

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

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| Applicant's or agent's file reference 81381405WO02 | FOR FURTHER ACTION | | See item 4 below |
| International application No. PCT/IB2010/052979 | International filing date (<i>day/month/year</i>) 30 June 2010 (30.06.2010) | Priority date (<i>day/month/year</i>) 30 June 2009 (30.06.2009) | |
| International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237 | | | |
| Applicant NXP B.V. | | | |

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|---|-------------------------------------|---|---------------------|--------------------------|------------|----------|--------------------------|-------------|--|--------------------------|------------|----------------------------|-------------------------------------|-----------|---|--------------------------|------------|-------------------------|-------------------------------------|-------------|--|-------------------------------------|--------------|---|
| <p>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</p> <p>2. This REPORT consists of a total of 9 sheets, including this cover sheet.</p> <p>In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</p> | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>3. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table> <p>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</p> | <input checked="" type="checkbox"/> | Box No. I | Basis of the report | <input type="checkbox"/> | Box No. II | Priority | <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | <input type="checkbox"/> | Box No. IV | Lack of unity of invention | <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | <input type="checkbox"/> | Box No. VI | Certain documents cited | <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application | <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. II | Priority | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement | | | | | | | | | | | | | | | | | | | | | | |
| <input type="checkbox"/> | Box No. VI | Certain documents cited | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application | | | | | | | | | | | | | | | | | | | | | | |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application | | | | | | | | | | | | | | | | | | | | | | |

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| <p align="center">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p> | <p>Date of issuance of this report 04 January 2012 (04.01.2012)</p> |
| | <p>Authorized officer</p> <p align="center">Cécile Chatel</p> <p>e-mail: ro.ib@wipo.int</p> |

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)**

To:

see form PCT/ISA/220

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2010/052979

International filing date (day/month/year)
30.06.2010

Priority date (day/month/year)
30.06.2009

International Patent Classification (IPC) or both national classification and IPC
INV. H04N7/24 H04N5/00

Applicant
NXP B.V.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0
Fax: +49 89 2399 - 4465

Date of completion of this opinion

see form
PCT/ISA/210

Authorized Officer

Richard, Romain

Telephone No. +49 89 2399-7964



Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed
 - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing filed or furnished:
 - a. (means)
 - on paper
 - in electronic form
 - b. (time)
 - in the international application as filed
 - together with the international application in electronic form
 - subsequently to this Authority for the purposes of search
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|-------------|
| Novelty (N) | Yes: Claims | <u>1-24</u> |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | |
| | No: Claims | <u>1-24</u> |
| Industrial applicability (IA) | Yes: Claims | <u>1-24</u> |
| | No: Claims | |

2. Citations and explanations
see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reference is made to the following documents:

- D1 EP 1 487 217 A2 (MICROSOFT CORP [US]) 15 December 2004
(2004-12-15)
- D2 WO 2009/059003 A2 (QUALCOMM INC [US]; ORR BRIAN WILLIAM
[US]; CROCKETT DOUGLAS MARION [US]) 7 May 2009 (2009-05-07)
- D3 US 2002/105951 A1 (HANNUKSELA MISKA [FI] ET AL) 8 August 2002
(2002-08-08)
- D4 EP 1 447 989 A1 (THOMSON LICENSING SA [FR] THOMSON
LICENSING [FR]) 18 August 2004 (2004-08-18)

Notwithstanding the lack of clarity mentioned in Re Item VIII, the present application does not meet the criteria of Article 33(1) PCT, because the subject matter of **claims 1-24** does not involve an inventive step in the sense of Article 33(3)PCT.

1 Claims 1 and 14

D1 is regarded as being the prior art closest to the subject-matter of claim 1, and discloses a digital multimedia decoder (see [0007], fig. 9) capable of configuring the different modules of the receiver depending on the selected transmission channel (see [0027, 0028, 0030]). The modules involved in the receiver are an input buffer located in front of the decoder, memory resources and control flow logic. A system delay controller is thus implicitly disclosed and configures at least the input buffer with a certain delay, based on the characteristics received by the server. Once the data have been received in the buffer, they are sent to the decoder for proper processing and later display.

D1 also discloses the feature of optimally adjusting buffer operations following a channel switch operation see [0030, last 2 sentences]).

Finally, D1 discloses that the parameters necessary to configure the input buffer and other components can be received as part as a request/response protocol or from a separate out-of-band channel. It is thus obvious that this information is available to the receiver before the data arrive at the receiver itself. Therefore a configuration of the buffer/ decoder after a channel selection action and before arrival of the data is obvious.

Consequently, and as far as claim 1 can be understood, the only differences between the subject-matter of claim 1 and the disclosure of D1 are:

- the generation of a video standard identifier
- the decoder is reconfigurable according to a video standard identifier.

This however corresponds to well-known aspects for the skilled person in the field of the application. Indeed, at the date of filing of the application, many different video standards were available and applicable to the field of transmission of video over communication networks. Therefore the requirements for a receiver to be able to receive and decode a variety of formats is considered to be obvious. This is for example supported by the disclosure of D2 (see [0024-0025]) where a receiver is reconfigured according to the format of the received streams.

As a consequence, in view of the disclosure of D1 in combination with the general knowledge of the skilled person (and the disclosure of D2 to a certain extent), the subject-matter of **claim 1** is not considered to involve an inventive step (Article 33(3) PCT).

The subject-matter of **claim 14** corresponds to that of claim 1 for a method, the same objections therefore also apply to **claim 14** which does not involve an inventive step either (Article 33(3) PCT).

Claims 1 and 14 are therefore not allowable under Article 33(1) PCT.

For the sake of completeness and to illustrate the above argumentation, it is pointed out that D4 discloses a method of storing locally at a receiver the Event Information Tables (EIT) of the programs available. The decoder can thus be correctly initialized according to these tables. It is well-known that an EIT contains parameters such as the component_descriptor which describe the content of the streams to be received. The component_descriptor for example indicates whether the content follows the MPEG-2 standard or the H.264/AVC standard.

2 Dependent claims

Dependent **claims 2-13 and 15-24** do not appear to contain any additional features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

- Claims 2 and 15: As it is already disclosed in D1, there is a need to optimally setup delays in a receiver, especially when switching between channels (see [0030, last 2 sentences]). It is obvious that video data encoded according to different standards will require different parameters or configuration (as also mentioned in D2, see [0024-0025]). There is therefore obviously various modules where delays must be set (input buffer, video decoder, output buffer to synchronize the audio with the video for example) and a so-called "system processing delay" is therefore also considered obvious.
- Claims 3, 4, 16 and 17: It is obvious to setup new delays as well as to reconfigure the decoder when the video standard of the new channel is different from that of the previous channel.
- Claims 5 and 18: the use of an output buffer is considered obvious in a receiver with a decoder, at least to synchronize the audio with the video which are internally decoded separately. This is for example supported by the disclosure of D3 where various buffers are used within a digital receiver (see [0019]).
- Claim 6: These features are considered obvious (if not implicit) in such a receiver device.
- Claims 7 and 20: D1 discloses parameters for configuring the input buffer received from an out-of-band channel (see [0028]), these parameters are therefore available separately from the video stream. D2 discloses various modules of the receiver configured for the reception of video streams according to different video standards before the data is decoded (see [0024, 0025]). The configuration parameters depend on each channel and vary with the type of content, i.e. the standard, used on a certain channel. It is thus obvious that the skilled person would setup some kind of look-up table at the receiver which would allow the configuration of the modules of the receiver upon selection of a new channel.
- Claims 8 to 11, 19 and 21 to 24: These claims combine various features of the dependent claims mentioned above. These combinations do not contribute to the presence of an inventive step since they all relate to aspects which would necessarily be combined by the skilled person in a digital receiver to achieve an optimal channel switching.
- Claims 12 and 13: Providing an audio processing unit as well as a demultiplexer in a digital receiver is well-known to the skilled person in the field of the application.

Claims 2 to 13 and 15 to 24 are therefore not allowable under Article 33(1) PCT for lack of an inventive step (Article 33(3) PCT).

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Re Item VII

The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII

The application does not meet the requirements of Article 6 PCT, for the following reasons:

- 1 All claims use the wording "optimal" with reference to a delay, either for a decoder, an input buffer or a system as a whole. The only part of the description where it is described what optimal might mean is at page 19, l. 13-17 with "an appropriate and optimal, i.e., shortest acceptable system delay". It is however unclear for the skilled person which technical features these terms might refer to. Indeed, the wording "acceptable" does not correspond to any technical feature, it may well be acceptable to wait a longer time for the content and be assured that the playback will be done without pausing due to processing or transmission delays. For another user, "acceptable" could also mean to wait as little as possible and be able to watch the multimedia content as fast as possible, with the risk of having a buffer underflow for example at a certain point of playback, which would be annoying but still acceptable.

It is also considered that other parameters can have an influence on a so-called optimal delay when playing back multimedia content. Network conditions or processing power are some examples and these parameters can also vary over time.

Consequently, the claims are worded in terms of result to be achieved and lack clarity. The claims can therefore only be interpreted by omitting the terms "optimal" from which no technical feature can be derived.

- 2 Various claims (claims 7, 8, 9, 20) are drafted as a "digital multimedia and decoder" or the corresponding wording for a method. Obviously the term "receiver" or "receiving" has been omitted and should be added in those claims.

- 3 It is pointed out that claim 19 depends on both claims 15 and 18 and should be acknowledged as such.
- 4 The vague and imprecise statement "spirit of the invention" in the description on page 33 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them.