

Decision
of the Court of First Instance of the Unified Patent Court
delivered on 23 July 2026
concerning EP 2 449 782

HEADNOTES:

If an NDA between the parties prevents one party from making submissions or producing documents, and the other party, without reasonable justification, refuses to amend the NDA to enable such production, this shall be to the detriment of the latter party.

In such cases, if a party refers to steps within the FRAND negotiation programme and the Court is unable to examine these steps due to the other party's refusal to amend the NDA, the steps will be considered to have been taken in accordance with the Huawei v ZTE judgment.

KEYWORDS:

FRAND; NDA; unwilling licensee

CLAIMANT:

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DEFENDANTS:

1. **The Walt Disney Company**, 500 S Buena Vista St, Burbank, CA 91521, USA
2. **The Walt Disney Company (Benelux) B.V.**, represented by the board members Matthijs Sebastiaan de Graaf, Marco de Ruiter, Evert Jan Willem van der Veer, Asterweg 15S, 1031 HL Amsterdam, the Netherlands
3. **Disney Interactive**, 500 S Buena Vista St, Burbank, CA 91521, USA
4. **Disney Electronic Content, Inc.**, 500 S Buena Vista St, Burbank, CA 91521, USA
5. **Disney Platform Distribution, Inc**, also trading as **Disney DTC LLC**, 500 S Buena Vista St, Burbank, CA 91521, USA
6. **The Walt Disney Company Limited**, represented by Deborah Margaret Armstrong, Simon Unsworth Bailey, Tracy Anne Bermingham, Dominique Ruth Cardle, Nicola Rose Keat, 3 Queen Caroline Street, Hammersmith, London, W6 9PE, United Kingdom
7. **Disney Enterprises, Inc.**, 500 S Buena Vista St, Burbank, CA 91521, USA
8. **Disney Streaming Services LLC**, 500 S Buena Vista St, Burbank, CA, 91521, USA
9. **Disney Media & Entertainment Distribution LLC**, also trading as **Disney Entertainment Operations LLC**, 500 S Buena Vista St, Burbank, CA, 91521, USA
10. **Disney Entertainment & Sports LLC**, also trading as **Disney Streaming Technology LLC** or **Disney Technology LLC**, 500 S Buena Vista St, Burbank, CA, 91521, USA
11. **BAMTech LLC**, also trading as **BAMTech Media** or **Disney Streaming Services (LLC)** or **Disney Streaming**, 1211 Avenue of the Americas, New York, New York 10036, USA

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PATENT IN SUIT:

European Patent n° 2 449 782

PANEL/DIVISION:

Panel 1 of the Local Division in Düsseldorf

DECIDING JUDGES:

This decision is delivered by Presiding Judge Thomas, legally qualified judge Dr Schumacher acting as judge-rapporteur, legally qualified judge Mlakar and technically qualified judge Dr Kretschmann.

LANGUAGE OF THE PROCEEDINGS: English

SUBJECT OF THE PROCEEDINGS: Infringement action and counterclaim for revocation

DATE OF THE ORAL HEARING: 30 June 2026

SUMMARY OF THE FACTS:

1. The Claimant is suing the Defendants for infringement of the European Patent EP 2 499 782 (Exhibit AR-T 01, hereinafter: patent in suit).
2. The patent in suit was filed on 29 June 2010 as International Application PCT/US2010/001862, published as WO 2011/002504 A1 (Exhibit TW 4). It cites US 222177 P, dated 1 July 2009, as priority document. The grant of the patent in suit was published on 6 December 2017. No opposition was filed.
3. The Claimant is the registered proprietor of the patent in suit. Previous proprietor of the patent in suit was Thomson Licensing.
4. The patent in suit is in force in Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Portugal, Romania and Sweden.
5. The title of the patent in suit is 'METHODS AND APPARATUS FOR SIGNALING INTRA PREDICTION FOR LARGE BLOCKS FOR VIDEO ENCODERS AND DECODERS'. Claims 5 and 17 read as follows:

Claim 5:

‘An encoding method comprising:

encoding picture data for at least a large block in a picture by determining that intra prediction is to be performed for the at least a large block (820, 830),

wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,

wherein the intra prediction is signaled for the at least a large block by:

- encoding a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- encoding an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the large block is further split:

- encoding for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and encoding an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
- encoding for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types.’

Claim 17:

‘A bitstream comprising:

- coded picture data representative of at least a large block in a picture obtained by determining that intra prediction is to be performed for the at least a large block (820, 830), wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,
- a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the

large block is further split:

- for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
 - for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types.'
6. All Defendants are part of the US Disney Group. Defendant 1 is the parent company, Defendants 2-11 are subsidiaries and affiliated companies. They operate globally and nationally in areas such as film production, television and digital video streaming services.
 7. With its infringement action, the Claimant targets the Disney+ streaming service provided jointly by the Defendants to their subscribers in the UPC Contracting Member States (hereinafter: challenged embodiment).
 8. Disney+ is a personalized streaming service that offers subscribers access to an extensive collection of movies, series and other video content against a monthly or annual fee. It was launched in several UPC Contracting Member States in March 2020.
 9. Access to Disney+ is possible via a web browser. Users can also access the streaming service via the Disney+ app on various end devices such as smartphones, tablets, computers, smart TVs and third-party streaming devices (e.g. Apple TV, Fire TV Stick).
 10. The service works according to the video-on-demand principle, where users can freely choose the time of playback. Users have the choice of streaming the content directly or downloading it to watch offline.
 11. The Defendants offer subscribers in Germany the film 'Snow White and the Seven Dwarfs' via Disney+ streaming service. It is available in various bitstream formats, for example, in a bitstream format using HEVC (High Efficiency Video Coding) video coding technology with a resolution of 640x360 pixels. The Claimant has downloaded and examined this bitstream using the 'StreamEye' software.
 12. 'HEVC' is a standard also known as the H.265 standard. The HEVC specification is available in different versions that are backwards compatible with each other (version from October 2014 as Exhibit AR-T 04).

REQUESTS:

Infringement action

13. In its submission dated 25 June 2026, the Claimant amended its motions in accordance with a Court order. Furthermore, at the Court's request, the Claimant provided an English translation of all motions, since the statement of claim had been filed in German. Until then, only a machine translation of the statement of claim into English had been available for the purposes of service.

14. The Claimant requests:

I. The Defendants are ordered,

1. to refrain from

- a) offering or placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden

picture data produced directly by an encoding method

wherein the process comprises

encoding picture data for at least a large block in a picture by determining that intra prediction is to be performed for the at least a large block (820, 830), wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16, wherein the intra prediction is signaled for the at least a large block by:

- encoding a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- encoding an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the large block is further split:

- encoding for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and encoding an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
- encoding for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types;

(direct infringement of process claim 5)

- b) offering or placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden

a bitstream,

whereby this comprises

- coded picture data representative of at least a large block in a picture obtained by determining that intra prediction is to be performed for
- the at least a large block (820, 830), wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,
- a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the large block is further split:

- for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
- for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types;

(direct infringement of product claim 17)

2. to, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, where applicable, of the certified translation,
 - a) recall from the distribution channels the products referred to in section I.1. which have been placed on the market since 6 December 2017 from commercial customers, in writing, citing the patent-infringing status of the products as established by the Unified Patent Court, and giving a binding undertaking to reimburse any fees and to bear the costs associated with the return, and to take the products back, whereby the Claimant is to be provided with a sample of the recall letters and a list of addressees with names and postal addresses or – at the discretion of the Defendants – an electronic copy of all recall letters;

whereas the Defendants' recall letter to the commercial customers might request, instead of returning the products, to permanently and irreversibly delete the products and to provide proof of such deletion;

b) permanently remove from the distribution channels the products referred to in section I.1. which have been placed on the market since 6 December 2017, whereby the following measures in particular must be taken:

- (1) the Defendant must take all possible and reasonable steps to identify the locations and the commercial possessors of the products referred to in section I.1.;
- (2) in so far as the Defendant itself holds either legal or actual power of disposal over the products referred to in section I.1., the legally permissible and reasonable measures must be taken to ensure that these products come into, and remain in, the direct possession of the Defendant;
- (3) in so far as the Defendant holds neither legal nor actual power of disposal over the products referred to in section I.1., it must take all legally permissible and reasonable measures to cause the persons who themselves hold the power of disposal over the products, or who hold claims for surrender or destruction against the holders of the power of disposal over the products, to assert such claims and/or to support those persons in asserting such claims;

whereby the measures under (2) and (3) may also be carried out by permanently and irreversibly deleting the products referred to in section I.1. by the commercial direct possessors and holders of the power of disposal, with proof of such deletion being provided to the Defendants and the Claimant;

3. to inform the Claimant of the extent to which the Defendants have committed the acts referred to in section I.1. since 6 December 2017, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, if applicable, the certified translation, in the form of a structured statement in electronic form capable of being evaluated by computer, organised by each month of a calendar year and by infringing product, covering all relevant information, in particular:

- a) the origin and distribution channels of the infringing products;
- b) the quantities produced, manufactured, delivered, received or ordered, and the prices paid for the infringing products;
- c) the identity of all third parties involved in the production or distribution of the infringing products;

4. to disclose to the Claimant, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, if applicable, the certified translation, their books of account in support of the information provided pursuant to section I.3., together with information on the profits made, by making available in electronic form capable of being evaluated by computer, organised by each month of a calendar year and by each infringing use of the method and each infringing product:
- a) evidence of the number and dates of the infringing products offered and distributed;
 - b) invoices – or, if unavailable, delivery notes – for individual deliveries, broken down by quantities offered, dates of offers, prices of the products offered and type designations, as well as the names and addresses of the commercial recipients of the offers to sell, for all infringing products sold or otherwise disposed of;
 - c) evidence of the advertising carried out, broken down by advertising medium, its distribution, the period of distribution and the distribution territory; including supporting documentation of such advertising activities;
 - d) evidence of costs, broken down the costs by individual cost factors and the profits made;
 - e) invoices – or, if unavailable, delivery notes – and corresponding accounts of all costs incurred upon which the Defendants rely in calculating their profits;

and confirm the accuracy of the information provided by an affidavit,

or, in the alternative,

have it audited and confirmed by a sworn auditor appointed by the Claimant at the Defendants' expense, such auditor being bound to maintain confidentiality towards the Claimant with respect to the information specified above;

5. to pay to the Court
- a) a penalty payment of up to EUR 10,000 per day for each retrievable bitstream pursuant to I.1.a) and/or I.1.b) in the event of any violation of the orders in accordance with the request under I.1;
 - b) a penalty payment of up to EUR 5,000 per day for each day of non-compliance in the event of any violation of the orders in accordance with the requests under I.2., I.3. and I.4;
6. to pay to the Claimant, as joint and several debtors, EUR 500,000 as an interim award of damages, to be adjusted should the acts referred to in section I. be continued.

- II. It is determined that the Defendants are jointly and severally liable to compensate the Claimant for the damage that, as a result of the actions referred to in I.1. between 6 December 2017 and 30 July 2018 Thomson Licensing SAS and since 30 July 2018 the Claimant has suffered.
- III. It is declared that the Defendants have infringed the patent EP 2 449 782 by
 - 1. offering and placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden, encoded picture data produced directly by the encoding method, and
 - 2. offering and placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden bitstreams.
- IV. The Defendants shall bear the costs of the proceedings.

15. The Defendants request:

- I. The action is dismissed.
- II. Claimant bears the costs of the proceedings including adequate reimbursement of the Defendants' costs.

In the alternative, in case the Court should order an injunction and/or information:

- III. The enforcement of any injunction is conditional upon a financial security provided by the Claimant in the amount of at least EUR 500 million.
- IV. An order against the Defendants to provide information under motion E.I.3 and 4 of the Statement of Claim is made conditional upon a confidentiality order against the Claimant to the effect that (a) the access to the information is restricted to Claimant's outside counsels and two representatives of Claimant who are named to the Defendants in advance and (b) the information may be used only for the purposes of calculating potential damage and compensation claims against the Defendants and for identifying other parties involved in the supply or distribution of the accused products for the purpose of asserting claims for alleged patent infringement against them.

Counterclaim for revocation

16. On 25 June 2026, the Defendants amended their motions following a Court order. They now request a revocation of the patent in suit 'for all Contracting Member States, i.e., for Austria ...' instead of 'for all Contracting Member States, in particular for Austria ...'.

17. The Defendants request:

- I. EP 2 449 782 B1 is revoked to the extent of claims 5 and 17 for all Contracting Member States in which EP 2 449 782 B1 has effect, i.e., for Austria, Belgium,

Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden.

- II. The Court sends a copy of the decision to the European Patent Office and to the national patent office of any Contracting Member State concerned in accordance with Art. 65(5) UPCA.
- III. Claimant bears the costs of the counterclaim for revocation including adequate reimbursement of the Defendants' costs.

18. The Claimant requests:

- I. The counterclaim for revocation is dismissed.
- II. The Defendants bear the costs of the proceedings including adequate reimbursement of the Claimant's costs.

Application to amend the patent

19. The Claimant requests in case the Court does not dismiss the Counterclaim for revocation:

- III. EP 2 449 782 B1 is amended in accordance with one of the following auxiliary requests A1-A14 and B1-B5 submitted in AR-T 11 and fully formulated in the separate auxiliary request brief, in the order specified therein, for all Contracting Member States in which EP 2 449 782 B1 has effect (in particular for Austria, Belgium, Germany, Denmark, Finland, France, Italy, The Netherlands, Portugal, Romania, and Sweden) and the remaining counterclaim for revocation is dismissed.
- IV. Alternatively, in case the Court does not grant the request under III: EP 2 449 782 B1 is amended by cancellation of Claim 17 for all Contracting Member States in which EP 2 449 782 B1 has effect (in particular for Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania, and Sweden) and the remaining counterclaim for revocation is dismissed.
- V. Alternatively, in case the Court does not grant the request under IV: EP 2 449 782 B1 is amended by cancellation of Claim 17 and by amendment of Claim 5 in accordance with one of the auxiliary requests A1-A8 and B1-B5 submitted as AR-T 11 and fully formulated in the separate auxiliary request brief, in the order specified, for all Contracting Member States in which EP 2 449 782 B1 has effect (in particular for Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania, and Sweden) and the remaining counterclaim for revocation is dismissed.
- VI. Alternatively, in case the Court does not grant the request under V: EP 2 449 782 B1 is amended by cancellation of Claim 5 for all Contracting Member States in which EP 2 449 782 B1 has effect (in particular for Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania, and Sweden) and the remaining counterclaim for revocation is dismissed.

VII. Alternatively, in case the Court does not grant the request under VI: EP 2 449 782 B1 is amended by cancellation of Claim 5 and by amendment of Claim 17 in accordance with one of the following auxiliary requests A1-A8 and B1-B5 submitted as AR-T 11 and fully formulated in the separate auxiliary request brief, in the order specified, for all Contracting Member States in which EP 2 449 782 B1 has effect (in particular for Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania, and Sweden) and the remaining counterclaim for revocation is dismissed.

VIII. The Defendants bear the costs of the proceedings including adequate reimbursement of the Claimant's costs.

20. The Claimant states that the application to amend the patent includes the request based on the auxiliary requests, provided that the counterclaim for revocation is not dismissed and the patent is maintained in an amended form in accordance with one of the auxiliary requests.

21. The Defendants oppose the application to amend the patent.

POINTS AT ISSUE:

22. The parties' arguments are set out below, with only the key points emphasised.

23. With regard to claim construction and infringement, the parties' arguments generally relate to claim 17, but are considered to apply mutatis mutandis to claim 5.

Claim construction

Intra prediction

24. According to the Claimant, intra prediction is an encoding technique in which spatially neighbouring samples of a given block that have already been transmitted and decoded are used as a reference for spatial prediction of the given block's samples.

25. The Defendants propose a broader definition, according to which intra prediction merely requires that pixel values within a block are predicted using information from the same picture or frame without relying on data from other pictures or frames as prediction references.

A bitstream comprising ... an intra prediction mode

26. The Claimant argues that claim 17 implicitly requires the possibility of selecting from a plurality of prediction modes, for otherwise encoding an intra prediction mode into the bitstream would not make sense.

27. The Defendants state that it is sufficient that a single intra prediction mode is present and used and that it is clear from the bitstream which mode that is. According to the Defendants, the skilled person would not infer a requirement from the claim language that the intra prediction mode must be explicitly signaled. They argue that if only an intra prediction mode is used, and this is evident from the bitstream, the skilled person would understand that the mode is encoded, regardless of whether a specific value or flag is used. In particular, if the mode is fixed, the information is inherently present and unambiguous.

Basic coding unit

28. The Claimant asserts that the term ‘basic coding unit’ should be understood as designating a macroblock of the respective coding schemes.
29. The Defendants point out that the claim does not refer to a ‘coding block’ itself, but merely refers to the ‘basic coding unit size’. According to the Defendants, in the context of the claim, the term ‘basic coding unit size’ merely denotes a block size smaller than the large block size, here 16x16. Therefore, even when considering the entire description, the skilled person would not attribute a more limited meaning to the term ‘basic coding unit’.

Binary split signaling syntax element

30. According to the Claimant, the wording of the claim requires a binary (i.e., having two possible values) syntax element that is encoded in the bitstream. The skilled person would understand that the term ‘syntax element’ denotes an element of data ‘represented’ in the bitstream. Furthermore, the Claimant points out that, in the specific embodiments, the bitstream, including the Intra64_flag and Intra32_flag syntax elements, is in fact described as being subjected to entropy encoding as a final step (see Fig. 7B, step 797).
31. The Defendants propose a broader definition, according to which all that is required is some information in the bitstream that allows the decoder to decide whether the large block is further split into four equally sized sub-blocks, regardless of how that information is contained or represented in the bitstream. Moreover, following the Defendants’ view, the term ‘binary split signaling syntax element’ excludes embodiments in which the bitstream, including the binary split signaling syntax element, is subsequently subjected to entropy coding to produce the final bitstream that is then communicated to the decoder.

Optional features?

32. The Defendants assert that claims 5 and 17 require that only one of two alternatives is satisfied, namely that the large block is either 32x32 or 64x64. Therefore, according to the Defendants, prior art disclosing either of these two options is already prejudicial to novelty.

Infringement

33. According to the Claimant, the challenged embodiment makes literal use of claims 5 and 17 of the patent in suit. The Defendants did not contest infringement in the statement of defence.
34. In the rejoinder to the infringement action, the Defendants argue as follows:
35. In the Claimant’s submission, an incorrect interpretation of the feature ‘encoding a binary split signaling syntax element’ is applied as an attempt to artificially distinguish the claimed subject from the prior art. The Defendants point out that this does not reflect how the skilled person would understand the term. However, in their view, if the Claimant’s interpretation were adopted, there would be no infringement.
36. The Defendants state that under the Claimant’s interpretation, the encoding must include an actual binary syntax element in the bitstream itself, an element that represents the binary decision and nothing more.

37. In the challenged embodiment, according to the Defendants, binary decisions are represented in a bin string, which can be understood as a sequence of binary values. However, this bin string is not the bitstream, but is subjected to entropy coding to produce the actual bitstream. Conceptually, this can be understood as follows: because the binary values (e.g. ones and zeros) do not occur with equal probability, entropy coding is applied to encode the sequence more efficiently, resulting in a bitstream that uses significantly fewer bits than the original number of binary values (bins). There is no one-to-one correspondence between certain bits and certain bins. Only bits, or groups of bits, are elements of the bitstream. No individual bit, and no specific subset of bits, corresponds to a particular bin. In other words, no binary element of the bitstream represents the original binary decision in isolation. While it is true, that the presence or absence of a split can be reconstructed from the bitstream, this is not sufficient under the interpretation advanced by the Claimant.
38. The Claimant counters this in the surrejoinder by arguing that the Defendants' argument is based on a misunderstanding. Claims 5 and 17 do not exclude embodiments in which binary split syntax elements are entropy coded in the bitstream. In the Claimant's opinion, the patent in suit uses the term 'syntax element' according to its plain and ordinary meaning in the field of video coding at the priority date, i.e. as an element of data represented in the bitstream (see D6, sec. 3, definition 3.152). The patent in suit explicitly teaches that syntax elements are 'encoded' into the bitstream. Specifically, in exemplary embodiments of the patent in suit, 'syntax elements' such as flags, are entropy encoded by the encoder. The decoder parses the bitstream to retrieve the syntax elements from the bitstream (paras. [0069], [0070], Figs. 7, 8). The claim construction is consistent with the patent in suit's reference to the AVC/H.264 standard in the prior art, which addresses the decoder. The syntax elements used in AVC/H.264 comprise entropy-encoded syntax elements (D6, sec. 7.2). Nonetheless, AVC/H.264 simply refers to 'syntax elements' as an 'element of data represented in the bitstream'.
39. In the Claimant's view, the challenged encoding method (claim 5) comprises 'encoding a binary signaling element' and the challenged bitstream (claim 17) comprises 'a binary split signaling syntax element'. The analysed bitstream comprises a binary split signaling syntax element 'split_cu_flag' specifying whether the large block is further split into four equally sized sub-blocks. The syntax element 'split_cu_flag', according to HEVC/H.265 definition 3.154, is an element of data represented in the bitstream (see Exhibit AR-T 4, sec. 3, 3.154). The decoder can parse this syntax element from the bitstream (see Exhibit AR-T 4, sec. 7.1). As the syntax element 'split_cu_flag' is a syntax element that is entropy-encoded by the encoding method used for generating the challenged bitstream, the decoder will apply the parsing process specified for this type of syntax element.
40. The Defendants contradict this. They argue, in conjunction with a request for permission of a submission (see below):
41. Claim 17 requires 'a bitstream comprising ... a binary split signaling element'. A bitstream, however, only consists of bits or groups of bits. It is uncontested that no subset of bits in the challenged bitstream corresponds to a binary syntax element. Therefore, under a narrow interpretation, there is no infringement.
42. With its new argument, that the decoder could interpret the bitstream to obtain the required information, the Claimant expressly relies on decoder's behaviour. However, all bitstreams

disclosed in the cited prior art documents also contain information from which the decoder can derive a flag, indicating whether a split occurs.

43. Thus, either the narrow interpretation is applied, in which case there is no infringement, or the broader interpretation is applied, in which case the distinction over the prior art fails. In any event, the interpretation of the syntax element must be applied consistently.

Infringing acts

44. The Claimant argues that the provision of content via the Disney+ website and via third-party using the Disney+ app is carried out using the patented teaching. The Defendants are jointly liable for these acts as co-perpetrators, as they knowingly and intentionally cooperate. Each Defendant makes a significant contribution to the offer and distribution of the infringing product. Each contribution of Defendants 1 to 11 complements the actions of the others and is aimed at ensuring the offer of the challenged embodiments. This conscious and intentional cooperation shows that the Defendants are not acting in isolation, but as part of a unified action to offer and operate the Disney+ service. As a result, they are jointly liable as co-perpetrators. In any event, they are liable as negligent secondary perpetrators.
45. The Defendants do not contest this.

FRAND

46. The Defendants are of the opinion that the asserted claims are subject to FRAND requirements and that the Claimant did not meet them.

Applicability of the HEVC standard

47. The Defendants state that the HEVC standard not only concerns the decoding side, but also the encoding side. Standardization requires that actual implementation of the standard is possible. A one-sided standard is nonsensical and lacks utility. Decoders cannot operate without encoded content. Encoded content is technically essential for the standard. As such, patents declared to the standard that claim encoding functionality are FRAND encumbered.
48. Furthermore, Defendants argue that HEVC specification describes the requirements for HEVC compatible media for both decoding and encoding. According to the Defendants, this is evident from the HEVC specification, see Exhibit AR-T 4, section 3.133 (p. 11). This section clarifies that the specification is not limited to the decoder, but also includes mandatory requirements for syntax elements and the results obtained when applying the specified decoding process to a media file. This is self-evident, since any video file that is to be played by an HEVC player (decoder) must comply with the HEVC specification, otherwise it cannot be processed by the specified decoder. According to the Defendants, the HEVC specification contains mandatory elements, which must be followed by the encoder to generate a bitstream that can actually be played back by an HEVC media player.
49. The Defendants point out that the patent in suit concerns syntax elements, i.e. macro blocks, small blocks and coding units, which are part of the HEVC data compression. If these blocks are not encoded in accordance with the HEVC specification, they cannot be processed and played back by standardized HEVC video players, i.e. decoders. Therefore, it is technically essential for the decoders to comply with the HEVC standard in order for their videos to be played by decoders that use the standard.

50. Therefore, if found infringed, the patent in suit has to be deemed essential to the implementation of the HEVC standard in the context of the FRAND defence. The Defendants point out that the workarounds suggested by the Claimant result in losing the advantages of HEVC and falling back to AVC. This requires more bandwidth for transmission of the video streams that are currently encoded using the HEVC standard.
51. The Claimant believes that the FRAND objection is unfounded. The asserted patent claims are not essential to the HEVC standard. Therefore, they do not confer a dominant market position.
52. According to the Claimant, the HEVC standard is a decoding standard. The subject matter of the asserted claims are encoding functionalities that are not specified by the standard. The HEVC standard enables, but does not require the patented invention. By its own express terms, the HEVC standard defines and specifies only the required functionality of the decoder. It does not impose any mandatory requirements on the encoder. The asserted encoding claims are thus, already on a conceptual level, not subject to any FRAND requirements. In fact, the encoder could be configured to generate an HEVC-compatible bitstream without making use of the teachings of the patent in suit.
53. Furthermore, in the Claimant's view, the Defendants fail to demonstrate that each feature of the asserted claims must be implemented by an encoder in order to produce an HEVC-compliant bitstream. In fact, the HEVC standard does not prescribe encoder functionalities but enables maximal freedom in encoder implementations. This is true also for the asserted claims. The specific block sizes and partitioning are parameters that the encoder selects. The standard merely provides the syntax how to encode the bitstream according to these parameters, enabling the decoder to decode and reconstruct the data.

FRAND declaration

54. The Defendants point out that the Claimant signed a FRAND declaration for the patent in suit and accepted the obligation to grant FRAND licences to the implementation of the patent in suit. Therefore, the obligation must apply to the entire implementation of that patent and not simply to the decoding aspects.
55. The Claimant points out that the FRAND declaration is limited to those patent claims that are in fact essential to the standard. As the asserted claims are not standard essential, they are outside the scope of this declaration.

FRAND obligations

56. According to the Defendants, the Claimant had an obligation to notify them of the patent in suit and its status as standard essential patent for HEVC and offer a licence on FRAND terms and conditions. However, the Claimant did the exact opposite and explicitly refused to comply with FRAND requirements from the outset, despite repeated requests by the Defendants for a FRAND licence.
57. The Defendants state that it is insufficient for the Claimant to make a licence offer which does not comply with FRAND requirements. They have repeatedly indicated a willingness to conclude a licence on FRAND terms, but the Claimant has explicitly refused to make such a FRAND offer and insisted that no limits to its excessive royalty demands apply.

58. According to the Defendants, it is incorrect that they have obstructed licensing negotiations or refused to negotiate with the Claimant. Rather, since 2022, they have willingly participated in licensing discussions with the Claimant, but have rightfully insisted that the Claimant must make an offer under FRAND terms. The full substance of these negotiations is covered by a non-disclosure agreement (NDA) between the parties which precludes Defendants from providing evidentiary support to prove the falseness of the Claimant's accusations.
59. The Claimant states that, in any case, it always negotiated in a reasonable and non-discriminatory manner. That reasonable approach to negotiations has not been reciprocated by the Defendants, who instead have not shown real interest in concluding a licence.
60. The Claimant points out that it has provided a licence offer [REDACTED]. According to the Claimant, the designation (i.e. FRAND or not) does not have an impact on the terms.
61. Large parts of the negotiations were conducted under an NDA. The NDA, which expired prior to the initiation of litigation, prevents introducing the substance of the negotiations into the proceedings. The Claimant's attempt to reach a bilateral agreement that would allow both parties to disclose the negotiation history in the German and UPC litigation under a confidentiality order remained unsuccessful. Therefore, the Claimant is still unable to disclose the full negotiation history, but can only submit the correspondence since the NDA expired (see Set of Exhibits AR 50; Exhibits AR 56).
62. Also after initiating litigation, the Claimant has made repeated efforts to advance licence negotiations. Defendants blocked this under opaque pretexts.

Enforcement security

63. The Defendants state that the amount of the security deposit as condition for enforcement of an injunction must be set at a minimum of EUR 500 million to cover the damages that they could suffer from the enforcement of a judgement at first instance. In case of an injunction being enforced in the named UPC Member States for the period of one year, Defendants would suffer a minimum of EUR 500 million in damages, inter alia, due to lost revenues and a loss of customers.
64. In the Claimant's view, the Defendants have failed to substantiate why serious difficulties would be expected in connection with the recovery of any possible damages from the Claimant. The Claimant points out that, being a publicly listed technology company on Nasdaq with an international presence, it is clearly solvent and regularly publishes audited financial reports attesting to its stable financial position. Therefore, there is no risk of insolvency and a security deposit is not required.
65. In addition, the Claimant argues that the Defendants have failed to present any facts and arguments justifying a certain amount of security. The Defendants' allegations regarding a potential loss of revenue and customers in the event of enforcement of the injunction is completely unsubstantiated. Therefore, the Claimant states that it is unable to comment on any specific amount. In any case, the Claimant's counterclaims for licence fees would have to be considered.

66. The Claimant is of the opinion that a security should not exceed the value in dispute of EUR 8 million.
67. The Defendants contest this. They argue that the Claimant (InterDigital VC Holdings, Inc.) is one of dozens of special purpose subsidiaries of the InterDigital Group. Only the ultimate parent company, InterDigital Inc., is a publicly listed company and only this parent company (presumably) has the financial resources. The Claimant, however, is an entirely separate legal entity, which is not publicly listed and for which no information on its actual financial situation is available. It must therefore, according to the Defendants, be assumed that the Claimant was used for the present litigation (and other litigations) to shield the publicly listed parent company InterDigital Inc. from potential liabilities arising from lawsuits such as this. This is exactly the scenario in which a financial security is required, since neither the Defendants nor the Court have any information on the actual financial situation of the Claimant.

Legal consequences

68. The Defendants essentially argue as follows:
69. The Claimant's request to lay open books is not covered by the scope or requirements according to Art. 68(3) UPCA in conjunction with R. 191, 131.1(c), 141 RoP. Such a request is only admissible in proceedings for the determination of damages, but not in infringement proceedings.
70. In accordance with Art. 67(1)(a) to (c) UPCA, R. 191, 190.1 RoP access to the information requested by the Claimant under motions E.I.3 and 4 of the Statement of claim shall be restricted to Claimant's outside counsels and a limited number of representatives of the Claimant and it shall only be used by the Claimant to calculate any potential damage claims in connection with the asserted patent infringement. The pieces of information requested by the Claimant under motion A.II are trade secrets within the meaning of Art. 2(1) of the Trade Secret Directive. Disclosing this information to the Claimant without appropriate restrictions would cause disproportionate harm to the Defendants, in particular to their business interests, contrary to Art. 67 UPCA. The information to be provided by the Defendants to the Claimant is highly sensitive information about the revenue, subscriber count and customers. This would not be justified, even if the patent in suit is found to be valid and infringed.
71. In the Claimant's view, laying open books shall be granted as requested. It asserts an independent substantive right to disclosure of specific information based on Art. 68(3) UPCA and R. 191 RoP.
72. With regard to the request for access to information and accounting, the Claimant argues that the Defendants' confidentiality request is unfounded. It points out that the Defendants failed to present facts and arguments justifying their request. According to the Claimant, information according to R. 191 RoP is typically sensitive business information. It is not clear why the Defendants' information should be particularly sensitive compared to other cases of rendering information and accounting after patent infringement. This is particularly incomprehensible, given that the parties are not competitors in the same market.

Validity

73. The Defendants are of the opinion that claims 5 and 17 lack novelty and an inventive step and contain added subject matter.
74. They rely on the following prior art documents:
- D1: Quadtree-guided wavelet image coding (Teng, Neuhoff), published on 3 April 1996
 - D2: Efficient coding scheme for super high definition video based on H.264 high profile (Naito, Matsumura, Koike), published on 19 January 2006
 - D3: Snow video codec specification draft (Niedermayer, Merritt), published on 8 February 2008 (Github)
 - D4: A family of hierarchical encoding techniques for image and video communications (Senbel), published in August 1999
 - D5: High-definition video coding using extended intra prediction scheme (Heo, Ho), published on 11 November 2007
 - D6: ITU-T, Recommendation H.264: Advanced video coding for generic audiovisual services, published in March 2009.
75. The Defendants argue that claims 5 and 17 lack novelty in view of D1, D2, D3 and D4.
76. In addition, the Defendants argue that claims 5 and 17 lack an inventive step starting from D5 when combined with D6 or D2, or starting from each of D1 to D4 (in parts only submitted in the reply to the defence to the counterclaim for revocation, see below).
77. In the Claimant's view, the patent in suit is novel and inventive over all documents submitted by the Defendants. The subject-matter of the patent in suit does not extend beyond the content of the application as originally filed.
78. The Claimant states that regarding D1-D5, there are already considerable doubts as to whether they were publicly available at the priority date. In addition, the Defendants do not provide a sufficiently accurate translation of the Korean document D5. In any case, each of the documents cited by the Defendants fails to disclose multiple features of claims 5 and 17.
79. Moreover, the Claimant states that as far as the Defendants raise new lack of inventive step attacks against the claims as granted in their reply to the defence to the counterclaim by referring to further combinations of D1-D5, these new attacks are late-filed, unclear and essentially unsubstantiated. Furthermore, the Claimant states that it is unclear which combinations the Defendants actually rely on.

MAIN STEPS OF THE PROCEEDINGS:

Claimant's R. 36 RoP request dated 13 November 2025

80. On 13 November 2025, the Claimant requested permission to submit a further written pleading in response to the Defendants' non-infringement and FRAND-related arguments provided in the rejoinder dated 20 October 2025 in the infringement action.

81. The Claimant argued that the infringement of the patent in suit was previously undisputed, but is now for the first time disputed with regard to a single feature in the Defendants' rejoinder. Furthermore, according to the Claimant, Defendants' statements in the rejoinder in respect to the FRAND defence are incorrect and require a clarification.
82. The Defendants were invited to comment on the Claimant's request. They did not provide any comments.
83. On 19 November 2025, the judge-rapporteur permitted the Claimant to respond to the Defendants' arguments regarding non-infringement and FRAND, as set out in the rejoinder.
84. The Claimant filed a surrejoinder in the infringement action on 20 November 2025.

Defendants' R. 36 RoP request dated 22 December 2025

85. In its rejoinder to the application to amend the patent, dated 22 December 2025, the Defendants applied:
 - for leave to respond to the Claimant's infringement surrejoinder dated 20 November 2025 and
 - for leave to respond to the Claimant's revocation rejoinder in case the Claimant's late filed arguments are admitted.
86. The Defendants argued that in its infringement surrejoinder, the Claimant advances an entirely new construction of central elements of the asserted claims 5 and 17 of the patent in suit, in particular with regard to the construction of 'syntax element'. The claim construction now advanced by the Claimant broadens the scope of the term 'syntax element' significantly and requires a rebuttal from the Defendants, who should as a general principle of the Rules of Procedure have the last word on infringement.
87. The Defendants already included their substantive arguments on infringement in response to the surrejoinder in the rejoinder to the application to amend the patent.
88. With regard to the Claimant's revocation rejoinder, the Defendants argued that the Claimant's new arguments are late-filed and should not be admitted or at least not accepted without an additional response by the Defendants. The Defendants point out that the Claimant advances numerous new arguments concerning the construction and validity of the claims as granted with regard to the prior art documents cited by the Defendants in the counter-claim for revocation. In case these late filings are admitted, the Defendants should be allowed to respond.
89. The Defendants already included their substantive arguments in response to said arguments in the rejoinder to the application to amend the patent.
90. Lastly, the Defendants argued that if the Claimant's new validity arguments are accepted, the response already included in the submission should be likewise admitted. The Defendants include arguments regarding added subject matter, publication of prior art documents and lack of patentability in their submission.
91. The Claimant contested the Defendants' application.

92. It argued that the Defendants' non-infringement arguments were already late-filed when raised for the first time in the rejoinder. According to the Claimant, further submissions are equally late-filed and therefore should not be allowed. In any case, the Claimant states that the Defendants' reasoning is without merit.
93. With regard to the Defendants' request for leave to submit a further written statement on validity, the Claimant points out that the arguments are late-filed, unsubstantiated and inconclusive.
94. On 10 June 2026, the judge-rapporteur postponed the decision on the Defendants' requests until at or after the oral hearing.

Application for leave to file supplemental evidence, dated 22 April 2026

95. On 22 April 2026, the Defendants requested that the Court exercises its discretion under R. 9.1 RoP to issue a procedural order admitting Exhibits TW 9 and TW 10 into the proceedings.
96. The Defendants stated that since the submission of the infringement rejoinder, the parties exchanged communication which is highly relevant for the present proceedings and should be allowed into the case. [REDACTED]
[REDACTED] the Defendants submitted a counter-offer (Exhibit TW 9) [REDACTED]
[REDACTED]
97. [REDACTED]
98. [REDACTED]
99. The Defendants argued that the exhibits will not cause any delay in the proceedings [REDACTED]. The counter-offer (Exhibit TW 9) could not have been submitted earlier [REDACTED]
100. The Claimant responded with a submission dated 6 May 2026. It requested that Exhibit TW 9 and the respective submission are not admitted into the proceedings. In the alternative, Claimant's response, including Exhibits, is likewise allowed.
101. It argued that the Defendants' submission is late-filed and should be rejected. According to the Claimant, the Defendants could have filed the counter-offer much earlier. In particular, the Defendants could have made their counter-offer immediately after Claimant's offer [REDACTED] or at least within the briefing schedule of these proceedings, to allow a proper discussion. In any case, there was no need for them to wait about 1.5 years, until February

2026. Considering that the counter-offer is a very high-level calculation on the basis of an (outdated) pool rate, there is no justification for such a delay. [REDACTED]

102. In addition, the Claimant stated that the Defendants took a contradictory position with regard to confidentiality, depending on whether was useful to them or not.
103. Even if the submission with Defendants' counter-offer is admitted, the Claimant is of the opinion that Defendants' FRAND defence remains without merits. Their overall conduct shows, that they are not really interested in a timely conclusion of a licence agreement. The counter-offer is only further proof as it is evidently non-FRAND. It was not provided promptly as required by *Huawei v ZTE*, but after multiple reminders and requests by the Claimant [REDACTED]. Moreover, the terms are clearly not acceptable. With regard to the objection in detail, reference is made to the Claimant's submission.
104. The Claimant points out that it has rejected the counter-offer (Exhibit AR 59). Still, the Defendants have not provided any (let alone appropriate) security.
105. On 10 June 2026, the judge-rapporteur postponed the decision on the Defendants' and the Claimant's requests until at or after the oral hearing.

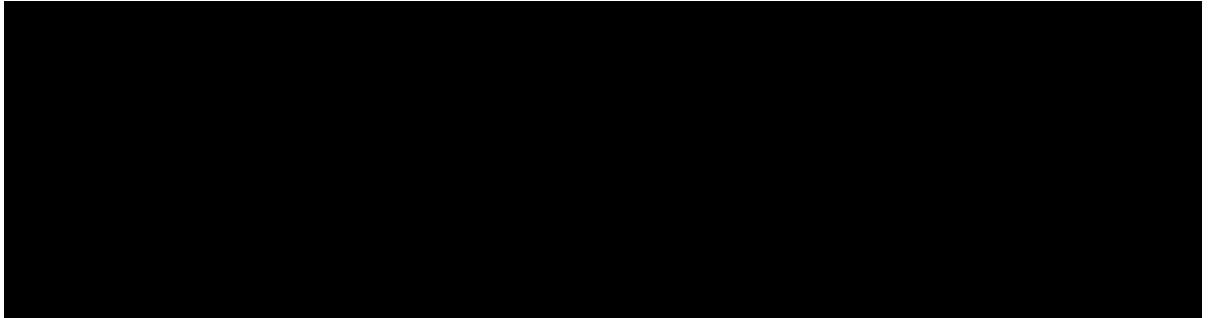
Submission dated 15 June 2026

106. On 15 June 2026, the Defendants submitted a brief titled 'Response to Claimant's submission of 6 May 2026'.
107. The Defendants request:
- to admit Sections A-B of the submission, as well as Exhibits TW 11, TW 11a and TW 12, into the proceedings,
 - not to admit the Claimant's brief dated 6 May 2026, including exhibits, into the proceedings,
 - should the Court admit Claimant's brief: to admit Sections C-D of the submission and Exhibits TW 13-16 into the proceedings.
108. The Defendants stated that their submission addresses an import recent development, which the Claimant failed to disclose (Section A). [REDACTED]

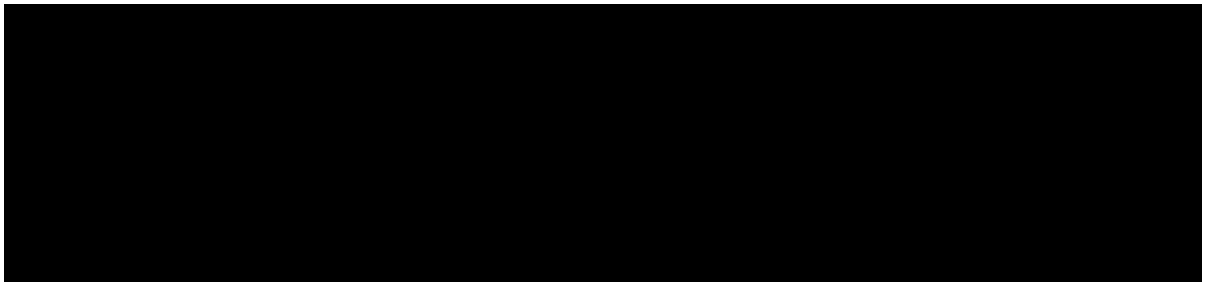
109. Furthermore, the Defendants submitted that Claimant's brief of 6 May 2026 was filed late

and should not be admitted into the proceedings (Section B). In the Defendants' view, it is an entirely new submission pertaining to old (alleged) facts, which is one-sided and incomplete.

110.



111.



112. On 17 June 2026, the judge-rapporteur postponed the decision on the Defendants' requests until at or after the oral hearing.

Language change

113. By order of the President of the Court of First Instance dated 30 April 2025, the language of the proceedings was changed to the language in which the patent was granted, namely English.

114. The order was not conditional on specific translation or interpretation arrangements.

GROUNDS FOR THE DECISION:

115. Both, the infringement action and the counterclaim for revocation, are admissible. The infringement action is predominantly well-founded, whereas the counterclaim is unfounded.

A. Admissibility

I. Infringement action

116. The infringement action is admissible. In particular, the UPC has international jurisdiction.

117. It must be assumed that the UPC has international jurisdiction because the Defendants have neither lodged an objection under R. 19 RoP nor raised the issue of jurisdiction in their Statement of defence (see UPC_CoA_409/2025, Decision of 27 March 2026, headnote 3 – NUC v Hurom).

II. Counterclaim for revocation

118. There are no concerns regarding the admissibility of the counterclaim for revocation. In particular, the UPC has international jurisdiction for the counterclaim for revocation on the basis of Art. 24(4) in conjunction with Art. 71b(1) and 71a(2)(a) of the Brussels Ibis Regulation.

III. Amendments to the wording of Claimant's motions in the submission dated 25 June 2026

119. The amendments to the wording of the Claimant's motions in the submission dated 25 June 2026, compared to the machine translation of the statement of claim submitted as Exhibit AR 1, do not constitute a change of claim within the meaning of R. 263.1 RoP.

120. These amendments are due to the fact that, following the change of language of the proceedings, the motions were formulated in English for the first time in this submission at the Court's request. Exhibit AR 1 was an English machine translation for service purposes.

121. Furthermore, the Court cannot identify any substantial changes to the content of the motions, either when compared with the English machine translation or with the original German version.

IV. Procedural requests

1. Defendants' R. 36 RoP request dated 22 December 2025

122. It is not necessary to rule on the Defendants' requests in their rejoinder to the application to amend the patent, dated 22 December 2025.

123. The Defendants have already set out their arguments in their request. Even if all these arguments are taken into account – as will be done below – they do not alter the outcome.

2. Defendants' submissions dated 22 April 2026 and 15 June 2026, Claimant's submission dated 6 May 2026

124. In so far as these submissions relate to the Defendants' counter-offer, the Claimant's rejection of that offer [REDACTED] the arguments are admitted into the proceedings. The reasons for this are set out below.

125. Apart from that, arguments put forward outside the deadline regime are not admitted into the proceedings. In any case, they do not alter the result, as will be shown below.

B. Person skilled in the art

128. The skilled person has a university degree in electrical engineering with a specialization in data compression in audio and video encoding. The skilled person, or team, has many years of practical experience in the field of image coding, especially video coding, knows the video coding standards established at the priority date of the patent in suit, and follows the developments in the standardization efforts such as those of the Joint Collaborative Team on Video Coding (JCT-VC) and of the International Telecommunication Union Telecommunication Standardization Sector (ITU-T), section Audiovisual and multimedia systems (including H. 264/AVC). The skilled person is particularly familiar with the techniques used in this area, such as prediction, discrete cosine transformation (DCT), quantization and entropy coding, and also with the equipment implementing these techniques. The skilled person is involved in the design and optimization of video codecs in an industrial or research setting.

C. Scope of the patent in suit

129. With regard to the scope of the patent in suit, the following applies:

I. Technical background to the invention

130. The invention relates to video encoding and decoding. More specifically, it relates to methods and apparatus for signaling intra prediction for large blocks for video encoders and decoders (cf. para. [0001]).
131. The patent in suit states in its introduction that most modern coding standards employ various coding modes to efficiently reduce the correlations in the spatial and temporal domains. For example, in the MPEG-4/H.264 Standard, a picture can be intra or inter coded.
132. In intra pictures, all macroblocks are coded in intra modes, thus exploiting spatial correlations within the pictures. Intra modes can be classified into the following three types: INTRA4x4, INTRA8x8 and INTRA 16x16.
133. INTRA 4x4 and INTRA 8x8 both support nine intra prediction modes. INTRA 4x4 uses a 4x4 discrete cosine transform (DCT). INTRA 8x8 uses 8x8 transforms. For the signaling, INTRA 4x4 and INTRA 8x8 share the same macroblock type (mb_type) 0 and are differentiated by a transform size flag (transform_8x8_size_flag). Then the choice of intra prediction mode in INTRA 4x4 or INTRA 8x8 is signaled by the most probable mode possibly with a remaining mode if necessary.
134. INTRA 16x16 supports four intra prediction modes. It uses cascaded 4x4 transforms. For signaling, all the intra prediction modes along with a coded block pattern (cbp) type are signaled in mb_type, which uses an mb_type value from 1 to 24.
135. According to the MPEG-4/H.264 Standard, the largest block size is 16x16. If a block larger than 16x16 is used for intra prediction, then several possible issues are faced, as follows:
- (1) If INTRA 32x32 or INTRA 64x64 prediction are added, by simply extending the mb_type in the MPEG-4 AVC Standard, it will cause too much overhead for those two new modes. In addition, it will not allow a hierarchical type of intra prediction.

An example of a hierarchical type of intra predication is explained as follows: if a 32x32 block is used as a large block and sub-partitions are allowed to be 16x16 then, for each 16x16 sub-partition, INTRA 4x4, INTRA 8x8, INTRA 16x16 should be allowed.

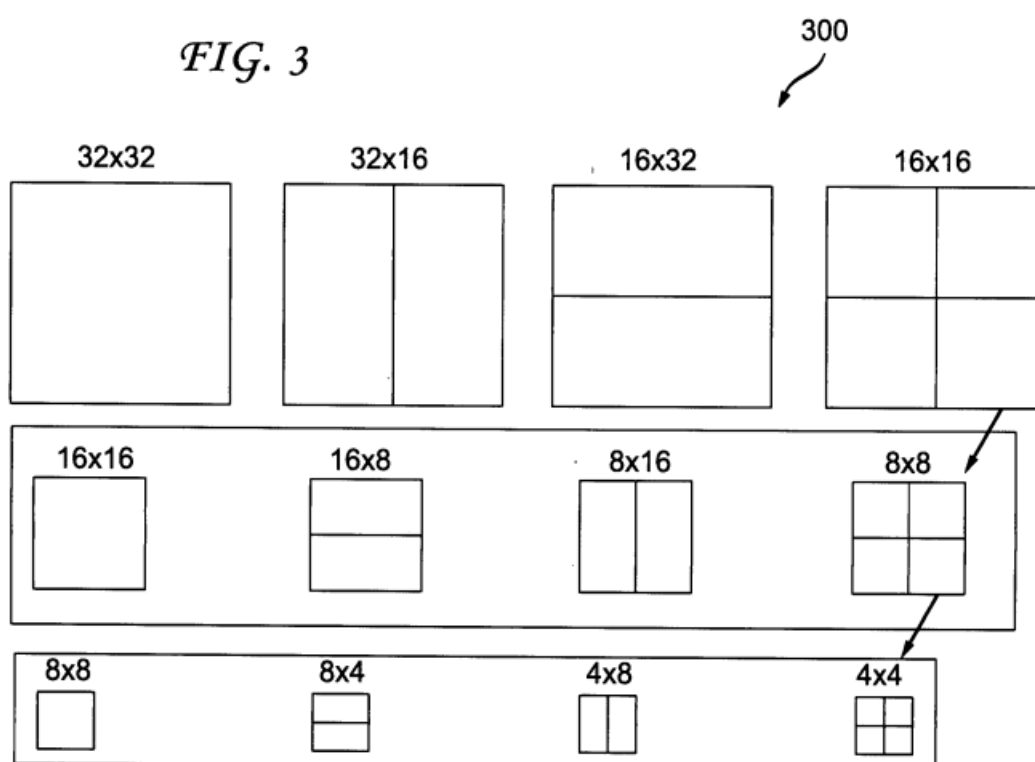
- (2) If a larger transform (such as a 16x16 transform) instead of a cascaded transform is used for INTRA 16x16, then the current signaling cannot be applied.
- (3) Different priority types for intra prediction modes inside one intra partition type should be given.

136. The patent in suit goes on to explain that some prior art approaches exist relating to signaling large motion (inter) partitions in extensions of the MPEG-4 AVC Standard.

137. The first prior art approach describes how signaling is done for 32x32 blocks or 64x64 blocks using a hierarchical coding structure.

138. Moreover, in addition to the existing motion partition sizes (16x16, 16x8, 8x16, 8x8, 8x4, 4x8 and 4x4) in the MPEG-4 AVC Standard, inter coding has also been proposed for an extension of the MPEG-4 AVC Standard using 32x32, 32x16 and 16x32 partitions.

139. Fig. 3 of the patent in suit shows motion partitions for use in 32x32 blocks:



original mb_type for an MxN (M=8 or 16 and N=8 or 16) partition in the MPEG-4 AVC Standard is also used to signal a 2Mx2N partition in a 32x32 block. If the mb32_type or 32x32 indicates that a 16x16 partition is used, then the four 16x16 blocks are signaled in a raster scan order by using the same syntax elements as macroblock_layer() in the MPEG-4 AVC Standard. Each 16x16 block may be partitioned further in the quadtree manner, from size 16x16 down to size 4x4.

142. For macroblock size 64x64, the following partitions are added above the partitions used in 32x32 blocks: 64x64, 64x32, and 32x64. Thus, one more hierarchical layer is added in the macroblock partition above block size 32x32. The original mb_type for an MxN (M=8 or 16 and N=8, or 16) macroblock partition in the MPEG-4 AVC Standard is used to signal a 4Mx4N macroblock partition in 64x64 macroblocks. If a 32x32 macroblock partition is used for a 64x64 block, then each 32x32 block will be handled in the same manner as described above.
143. The patent in suit criticises the fact that the existing literature does not address how large intra mode is signaled, where large intra mode is defined to mean intra prediction involving partition blocks having a size equal to or larger than 32x32.
144. The patent in suit explains that the described drawbacks and disadvantages of the prior art are addressed by the present principles.
145. Against this background, the patent in suit proposes a bitstream (claim 17) and an encoding method (claim 5).
146. Claim 17 can be structured as follows:

17. A bitstream comprising:

- 17.1 - coded picture data representative of at least a large block in a picture obtained by determining that intra prediction is to be performed for the at least a large block (820, 830),
 - 17.2 wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,
- 17.3 - a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- 17.4 - an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;
- 17.5 otherwise in the case where said binary split signaling syntax element specifies the large block is further split:
 - 17.6 - for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and
 - 17.7 an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and

- 17.8 - for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types.

147. Claim 5 can be structured as follows:

- 5. An encoding method comprising:
 - 5.1 encoding picture data for at least a large block in a picture by determining that intra prediction is to be performed for the at least a large block (820, 830),
 - 5.2.1 wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,
 - 5.2.2 wherein the intra prediction is signaled for the at least a large block by:
 - 5.3 - encoding a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
 - 5.4 - encoding an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;
 - 5.5 otherwise in the case where said binary split signaling syntax element specifies the large block is further split:
 - 5.6 - encoding for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and
 - 5.7 encoding an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
 - 5.8 - encoding for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types.

II. Claim Construction

1. Principles

148. The patent claim is not only the starting point but the decisive basis for determining the protective scope of a European patent under Art. 69 EPC in conjunction with the Protocol on the Interpretation of Art. 69 EPC. The interpretation of a patent claim does not depend solely on the strict, literal meaning of the wording used. Rather the description and the drawings must always be used as explanatory aids for the interpretation of the patent claim and not only to resolve any ambiguities in the patent claim. The patent claim is to be interpreted from the point of view of a person skilled in the art. In applying these principles, the aim is to combine adequate protection for the patent proprietor with sufficient legal certainty for third parties (UPC_CoA_335/2023, Order of 26 February 2024, Headnote 2 and p. 26 et seq. – 10x Genomics v Nanostring; UPC_CoA_1/2024, Order of 13 May 2024, para. 26 –

VusionGroup v Hanshow; UPC_CoA_182/2024, Order of 25 September 2024, para. 82 – Mammut v Ortovox; UPC_CoA_528/2024, Decision of 25 November 2025, para. 39 – Amgen v Sanofi; UPC_CoA_464/2024, Decision of 25 November 2025, para. 50 – Meril v Edwards).

2.Case at hand

149. The Court will discuss claim construction with reference to claim 17. Unless stated otherwise, the arguments apply mutatis mutandis to claim 5.

a) Intra prediction (features 17.1/17.4)

150. The term ‘intra prediction’ is not explicitly defined in either the patent claims or the patent specification.

151. The skilled person will interpret the term in the light of the technical information that is presented in the specification, including the discussion of the prior art. In paras. [0002]–[0004], the patent in suit largely refers to the MPEG-4 AVG (H.264) standard, presenting it as the background technology that the present invention improves upon. When discussing the embodiments subsequently, reference is again made to the intra prediction modes INTRA4x4 and INTRA8x8 that are familiar from H.264 (see para. [0045]).

152. Therefore, the skilled person will understand that the invention builds on and extends the H.264 standard, and will interpret the term ‘intra prediction’ accordingly, giving it the conventional meaning that it has within the H.264 technology.

153. In the context of H.264, intra prediction refers to an encoding technique in which spatially neighbouring samples of a given block that have already been transmitted and decoded are used as a reference for spatial prediction of the given block’s samples. There is no dispute between the parties that this understanding, as set out by the Claimant, reflects the understanding in the context of H.264 or H.263+.

154. Exhibit AR-T 08, specifically p. 137, left column, Section ‘Spatial Intra Prediction’, confirms that this understanding corresponds to the interpretation of the term ‘intra prediction’ according to H.264. It reads:

*‘Each macroblock can be transmitted in one of several coding types depending on the slice coding type. In all slice coding types, at least two intra macroblock coding types are supported. All intra coding types in H.264/MPEG4-AVC rely on prediction of samples in a given block conducted in the spatial domain, rather than in the transform domain as has been the case in previous video coding standards. The types are distinguished by their underlying luma prediction block sizes of 4×4 , 8×8 (FRExt only), and 16×16 , whereas the intra prediction process for chroma samples operates in an analogous fashion but always with a prediction block size equal to the block size of the entire macroblock’s chroma arrays. **In each of those intra coding types, and for both luma and chroma, spatially neighboring samples of a given block that have already been transmitted and decoded are used as a reference for spatial prediction of the given block’s samples.** The number of encoder-selectable prediction modes in each intra coding type is either four (for chroma and 16×16 luma blocks) or nine (for 4×4 and 8×8 luma blocks).’*

(Emphasis added)

155. The Defendants' reference to the wording on p. 136, left column, second paragraph of the same exhibit does not lead to a different conclusion. Their quotation relates only to the 'first picture of a sequence or a random access point.' However, the passage must be considered as a whole. Taking into account the sentence that follows the one cited by the Defendants confirms the previous interpretation. The full paragraph reads:

*'The typical encoding operation for a picture begins with splitting the picture into blocks of samples. The first picture of a sequence or a random access point is typically coded in Intra (intra-picture) mode (i.e., without using any other pictures as prediction references). **Each sample of a block in such an Intra picture is predicted using spatially neighboring samples of previously coded blocks. The encoding process chooses which neighboring samples are to be used for Intra prediction and how these samples are to be combined to form a good prediction, and sends an indication of its selection to the decoder.**'*

(Emphasis added)

b) *A bitstream comprising ... an intra prediction mode (feature 17.4)*

156. According to the teaching of the patent in suit, the intra prediction mode must be encoded, as a parameter or set of parameters, in the bitstream. However, the claim language contains no requirement to select between different intra prediction modes during encoding. Therefore, a single intra prediction mode is sufficient as long as it forms part of the encoded bitstream.
157. This construction follows from the claim language itself and is confirmed by the description of the embodiments.
158. The patent description discusses intra prediction modes as known from the H.264 standard already in paras. [0002]–[0004] in connection with the background art. This includes nine intra prediction modes for INTRA4x4 and INTRA8x8 (see Fig. 1) and four intra prediction modes for INTRA16x16 (see Fig. 2).
159. As previously mentioned, the skilled person will understand that the invention builds on and extends the H.264 standard, and will therefore interpret the term 'intra prediction mode' in this technical context.
160. In the specific embodiments discussed in paras. [0046]–[0051] and Table 4, the syntax elements intra64_DC_flag and intra_pred_mode_64 represent the intra prediction mode for the 64x64 block, while intra32_DC_flag[i] and intra_pred_mode_32[i] represent the intra prediction mode for the 32x32 blocks. These are syntax elements, i.e., parameters that are employed in the encoding process and that form part of the encoded bitstream, as described in para. [0045] and further in para. [0057]–[0069] with reference to the flow diagrams of Figs. 7A and 7B.
161. The skilled person will therefore understand from the patent specification that a syntax element, i.e., a parameter or set of parameters reflecting the intra prediction mode needs to be encoded in the bitstream.

162. Therefore, a coding scheme in which the bitstream does not encode a prediction mode but in which the decoder has another way of determining the appropriate prediction for decoding (for example, because only one prediction mode has been mutually agreed in advance between the encoder and the decoder) does not meet feature 17.4.
163. However, the claim language does not require a choice to be made between different prediction modes during encoding. While it is true that all embodiments explicitly described in the patent involve such a selection, the claim is not limited to these specific embodiments. The skilled person will understand that there may be situations in which the encoder always selects a fixed prediction mode, but the decoder is unaware which one and therefore relies on this information being encoded in the bitstream.

c) Basic coding unit (feature 17.2)

164. In the context of the patent in suit, the ‘basic coding unit size’ simply refers to a block size that is smaller than the large block size, here 16x16. Taking into account the entire description, the skilled person will not interpret the term ‘basic coding unit’ as having a more limited meaning.
165. While the Claimant may be correct in saying that ‘basic coding unit’ is sometimes used colloquially in the video coding field to refer to the macroblock, there is no indication that the patent in suit uses this term in the same (limited) meaning.
166. The claim does not refer to a ‘coding block’ itself, but merely to the ‘basic coding unit size’. Para. [0045] mentions the selection of a basic coding unit and refers to hierarchical layer intra prediction, either by splitting from the largest intra prediction type or by merging from the basic coding unit. Thus, even in this rather general discussion, the focus is clearly on the size of the basic coding unit. Throughout the rest of the patent specification, reference is invariably made to the size of the basic coding unit whenever the term ‘basic coding unit’ is mentioned.

d) Binary split signaling syntax element (features 17.3, 17.5, 17.7)

What must be encoded in the bitstream?

167. From the claim language itself, the skilled person can derive that a syntax element is present in the bitstream, which specifies whether the large block is split into four equally sized sub-blocks. This syntax element is explicitly designated as a binary syntax element in feature 17.3, which the skilled person understands to have two possible values.
168. This understanding is confirmed in the patent description. In the specific embodiment of paras. [0048]–[0051], under the heading ‘Syntax’, the patent discusses the syntax elements that may appear in the bitstream with reference to Table 4. The skilled person understands that the syntax elements `Intra64_flag` and `Intra32_flag[i]` specify whether the 64x64 or 32x32 block is further split into four equally sized sub-blocks respectively, and are therefore examples of the binary split signaling syntax element of feature 17.3. As is apparent from the definitions given in para. [0051], each of the syntax elements `Intra64_flag` and `Intra32_flag[i]` can take the values 1 (no split) or 0 (split) and is therefore a binary syntax element.

No exclusion of entropy encoding

169. Contrary to the Defendants' argument, the correct interpretation of the term 'binary split signaling syntax element' does not exclude embodiments in which the bitstream, including the binary split signaling syntax element, is subsequently subjected to entropy coding to produce the final bitstream, which is then communicated to the decoder.
170. The claim language does not preclude subsequent entropy coding, which would simply constitute an additional feature in claim 17 (or an additional step in claim 5).
171. As the Claimant correctly pointed out with reference to the H.264 specification (D6), the skilled person understands that the term 'syntax element' denotes a piece of data 'represented' in the bitstream. Even if subjected to entropy coding, a binary split signaling syntax element would still remain represented in the bitstream.
172. In the specific embodiments, the bitstream, including the Intra64_flag and Intra32_flag syntax elements, is described as being subjected to entropy encoding as a final step (see Fig. 7B, step 797).

173. Moreover, para. [0069] explicitly mentions entropy encoding. It reads as follows:

*'The function block 795 ends the loop (i.e., loop 1) over the 64x64 blocks, and passes control to a function block 797. The function block 797 **entropy codes flags, intra_pred mode, and a residue**, and passes control to an end block 799.'*

(Emphasis added)

174. The description in para. [0069] refers to the flow diagrams of Figs. 7A and 7B, which explicitly recite the Intra64_flag and Intra32_flag parameters in the context of a hierarchical splitting from the large block size to the basic coding unit size, in accordance with the embodiment of paras. [0046]–[0051] and independent claims 5 and 17.
175. The Defendants argued for the first time in the oral hearing that the intra64_flag and intra32_flag[i] parameters are designated with the descriptor u(1) in Table 4 of the patent and that u(1) descriptors are never entropy coded according to the MPEG-4 AVC/ H.264 standard (pointing to Section 7.2 of D6). These late arguments, even if they were taken into account, would not lead to a different assessment.
176. While the patent builds on and extends the MPEG-4 AVC/ H.264 standard, the patent itself and its embodiments are not limited to MPEG-4 AVC/ H.264, as explicitly stated in para. [0026]. In particular, there is no indication that the descriptors in Table 4 are limited to MPEG-4 AVC/ H.264 descriptors.
177. In addition, the flags that appear in the flow diagrams of Figs. 7A and 7B and to which para. [0069] pertains are Intra64_DC_flag, Intra64_flag, Intra32_DC_flag[i], and Intra32_flag[i], all of which are designated u(1) in Table 4. In the logic of the Defendants, none of these could be entropy-coded, in direct contradiction to the teaching of para. [0069]. Therefore, Defendants' narrower interpretation of feature 17.3 would exclude these specific embodiments. As a general rule, however, embodiments should generally be understood as being encompassed by the claims (see UPC_CoA_464/2024, Decision of 25 November 2025, Headnote 3 – Meril v. Edwards). There are no indications that would allow for an exception.

e) *Optional features?*

178. Features 5.4/5.5 and 17.4/F17.5 do not denote two alternative claim features, but rather a decision path with two branches that must be realised in any embodiment falling under the claim.
179. This interpretation follows from the wording of the claim itself. The skilled person will understand the wording ‘otherwise in the case’ to refer to two different cases rather than a mere alternative (‘or’).
180. In this regard, the wording differs from that used to introduce two alternative block sizes, 32x32 and 64x64, in features 5.2.1/17.2: ‘the large block size being one of 32x32 and 64x64’.
181. In addition, the interpretation is supported by the description of the embodiments. The embodiment disclosed in para. [0047] refers to syntax elements `intra64_flag` and `intra32_flag`, respectively. These elements implement a logical decision within a decision tree (as illustrated in Table 4), in which the respective large block of size 64x64 or 32x32 is either split or not split. This clearly corresponds to a decision node when implementing the corresponding method.
182. The flow diagrams in Figs. 8A and 8B also contain the relevant decision block relating to `intra64_flag` at 820 (see Fig. 8A, para. [0070]): If `intra64_flag` = 1, the decoder proceeds with decoding the 64x64 block in the branch starting at 885 (see para. [0071]). If `intra64_flag` = 0, the decoder proceeds with the loop over the 32x32 sub-blocks in the different branch (‘To Fig. 8B’) starting at 825 (see Fig. 8B and para. [0072]). Fig. 8A and 8B relate to the decoder, but they are still relevant for interpreting the corresponding encoder and bitstream claims, since they use the same terminology.

D. Counterclaim for revocation

183. The counterclaim for revocation is unfounded.
184. The Court will focus the discussion on claim 17 once more. Unless stated otherwise, these explanations apply *mutatis mutandis* to claim 5.

I. Added matter

1. Principles

185. Under Art. 138(1)(c) EPC, a European patent may be revoked, if its subject-matter extends beyond the content of the application as filed or, if it was granted on a divisional application, extends beyond the content of the earlier application as filed.
186. In order to ascertain whether there is added matter contrary to Art. 123(2) EPC, the Court must thus first ascertain what the skilled person would derive directly and unambiguously using his or her common general knowledge and seen objectively and relative to the date of filing, from the whole of the application as filed, whereby implicitly disclosed subject-matter, i.e. matter that is a clear and unambiguous consequence of what is explicitly mentioned, shall also be considered as part of its content (UPC_CoA_382/2024, Order of 14 February 2025, para. 52 – *Abbott v Sibio*; UPC_CoA_764/2024, Decision of 2 October 2025, para. 64 – *expert e-Commerce v Seoul Viosys*; UPC_CoA_762/2025, Decision of 5 November 2025, para.

2. Case at hand

187. The patent in suit is not based on added matter.
188. Defendants allege that feature 17.3, namely the ‘binary split signaling syntax element’ extends beyond the original disclosure of the application as originally filed (Exhibit TW 4).
189. The original dependent claim 4 recites ‘using one or more high level syntax elements. Furthermore, the syntax elements Intra64_flag and Intra32_flag[i] described on p. 16/17 of TW 4 are examples of binary split signaling syntax elements. This has not been disputed by the Defendants.

Binary split signaling syntax element in a non-conditional setting

190. The Defendants argue that the specific example of Table 4 and on p. 16/17 of TW 4 is a conditional hierarchical structure, in which Intra32_flag[i] only becomes relevant when the 64x64 block is further split, i.e., Intra64_flag = 0. This hierarchical structure is also apparent from the index [i] = 1, ..., 4 of the syntax element Intra32_flag[i], which designates the four 32x32 sub-blocks of the 64x64 large block. The same limitations are evident in the examples described on p. 13/14.
191. However, the Claimant is correct in stating that p. 18, Section ‘Another Embodiment’, first paragraph, provides basis for employing a binary split signaling syntax element also in a non-conditional setting, in which the large block size is selected to be 32x32 and all the syntax related to 64x64 is removed. The passage reads:

‘In another embodiment, we adaptively select the large block unit to be 32x32 or 64x64. The selection may be signaled using one or more high level syntax elements. In an embodiment, if 32x32 is selected, then we just remove all the syntax related to 64x64.’

Intermediate generalisation by omitting the term ‘adaptively’?

192. Defendants assert that the cited passage only refers to selecting the block size ‘adaptively’, which is missing from the claims.
193. However, the term ‘adaptive’ is used only in the first two sentences of the passage from p. 18 quoted above (‘in another embodiment’). The third sentence refers to ‘an embodiment’ in which all the syntax related to 64x64 is removed if 32x32 is selected. In this latter embodiment, the term ‘adaptive’ is not being used, or at the most refers to a global selection of the large block size 32x32 for an entire bitstream or video (given that all the syntax related to 64x64 is removed). This latter embodiment provides sufficient basis for choosing the large block as 32x32, as an alternative to 64x64.
194. In addition, TW 4 discloses 32x32 large blocks also without any reference to an ‘adaptive’ selection on p. 13, lines 13 et seq.:

‘Moreover, as noted above, large blocks, to which the present principles may be applied, are defined to means blocks having a size equal to or larger than 32x32.’

195. When viewed in conjunction with the specific example of Table 4 and on p. 16/17, the quoted passages from p. 18 and p. 13 provide sufficient basis for choosing the large block as either 64x64 or 32x32. Performing such a choice is implicit in features 17.2/5.2.1 and the overall structure of the independent claims, which contain alternative paths for both choices.

Intermediate generalisation by omitting the interconnection with further parameters

196. The Defendants point out that the specific embodiment described on p. 13, second to last paragraph, to p. 18, second paragraph ('An Embodiment'), only describes the intra64_flag and intra32_flag in the context of a coding scheme that also refers to a number of additional parameters. The Defendants focus particularly on the spatial intra partition type (sip) and argue that in the specific embodiments relied on by Claimant as disclosure, the sip types are limited to 16x16, 8x8 and 4x4.
197. In addition, the Defendants point to the specific prediction mode syntax elements intra32_DC_flag, intra_pred_mode_32 in Table 4 and the exemplary prediction modes DC, horizontal, vertical, multi-directional referenced on p. 14, first paragraph of TW 4.
198. However, the omission of these further parameters from claims 5 and 17 does not constitute an unallowable intermediate generalisation.
199. The claims as granted already contain the spatial intra partition type in feature 17.8/5.8. Furthermore, the skilled person will understand that the specific set of sip types INTRA4x4, INTRA8x8 and INTRA16x16 that are discussed in the embodiments and the corresponding prediction modes are mere examples that do not limit the invention. This can be deduced from the passage on p. 13, lines 23 et seq. of TW 4, that reads:

'With respect to Rule (1), we allow several sip_types for the basis coding.'

200. It is also worth noting p. 20, lines 20 et seq. of TW 4, where the passage explicitly designates 8x8 and 4x4 sip_types as examples. It reads as follows:

*'The function block 735 evaluates other 16x16 modes (i.e., other than Intra 16x16_DC) and below (**e.g. 8x8, 4x4, etc.**), and passes control to the function block 740.'*

(Emphasis added)

201. Further, p. 13, lines 17 et seq. of TW 4 refers to the intra prediction modes within INTRA4x4 and INTRA 8x8 as mere examples:

*'[...] intra_pred_mode (**such as, e.g.,** the 9 Intra Prediction Modes within INTRA4x4 and INTRA8x8) within each sip_type.'*

(Emphasis added)

II. ____ Novelty

1. _____ Principles

202. According to Art. 54(1) EPC, an invention shall be considered to be new if it does not form part of the state of the art. Assessing novelty within the meaning of Art. 54(1) EPC requires determining the overall content of the prior publication. The decisive factor is whether the

subject-matter of the patent in suit, with all its features, is directly and unambiguously disclosed in the prior art document (UPC_CoA_182/2024, Order of 25 September 2024, para. 123 – Mammut v Ortovox).

203. The disclosure of the prior art document as a whole must be considered. However, the content of a prior art document must not be treated as a reservoir from which features may be drawn to create a particular embodiment, but rather different passages in a document may only be combined if there is a clear and unmistakable teaching suggesting this (UPC_CoA_473/2025, Decision of 13 July 2026, para. 151 – Fujifilm v. Kodak).

2. Case at hand

204. When applying these principles, the Court finds claims 5 and 17 of the patent in suit to be novel.

205. In favour of the Defendants, it can be assumed that all documents D1–D5 were published before the priority date of the patent in suit and therefore constitute prior art within the meaning of Art. 54(2) EPC.

a) *D1: Quadtree-guided wavelet image coding (Teng, Neuhoff)*

aa) *Features 5.2.1/17.2 ('... the large block being one of 32x32 and 64x64 ...')*

206. D1 does not directly and unambiguously disclose large blocks of size 32x32 or 64x64.

207. Large blocks of 64x64 size are not disclosed at all in D1. Those of 32x32 size are not disclosed in combination with the other features of claims 5 and 17 of the patent in suit.

208. The parties have discussed two different embodiments:

1) The first embodiment is described in the first paragraph of p. 3 under the heading 'III. Quadtree Predictive Image Coding'. Defendants highlighted the following passage:

'The simplest quadtree image coding technique is the following. The image is divided into kxk blocks, e.g. k = 32. ...'

2) The second embodiment is described from the second paragraph of p. 3 onwards under the heading 'III. Quadtree Predictive Image Coding'. It reads:

'We now describe a recent quadtree image coding method that uses simple predictions to enhance the coding of blocks [14]. ...'

209. For the second embodiment, D1 explicitly mentions the example of k = 16 (cf. D1, p. 4, last paragraph), but does not explicitly disclose k = 32.

210. The Defendants argue that the skilled person would consider the two embodiments to be closely related and would therefore understand the k = 32 teaching from the first embodiment to apply to the second embodiment as well. In particular, the Defendants argue that k = 16 on p. 4, last paragraph, only amounts to the value chosen for a specific testing implementation. They point to Section III, second paragraph, according to which, in the second embodiment, 'large blocks are fairly well hidden, so that a very low complexity method with good rate/fidelity performance results'. They interpret this sentence as a hint for the skilled

person that the techniques of the second embodiment are very suitable for large blocks, in particular the blocks of size 32x32 mentioned in the preceding paragraph with relation to the first embodiment.

211. In the Panel's view, when determining the disclosure of D1, the skilled person would not combine both embodiments. The first and second embodiments are distinct from each other. The Defendants are inadmissibly combining different D1 embodiments in their novelty attack.

212. When D1 refers to 'large blocks' in the context of the second embodiment, there is no disclosure of which size that relates to. In particular, there is no disclosure that a large block size refers to 32x32.

bb) Features 5.4 ('encoding an intra prediction mode')/17.4 ("A bitstream comprising ... an intra prediction mode')

213. Features 5.4 and 17.4 are also not disclosed in D1.

Only one intra prediction mode

214. D1, in the context of the second embodiment, discloses only a single intra prediction mode, based on the averaging algorithm described on p. 3, last paragraph to p. 4, second paragraph.

215. D1 does not disclose that this mode is encoded and signaled in the bitstream according to features 5.4 and 17.4. In fact, given that in D1 there is only a single intra prediction mode that is known to both the encoder and the decoder, the skilled person will understand that there is no need to encode any corresponding information in the bitstream.

Simultaneously encoding the prediction mode for the 32x32 block?

216. Defendants also argue that the binary split signaling syntax element of D1 simultaneously encodes the prediction mode for the 32x32 block. According to the Defendants, if the split flag indicates 'not split', the entire 32x32 block is predicted as a whole, 'using the only prediction mode available at that size'. If the flag indicates 'split,' prediction is instead carried out for the resulting sub-blocks, each using the prediction mode applicable to its respective size.

217. Whether this argument should be disregarded as late-filed, as the Claimant asserts, can be left open. Even if it were taken into account, it would not change the outcome of the novelty assessment.

218. Features 5.4/17.4 explicitly refer to encoding an intra prediction mode 'for said large block'. Therefore, the claim wording itself makes it clear that the intra prediction mode pertains to the large block and is therefore an additional syntax element beyond the mere information that the large block is being used (as communicated by the binary split signaling syntax element according to features 5.3/17.3).

Disclosure of more prediction modes?

219. The Defendants also referred to p. 5 of D1, third and fourth paragraph, which read as follows:

'On the 512x512 test image lena, the algorithm, with $k = 16$, achieved PSNR 35.2 dB at rate 0.5 bpp, and 32.0 dB at rate .25 bpp. In the former case the decoded image was essentially indistinguishable from the original, while in the latter a small amount of distortion was visible.

In addition to the BASIC quadtree predictive algorithm described above, an IMPROVED method of encoding the quadtrees was developed, which exploited the correlation between neighboring nodes, and reduced the rate by about 10%.'

220. They deduce that this last paragraph refers to a third embodiment. From the mention of an improved method of encoding the quadtrees that 'exploited the correlation...', in the Defendants' view, more prediction modes are implicitly disclosed, or at least obvious.
221. However, the skilled person will understand this passage to refer back to what was previously explained ('... an improved method ... was developed'), hence as a summary of the second embodiment and its improvements over the first embodiment, rather than as a separate (third) embodiment. In any case, this passage is not a direct and unambiguous disclosure of features 5.4/17.4.
- b) *D2: Efficient coding scheme for super high definition video based on H.264 high profile (Naito, Matsumura, Koike)*
- aa) *Features 5.3/17.3*
222. D2 does not disclose features 5.3/17.3.
223. The parties rightly agree that D2 relates to a variation of the H.264 intra prediction (as described in D6), where the largest block size 16x16 is replaced by either 32x32 or 64x64.
224. The parties also agree that, in the context of H.264, there is no separate binary syntax element that specifies whether the large block is further split into four equally sized sub-blocks. Rather, the information on the specific partition sizes would be encoded into the non-binary macroblock "mb_type" syntax element that can take 26 different values and signals a number of other pieces of information, including the transform size, intra prediction mode and coding patterns for chroma and luma coding, as listed in Table 1 on p. 3-5 of the patent in suit.
225. The Defendants merely argue that the decoder could 'infer the relevant binary split information from the bitstream'.
226. However, this does not constitute a direct and unambiguous disclosure of a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks, as required in features 5.3/17.3.
- bb) *Features 5.4/17.4*
227. Features 5.4/17.4 are not disclosed either, as they require a binary split signaling syntax element as well.

c) *D3: Snow video codec specification draft (Niedermayer, Merritt)*

aa) *Features 5.2.1/17.2*

228. Features 5.2.1/17.2 are not directly and unambiguously disclosed by D3 in relation to large block size 32x32 or 64x64.
229. D3 does not discuss any specific block sizes. As it only relates to parameters, the block size needs to be specified. Consequently, the size of the largest block is left undefined in D3's coding scheme.
230. The Defendants do not contest this. They merely argue that 32x32 would be a 'canonical choice' for the skilled person, particularly since these are powers of two in accordance with standard H.264 coding techniques.
231. However, D3 does not even require square blocks and introduces separate parameters for the size of the blocks in the vertical and horizontal direction ('block_count_vertical', 'block_count_horizontal'; cf. D3, l. 94-97). The D3 coding scheme also works with block sizes that are not powers of two.

bb) *Features 5.4/17.4*

232. With regard to features 5.4 and 17.4, the parties' arguments largely correspond to prior art D1. Like D1, D3 does not disclose these features.
233. D3 only discloses a single intra prediction mode involving intra DC prediction for all three colour components. It does not explicitly disclose to encode this mode of intra prediction into the bitstream.

d) *D4: A family of hierarchical encoding techniques for image and video communications (Senbel)*

aa) *Features 5.1/17.1*

234. D4 does not disclose that intra prediction within the meaning of features 5.1/17.1 is to be performed.
235. D4 teaches colour coding using mean colour values without reference to neighbouring blocks. According to the above claim construction, there is no intra prediction.

bb) *Features 5.4/17.4*

236. D4 does not disclose the encoding of an intra prediction mode for a large block, as required by features 5.4/17.4.
237. D4 discloses the encoding of average colour values for partitioned square blocks. This is the only mode.
238. The Defendants argue that the average colour values themselves constitute an intra prediction mode in the sense of features 5.4/17.4. However, in this argument, the Defendants are equating the average colour values, i.e. the content of the encoded colour information, with the encoded intra prediction mode.

III. Inventive step

1. Principles

239. According to the case law of the Court of Appeal, the approach taken by the Unified Patent Court when establishing inventive step is as follows (see UPC_CoA_464/2024, Decision of 25 November 2025, headnotes 4–13, paras. 128–136 – Meril v Edwards; UPC_CoA_528/2024, Decision of 25 November 2025, headnotes 10–22, paras. 122–138 ff. – Amgen v Sanofi):
240. It first has to be established what the object of the invention is, i.e. the objective problem. This must be assessed from the perspective of the skilled person, with his or her common general knowledge, as at the application or priority date (also referred to as the relevant date) of the patent. This must be done by establishing what the invention adds to the state of the art, not by looking at the individual features of the claim, but by comparing the claim as a whole in context of the description and the drawings, thus also considering the inventive concept underlying the invention (the technical teaching), which must be based on the technical effect(s) that the skilled person on the basis of the application understands is (are) achieved with the claimed invention.
241. In order to avoid hindsight, the objective problem should not contain pointers to the claimed solution.
242. The claimed solution is obvious when at the relevant date the skilled person, starting from a realistic starting point in the state of the art in the relevant field of technology, wishing to solve the objective problem, would (and not only: could) have arrived at the claimed solution.
243. The relevant field of technology is the field relevant to the objective problem to be solved as well as any field in which the same or similar problem arises and of which the person skilled in the art of the specific field must be expected to be aware.
244. A starting point is realistic if the teaching thereof would have been of interest to a skilled person who, at the relevant date, wishes to solve the objective problem. This may for instance be the case if the relevant piece of prior art already discloses several features similar to those relevant to the invention as claimed and/or addresses the same or a similar underlying problem as that of the claimed invention. There can be more than one realistic starting point and the claimed invention must be inventive starting from each of them.
245. The skilled person has no inventive skills and no imagination and requires a pointer or motivation that, starting from a realistic starting point, directs them to implement a next step in the direction of the claimed invention. As a general rule, a claimed solution must be considered not inventive/obvious when the skilled person would take the next step prompted by the pointer or as a matter of routine, and arrive at the claimed invention.
246. A claimed solution is obvious if the skilled person would have taken the next step in expectation of finding an envisaged solution of his or her technical problem. This is generally the case when the results of the next step were clearly predictable, or where there was a reasonable expectation of success.
247. The burden of proof that the results were clearly predictable or the skilled person would have reasonably expected success, i.e. that the solution he or she envisages by taking the

next step would solve the objective problem, lies on the party asserting invalidity of the patent. A reasonable expectation of success implies the ability of the skilled person to predict rationally, on the basis of scientific appraisal of the known facts before a research project was started, the successful conclusion of that project within acceptable time limits.

- 248. Whether there is a reasonable expectation of success depends on the circumstances of the case. The more unexplored a technical field of research, the more difficult it was to make predictions about its successful conclusion and the lower the expectation of success. Envisaged practical or technical difficulties as well as the costs involved in testing whether the desired result will be obtained when taking a next step may also withhold the skilled person from taking that step. On the other hand, the stronger a pointer towards the claimed solution, the lower the threshold for a reasonable expectation of success.
- 249. When the patentee brings forward and sufficiently substantiates uncertainties and/or practical or technical difficulties, the burden of proof that these would not prevent a skilled person from having a reasonable expectation of success, falls on the party alleging obviousness.
- 250. The fact that other persons or teams were working contemporaneously on the same project does not necessarily imply that there was a reasonable expectation of success. It may also indicate that it was an interesting area to explore with a mere hope to succeed.

2. Case at hand

- 251. Based on the aforementioned principles, the Defendants' arguments are insufficient to demonstrate a lack of inventive step.
 - a) *Starting from D5: High-definition video coding using extended intra prediction scheme (Heo, Ho)*
- 252. In the statement of defence, the Defendants based their inventive step attacks only on D5 as a starting point.
- 253. According to the Defendants, the lack of inventive step follows from either an obvious modification of D5 in view of common general knowledge as evidenced by the H.264 standard (D6), or, in the alternative, from a combination with D2.
- 254. D5 states that, since the existing H.264 video encoding standard uses macroblocks that are relatively small compared to the resolution of high-definition (HD) video, there is a limitation in efficiently encoding high-definition video. Starting from there, D5 seeks to propose an improved macroblock size decision method that takes into account the characteristics of existing H.264 video encoding (see D5a, p. 1, Summary).
 - aa) *Translation errors (D5a/D5b)?*
- 255. D5 is in Korean language. The possible translation errors discussed by the parties do not require further examination.
- 256. It should be noted in this context that the certified translation D5b, submitted by the Defendants following objections by the Claimant to the machine translation D5a, is not available in the CMS.

257. However, there is no need to examine these issues in greater detail. It favours of the Defendants, it can be assumed that D5a is already an accurate translation.

bb) Missing features

258. D5 does not disclose features 17.3 and 17.8, as acknowledged by the Defendants.

259. According to the coding scheme in D5, the sub-blocks of the large 32x32 blocks are 8x8 in size rather than 16x16.

260. Therefore, there are 16 sub-blocks instead of four (see feature 17.3). Furthermore, feature 17.8 is not disclosed as a consequence of the block sizes 16x16 not being disclosed.

261. Moreover, feature 17.3 is not disclosed with regard to the 'binary split signaling syntax element'. It is true, as the Defendants pointed out, that the H.264 standard forms the background of the description of D5 and is taken into account by the skilled person when reading D5. However, H.264 relies on signaling an `mb_type` field that bundles several pieces of information into a non-binary symbol. Reference is made to the discussion of D2 in the context of novelty.

cc) Objective problem of the invention

262. As shown above, the first step is to establish the objective problem, i.e. the object of the invention. However, the Defendants did not discuss this in applying the above principles.

263. In the statement of defence, they argued that the distinguishing features 17.3 and 17.8 have the technical effect of reducing intra prediction signaling complexity. Using larger blocks such as 16x16 instead of 8x8 reduces the number of signaling elements, thereby lowering the bitstream overhead associated with syntax elements such as intra partition type indicators. According to the Defendants, the objective problem can therefore be regarded as the providing a bitstream comprising coded picture data that reduces signaling overhead. This reasoning appears to be based on the EPO's problem-solution-approach

264. Consequently, there is already insufficient discussion of the objective problem of the invention.

dd) Realistic starting point

265. The Defendants have not put forward any arguments as to whether D5 constitutes a realistic starting point. However, it can be assumed in their favour that D5 meets the necessary criteria.

ee) Matter of routine/pointer

266. The Defendants argued that larger intra prediction blocks of size 16x16 instead of 8x8 are an obvious choice for the skilled person when trying to reduce the signaling overhead. Given that 16x16 partitions are already known from H.264 (D6), the skilled person would routinely employ that concept in the context of D5.

267. The Defendants further argue that, in combination with D2, D5 renders claims 17 and 5 obvious because D2 teaches partitioning the 32x32 large block into both 16x16 and 8x8, i.e., including the intermediate 16x16 partition that is missing from D5.
268. However, the Defendants have failed to demonstrate that the skilled person would take the next step towards the claimed invention starting from D5. This applies to both the combination with common general knowledge based on D6 and to the combination with D2. Their submissions do not suggest that the skilled person would take this next step as a routine measure, nor have the Defendants provided any pointers starting from D5.
269. Their argument that the distinguishing feature does not produce a surprising technical effect and the advantages achieved (reduced signaling and decoding complexity) are known incentives for adopting larger block sizes, does not sufficiently show a pointer starting from D5.

ff) Claimed solution not obvious

270. However, even if the skilled person were to take a further step starting from D5, the claimed solution would not be obvious.
271. As explained in the context of novelty, both D6 and D2 also lack feature 17.3/5.3. Thus, even assuming, for the sake of argument, that the skilled person would consider a combination of D5 with H.264 (D6) and D2 to introduce a partition 16x16, the combination would still lack features 17.3/5.3.
272. The Defendants provided no further reasoning as to how the skilled person would arrive at features 17.3/5.3 in an obvious manner, and simply refer to their argument with regard to D2.
273. The Defendants argue in the context of D2 that the use of binary syntax elements is generally known from the H.264 standard (D6).
274. However, D6 and therefore its variants D2 and D5 all rely on signaling the mb_type field that is generally known from H.264 and bundles several pieces of information into a non-binary symbol. The suggested modification would amount to a substantial redesign of the encoding scheme of D5, D2 and H.264. The skilled person would lack a motivation to modify D5's coding scheme to encode a split decision into a binary split signaling syntax element, even when considering D2 and D6. Defendants' argumentation is based on hindsight.

b) Further attacks in the statement of defence

275. Apart from that, the Defendants stated in the statement of defence with regard to D2 and D3 that subject-matter of claims 17 (and claim 5 analogously) is not novel, or at least not inventive. However, they did not explain the lack of an inventive step in any further detail.
276. Following the approach taken by the Court of Appeal to establish a lack of inventive step, several steps must be taken to demonstrate it. With regard to D2 and D3, in their statement of defence, the Defendants have not properly assessed whether, starting from a realistic starting point and seeking to solve an objective problem, the skilled person would have arrived at the claimed solution.

c) Further attacks in the reply to the statement of defence to the counterclaim ('reply')

aa) Late-filed

277. The further attacks brought forward with the reply are late-filed and cannot be taken into consideration. The Defendants did not explain why these attacks were only introduced in the reply.

278. As a general rule, all challenges to the validity of the patent in suit must already be raised in the proceedings by way of the counterclaim for revocation (see UPC_CFI_461/2024 (LD Hamburg), Decision of 5 November 2024, Headnote 2 and para. 137 – Dolle v Fakro; UPC_CFI_459/2023 (LD Düsseldorf), Decision of 7 March 2025, p. 43 et seq. – Tridonic v CU-POWER). The formulation of subsequent claims constitutes an amendment to the counterclaim pursuant to R. 263 RoP, which requires the Court's permission (UPC_CFI_461/2024 (LD Hamburg), Decision of 5 November 2024, para. 138 – Dolle v Fakro). This requirement would be circumvented, if the counter-arguments introduced during the proceedings by the defendant, without specific grounds for opposition, were to be taken into account in any combination.

bb) Not successful on the merits

279. In any case, the subsequent attacks are unsuccessful.

(1) Starting from D1

280. To the extent that the Defendants also argued in their reply that claims 5 and 17 lack inventive step in view of D1, this argument fails. Their submission does not constitute a sufficient challenge to the inventive step, as defined by the principles of the Court of Appeal. The Defendants have not properly assessed whether, starting from the realistic basis of D1 and seeking to solve the objective problem, the skilled person would have taken the next step prompted by a pointer or as a matter of routine (e.g. automation), in order to arrive at the claimed invention.

281. In any event, Defendants' arguments are not convincing.

282. Regarding features 17.4/5.4, Defendants argued that it was common general knowledge at the priority date that different types of intra prediction modes could be applied. They refer to the H.264 standard (D6) in this respect, which discloses the encoding of the respective selection in the bitstream. According to the Defendants, the skilled person would therefore arrive at features 17.4/5.4 by combining D1 and D6.

283. However, D1 only discusses the quadtree predictive image coding of Section III as a prerequisite and building block for a hybrid technique that combines the quadtree coding with a wavelet coding in which a wavelet decomposition of an image into subbands is performed, and the quadtree predictive image coding is subsequently applied to these subbands (cf. D1, p. 5, Section IV). This coding approach is quite different from H.264.

284. The Defendants have failed to demonstrate why the skilled person would be motivated to combine the approach of D1, or in fact only the quadtree predictive image coding described as a precursor in Section III of D1, with the techniques of H.264.

285. The Defendants did not convince the Court that the second embodiment of D1 is a ‘simple prediction’, arguing that the skilled person would routinely consider more sophisticated prediction modes to improve on the simple prediction of D1. In the Panel’s view, the characterization of the prediction as ‘simple’ could equally be seen as an advantage that simplifies the encoding, discouraging the skilled person from departing from a simple and functional solution.
286. Moreover, D1 and D6 relate to two self-contained coding schemes. The combination suggested by the Defendants amounts to an inadmissible cherry-picking in which only selected elements of D6 are incorporated into D1, without any clear pointer for such a combination.
287. As for the Defendants’ reference to a combination of D1 and D2 or D5, no details are provided. In any case, the argument relating to the combination of D1 and D6/common general knowledge also applies to the combination of D1 and D2 or D5. D2 and D5 are both likewise based on the H.264 standard and, like H.264 itself, provide self-contained coding schemes that differ significantly from D1. The Defendants’ argument amounts to cherry-picking selected features from D2 or D5, and combining them with D1 – an approach based on hindsight.

(2) Starting from D2

288. The above comments on D1 apply *mutatis mutandis*. No sufficient attack has been made in accordance with the principles set out by the Court of Appeal.
289. In any case, the Defendants’ arguments are not convincing.
290. As previously mentioned, a binary split signaling syntax element within the meaning of features 17.3/5.2 is not disclosed in D2.
291. The Defendants argued that the coding scheme of D2 involves binary split decisions, and that the skilled person would routinely modify the bitstream to include a corresponding flag. The Defendants also argued that the use of binary syntax elements is generally known from the H.264 standard.
292. However, as discussed above in the context of D5, D2 relies on signaling the *mb_type* field that is generally known from H.264 and bundles several pieces of information into a non-binary symbol. The suggested modification would amount to a substantial redesign of the encoding scheme of D2 and H.264, deviating from the stated objective of D2 of having a coding process that is a ‘minor revision’ of the standard H.264 High Profile (see D2, p. 2, last paragraph).
293. Defendants have not convincingly demonstrated where the skilled person would find the motivation to make such a modification. Therefore, Defendants’ argument is based on hindsight.
294. The Defendants refer to the combination of D2 with any one of D1, D3 or D4, but do not provide any further arguments in this regard. In any case, the explanation relating to the combination of D2 and D6 also applies to the combination of D2 with any one of D1, D3 or D4.

295. In addition, D1, D3 and D4 each offer distinct coding schemes that differ significantly from D2. Once again, the Defendants' argument amounts to cherry-picking features from D1, D3 and D4 and combining them with D2 — an approach based on hindsight.

(3) Starting from D3

296. The comments made regarding D1 concerning inventive step also apply to D3. Furthermore, the Defendants' arguments are unconvincing in any case.

297. As set out above, the distinguishing features are 5.2.1/17.2 and 5.4/17.4.

298. With regard to the block size (features 5.2.1/17.2), Defendants argued that block sizes of 32x32 are obvious options within the parameter range left open by D3.

299. However, as discussed in relation to novelty, D3 does not specify the block sizes at all and does not even require the blocks to be square.

300. Therefore, Defendants would have been required to demonstrate that a skilled person would be motivated to make the specific choice of 32x32 in the context of D3. However, the Defendants have not provided any further substantiation of their reasoning in this regard beyond the observation that 32 is a power of 2. The coding scheme of D3 does not rely on blocks with sizes that are powers of 2. Moreover, there are many powers of 2, and Defendants have not sufficiently demonstrated that the specific choice 32 would be obvious.

301. The further distinguishing features (5.4/17.4) are not obvious either. In this regard, the parties refer explicitly to their respective discussions regarding D1. Similar to D1, D3 does not provide any motivation for the skilled person to encode an intra prediction mode in the bitstream. D3 discloses a single intra prediction mode involving intra DC prediction for all three colour components. As the decoder is aware of this prediction mode, there is no need to encode the intra prediction mode into the bitstream in the context of D3.

302. Regarding the combination of D3 and H.264/D6, these documents relate to two independent coding schemes. The combination suggested by Defendants amounts to a cherry-picking in which selected elements of D6 are incorporated into D3, without any clear pointer for such a combination.

303. This conclusion remains valid, even though the DC mode disclosed in D3 is one of the modes used in H.264, as correctly pointed out by the Defendants. However, this alone would not provide sufficient motivation for the skilled person to selectively combine further intra prediction modes from H.264 into D3.

304. With regard to the combination of D3 with either D2 or D5, the parties' arguments are similar to those discussed in relation to D1, and the same conclusions apply.

(4) Starting from D4

305. Similarly, a sufficient attack is missing with regard to D4 as a starting point. Reference is made to the explanations relating to D1. In any case, the attack is unsuccessful.

306. As D4 is not related to intra prediction coding, the Panel does not consider it a realistic starting point. The Defendants have not provided an explanation regarding this issue.

307. As previously discussed, the distinguishing features are 5.1/17.1 and 5.4/17.4.
308. With regard to features 5.4 and 17.4, the Defendants generally referred to their discussion of D1, and the same conclusions apply.
309. As with D1 and D3, D4 does not motivate the skilled person to encode an intra prediction mode in the bitstream.
310. D4 discloses the encoding of average colour values for partitioned square blocks, and this is its only colour coding mode. The decoder recognises this mode, so there is no need to encode it into the bitstream in the context of D4.
311. Regarding the combination of D4 and D6, these documents relate to two independent coding schemes. The combination suggested by the Defendants amounts to cherry-picking, whereby selected elements of D6 are incorporated into D4, without any pointer for such a combination.

E. Direct infringement of claims 5 and 17

I. Implementation of all features

312. The challenged embodiment makes literal use of claims 5 and 17 of the patent in suit.
313. The only non-infringement argument put forward by the Defendants relates to features 5.3/17.3. They argue that in the challenged embodiment, binary decisions are represented in a bin string, which can be understood as a sequence of binary values. However, according to the Defendants, this bin string is not the bitstream, but is subjected to entropy encoding to produce the actual bitstream.
314. Based on the above claim construction, this argument no longer applies. As discussed, the correct interpretation of the term 'binary split signaling syntax element' does not exclude embodiments in which the bitstream, including the binary split signaling syntax element, is subsequently subjected to entropy encoding to produce the final bitstream communicated to the decoder.
315. The implementation of all other features is rightly not disputed by the Defendants.

II. Infringing acts

316. It is not disputed that all Defendants are committing the infringing acts within the meaning of Art. 25(a) UPCA and that they are knowingly and intentionally cooperating. Accordingly, the Defendants are jointly responsible as accomplices for operating the Disney+ streaming service, hereby jointly offering and placing on the market the challenged embodiment.

F. FRAND defence

317. The FRAND defence, raised by the Defendants on the basis of Art. 102 of the Treaty on the Functioning of the European Union (TFEU), is unsuccessful.
318. The UPC applies EU law in its entirety and respects its primacy according to Art. 20 UPCA. EU law is the primary source of law to be applied by the UPC (Art. 24(1)(a) UPCA). This includes the TFEU. The decisions of the ECJ are binding on the UPC (Art. 21(2) UPCA).

I. Dominant market position

319. The Defendants have not presented sufficient facts to show that the Claimant holds a dominant market position.
320. Art. 102(1) TFEU prohibits the abuse of a dominant position in the internal market or in a substantial part thereof by one or more undertakings, in so far as this may affect trade between Member States.

1. Legal framework

321. A dominant position within the meaning of Art. 102 TFEU relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors and its customers (ECJ, Judgment of 19 April 2012, C-549/10 P, para. 38 – Tomra; see also UPC_CFI_2/2023 (LD Munich), Decision of 19 September 2023, p. 93 – 10x Genomics v NanoString; UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026, para. 458 – Dolby v Beko).
322. In order to determine whether a dominant position exists, the relevant market must first be defined in terms of product scope and geographical scope, before it can be established whether a dominant position exists on that market (UPC_CFI_2/2023 (LD Munich), Decision of 19 September 2023, p. 93 et seq. – 10x Genomics v NanoString; UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026, para. 459 – Dolby v Beko).
323. For the purposes of applying Art. 102 TFEU the relevant product or service market comprises all products or services which in view of their characteristics are particularly suited to satisfy a constant need and are only to a limited extent interchangeable with other products or services (see ECJ, Judgment of 26 November 1998, C-7/97, para. 33 – Oscar Bronner).
324. Where an industrial standard or another set of rules regarded by consumers as a standard (de facto standard) prescribes a standardised design – protected by intellectual property rights – for a product which, from the perspective of the other party to the market, cannot be substituted by any other product, the granting of rights which enable potential suppliers of that product to bring it to market, generally constitutes a separate market upstream of the product market (see ECJ, Judgment of 29 April 2004, C-418/01, para. 44 – IMS Health), known as the licensing market.
325. For the proprietor of such a property right to hold a dominant position on the licensing market thus defined, it must generally be technically impossible to circumvent the technology protected by the patent, without sacrificing functions that are essential to the product market (see ECJ, Huawei v ZTE, para. 49; European Commission, Commission Decision of 29 April 2014, C(2014) 2892, para. 52 – Motorola). Furthermore, the teaching set out in the patent and the standard must not be substitutable by an alternative technical design of the product (see ECJ, Judgment of 29 April 2004, C-418/01, para. 28 – IMS Health).
326. The burden of presenting sufficient facts and – if necessary – proof regarding the patent holder's dominant position in the relevant licensing market lies, in principle, with the implementer (see UPC_CFI_9/2023 (LD Munich), Decision of 18 December 2024, p. 139 – Huawei v Netgear; UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026, para. 463 – Dolby

v Beko; UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 212 – InterDigital v Disney).

2. Case at hand

327. The Defendants' presentation of facts to support their claim of a dominant market position is insufficient.

De jure standard

328. A dominant market position cannot be justified on the grounds that the asserted patent claims are part of a de jure standard.

329. The asserted claims relate to a bitstream (claim 17) and an encoding method (claim 5).

330. The Panel concurs with the Mannheim Local Division in the finding that the HEVC standard defines the encoding process as not being part of its specifications (see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 214 – InterDigital v Disney).

331. This result is clearly evident from the fact that HEVC standard defines 'decoding process' and 'encoding process' as follows (Exhibit AR-T 4 p.6):

3.44 decoding process: The process specified in this Specification that reads a *bitstream* and derives *decoded pictures* from it.

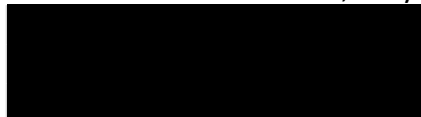
3.51 encoding process: A process not specified in this Specification that produces a *bitstream* conforming to this Specification.

332. The fact that, according to the Defendants' argumentation, HEVC imposes certain restrictions on the bitstream syntax of the bitstream to be decoded in accordance with its specifications, does not lead to a different conclusion. It is the standard itself that determines its scope.

De facto standard

333. The Defendants have also failed to demonstrate that the technical teaching of claims 5 and 17 of the patent in suit has become a de facto standard, as defined by the above principles.

334. Their submission does not imply that they cannot provide their service without making use of claims 5 and 17. In fact, they



335. In light of this submission, if the Defendants wished to argue that claims 5 and 17 corresponded to a de facto standard, they would have been required to provide further details. They failed to do so. They also failed to elaborate on this point during the oral hearing, when the matter was discussed.

336. Therefore, the other possible 'workarounds', mentioned by the Claimant are not to be considered in any further detail. The Defendants countered that these workarounds amount to using the AVC standard, and that avoiding large blocks would result in the loss of potential

data compression. In any case, the fact that the implementer loses certain technical advantages if it is not permitted to utilise the technical teachings of the patent, is common when the claimed invention improves upon the prior art. This is not sufficient to confer a dominant market position upon the patent holder in the licensing market (see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 218 – InterDigital v Disney).

II. ____FRAND declaration

337. Furthermore, there is no FRAND declaration covering the asserted claims.

338. On 5 February 2017, the Claimant's legal predecessor made a declaration to the ITU, the relevant standardisation organisation (Exhibit TW 1). The patent in suit is mentioned under number 50 with its application number EP 10743254.4 ('Signaling of intra prediction for super block').

339. However, this declaration is limited to patent claims that are in fact essential to the standard. The declaration (Exhibit TW 1, p. 3) reads (emphasis added by the Claimant):

Patent: The word "Patent" means those claims contained in and identified by patents, utility models and other similar statutory rights based on inventions (including applications for any of these) solely to the extent that any such claims are essential to the implementation of the same above document. Essential patents are patents that would be required to implement a specific Recommendation | Deliverable.

340. Therefore, claims 5 and 17 of the patent in suit, which are not essential to the standard, are not covered by the FRAND declaration. This would be the case even if one were to assume that, whilst the technical teaching of the asserted claims does not fall within a de jure standard, it is nevertheless subject to a de facto standard.

341. As the Düsseldorf Local Division has explained before, the patent holder's liability under Art. 102(1) TFEU remains unaffected by the lack of a FRAND declaration. Art. 102(1) TFEU applies where the patent holder holds a dominant market position on the relevant market (which is not the case here, see above), irrespective of whether a FRAND declaration has been made (see UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026, para. 468 et seq. – Dolby v Beko).

342. However, this must be distinguished from the question of whether, and if so under what conditions, the principles established in the ECJ's decision in Huawei v ZTE (Judgment of 16 July 2015, corrected by order of 15 December 2015, C-170/13) apply in such a case.

343. From the Panel's perspective, there are indications that these principles cannot be applied without modification in favour of the patent holder. The Huawei v ZTE judgment expressly concerns only cases where a FRAND declaration has been made (Huawei v ZTE, para. 77). According to the judgment, the FRAND declaration forms the basis for further considerations and the programme of proceedings set out (see, e.g., Huawei v ZTE, paras. 46 ff., para. 59).

344. Ultimately, however, this question does not require a definitive answer. Even if the principles from Huawei v ZTE were applied without modification and despite the absence of a FRAND declaration, the FRAND defence raised by the Defendants would not be successful.

III. Negotiation obligations according to Huawei v ZTE

345. With regard to the legal framework according to Huawei v ZTE, reference is made to previous UPC decisions (see UPC_CFI_210/2023 (LD Mannheim), Decision of 22 November 2024 – Panasonic v OPPO); UPC_CFI_9/2023 (LD Munich), Decision of 18 December 2024 – Huawei v Netgear; UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026 – Dolby v Beko; UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026 – InterDigital v Disney).

1. Infringement notification before filing suit

Principles

346. According to the principles set out in Huawei v ZTE, before bringing an action for an injunction, it is for the proprietor of the SEP to alert the alleged infringer of the alleged infringement by designating the SEP and specifying the way in which it has been infringed (ECJ, Huawei v ZTE, para. 61).

347. An infringement notification served on one group company is also sufficient in relation to another group company if it can be expected that the information will be passed on within the group (UPC_CFI_135/2024 (LD Düsseldorf), Decision of 18 March 2026, para. 477 – Dolby v Beko).

Parties' submissions

348. The Panel understands the parties' submissions to mean that it is undisputed that some form of notification was given.

349. Initially, the Defendants merely argued that the Claimant 'had an obligation to notify the Defendants of the Patent and its status as standard essential patent for HEVC and offer a license on RAND terms and conditions', but 'did the exact opposite and explicitly refused to comply with RAND requirements from the outset despite repeated requests by Defendants for a RAND license'. This cannot be regarded as a sufficient denial of an infringement notification.

350. In their submission dated 15 June 2026, the Defendants stated that the Claimant never provided an infringement notice that fulfilled the requirements under Huawei v ZTE (ECJ, Judgment of July 16, 2025 – C-170/13) before the action was filed. According to the Defendants' submission, a claim chart for the patent in suit or any other technical explanation why Disney's bitstream allegedly infringe the patent in suit was never provided to Defendants.

351. During the oral hearing, it emerged that the Defendants' argument can be summarised as meaning that no infringement notice sufficient under the Huawei v ZTE principles had been issued.

Contradictory behaviour of Defendants/Refusal to amend the NDA

352. The FRAND assessment must be based on the assumption that sufficient notice of infringement has been given.

353. Due to an NDA between the parties, the Claimant was prevented from making further submissions regarding the content of the infringement notification. Although the Claimant terminated the NDA prior to filing the action on 23 January 2025 (Exhibit TW 6), this only takes effect prospectively.
354. Consequently, the Panel is unable to examine the infringement notification and to assess whether it meets the requirements set out by Huawei and ZTE. This is due to the conduct of the Defendants. They had the power to agree to amend the NDA. They have chosen not to. Consequently, the lack of verifiability must be at their expense.
355. On 14 July 2025, the Claimant's legal representatives contacted the Defendants' legal representatives, suggesting a bilateral agreement that would enable both parties to disclose the negotiation history in the German and UPC litigation under a confidentiality order (see email correspondence, Exhibit AR 49, in German). The Claimant stated that it did not receive a substantive response and referred to the aforementioned email correspondence.
356. Regarding this request, the Defendants stated that they *'were more than willing to do so but requested that Claimant identify which communications they wished to have included. Claimant never responded to that request. It is incorrect for Claimant to now represent otherwise in their Reply'*.
357. However, they did not provide any evidence to support this claim. Notably, they did not submit an email or statement in which they made this request. In the surrejoinder, permitted under R. 36 RoP, the Claimant reiterated that it had not received a substantive response to its request to amend the NDA (Exhibit AR 49). The Defendants did not address this submission during the oral hearing.
358. Against this background, it cannot be assumed, that the Defendants still stand by their submission. Apart from that, the request to *'identify which communications they wished to have included'* seems, at least without further information, to be a delaying tactic (see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 243 – InterDigital v Disney).
359. In the submission dated 15 June 2026, the Defendants stated that *'the entire negotiation record should be ordered to be provided to the Court and would not object to such an order, provided it applied equally to both Parties.'* However, as explained before, the Defendants had the power to agree to amend the NDA, as suggested by the Claimant's representatives. They did not do so. Moreover, it remains unclear what the Defendants meant by this submission, and whether it applies to parts covered by the NDA, such as the Claimant's licence offer. The Defendants did not return to this point during the oral hearing.

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2. Initial expression of licence willingness before filing suit

363. The patent user must, in a further step – also prior to bringing an action – express its willingness to conclude a licensing agreement on FRAND terms (see ECJ, Huawei v ZTE, para. 63).

364. It can be assumed that the Defendants initially expressed their willingness to take a licence on FRAND terms without any relevant reservations or restrictions, which formed a suitable basis for further licence negotiations. It is undisputed that, since the start of the negotiations, the Defendants have been insisting – albeit in general terms – on a FRAND offer.

3. Claimant's licence offer

365. After the alleged infringer has expressed its willingness to conclude a licensing agreement on FRAND terms, it is for the proprietor of the SEP to present to that alleged infringer a specific, written offer for a licence on FRAND terms, in accordance with the undertaking, given to the standardisation body, specifying, in particular, the amount of the royalty and the way in which that royalty is to be calculated (ECJ, Huawei v ZTE, para. 63).

366. It is undisputed that the Claimant has made a licence offer [REDACTED]

367. The offer is not automatically insufficient just because the Claimant believed that it was not subject to FRAND obligations. Rather, the conditions of the offer must be assessed. However, it is not possible to examine the offer, as the Claimant is prevented from submitting it to the proceedings by the NDA. The above comments regarding the infringement notice apply here mutatis mutandis.

368. In their submission dated 15 June 2026, the Defendants stated that the letter dated [REDACTED] does not constitute a licence offer in the sense of Huawei v ZTE. The Defendants claimed that the Claimant provided a *'one-page, "non-binding" term sheet that does not meet these requirements. It is already questionable whether the term sheet, consisting of just a few lines, constitutes a "specific offer"; in any case, however, it lacks any explanation of how this offer is RAND and how the royalty is calculated.'*

369. The Defendants have not explained why this submission is only being made at this stage. Therefore, it cannot be taken into account. In any event, this would not alter the above assessment. Under the NDA, the Claimant cannot be expected to respond to this submission. Furthermore, the Panel is still prevented from examining the licence offer.

370. In conclusion, since the Defendants have prevented an examination, it must be assumed that the Claimant's offer complies with FRAND terms.

4. Defendants' unwillingness to take a licence

371. In any case, the Defendants must be considered unwilling to enter into a licensing agreement.

372. As willing licensee, they would not have refused to properly cooperate in amending the NDA, as explained above. Furthermore, their reaction to the Claimant's offer would have been different. The Defendants only responded with the blanket criticism that the offer was not FRAND-compliant. The Defendants' argument that they repeatedly requested the Claimant to provide more information regarding the offer is without merit. They did not raise any specific objections or have at least not submitted them to the current proceedings. This is how an implementer with a genuine interest in a licence would have behaved, allowing the patent holder to amend the offer and conclude an agreement on FRAND terms. Overall, the Defendants' behaviour makes it clear that they are unwilling licensees (see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 248 – InterDigital v Disney).

5. Defendants' counter-offer (Exhibit TW 9) and further developments

Admission into the proceedings

373. The Court exercises its discretion to admit the Defendants' counter-offer [REDACTED] (Exhibit TW 9), that was submitted on 22 April 2026, into the proceedings.

374. The counter-offer could not have been submitted [REDACTED]

375. [REDACTED]

376. The rejection of the counter-offer [REDACTED] are also admitted into the proceedings. The same applies to the Claimant's argument that the Defendants have not provided any (let alone appropriate) security after the counter-offer was rejected.

Counter-offer insufficient

377. The counter-offer, made [REDACTED] does not alter the previous outcome. The Defendants did not explain the conditions of the counter-offer in their submission. [REDACTED]

No security after rejection of the counter-offer

378. According to the principles set out in *Huawei v ZTE*, where the alleged infringer is using the teachings of the SEP before a licensing agreement has been concluded, it is for that alleged infringer, from the point at which its counter-offer is rejected, to provide appropriate security (*Huawei v ZTE*, para. 67). The Defendants failed to provide security following the rejection of the counter-offer on 29 April 2026.

G. Legal consequences

I. Injunction

379. An injunction can be based on Art. 25(a) UPCA in conjunction with Art. 63(1) UPCA.

380. Where the proprietor files an infringement action and the Court finds that an intellectual property right has been infringed or is threatened to be infringed, it shall issue an order prohibiting the continuation of the infringement unless there are special reasons for not doing so. A special reason for denying an injunction may apply if, in the circumstances of the particular case, granting an injunction does not comply with the general obligations of Art. 3 of the Enforcement Directive, in particular the obligation that the remedies shall be appropriate. When considering the proportionality of injunctive relief and corrective measures, not only the interests of the parties to the litigation but also the interests of third parties may be taken into account (UPC_CoA_464_2024, Decision of 25 November 2025, Headnotes 14–16 – *Meril v Edwards Lifesciences*).

381. Based on these principles, there is no reason to refrain from an injunction in this case. The Defendants do not rely on this either.

II. Recall and definite removal from channels of commerce

382. The request for recall of the infringing products from the channels of commerce is justified under Art. 25(a) UPCA in conjunction with Art. 64(2)(b) and 64(4) UPCA.

383. The request for a definite removal from the channels of commerce is justified under Art. 25(a) UPCA in conjunction with Art. 64(2)(d) and 64(4) UPCA.

384. The specific measures as requested by the Claimant do not give rise to any objection.

385. Following a Court order, the Claimant set out the requested measures in detail in their written submission of 25 June 2026. This does not constitute an amendment to the claim, that would require authorisation under R. 263 RoP. Rather, the measures previously requested in general terms have simply been described in greater detail at the Court's request.

386. It was not necessary to impose an explicit territorial restriction in the operative part of the decision. The territorial restrictions are made clear by the reference to Item I.1 of the operative part.

III. Information and accounting

387. The request for information is reasonably justified.

1. Scope of information

388. The Claimant has a right to information pursuant to Art. 25(a) UPCA in conjunction with Art. 67 UPCA. Furthermore, pursuant to Art. 68(3)(a) and (b) UPCA in conjunction with R. 191.1 and 2 RoP, for the purpose of asserting its legal rights, the Claimant may request all information which it reasonably requires for the purpose of asserting its legal rights and which also enables it to verify the accuracy of the information provided and to obtain evidence for the calculation of its damages (UPC_CFI_7/2023 (LD Düsseldorf), Decision of 3 July 2024, p. 29 – Kaldewei v Bette).
389. Within the scope of its right to information and accounting, pursuant to Art. 67 UPCA, the patent proprietor may request supporting documents, namely invoices and delivery notes if invoices are not available. Apart from the interest in the information itself, the patent proprietor has an interest in being able to verify its accuracy, at least on a random basis (UPC_CFI_7/2023 (LD Düsseldorf), Decision of 3 July 2024, p. 29 – Kaldewei v Bette).
390. The specific information and evidence requested in motion I.4.a)-e) do not go beyond this in substance.

2. Verification of the information

391. In addition, it is justified to have the accounts verified and confirmed by a sworn auditor, or – alternatively – by an affidavit, as requested in motion I.4, last paragraph. As the Court of Appeal has stated in its order of 14 October 2025 (UPC_CoA_699/2024, para. 44 – Kodak v Fujifilm), it enhances legal certainty for the defendant if the claimant in its application already requests and the order or decision already specifies which evidence is required – but also sufficient – in this respect. Depending on the circumstances and at the Court’s discretion, it may be required, that the completeness of the information provided is confirmed by an accountant. For this, an explicit legal basis in the UPCA or the RoP is not required, since this a matter of evidence.

3. Request for confidentiality

392. The Defendants requested that an order obliging them to provide information be made conditional upon a confidentiality order against the Claimant to the effect that:
- (a) the access to the information is restricted to the Claimant’s outside counsels and two representatives of the Claimant who are named to the Defendants in advance and
 - (b) the information may be used only for the purposes of calculating potential damage and compensation claims against the Defendants and for identifying other parties involved in the supply or distribution of the accused products for the purpose of asserting claims for alleged patent infringement against them.
393. They argued that the pieces of information requested by the Claimant are trade secrets within the meaning of Art. 2(1) of the Trade Secret Directive. Disclosing this information to the Claimant without appropriate restrictions would cause disproportionate harm to the Defendants, in particular to their business interests, contrary to Art. 67 UPCA. The information to be provided by the Defendants to the Claimant is highly sensitive information about the revenue, subscriber count and customers. This would not be justified, even if the patent in suit is found to be valid and infringed.

394. Thus, the Defendants are seeking protection for confidential information that must be disclosed in accordance with the Court's decision.

Legal framework

395. Pursuant to R. 262A.1 RoP, a party may apply to the Court for an order that certain information contained in its pleadings or the collection and use of evidence in proceedings may be restricted or prohibited or that access to such information or evidence be restricted to specific persons.

396. Based solely on the wording of this provision, this is not the case. The Defendants are not seeking to protect confidential information contained in their pleadings. Rather, they are seeking protection for information that they are required to disclose under the operative part of the Court's decision.

397. However, as the Court of Appeal has already stated, R. 262A RoP applies at least mutatis mutandis. This already follows from the fact that, according to R. 190.1, second sentence, RoP, the Court may order that the evidence be disclosed to certain named persons only and be subject to appropriate terms of non-disclosure for the protection of confidential information. This is also applicable to communication of information 'as is specified in Art. 67 of the Agreement' pursuant to R. 191 RoP. The same must apply in cases where the court orders the communication of information pursuant to Art. 67 UPCA (UPC_CoA_930/2025, Order of 29 January 2026, para. 26 – EOFlow v Insulet).

398. The Court of Appeal has further stated that, if the defendant can reasonably foresee that the orders and evidence requested by the claimant may require the disclosure of confidential information, this should be raised by the defendant during the proceedings on the merits. This would allow appropriate measures to be taken to protect such confidential information, where necessary in the order or decision. Although it would still be possible to file a confidentiality request thereafter, confidentiality issues generally do not stay the time period set for compliance with a penalty reinforced order (UPC_CoA_699/2025, Order of 14 October 2025, para. 45 – Kodak v Fujifilm).

Case at hand

399. In accordance with these principles, the Court includes a limitation in the operative part of the decision and issues a confidentiality order pursuant to R. 262A RoP alongside this decision.

Limitation of the use of the information

400. The Court of Appeal has stated that there is no implicit limitation on the use of information received as a result of the other party's compliance with an order to communicate information pursuant to Art. 67 UPCA and R. 191 RoP (UPC_CoA_699/2025, Order of 14 October 2025, para. 45 – Kodak v Fujifilm). Therefore, imposing the limitation requested by the Defendants would restrict the Claimant's right to information. This is a matter of substantive law that must be examined in the proceedings on the merits. During these proceedings, it can be determined whether there are grounds to include such a restriction on the use of the information in the operative part of the decision.

401. A corresponding restriction on intended use can be included in the operative part of the decision (see UPC_CFI_559/2024 (LD Düsseldorf), Decision of 28 April 2026, para. 268 – Quantificare v Canfield; see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 195 – InterDigital v Disney). The Claimant has not raised any specific objections.

Restriction of access

402. With regard to the further request to restrict the access to the information to Claimant's outside counsels and two representatives of Claimant who are named to the Defendants in advance, the Court issues an order pursuant to R. 262A RoP alongside this decision.
403. It is undisputed that all the information to be provided is confidential by its very nature. The Claimant did not contest the confidential nature of the information. Rather, it pointed out that information according to R. 191 RoP is typically sensitive business information.
404. The Claimant's argument that the Defendants have failed to present facts and arguments why their information should be particularly sensitive compared to other cases of rendering information and accounting after patent infringement, does not preclude an order being made. An order under R. 262A RoP does not require such an assessment.
405. Restrictions on access to confidential information can be ordered as requested. The Claimant did not contest the restriction itself, nor did it object to the number of people specified in the request.
406. Even though the Court explained during the oral hearing that it was considering issuing a simultaneous order, the Claimant did not raise any objections.
407. The names of the two internal individuals on the Claimant's side who are to be granted access, can be provided directly to the Defendants, prior to the information being given.

IV. Threat of penalty payments

408. The threat of a penalty payments for non-compliance does not give rise to concern. This is also true from the point of view of proportionality.
409. The threatened penalty payment of up to EUR 10,000 for each retrievable bitstream in case of a violation of the injunction and of up to EUR 5,000 per day for each day of non-compliance for the requests for recall, removal and information provides the Court with the necessary flexibility to consider the circumstances, including the behaviour of the infringer when determining an appropriate penalty payment pursuant to Art. 63(2), Art. 82(4) S. 2 UPCA in conjunction with R. 354.4 RoP.

V. Interim award of damages

410. The request for interim awards of damages is dismissed, as it was not justified at all.

VI. Determination of liability for damages

411. A finding of liability for damages can be based on Art. 68(1) UPCA. The Defendants had at least reasonable grounds to know that they engage in an infringing activity. They do not dispute this.

VII. Declaration of infringement

412. The finding of patent infringement can be based on Art. 64(2) UPCA. The Defendants have not raised any objections in this regard.

H. Order for security

I. Principles

413. Pursuant to Art. 82(2) UPCA, R. 118.8 S. 2 RoP, the Court may impose any order or measure subject to the lodging of a security to be determined by the Court.

414. As the wording of the above provision makes clear, the Court has discretion when ordering security. The interest of the Claimant in the effective enforcement of its patent must be weighed against the interest in effective enforcement of possible claims for damages in the event of a subsequent reversal of the judgment.

415. Each case must therefore be examined individually. When deciding whether to order security, factors to be taken into account include the financial situation of the claimant, as this may give rise to legitimate and real concerns that a possible claim for damages cannot be enforced and/or executed, or can only be enforced and/or executed at disproportionate expense, if the initial decision is overturned or amended. Whether and to what extent such factors exist, must be determined on the facts and arguments presented by the parties, as with an application for security under R. 158 RoP. If the Court makes an order or measure dependent on security, this protects the defendant's position and potential rights. This protection must be weighed against the burden, placed on the claimant, by the order to provide security. Against this background, it is incumbent on the defendant to present facts and arguments as to why it appears appropriate, in this specific case, to make the order or measure pursuant to R. 118.8 RoP dependent on security as determined by the Court. Once the defendant has done so, the claimant must substantiate its challenge to these facts and reasons, especially since it generally has knowledge of and evidence regarding their financial situation. The claimant must also explain, why their interest in enforcing its intellectual property right outweighs the need for security, despite the reasons put forward by the defendant (see UPC_CoA_328/2024, Order of 26 August 2024 – Ballino v Kinexon Sports; UPC_CFI_16/2024 (LD Düsseldorf), Decision of 14 January 2025, p. 40 – Ortovox v Mammut; UPC_CFI_373/2024 (LD Düsseldorf), Order of 5 August 2024 – SodaStream v Aarke; UPC_CFI_514/2023 (LD Munich), Order of 23 April 2024 – Volkswagen v NST).

II. Case at hand

416. Based on these principles, the Court exercises its discretion to make the enforcement of the ordered injunctive relief, recall and removal subject to the provision of an enforcement security in the amount of EUR 8 million.

417. A key factor in the assessment was that the Defendants had sufficiently demonstrated that it was at least unclear whether Claimant's financial position is sufficient to cover any damages resulting from an enforcement of the relevant orders of this decision. They pointed out that not the Claimant (InterDigital VC Holdings, Inc.), but only Claimant's parent company (InterDigital Inc.) is a publicly listed company, which – according to Claimant – has sufficient financial resources. However, Defendants have argued that the Claimant has not provided

any details of its own financial situation, nor has it argued that its parent company has given an unconditional undertaking, for the benefit of Defendants, to be liable for any damages arising from the enforcement of the present decision. The Claimant did not address this point further.

418. However, the Defendants have not substantiated their allegation that they would lose revenue amounting to (at least) EUR 500 million within one year if the injunction were enforced. This claim was disputed by the Claimant. In particular, the Defendants have not sufficiently demonstrated that they would be unable to operate their streaming service in a commercially viable manner if they were unable to use the technical teachings of the asserted patent claims. [REDACTED]

[REDACTED] (see UPC_CFI_86/2025 (LD Mannheim), Decision of 16 June 2026, para. 254 et seq. – InterDigital v Disney).

419. In the absence of better information, the Panel therefore bases the enforcement security on the value of dispute concerning the Infringement action.

I. Cost decision

420. Pursuant to Art. 69(1) UPCA in conjunction with R. 118.5 RoP, a decision on costs had to be made.
421. Regarding the infringement action, it is reasonable to require the Claimant to cover 10 % of the costs. This takes into account the dismissal of the interim damages award and some restrictions in the operative part of the decision.
422. As the Defendants were unsuccessful with the counterclaim for revocation, they must bear the costs in this regard.

J. Ceiling

423. Pursuant to Art. 69(1) UPCA, the costs are to be borne up to a maximum amount determined in accordance with the Rules of Procedure. In the oral hearing the parties agreed that the legal costs for both, the infringement action and the counterclaim for revocation, shall be mutually recognised depending on the cost decision pursuant to R. 118.5 RoP up to the upper limits set in the decision of the Administrative Committee of 24 April 2023.
424. The maximum limit for reimbursable costs is determined at EUR 800,000.

K. Value of the dispute

425. The Panel considers an amount of EUR 8,000,000 as an appropriate amount for each, the infringement action and for the counterclaim for revocation.

DECISION:

I. The Defendants are ordered,

1. to refrain from

- a) offering or placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden

picture data produced directly by an encoding method

wherein the process comprises

encoding picture data for at least a large block in a picture by determining that intra prediction is to be performed for the at least a large block (820, 830), wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16, wherein the intra prediction is signaled for the at least a large block by:

- encoding a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- encoding an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the large block is further split:

- encoding for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and encoding an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
- encoding for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types;

(direct infringement of process claim 5)

- b) offering or placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden

a bitstream,

whereby this comprises

- coded picture data representative of at least a large block in a picture obtained by determining that intra prediction is to be performed for the at least a large block (820, 830),
- wherein the at least a large block has a large block size greater than a basic coding unit size, the large block size being one of 32x32 and 64x64 and the basic coding unit size being 16x16,
- a binary split signaling syntax element specifying whether the large block is further split into four equally sized sub-blocks;
- an intra prediction mode for said large block in the case where said binary split signaling syntax element specifies the large block is not further split;

otherwise in the case where said binary split signaling syntax element specifies the large block is further split:

- for each sub-block, in the case where said sub-block is 32x32, a binary split signaling syntax element specifying whether said 32x32 sub-block is further split into four equally basic coding unit sized blocks and an intra prediction mode for said 32x32 sub-block in the case where said binary split signaling syntax element specifies said 32x32 sub-block is not further split; and
- for each sub-block, in the case where said sub-block is 16x16, a single spatial intra partition type, the single spatial intra partition type being determinable from among a plurality of spatial intra partition types;

(direct infringement of product claim 17)

2. to, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, where applicable, of the certified translation,

- a) recall from the distribution channels the products referred to in section I.1. which have been placed on the market since 6 December 2017 from commercial customers, in writing, citing the patent-infringing status of the products as established by the Unified Patent Court, and giving a binding undertaking to reimburse any fees and to bear the costs associated with the return, and to take the products back, whereby the Claimant is to be provided with a sample of the recall letters and a list of addressees with names and postal addresses or – at the discretion of the Defendants – an electronic copy of all recall letters;

whereas the Defendants' recall letter to the commercial customers might request, instead of returning the products, to permanently and irreversibly delete the products and to provide proof of such deletion;

- b) permanently remove from the distribution channels the products referred to in section I.1. which have been placed on the market since 6 December

2017, whereby the following measures in particular must be taken:

- (1) the Defendant must take all possible and reasonable steps to identify the locations and the commercial possessors of the products referred to in section I.1.;
- (2) in so far as the Defendant itself holds either legal or actual power of disposal over the products referred to in section I.1., the legally permissible and reasonable measures must be taken to ensure that these products come into, and remain in, the direct possession of the Defendant;
- (3) in so far as the Defendant holds neither legal nor actual power of disposal over the products referred to in section I.1., it must take all legally permissible and reasonable measures to cause the persons who themselves hold the power of disposal over the products, or who hold claims for surrender or destruction against the holders of the power of disposal over the products, to assert such claims and/or to support those persons in asserting such claims;

whereby the measures under (2) and (3) may also be carried out by permanently and irreversibly deleting the products referred to in section I.1. by the commercial direct possessors and holders of the power of disposal, with proof of such deletion being provided to the Defendants and the Claimant;

3. to inform the Claimant of the extent to which the Defendants have committed the acts referred to in section I.1. since 6 December 2017, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, if applicable, the certified translation, in the form of a structured statement in electronic form capable of being evaluated by computer, organised by each month of a calendar year and by infringing product, covering all relevant information, in particular:

- a) the origin and distribution channels of the infringing products;
- b) the quantities produced, manufactured, delivered, received or ordered, and the prices paid for the infringing products;
- c) the identity of all third parties involved in the production or distribution of the infringing products;

4. to disclose to the Claimant, within a period of six weeks after service of the notification within the meaning of R. 118.8 sentence 1 RoP and, if applicable, the certified translation, their books of account in support of the information provided pursuant to section I.3., together with information on the profits made,

by making available in electronic form capable of being evaluated by computer, organised by each month of a calendar year and by each infringing use of the method and each infringing product:

- a) evidence of the number and dates of the infringing products offered and distributed;
- b) invoices – or, if unavailable, delivery notes – for individual deliveries, broken down by quantities offered, dates of offers, prices of the products offered and type designations, as well as the names and addresses of the commercial recipients of the offers to sell, for all infringing products sold or otherwise disposed of;
- c) evidence of the advertising carried out, broken down by advertising medium, its distribution, the period of distribution and the distribution territory; including supporting documentation of such advertising activities;
- d) evidence of costs, broken down the costs by individual cost factors and the profits made;
- e) invoices – or, if unavailable, delivery notes – and corresponding accounts of all costs incurred upon which the Defendants rely in calculating their profits;

and confirm the accuracy of the information provided by an affidavit,

or, in the alternative,

have it audited and confirmed by a sworn auditor appointed by the Claimant at the Defendants' expense, such auditor being bound to maintain confidentiality towards the Claimant with respect to the information specified above;

whereby the use of the information under sections I.3 and I.4 is limited to calculating potential damage and compensation claims against the Defendants and for identifying other parties involved in the supply or distribution of the accused products for the purpose of asserting claims for alleged patent infringement against them.

- II. It is determined that the Defendants are jointly and severally liable to compensate the Claimant for the damage that, as a result of the actions referred to in section I.1. between 6 December 2017 and 30 July 2018 Thomson Licensing SAS and since 30 July 2018 the Claimant has suffered.
- III. It is declared that the Defendants have infringed the patent EP 2 449 782 by
 - 1. offering and placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden, encoded picture data produced directly by the encoding method, and
 - 2. offering and placing on the market in the territory of the Contracting Member States Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Portugal, Romania and Sweden bitstreams.
- IV. In case of any violation of the orders in section I., the respective Defendant shall pay

to the Court

1. a penalty payment of up to EUR 10,000 per day for each retrievable bitstream pursuant to sections I.1.a) and/or I.1.b) in the event of any violation of the order under I.1;
 2. a penalty payment of up to EUR 5,000 per day for each day of non-compliance in the event of any violation of the orders under sections I.2., I.3. and I.4.
- V. The infringement action is dismissed in all other aspects.
- VI. The counterclaim for revocation is dismissed.
- VII. The Claimant shall bear the costs of the infringement action at a rate of 10 %, while the Defendants shall bear the costs at a rate of 90 %.

The Defendants shall bear the costs of the counterclaim for revocation.

- VIII. The value in dispute of the infringement action is set at EUR 8,000,000.
- The value in dispute for the counterclaim for revocation is also set as EUR 8,000,000.
- IX. The ceiling of recoverable representation costs is set at a total of EUR 800,000 for the infringement action and the counterclaim for revocation.
- X. The orders under section I. shall only be enforceable after the Claimant has informed the Court which part of the orders it intends to enforce and, if necessary, has submitted a certified translation of the orders into the official language of the Contracting Member State in which enforcement is to take place, after the Defendant concerned has been served with the notification and the (respective) certified translation.

Furthermore, the orders under sections I.1 and I.2 (injunctive relief, recall and removal) shall only be enforceable once the Claimant has provided security in favour of the Defendants in the form of a deposit of EUR 8 million, or has provided a written, irrevocable, unconditional and open-ended bank guarantee of EUR 8 million from a credit institution authorised to carry on business within the territory of a Member State of the European Union.

Düsseldorf on 23 July 2026

NAMES AND SIGNATURES

Presiding Judge Thomas	Digitally signed Thomas Ronny 2026-07-17 12:43:12 +0200 Unified Patent Court Einheitliches Patentgericht Juridiction unifiée du brevet
Legally qualified judge Dr Schumacher	Jule Kathrin Schumacher Digital unterschrieben von Jule Kathrin Schumacher Datum: 2026.07.17 12:11:56 +02'00'
Legally qualified judge Mlakar	MOJCA MLAKAR Digitalno podpisal MOJCA MLAKAR Datum: 2026.07.17 12:22:05 +02'00'
Technically qualified judge Dr Kretschmann	Dennis Kretschmann Digital unterschrieben von Dennis Kretschmann Datum: 2026.07.17 12:35:14 +02'00'
For the sub-registrar	LAURA CHANTAL DANIEL Digital unterschrieben von LAURA CHANTAL DANIEL Datum: 2026.07.20 07:19:15 +02'00'

INFORMATION ON APPEAL:

An appeal against this decision may be brought before the Court of Appeal by any party whose claims have been unsuccessful, in whole or in part, within two months of service of the decision (Art. 73(1) UPCA, R. 220.1(a) RoP, 224.1(a) RoP).

INFORMATION ON ENFORCEMENT (Art. 82 UPCA, Art. 37(2) UPCS, R. 118.8, 158.2, 354, 355.4 RoP):

An authentic copy of the enforceable order will be issued by the Deputy-Registrar upon request of the enforcing party, R. 69 RegR.

INSTRUCTION TO THE REGISTRY:

A certified copy of the decision shall be sent to the European Patent Office and the German Patent and Trade Mark Office as soon as the decision on the revocation action has become legally binding.

This decision was read in open court on 23 July 2026.

Presiding Judge Thomas

