays a brief information banner with relevant data concerning program content and time remaining"*).

- 2.3 According to D1, page 8, lines 4 to 8, and the sentence bridging pages 8 and 9, the digital TV manager (DTVM) provides IPG functionality. According to D1, page 9, lines 13 to 16, the subscriber accesses the IPG through the set-top box which stores IPG information. Thus, the set-top box receives and stores IPG information transmitted by the DTVM. The DTVM is connected to the broadband network via a transport router (see D1, page 7, lines 9 and 10), i.e. transmits the IPG information via the transport router.

- 2.4 Therefore, the board agrees with the examining division that the subject-matter of claim 1 differs from the disclosure of D1 in that the mapping information is provided as additional information within the transport stream (see point XI(b) above).
- 2.5 Since the program guide known from D1 includes information mapping channel numbers to URLs (see point 2.2 above), the board is not persuaded that the problem to be solved may be defined as providing an improved electronic program guide (see point XII(a) above). Rather, the problem to be solved may be identified as how to transmit the information for generating the interactive program guide.
- 2.6 In contrast to the appellant, the board agrees with the examining division that the person skilled in the art would consider including mapping information in the transport streams (see points XI(c) and XII(b) above).
- 2.7 The board shares the examining division's view that transmitting program guides in transport streams was well known in digital broadcasting before the priority date of the present application (see point XI(d) above). This is corroborated by the disclosures of D5 and D7.
- 2.7.1 D5 relates to the transmission of additional data compliant with the ATSC standard. The paragraph bridging pages 14 and 15 discloses that the interactive program information used to generate a program grid-guide is multiplexed into the transport stream. Moreover, the data format shown in paragraph [0042] suggests that there is a link between the channel number and web address, which are transmitted together.

- 2.7.2 D7, paragraph [0004], discloses that program guide information can be transmitted in DVB service information (DVB-SI) or in accordance with the program and system information protocol (PSIP) used by ATSC digital broadcasting. Hence, the program guide information is carried in the transport stream multiplex (see also D6, page 9). According to D7, paragraph [0025], the program guide may include program listings for television programs, webcasts broadcast over the Internet or radio programs which may be broadcast via the Internet. Internet broadcasts are identified by a URL. Thus, D7 confirms that the use of transport streams to broadcast IPGs including channels identified by URLs was well known before the priority date of the present application.
- 2.7.3 Summarising, D5 and D7 illustrate that broadcasting IPG information together with programs in transport streams was well known.
- 2.7.4 Applying this principle to D1, the person skilled in the art would provide IPG information including information mapping channel numbers to web addresses in the MPEG transport streams, extract the IPG, store the IPG and use the mapping information to connect to the Internet via the stored web address.
- 2.7.5 The board is not convinced that D1 teaches away from the claimed invention (see point XII(c) above). The passage on page 14, lines 13, 14 and 19 to 23, relates to client device management and accordingly suggests (client addressable) IP Multicast or SNMP. Since IPG information is to be distributed to all client devices, the person skilled in the art would try to broadcast IPG information.

2.8 In view of the above, the subject-matter of claim 1 of the main (sole) request does not meet the requirements of Article 56 EPC, because it lacks inventive step over the combined disclosures of D1 and D5 and the common general knowledge of the person skilled in the art.

3. *Claim 1 of the main (sole) request - inventive step starting from D7 (Article 56 EPC)*

3.1 Document D7 is also an appropriate starting point for the assessment of inventive step.

3.2 Document D7 discloses transmitting program guide information including URLs in a transport stream multiplex (see also point 2.7.2 above).

3.3 The subject-matter of claim 1 differs from the disclosure of D7 in that:

(a) claim 1 explicitly specifies mapping between channel numbers and web addresses, whereas D7 does not disclose any implementation details of listings of webcasts and radio programs broadcast via the Internet;

(b) claim 1 specifies that, in response to a user operated selection tool moving to the channel number allocated website, guide information about the website is displayed.

3.4 Thus, the problem to be solved may be identified as how to implement program guides including content provided via the Internet.

3.5 D1, page 15, lines 9 to 17, discloses that URLs are assigned to channel numbers in the same manner as video

channels (*"It is also within the scope of the invention for a service provider to assign a URL to a channel number [...] Using this feature a subscriber could view a URL channel on the IPG similar to a video channel. Customers would be able to scan through URL channels and select a desired URL by entering the associated numbers from the remote device in the same way as video channels are selected"*) (see also point 2.2 above).

D1, page 9, line 25, to page 10, line 4 discloses displaying a banner containing guide information representing a highlighted channel (*"The DTVM in conjunction with IPG provides a subscriber with the ability to channel browse for TV programs and Web sites [...] Figure 8 illustrates a second example of an IPG including a program detail banner containing information representing a highlighted channel"*) (see also point 2.2 above).

- 3.6 The board is of the opinion that the person skilled in the art would implement these features in the guide known from D7.
- 3.7 In view of the above, the subject-matter of claim 1 of the main (sole) request does not meet the requirements of Article 56 EPC, because it lacks inventive step over the combined disclosures of D7 and D1 and the common general knowledge of the person skilled in the art.
4. Since the appellant's sole request is not allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



K. Boelicke

T. Karamanli

Decision electronically authenticated