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**Datasheet for the decision  
of 4 May 2023**

**Case Number:** T 2030/21 - 3.5.03

**Application Number:** 17908540.2

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**IPC:** H03M13/11, H04L1/00, H03M13/00

**Language of the proceedings:** EN

**Title of invention:**  
Information processing method and communication apparatus

**Applicant:**  
Huawei Technologies Co., Ltd.

**Headword:**  
Lifting factor in LDPC coding/HUAWEI

**Relevant legal provisions:**  
EPC Art. 84  
RPBA 2020 Art. 12(3), 12(4), 12(5), 12(6)

**Keyword:**

Clarity - main request and 1st to 8th auxiliary requests (no)

Admittance of claim amendments not admitted by the examining  
division - 9th to 16th auxiliary requests (no): no  
substantiation

Admittance of claim amendments on appeal - 17th auxiliary  
request (no): no reasons provided for submitting amendments in  
appeal proceedings



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Case Number: T 2030/21 - 3.5.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.5.03**  
**of 4 May 2023**

**Appellant:** Huawei Technologies Co., Ltd.  
(Applicant) Huawei Administration Building  
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**Representative:** Pfenning, Meinig & Partner mbB  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 29 June 2021  
refusing European patent application  
No. 17908540.2 pursuant to Article 97(2) EPC**

**Composition of the Board:**

**Chair** K. Bengi-Akyürek  
**Members:** R. de Man  
C. Almberg

## **Summary of Facts and Submissions**

- I. The applicant appealed against the decision of the examining division refusing the present European patent application.
- II. The examining division had decided that claim 1 of each of the main request and the first to eighth auxiliary requests did not comply with the requirements of Article 84 EPC and that the ninth to sixteenth auxiliary requests were not to be admitted into the proceedings.
- III. With its statement setting out the grounds of appeal, the appellant maintained the claim requests considered in the decision under appeal and further filed a seventeenth auxiliary request.
- IV. In a communication accompanying the summons to oral proceedings, the board expressed the preliminary opinion that claim 1 of the main request and of the first to eighth auxiliary requests was not clear and that the ninth to seventeenth auxiliary requests should not be admitted into the appeal proceedings.
- V. In a letter dated 3 May 2023, received by the EPO via electronic filing on the same day at 18h48, the appellant provided "written submissions to be considered in advance of the oral proceedings scheduled for May 4, 2023".
- VI. Oral proceedings took place on 4 May 2023 starting at 09h00 as scheduled. At the end of the oral proceedings, the board's decision was announced.

VII. 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 any one of the **first to seventeenth auxiliary requests**.

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

"A method for encoding information, comprising:

encoding an input sequence by using a quasi-cyclic, QC, low-density parity-check, LDPC, matrix H to obtain an encoded sequence, wherein the input sequence comprises K bits,

wherein the LDPC matrix H is obtained according to a lifting factor Z and a base matrix,

wherein the base matrix comprises 5 rows and 27 columns, each element in the base matrix is either a zero-element or a non-zero-element, and each element in the base matrix is represented by a row index i and a column index j, and

wherein each row in the base matrix comprises non-zero-elements in following columns, other elements except the non-zero-elements in each row are zero-elements, and values of the non-zero elements in the base matrix are corresponding to the lifting factor Z:

i=0, j = 0, 1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23;

i=1, j = 0, 2, 3, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 17, 19, 21, 22, 23, 24;

i=2, j = 0, 1, 2, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 17, 18, 19, 20, 24, 25;

i=3, j = 0, 1, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 25; and

i=4, j = 0, 1, 26."

- IX. Claim 1 of the **first auxiliary request** differs from claim 1 of the main request in that the text "and the lifting factor  $Z$  is determined based on the length  $K$  of the input sequence," has been inserted after "wherein the LDPC matrix  $H$  is obtained according to a lifting factor  $Z$  and a base matrix".
- X. Claim 1 of the **second auxiliary request** differs from claim 1 of the main request in that the text "wherein each zero-element in the base matrix corresponds to an all-zero matrix of a size  $Z \times Z$  in the LDPC matrix  $H$ , a non-zero-element at row index  $i$  and column index  $j$  in the base matrix corresponds to a circular permutation matrix of a size  $Z \times Z$  in the LDPC matrix  $H$ ; and" has been inserted after "each element in the base matrix is represented by a row index  $i$  and a column index  $j$ , and".
- XI. Claim 1 of the **third auxiliary request** differs from claim 1 of the main request in that "wherein the base matrix comprises 5 rows and 27 columns" has been replaced with the following text:
- "wherein the base matrix is defined according to a matrix of a size of 46 rows and 68 columns,  
wherein the base matrix comprises 5 rows and 27 columns respectively starting from the first row and the first column of the matrix,".
- XII. Claim 1 of the **fourth auxiliary request** was obtained from the main request by combining the amendments made in the first and the second auxiliary requests (see points IX and X).
- XIII. Claim 1 of the **fifth auxiliary request** was obtained from the main request by combining the amendments made

in the first and the third auxiliary requests (see points IX and XI).

XIV. Claim 1 of the **sixth auxiliary request** was obtained from the main request by combining the amendments made in the second and the third auxiliary requests (see points X and XI).

XV. Claim 1 of the **seventh auxiliary request** was obtained from the main request by combining the amendments made in the first, second and third auxiliary requests (see points IX, X and XI).

XVI. Claim 1 of the **eighth auxiliary request** reads as follows:

"A method for encoding information, comprising:

encoding an input sequence by using a quasi-cyclic, QC, low-density parity-check, LDPC, matrix H to obtain an encoded sequence, wherein the input sequence comprises K bits,

wherein the LDPC matrix H is obtained according to a lifting factor Z and a base matrix, and the lifting factor Z is determined based on the length K of the input sequence,

wherein the base matrix is defined according to a matrix of a size of 46 rows and 68 columns,

wherein each element in the base matrix is either a zero-element or a non-zero-element, and each element in the base matrix is represented by a row index i and a column index j,

wherein the base matrix consists of a submatrix  $H_{\text{core}}$  of 5 rows and 27 columns respectively starting from the first row and the first column of the matrix,

a submatrix C of 5 rows and  $m_D$  columns, the submatrix C is an all-zero matrix starting from the first row and the twenty-eighth column of the matrix,

a submatrix D of  $m_D$  rows and 27 columns, the submatrix D starting from the sixth row and the first column of the matrix;

a submatrix E of  $m_D$  rows and  $m_D$  columns, the submatrix E is an identity matrix starting from the sixth row and the twenty-eighth column of the matrix, and

wherein  $0 \leq m_D \leq 41$  and wherein each zero-element in the base matrix corresponds to an all-zero matrix of a size  $Z \times Z$  in the LDPC matrix H, a non-zero-element at row index i and column index j in the base matrix corresponds to a circular permutation matrix of a size  $Z \times Z$  in the LDPC matrix H; and

wherein a non-zero-element at row index i and column index j in the submatrix  $H_{core}$  is as following, other elements in the submatrix  $H_{core}$  except the non-zero-elements in each row are zero-elements, and values of the non-zero-elements in the base matrix are corresponding to the lifting factor Z:

i=0, j = 0, 1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 23;

i=1, j = 0, 2, 3, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 17, 19, 21, 22, 23, 24;

i=2, j = 0, 1, 2, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 17, 18, 19, 20, 24, 25;

i=3, j = 0, 1, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 25; and

i=4, j = 0, 1, 26."

XVII. Claim 1 of the **seventeenth auxiliary request** reads as follows:

"A method for encoding information, comprising:



encoding an input sequence by using a quasi-cyclic, QC, low-density parity-check, LDPC, matrix H to obtain an encoded sequence, wherein the input sequence comprises K bits,

wherein the LDPC matrix H is obtained according to a lifting factor Z and a base matrix,

wherein the base matrix consists of 46 rows and 68 columns, each element in the base matrix is either a zero-element or a non-zero-element, and each element in the base matrix is represented by a row index i and a column index j, and wherein each zero-element in the base matrix corresponds to an all-zero matrix of a size Z\*Z in the LDPC matrix H, a non-zero-element at row index i and column index j in the base matrix corresponds to a circular permutation matrix of a size Z\*Z in the LDPC matrix H, wherein the circular permutation matrix is represented by  $I(P_{i,j})$  and corresponds to a matrix obtained by circularly shifting an identity matrix I of size Z\*Z to the right  $P_{i,j}$  times; and

wherein each row in the base matrix comprises non-zero-elements in following columns and the  $P_{i,j}$  corresponding to the non-zero-elements are as follows, other elements except the non-zero elements in each row are zero-elements, and values of the non-zero-elements in the base matrix are corresponding to the lifting factor Z wherein the lifting factor Z is one of {16, 18, 20, 22, 24, 26, 28, 30}:

$i = 0, j = 0, 1, 3, 4, 6, 7, 8, 10, 11, 12, 13, 14, 16, 17, 18, 20, 21, 22, 23,$  and  $P_{i,j}$  is respectively 10, 11, 8, 6, 1, 11, 7, 12, 10, 11, 1, 7, 11, 0, 10, 9, 3, 1, 0;

$i = 1, j = 0, 1, 2, 4, 5, 6, 7, 8, 9, 10, 13, 14, 15, 17, 18, 19, 20, 23, 24,$  and  $P_{i,j}$  is respectively 2, 5, 4, 13, 3, 10, 12, 5, 8, 9, 0, 9, 8, 3, 15, 2, 5, 0, 0;

$i = 2, j = 0, 2, 3, 4, 5, 7, 8, 9, 11, 12, 14, 15, 16, 17, 19, 21, 22, 24, 25,$  and  $P_{i,j}$  is respectively 6, 12, 0, 0, 13, 1, 0, 1, 8, 15, 8, 14, 2, 0, 4, 6, 0, 0, 0;

$i = 3, j = 0, 1, 2, 3, 5, 6, 9, 10, 11, 12, 13, 15, 16, 18, 19, 20, 21, 22, 25,$  and  $P_{i,j}$  is respectively 13, 7, 9, 3, 6, 0, 0, 3, 14, 13, 7, 9, 4, 15, 0, 1, 0, 1, 0;

$i = 4, j = 0, 1, 26,$  and  $P_{i,j}$  is respectively 14, 3, 0;

$i = 5, j = 0, 1, 9, 10, 12, 17, 18, 27,$  and  $P_{i,j}$  is respectively 10, 0, 2, 13, 9, 3, 0, 0;

$i = 6, j = 0, 4, 6, 11, 13, 19, 20, 28,$  and  $P_{i,j}$  is respectively 14, 11, 3, 5, 0, 4, 15, 0;

$i = 7, j = 0, 1, 8, 9, 10, 12, 17, 21, 22, 29,$  and  $P_{i,j}$  is respectively 14, 0, 15, 8, 6, 11, 2, 4, 0, 0;

$i = 8, j = 0, 1, 6, 11, 13, 18, 19, 24, 30,$  and  $P_{i,j}$  is respectively 11, 10, 4, 14, 3, 7, 15, 15, 0;

$i = 9, j = 1, 9, 10, 12, 16, 17, 20, 31,$  and  $P_{i,j}$  is respectively 8, 3, 0, 2, 12, 0, 1, 0;

$i = 10, j = 0, 1, 4, 6, 13, 15, 18, 32,$  and  $P_{i,j}$  is respectively 6, 1, 13, 0, 3, 0, 10, 0;

$i = 11, j = 0, 5, 9, 10, 11, 12, 17, 23, 33,$  and  $P_{i,j}$  is respectively 4, 9, 0, 2, 3, 8, 7, 1, 0;

$i = 12, j = 0, 4, 6, 13, 18, 22, 34,$  and  $P_{i,j}$  is respectively 6, 12, 2, 11, 13, 6, 0;

$i = 13, j = 0, 1, 3, 12, 17, 21, 35,$  and  $P_{i,j}$  is respectively 9, 7, 0, 14, 1, 8, 0;

$i = 14, j = 1, 6, 7, 9, 20, 36,$  and  $P_{i,j}$  is respectively 14, 0, 0, 15, 2, 0;

$i = 15, j = 0, 10, 13, 17, 21, 24, 37,$  and  $P_{i,j}$  is respectively 4, 3, 0, 0, 8, 4, 0;

$i = 16, j = 0, 1, 2, 6, 20, 38,$  and  $P_{i,j}$  is respectively 0, 0, 0, 0, 7, 0;

$i = 17, j = 0, 4, 10, 12, 14, 39,$  and  $P_{i,j}$  is respectively  $10, 14, 5, 6, 9, 0;$

$i = 18, j = 1, 6, 9, 13, 17, 25, 40,$  and  $P_{i,j}$  is respectively  $3, 4, 0, 0, 2, 7, 0;$

$i = 19, j = 0, 4, 10, 11, 12, 41,$  and  $P_{i,j}$  is respectively  $0, 2, 0, 8, 3, 0;$

$i = 20, j = 1, 6, 9, 18, 23, 42,$  and  $P_{i,j}$  is respectively  $12, 7, 8, 13, 12, 0;$

$i = 21, j = 0, 3, 4, 10, 13, 43,$  and  $P_{i,j}$  is respectively  $0, 4, 0, 5, 0, 0;$

$i = 22, j = 0, 1, 9, 16, 24, 44,$  and  $P_{i,j}$  is respectively  $8, 0, 6, 11, 0, 0;$

$i = 23, j = 1, 13, 15, 17, 45,$  and  $P_{i,j}$  is respectively  $1, 5, 10, 1, 0;$

$i = 24, j = 1, 8, 9, 12, 46,$  and  $P_{i,j}$  is respectively  $2, 0, 0, 0, 0;$

$i = 25, j = 0, 5, 6, 11, 47,$  and  $P_{i,j}$  is respectively  $1, 0, 0, 6, 0;$

$i = 26, j = 0, 1, 9, 23, 24, 48,$  and  $P_{i,j}$  is respectively  $14, 1, 11, 9, 7, 0;$

$i = 27, j = 0, 11, 12, 25, 49,$  and  $P_{i,j}$  is respectively  $5, 0, 0, 0, 0;$

$i = 28, j = 0, 1, 2, 6, 10, 50,$  and  $P_{i,j}$  is respectively  $3, 0, 10, 7, 7, 0;$

$i = 29, j = 1, 7, 12, 17, 51,$  and  $P_{i,j}$  is respectively  $4, 2, 3, 0, 0;$

$i = 30, j = 0, 13, 14, 25, 52,$  and  $P_{i,j}$  is respectively  $15, 8, 15, 0, 0;$

$i = 31, j = 0, 9, 10, 19, 53,$  and  $P_{i,j}$  is respectively  $13, 14, 6, 6, 0;$

$i = 32, j = 1, 6, 12, 22, 54,$  and  $P_{i,j}$  is respectively  $4, 0, 8, 2, 0;$

$i = 33, j = 0, 3, 23, 55,$  and  $P_{i,j}$  is respectively  $0, 0, 7, 0;$

i = 34, j = 1, 10, 14, 24, 56, and  $P_{i,j}$  is respectively 2, 5, 15, 0, 0;

i = 35, j = 1, 9, 13, 16, 57, and  $P_{i,j}$  is respectively 0, 0, 1, 3, 0;

i = 36, j = 0, 1, 3, 5, 58, and  $P_{i,j}$  is respectively 12, 0, 1, 0, 0;

i = 37, j = 0, 6, 10, 15, 59, and  $P_{i,j}$  is respectively 9, 11, 3, 6, 0;

i = 38, j = 1, 8, 25, 60, and  $P_{i,j}$  is respectively 10, 0, 5, 0;

i = 39, j = 0, 7, 17, 61, and  $P_{i,j}$  is respectively 0, 0, 0, 0;

i = 40, j = 0, 1, 14, 22, 62, and  $P_{i,j}$  is respectively 9, 0, 1, 4, 0;

i = 41, j = 0, 6, 19, 23, 63, and  $P_{i,j}$  is respectively 10, 5, 2, 9, 0;

i = 42, j = 1, 4, 21, 64, and  $P_{i,j}$  is respectively 0, 0, 0, 0;

i = 43, j = 1, 2, 13, 65, and  $P_{i,j}$  is respectively 4, 0, 0, 0;

i = 44, j = 0, 5, 24, 66, and  $P_{i,j}$  is respectively 4, 0, 0, 0; and

i = 45, j = 1, 13, 23, 25, 67, and  $P_{i,j}$  is respectively 0, 7, 3, 6, 0."

XVIII. In view of the admittance considerations set out in point 5 below, it is not necessary to reproduce any claim wording of the ninth to sixteenth auxiliary requests.

### **Reasons for the Decision**

1. The present application relates to encoding and decoding data using low-density parity-check (LDPC) error-correcting codes.

2. *Appellant's letter of 3 May 2023*

The appellant's letter of 3 May 2023, containing fourteen pages of submissions, was received by the EPO after working hours on the day immediately preceding the day of the oral proceedings, which started in the morning, first thing as planned. The board was therefore unable to take this extremely late-filed letter into account in its preparation for the oral proceedings.

At the start of the oral proceedings, the chair informed the appellant accordingly, and informed it of the opportunity to present any relevant arguments orally. The appellant suggested that the letter was merely a written summary of its oral presentations for the forthcoming hearing, provided as a service to the board, and it accepted that the letter was left unconsidered. The appellant did, moreover, not request a postponement of the oral proceedings.

3. *Main request - clarity*

3.1 Claim 1 of the **main request** is directed to a method for encoding information by using a quasi-cyclic low-density parity-check (QC-LDPC) matrix  $H$  to encode an input sequence comprising  $K$  bits to obtain an encoded sequence. The matrix is obtained "according to a lifting factor  $Z$  and a base matrix". The remaining features of claim 1 define the base matrix:

- the matrix comprises 5 rows and 27 columns;
- each element in the base matrix is either a zero element or a non-zero element;
- the values of the non-zero elements in the base matrix are "corresponding to the lifting factor  $Z$ ";

- the non-zero elements are the elements in row  $i$  and column  $j$  for the combinations of  $(i, j)$  listed in the claim.

3.2 For the reasons that follow, the board considers that claim 1 does not clearly define which "LDPC matrices  $H$ " are indeed within the scope of the claim. This means that, contrary to Article 84 EPC, claim 1 does not clearly define the matter for which protection is sought.

3.3 The board accepts that the skilled reader of claim 1 understands that obtaining an LDPC matrix "according to a lifting factor  $Z$  and a base matrix" means that the LDPC matrix is obtained by replacing each element  $a_{ij}$  of the base matrix with a  $Z \times Z$  matrix  $M_{ij}$  which somehow depends on the value of  $a_{ij}$ . They would also understand that "zero" elements  $a_{ij}$  are replaced with the  $Z \times Z$  zero matrix. However, claim 1 does not specify how the value of a non-zero element  $a_{ij}$  determines the corresponding  $Z \times Z$  matrix  $M_{ij}$ . Moreover, claim 1 does not explain what it means for a value of a non-zero element to be "corresponding to the lifting factor  $Z$ ".

3.4 The appellant argued that the skilled reader of claim 1 understood that, in a "quasi-cyclic" LDPC matrix, each non-zero  $Z \times Z$  matrix  $M_{ij}$  was a circular permutation matrix. In the method of claim 1, this circular permutation matrix was obtained by right-shifting the  $Z \times Z$  identity matrix by a number of positions equal to the value of the corresponding element  $a_{ij}$  of the base matrix. Hence, it was clear how the value of a non-zero element  $a_{ij}$  determined the corresponding  $Z \times Z$  matrix  $M_{ij}$ .

Whether or not the board agrees that the skilled person would indeed read this specific relationship between a

non-zero element  $a_{ij}$  and the corresponding  $Z \times Z$  matrix  $M_{ij}$  into the wording of claim 1, the appellant's argument confirms that the LDPC matrices  $H$  encompassed by the claim actually depend on the possible values of the non-zero elements  $a_{ij}$  of the base matrix. According to claim 1, these values are "corresponding to the lifting factor  $Z$ ". But claim 1 does not explain what it means for the value of a non-zero element to "correspond" to the lifting factor  $Z$ .

- 3.5 In that respect, the appellant argued that the value of a non-zero element could be different for different values of  $Z$ .

However, the board notes that this does not explain which possible values of a non-zero element  $a_{ij}$  in fact satisfy the requirement of "corresponding to the lifting factor  $Z$ " for a particular value of  $Z$ . The claim informs the skilled reader that the values must "correspond" to  $Z$ , but it gives no indication as to which are the possible values of a non-zero element  $a_{ij}$  for a given value of  $Z$  or how these values can be determined.

- 3.6 Referring to paragraph [00100] of the translated description, the appellant further argued that knowing which elements were non-zero sufficed to achieve "good coding performance" and that the specific values of the non-zero elements only mattered for the error floor.

However, claim 1 requires these values to be "corresponding to the lifting factor  $Z$ ". The skilled reader of the claim would not assume this limitation to be meaningless.

- 3.7 For the above reasons, claim 1 is not clear. Consequently, the main request does not comply with Article 84 EPC.
4. *First to eighth auxiliary requests - clarity*
- 4.1 Claim 1 of each of the **first to eighth auxiliary requests** includes the feature "values of the non-zero elements in the base matrix are corresponding to the lifting factor Z". The appellant did not contest that the amendments made in these requests (see points IX to XVI above) fail to clarify the meaning of "corresponding".
- 4.2 Hence, the first to eighth auxiliary requests do not overcome the clarity objection raised in point 3 above and, consequently, do not comply with Article 84 EPC either.
5. *Ninth to sixteenth auxiliary requests - admittance*
- 5.1 The examining division decided not to admit into the proceedings the **ninth to sixteenth auxiliary requests**. However, in its statement of grounds of appeal, the appellant did not address the admittance of these requests.
- 5.2 Hence, the statement of grounds of appeal is insufficiently substantiated in respect of the ninth to sixteenth auxiliary requests (Article 12(3) and (4), third sentence, RPBA 2020). Under Article 12(5) RPBA 2020, the board has discretion not to admit any part of a submission by a party which does not meet the requirements of Article 12(3) RPBA 2020, and the missing substantiation can also be a negative factor in



the exercise of the discretion under Article 12(4) RPBA 2020.

5.3 Moreover, under Article 12(6), first sentence, RPBA 2020, requests which were not admitted into the proceedings leading to the decision under appeal shall not be admitted into the appeal proceedings unless the decision not to admit them suffered from an error in the use of discretion or unless the circumstances of the appeal case justify their admittance. As mentioned, in its statement of grounds of appeal the appellant did not provided sufficient substantiation, let alone did it specifically invoke the presence of any such error or circumstances.

5.4 At the oral proceedings, the appellant again made no submissions in respect of the admittance of the ninth to sixteenth auxiliary requests, noting only that they all included the feature that had been found to be unclear.

5.5 In view of the above, the board did not admit the ninth to sixteenth auxiliary requests into the appeal proceedings (Article 12(3) to (6) RPBA 2020).

6. *Seventeenth auxiliary request - admittance*

6.1 The **seventeenth auxiliary request** was filed with the statement of grounds of appeal in 2021, and does not form part of the basis of the decision under appeal. Since, moreover, the appellant has not demonstrated that it was admissibly raised and maintained in the examination proceedings, it encompasses "amendments" of the case, the admittance of which is at the board's discretion (Article 12(2) and (4), first and second sentences, RPBA 2020).

6.2 Contrary to the requirement set out in Article 12(4), third sentence, RPBA 2020, in its statement of grounds of appeal, the appellant did not provide any reasons for submitting these amendments only at the appeal stage.

6.3 In this respect, although it can be understood that the seventeenth auxiliary request represents an attempt to overcome the clarity objections raised in the contested decision, the board notes that these objections had already been raised in point 1.2 of the annex to the summons to oral proceedings before the examining division. The statement of grounds of appeal should therefore also have explained why it had not been necessary to file the claim request already in the first-instance proceedings (cf. Article 12(6), second sentence, RPBA 2020).

Moreover, the "core base matrix" part of the base matrix defined in claim 1 of the seventeenth auxiliary request is not the same as the "core base matrix" defined in any of the main request and the first to sixteenth auxiliary requests. The statement of grounds of appeal contained no explanation for this switch to a different embodiment.

6.4 At the oral proceedings before the board, the appellant explained that the seventeenth auxiliary request had not been filed earlier because it had tried to convince the examining division that its other requests were clear, novel and inventive. The switch to a different core base matrix had been necessary to comply with Article 123(2) EPC.

6.5 Although there is no obligation on an applicant to respond to an objection by filing an amended

(auxiliary) claim request, if it does consider that the filing of such a request is necessary in case the EPO ultimately maintains the objection, it should file it at the *earliest* opportunity. In the present case, by delaying the filing of the seventeenth auxiliary request to the appeal stage, the appellant prevented the examining division from giving an opinion on whether the request indeed overcame the clarity objection raised in the annex to its summons to oral proceedings and, if so, whether it complied with the requirements of novelty and inventive step. In addition, the board was prevented from performing its primary task in this respect, namely to review the appealed decision (Article 12(2) RPBA 2020).

- 6.6 In view of the above, the board did not admit the seventeenth auxiliary request into the appeal proceedings (Article 12(2), (4) and (6) RPBA 2020).
7. Since none of the claim requests admitted into the proceedings is allowable, the appeal is to be dismissed.

**Order**

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

The appeal is dismissed.

The Registrar:

The Chair:



B. Brückner

K. Bengi-Akyürek

Decision electronically authenticated