

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	12.09.2017
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Applicant's or agent's file reference SP367248W000	FOR FURTHER ACTION See paragraph 2 below
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International application No. PCT/JP2017/025021	International filing date (day/month/year) 07.07.2017	Priority date (day/month/year) 24.08.2016
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International Patent Classification (IPC) or both national classification and IPC
H04N19/124 (2014.01) i, H04N19/157 (2014.01) i, H04N19/176 (2014.01) i

Applicant
SONY CORPORATION

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 or 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 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.

Name and mailing address of the ISA/JP	Date of completion of this opinion	Authorized officer
Facsimile No.		Telephone No.

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International application No.

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Box No. I Basis of this 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:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
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 forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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INTERNATIONAL SEARCHING AUTHORITY**

International application No. PCT/JP2017/025021
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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
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1. Statement									
Novelty (N)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;">4-10</td> <td style="width: 10%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;">1-3, 11-14</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	4-10	YES	Claims	1-3, 11-14	NO	
Claims	4-10	YES							
Claims	1-3, 11-14	NO							
Inventive step (IS)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;">4-10</td> <td style="width: 10%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;">1-3, 11-14</td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	4-10	YES	Claims	1-3, 11-14	NO	
Claims	4-10	YES							
Claims	1-3, 11-14	NO							
Industrial applicability (IA)		<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%; padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;">1-14</td> <td style="width: 10%; padding: 2px;">YES</td> </tr> <tr> <td style="padding: 2px;">Claims</td> <td style="border-bottom: 1px solid black; padding: 2px;"></td> <td style="padding: 2px;">NO</td> </tr> </table>	Claims	1-14	YES	Claims		NO	
Claims	1-14	YES							
Claims		NO							

2. Citations and explanations:	
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Document 1: WO 2012/153578 A1 (SONY CORP.) 15 November 2012, paragraphs [0019]-[0058], fig. 1-5

Document 2: WO 2011/108240 A1 (PANASONIC CORP.) 09 September 2011, paragraphs [0058]-[0268], fig. 3-23

Document 3: JP 2013-38769 A (CANON INC.) 21 February 2013, paragraphs [0013]-[0046], fig. 1, 2, 5

(1) Claims 1 and 13-14

The invention as in claims 1 and 13-14 lacks novelty and does not involve an inventive step in the light of any of documents 1-3 cited in the ISR.

Document 1 (paragraphs [0019]-[0058], fig. 1-5) discloses an image processing device provided with a processing control unit for controlling scaling list (quantization matrix) processing on the basis of transform information (a selected orthogonal transform scheme) pertaining to a transform applied to a block to be processed.

Document 2 (paragraphs [0058]-[0268], fig. 3-23)

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

discloses an image processing device provided with a processing control unit for controlling scaling list (quantization matrix) processing on the basis of transform information (a type of orthogonal transform that has been switched) pertaining to a transform applied to a block to be processed.

Document 3 (paragraphs [0013]-[0046], fig. 1, 2, 5) discloses an image processing device provided with a processing control unit for controlling scaling list (quantization matrix) processing on the basis of transform information (a determined orthogonal transform method) pertaining to a transform applied to a block to be processed.

(2) Claims 2-3

The invention as in claims 2-3 lacks novelty and does not involve an inventive step in the light of document 1 or 2.

Documents 1 and 2 also indicate that the processing control unit further controls inverse transform processing related to an inverse transform of the transform applied to the block to be processed, on the basis of the transform information, and that input to the inverse transform processing is controlled on the basis of the transform information.

(3) Claims 4-10

The invention as in claims 4-10 is not disclosed in any of the documents cited in the ISR, and would not be obvious to a person skilled in the art, and therefore is novel and involves an inventive step.

None of the documents cited in the ISR discloses the

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feature set forth in claim 4 wherein the processing control unit determines whether or not to perform inverse transform processing pertaining to an inverse transform of another transform different from a transform for prediction error data, which is the difference between image data and predicted image data, on the basis of the transform information. Further, such feature could not be said to be obvious to a person skilled in the art.

(4) Claim 11

The invention as in claim 11 lacks novelty and does not involve an inventive step in the light of any of documents 1-3.

In documents 1-3, the transform information could be said to be information indicating whether or not a predetermined transform has been applied to the block to be processed.

(5) Claim 12

The invention as in claim 12 lacks novelty and does not involve an inventive step in the light of document 1.

In document 1, the transform information could be said to be information indicating a number of transforms that have been applied to the block to be processed (indicating whether only DCT/DST is applied, or both DCT and DST are applied).