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**Datasheet for the decision  
of 26 January 2024**

**Case Number:** T 0791/20 - 3.5.04

**Application Number:** 11828289.6

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**Language of the proceedings:** EN

**Title of invention:**

MOTION-VIDEO ENCODING APPARATUS, MOTION-VIDEO DECODING  
APPARATUS, MOTION-VIDEO ENCODING METHOD, AND MOTION-VIDEO  
DECODING METHOD

**Applicant:**

Mitsubishi Electric Corporation

**Headword:**

**Relevant legal provisions:**

EPC Art. 83  
RPBA 2020 Art. 12(6), 13(2)

**Keyword:**

Main request - sufficiency of disclosure (no)

First auxiliary request - should have been submitted in first-  
instance proceedings (yes)

Second auxiliary request - exceptional circumstances (no)

**Decisions cited:**

**Catchword:**



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Case Number: T 0791/20 - 3.5.04

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.04**  
**of 26 January 2024**

**Appellant:** Mitsubishi Electric Corporation  
(Applicant) 7-3 Marunouchi 2-Chome  
Chiyoda-ku  
Tokyo 100-8310 (JP)

**Representative:** Pfenning, Meinig & Partner mbB  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 23 October 2019  
refusing European patent application  
No. 11828289.6 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chair** B. Willems  
**Members:** F. Sanahuja  
T. Karamanli

## Summary of Facts and Submissions

- I. The appeal is against the examining division's decision to refuse European patent application No. 11 828 289.6.
- II. The application was refused, *inter alia*, on the ground that the subject-matter of claim 1 of the then-pending main request and each of the then-pending auxiliary requests 1 to 3 was not disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC).
- III. The applicant (appellant) filed notice of appeal. With its statement of grounds of appeal, the appellant filed claims of a main request and submitted that its main request corresponded to the third auxiliary request on which the decision under appeal was based. The appellant also filed amended claims of a first auxiliary request and indicated a basis for the amendments in the application as filed. It provided arguments to support its opinion that the invention defined in the claims of both requests was sufficiently disclosed in the application as filed.

In the statement of grounds of appeal, the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims according to the main request or, alternatively, according to the first auxiliary request.

- IV. The appellant was summoned to oral proceedings. In a communication under Article 15(1) RPBA 2020, the board set out, *inter alia*, its preliminary opinion that:

- (a) the application did not disclose the invention defined in claim 1 of the main request in a manner sufficiently clear and complete for it to be carried out by the skilled person (Article 83 EPC)
- (b) the board was inclined not to admit the first auxiliary request into the appeal proceedings under Article 12(6), second sentence, RPBA 2020

V. In its letter of reply, the appellant submitted reasons why the first auxiliary request should be admitted under Article 12(6) RPBA 2020 and arguments to support its opinion that the invention defined in the claims of both requests was sufficiently disclosed in the application.

VI. On 26 January 2024, the board held oral proceedings using videoconferencing technology.

The appellant's final requests were that the decision under appeal be set aside and that a patent be granted on the basis of the claims of the main request or, alternatively, of the first auxiliary request, both requests filed with the statement of grounds of appeal, or of the second auxiliary request filed at the oral proceedings of 26 January 2024.

At the end of the oral proceedings, the chair announced the board's decision.

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

"An image decoding device comprising:

an intra prediction unit (53) for carrying out an intra-frame prediction process on a block ( $B^n$ ) which is

a prediction unit for a prediction process, obtained by dividing a coding block into one or more prediction units to generate a prediction image, when a coding mode for said coding block is an intra coding mode,

characterized in that said intra prediction unit (53) is adapted to generate for each of all the pixels in the prediction unit an intermediate prediction value from reference pixels according to an intra prediction parameter of the intra coding mode and perform a smoothing filtering process on luminance signals only for a part of pixels having said intermediate prediction value in said block,

and said intra prediction unit (53) is adapted to provide a value which is obtained by performing said smoothing filtering process as a final prediction value only for said part of pixels in said block and provide said intermediate prediction value as a final prediction value for other pixels in said block;

wherein performing said smoothing filtering process comprises selecting a filter based on a plurality of parameters including a size of a prediction unit, a quantization parameter included in the prediction error encoding parameters, a distance between already-encoded reference pixels adjacent to the prediction unit, which are used for the generation of the intermediate prediction values, and a target pixel to be filtered, and an index value indicating an intra prediction mode."

- VIII. Claim 1 of the first and second auxiliary requests differs from claim 1 of the main request in that the last paragraph has been amended as follows (with omissions ~~struck through~~):

"wherein performing said smoothing filtering process comprises selecting a filter based on a plurality of parameters including a size of a prediction unit, a quantization parameter included in the prediction error encoding parameters, a distance between already-encoded reference pixels adjacent to the prediction unit, which are used for the generation of the intermediate prediction values, and a target pixel to be filtered, ~~and an index value indicating an intra prediction mode.~~"

### **Reasons for the Decision**

1. The appeal is admissible.
2. *Main request - sufficiency of disclosure (Article 83 EPC)*
  - 2.1 Under Article 83 EPC, the European patent application must disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
  - 2.2 The image decoding device of claim 1 of the main request includes an intra prediction unit adapted to perform a smoothing filtering process on part of the prediction pixels in a block.

According to the description (see paragraph [0006]), the smoothing filter reduces, *inter alia*, the effects of a slight displacement between the direction of an edge in the image and the direction shown by the intra prediction mode. Thus, it reduces the prediction errors when such displacement occurs.

The filter is selected on the basis of a plurality of parameters, including:

- (a) a size of a prediction unit
- (b) a quantization parameter included in the prediction error encoding parameters
- (c) a distance between already-encoded reference pixels adjacent to the prediction unit, which are used for the generation of the intermediate prediction values, and a target pixel to be filtered
- (d) an index value indicating an intra prediction mode

2.3 The board concurs with the examining division that there is no disclosure in the application of how to select a smoothing filter on the basis of parameter (d), i.e. an index value indicating an intra prediction mode (see points 6 to 9 of the decision under appeal). This applies whether parameter (d) is used alone or in combination with parameter (a) or (b).

2.3.1 The index value indicating an intra prediction mode is related to either a directional prediction mode defined by a prediction direction (see the paragraph bridging pages 3 and 4 of the statement of grounds of appeal and point 6.2 of the decision under appeal) or, as argued at the oral proceedings before the board, a non-directional intra prediction mode (see, for example, "Mode 2" in Figure 10).

2.3.2 The relevant passages of the description that disclose selecting a filter based on an intra prediction mode are confined to paragraphs [0063], [0065] and [0066] (see point 6.1, second paragraph of the decision under

appeal and the section entitled "Objection of lack of sufficiency of disclosure (Art. 83 EPC)" of the statement of grounds of appeal).

Paragraph [0063] recites that *"it is necessary to not only change the intensity of the filter, but also arrange the reference pixels of the filter appropriately according to the prediction direction of the intermediate prediction image"*.

Paragraph [0065] states that *"a degree of filter intensity ... is determined in consideration of the prediction direction in the intra prediction mode and the reference pixels are arranged in consideration of the prediction direction in the intra prediction mode"*.

Paragraph [0066] discloses *"selecting a filter having a higher degree of intensity with distance from a pixel used for prediction of each target pixel to be filtered according to the prediction direction in the intra prediction mode"*.

- 2.3.3 According to paragraphs [0063] and [0065], both the degree of filter intensity and the arrangement of the reference pixels of the filter define filter characteristics and depend on the prediction direction.
- 2.3.4 However, the application does not include any guidance, let alone a detailed example, of how the prediction direction influences the technical characteristics of the filter, either alone or in combination with parameters (a) to (c). Thus, without any such guidance, the person skilled in the art needs to find out from scratch how to select a filter intensity using the prediction direction.

2.4 The appellant submitted that the person skilled in the art would clearly recognise the advantages of the degree of smoothing intensity of the filter being dependent on the direction of the prediction - the higher the expected prediction error, the higher the degree of smoothing, and the more the prediction direction deviated from the direction of edges, stripes, parallel structures or the dominant direction of structures in the image, the higher the expected error and, consequently, also the higher the degree of smoothing (see the second to fourth full paragraphs on page 4 and the second paragraph on page 5 of the statement of grounds of appeal).

2.4.1 The application describes increasing the intensity of the smoothing filter along with the expected prediction error. This is exemplified in paragraphs [0063] and [0065] for parameters (a) to (c). Increasing the value of these parameters may, under certain conditions, lead to a higher expected prediction error.

2.4.2 However, this strategy is not applied to the prediction direction. Indeed, there is no indication that an increase in the index value indicating an intra prediction mode is linked to a higher expected prediction error.

2.4.3 The application recognises that slight displacements may occur between the direction of an edge and the direction of the prediction mode (see paragraph [0006]).

However, there is nothing in the application that hints at identifying said deviation or how to determine it or use it for selecting a filter. Hence, no guidance is provided for these purposes either.

Therefore, the board is not convinced that the person skilled in the art, on the basis of the disclosure of the application and their common general knowledge, would have arrived at using a higher degree of smoothing depending on the deviation between the prediction direction and the direction of edges in the visual content of the prediction unit.

- 2.5 According to the appellant, the person skilled in the art would have easily understood how to carry out the invention using distance and prediction direction parameters (c) and (d) in view of paragraph [0066] of the description (see third paragraph on page 5 to third full paragraph on page 6 of the statement of grounds of appeal). The filter intensity would have been determined according to the distance between a reference pixel, as specified by the prediction direction, and the target pixel to be filtered.

At the oral proceedings, the appellant submitted that it was part of the common general knowledge that pixels within a block which were further away from reference pixels in the prediction direction needed to be filtered with a stronger intensity. Thus, a stronger filter intensity would be selected for pixels in a block's bottom-right region in "Mode 5" and for pixels in a bottom-left region in "Mode 7" of Figure 10.

- 2.5.1 The board is not convinced by these arguments. According to paragraph [0066], first sentence, a filter can be selected in consideration of at least one of parameters (a) to (d) above. Thus, each of the parameters may be used independently for selecting the filter.

- 2.5.2 The appellant's interpretation of paragraph [0066], second sentence, does not take into account that each of the parameters may be used independently ("at least one of the four"). This passage does not teach how to determine the intensity of the smoothing filter using only the intra prediction mode or in combination with either of parameters (a) and (b), i.e. without considering the distance.
- 2.5.3 The board is not convinced that applying a stronger intensity to filters further away from reference pixels takes into account the prediction direction in isolation. Indeed, this strategy also relies on the distance between already-encoded reference pixels and target pixels to be filtered (parameter (c)) in order to determine the intensity of the filter for different regions of the block.
- 2.6 In a different line of argument, the appellant submitted during the oral proceedings that claim 1 of the main request did not specify that the filter intensity had to be different between the different intra prediction modes.

Claim 1 of the main request specifies "*selecting a filter based on ... an index value indicating an intra prediction mode*". Paragraph [0065] of the description sets out the scope of the claimed selection, which includes determining a degree of filter intensity in consideration of the prediction direction in the intra prediction mode (see point 2.3.2 above). Given that the intensity of the filter depends on the prediction direction, there must inevitably be filters that differ in intensity. Therefore, selecting a filter requires

the intensity of the filter to be determined for a given prediction direction.

- 2.7 In view of the above, the board concludes that, at the time the application was filed, it was not apparent to the person skilled in the art how the prediction direction influenced the intensity of the filter. Consequently, the application does not disclose the invention as defined in claim 1 of the main request in a manner sufficiently clear and complete for it to be carried out by the skilled person. Therefore, the main request does not meet the requirements of Article 83 EPC.
3. *First auxiliary request - admittance (Article 12(6) RPBA 2020)*
- 3.1 Under Article 12(6), second sentence, RPBA 2020, the board will not admit requests, facts, objections or evidence which should have been submitted, or which were no longer maintained, in the proceedings leading to the decision under appeal, unless the circumstances of the appeal case justify their admittance.
- 3.2 The amended claims according to the current first auxiliary request were filed for the first time with the statement of grounds of appeal. They no longer specify selecting a smoothing filter based on an index value indicating an intra prediction mode.
- 3.3 With its letter of reply (see the section entitled "Admissibility" on page 4), the appellant contested that Article 12(6) RPBA 2020 applied to the first auxiliary request since it had not been in force on the date of the first-instance oral proceedings. Thus, there was no reason why the applicant "should" (within

the meaning of Article 12(6) RPBA 2020) have filed the first auxiliary request during the oral proceedings, and the appellant's decision not to file it was reasonable at that time.

At the oral proceedings, the appellant accepted that, in view of the transitional provisions of Article 25(2) RPBA 2020, the legal basis to be applied for the admittance of the first auxiliary request was Article 12(6), second sentence, RPBA 2020. However, the appellant argued that it would be justified for the board to exercise its discretion under Article 12(6), second sentence, RPBA 2020 in the appellant's favour for the following reasons.

- (a) The appellant had been required to comply with Article 12(6) RPBA 2020 by filing the first auxiliary request in the first-instance proceedings, at a time when that provision was not in force. The transitional provisions of Article 25(2) RPBA 2020 made it clear that appellants should not be disadvantaged retroactively.
- (b) The case law of the boards of appeal on Article 12(4) RPBA 2007, which applied at the time of the oral proceedings before the examining division, was more favourable to the appellant than the case law on Article 12(6), second sentence, RPBA 2020. At the time of the oral proceedings before the examining division, the appellant considered the examining division's objection to be unfounded and therefore saw no reason to file the current first auxiliary request. This would have

been a reason for admittance according to the case law on Article 12(4) RPBA 2007.

(c) The first auxiliary request was a legitimate reaction to the decision under appeal and overcame the only objection raised in that decision.

3.4 The board notes that the 2020 version of the Rules of Procedure of the Boards of Appeal and the date on which they would enter into force were published before the date of the first-instance oral proceedings in the case in hand (see OJ EPO 2019, A63 of 31 July 2019). Article 25(2) RPBA 2020 stipulates that *"Article 12, paragraphs 4 to 6, of the revised version shall not apply to any statement of grounds of appeal filed before the date of the entry into force"*.

Thus, the appellant should already have been aware during the oral proceedings before the examining division of the consequences of withholding requests that should have been submitted in the proceedings before the first-instance department.

Moreover, if the appellant had considered the relevant provisions of the RPBA 2007 to be more favourable with regard to the admittance of new requests filed with the statement of grounds of appeal, it could have filed its statement of grounds of appeal before the date on which the RPBA 2020 entered into force.

3.5 In any event, the board is not convinced that applying Article 12(6), second sentence, RPBA 2020 instead of Article 12(4) RPBA 2007 is disadvantageous to the appellant.

According to the explanatory remarks on Article 12(6), second sentence, RPBA 2020, this provision takes up the section of Article 12(4) RPBA 2007 and the established case law relating to requests, facts, etc. that could and should have been submitted during the proceedings at first instance, or were no longer maintained during those, thereby preventing the department of first instance from taking a decision on them (see Supplementary publication 2, OJ 2020, "Explanatory Remarks" on Article 12(6) RPBA 2020). Given that the principles underlying the two provisions are the same, the new provision merely codifies the case law of the previous provision and the appellant did not support its argument with evidence, the board fails to see why the application of Article 12(4) RPBA 2007 would have been more favourable to the appellant in terms of admitting the first auxiliary request.

3.6 The board is of the view that the first auxiliary request should have been submitted in the proceedings leading to the decision under appeal.

3.6.1 In its communications dated 6 April 2018 (see point 2.7) and 20 December 2018 (see point 2.1), the examining division expressed the view that selecting a smoothing filter based on an index value indicating an intra prediction mode could not be implemented without undue burden and thus the requirements of Article 83 EPC were not met.

During the first-instance oral proceedings (see points 2, 2.1 and 2.2 of the minutes of the oral proceedings), the examining division maintained the objection under Article 83 EPC.

The board notes that during the first-instance oral proceedings, the appellant filed auxiliary requests to overcome other objections (see point 2.7 of the minutes of the oral proceedings). However, it decided not to file further requests aimed at overcoming the objection of lack of sufficiency of disclosure despite having the opportunity to do so (see point 2.12 of the minutes of the oral proceedings).

The appellant thus had ample opportunity before the examining division announced its decision in the first-instance proceedings to file the current first auxiliary request as a legitimate reaction to the examining division's objection of insufficient disclosure.

- 3.6.2 If the appellant had been of the opinion that the combination of features of the claims of the first auxiliary request overcame the objection of lack of sufficient disclosure raised in the first-instance proceedings, it should have filed an auxiliary request with such claims in those proceedings and thus sought a decision from the examining division on those claims.
  
- 3.6.3 The appellant's argument that it saw no reason to file the current first auxiliary request in the first-instance proceedings has not convinced the board. The appellant cannot rely on Article 12(6) RPBA 2020 (or Article 12(4) RPBA 2007) not being applicable simply because it considered the examining division's objection to be unfounded. An appellant should be aware that a board of appeal may agree with the objections raised by the first-instance department. It is within the appellant's sphere of risk to refrain from filing requests in the first-instance proceedings, in the

belief that the raised objections are unfounded, only to file those requests in the appeal proceedings.

3.6.4 The appellant's deliberate choice not to file further requests, in particular not to file a request corresponding to the first auxiliary request filed with the statement of grounds of appeal, prevented the examining division from issuing a decision on such request. As a consequence, the board cannot fulfil the primary object of appeal proceedings, that is, to review the decision under appeal in a judicial manner (Article 12(2) RPBA 2020).

3.7 In view of the above, the board is of the view that the first auxiliary request should have been filed in the first-instance proceedings and that the circumstances of the appeal case in hand do not justify its admittance. Thus, the board, exercising its discretion under Article 12(6), second sentence, RPBA 2020, decided not to admit the first auxiliary request into the appeal proceedings.

4. *Second auxiliary request - admittance (Article 13(2) RPBA)*

4.1 The claims of the second auxiliary request were filed during the oral proceedings before the board, i.e. after the communication under Article 15(1) RPBA 2020, and are therefore amendments within the meaning of Article 13(2) RPBA which entered into force on 1 January 2024 (see OJ EPO 2023, A103).

4.2 Under Article 13(2) RPBA, any amendment to a party's appeal case after notification of a communication under Article 15(1) RPBA is, in principle, not to be taken into account unless there are exceptional

circumstances, which have been justified with cogent reasons by the party concerned.

The explanatory remarks on Article 13(2) RPBA contain the following guidance: "*The basic principle of the third level of the convergent approach is that, at this stage of the appeal proceedings, amendments to a party's appeal case are not to be taken into consideration. However, a limited exception is provided for: it requires a party to present compelling reasons which justify clearly why the circumstances leading to the amendment are indeed exceptional in the particular appeal ('cogent reasons'). For example, if a party submits that the Board raised an objection for the first time in a communication, it must explain precisely why this objection is new and does not fall under objections previously raised by the Board or a party. The Board may decide to admit the amendment in the exercise of its discretion*" (see Supplementary publication 2, OJ EPO 2020, explanatory remarks on Article 13(2), page 60, third paragraph).

- 4.3 During the oral proceedings, the appellant argued that the claims according to the second auxiliary request had been submitted as a response to the objection of insufficiency of disclosure raised by the board in its communication under Article 15(1) RPBA 2020 and at the oral proceedings. The objection raised in the first-instance proceedings related to selecting the smoothing filter on the basis of the index value indicating an intra prediction mode. In contrast, the board's objection focused on the selection of the smoothing filter's intensity. In the appellant's view, this was a more specific, and therefore different, objection. Thus, the second auxiliary request was a justified reaction to the course of the appeal

proceedings and should be admitted into the appeal proceedings.

4.4 The board cannot identify any exceptional circumstances within the meaning of Article 13(2) RPBA that would justify the admittance of the second auxiliary request, for the following reasons.

4.4.1 In the decision under appeal (see points 6 and 6.1), the examining division concluded that there was no disclosure in the application of how to select a smoothing filter on the basis of an index value indicating an intra prediction mode. The examining division was of the view that stating that the degree of filter intensity was determined in consideration of the prediction direction in the intra prediction mode in paragraph [0065] of the description did not provide sufficient detail for the person skilled in the art to carry out the invention. A similar statement was made during the oral proceedings (see point 2, third to fifth sentences, of the minutes).

4.4.2 With the statement of grounds of appeal (see the second to fourth full paragraphs on page 4 and the second paragraph on page 5), the appellant submitted that the person skilled in the art would clearly recognise the advantages of the degree of smoothing intensity of the filter being dependent on the direction of the prediction. That is, the appellant countered the examining division's objection by arguing that there was an obvious dependency between the direction of the prediction and the intensity of the filter.

In the board's view, this is at odds with the argument that selecting the smoothing filter's intensity on the basis of the prediction direction was a new objection

in the board's communication under Article 15(1) RPBA 2020.

4.4.3 In that communication (see points 2.3 and 2.4), on the basis of the same passages of the description cited in the decision under appeal, the board expressed the view that the technical characteristics of the filter (i.e. the degree of filter intensity and the arrangement of the reference pixels) depended on the prediction direction defined by the claimed index value. However, the application did not include any guidance of how the prediction direction influenced the technical characteristics of the filter. Hence, the board was not convinced by the appellant's submission and concurred with the examining division.

4.4.4 In the case in hand, the board's objection for lack of sufficient disclosure, based on the same factual and evidentiary framework, is not new and falls under the examining division's objection (see points 4.4.1 and 4.4.3 above). Moreover, the appellant already countered the allegedly new objection in its statement of grounds of appeal (see point 4.4.2).

4.5 In view of the above, the board exercised its discretion under Article 13(2) RPBA and decided not to admit the second auxiliary request into the appeal proceedings.

## 5. *Conclusion*

5.1 The main request is not allowable because the invention defined in claim 1 does not meet the requirements of Article 83 EPC. The first and second auxiliary requests are not admitted into the appeal proceedings. Since

none of the appellant's requests is allowable, the appeal is to be dismissed.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chair:



K. Boelicke

B. Willems

Decision electronically authenticated