
Date: Court: December 21, 2018
Panel: Düsseldorf District Court
Type of decision: 4c. Civil Chamber
Reference Judgment
number: ECLI: 4c O 3/17
ECLI:DE:LGD:2018:1221.4C.O3.17.00

Tenor:

- I. The defendant is sentenced,
 1. to refrain from doing so upon notification of a fine of up to EUR 250,000.00 to be set by the court for each case of infringement - or, alternatively, imprisonment for up to six months, in the event of repeated infringements up to a total of two years,
 - a) Motion compensation apparatus which generates a predictive image of a current block included in a current macroblock included in a B-picture,
to offer, place on the market or use in the Federal Republic of Germany or to import or possess for the aforementioned purposes,
wherein said motion compensation apparatus comprises:
a motion vector obtaining unit operable to obtain a motion vector from a block for which motion compensation has been performed,
wherein said block being included in a co-located block, wherein the co-located block being included in a co-located macroblock, wherein the co-located macroblock being included in a picture subsequent in display order to said B-picture,

wherein the size of said block is smaller than the size of the current block and

the size of the co-located block is the same as that of the current block and

wherein said block is located in a corner of the co-located macro-block,

a motion compensation unit operable to determine a motion vector for performing motion compensation on the current block using the obtained motion vector,

wherein, when a size of the obtained motion vector is equal to or less than a predetermined value, the motion vector for the current block is determined to be "0" (S402, S502, S702), and

when the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined (S404, S504, S704) using motion vectors of adjacent macroblocks located adjacent to the current macro-block, and

to perform motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block using the specified motion vector;

and/or

b) Motion compensation devices (smartphones) suitable for performing a motion compensation method for generating a predictive image of a current block included in a current macroblock included in a B-picture,

to offer and/or deliver to customers in the territory of the Federal Republic of Germany,

wherein the motion compensation method comprises:

Obtain a motion vector from a block for which motion compensation has been performed,

wherein said block being included in a co-located block, wherein the co-located block being included in a co-located macroblock, wherein the co-located macroblock being included in a picture subsequent in display order to said B-picture,

wherein the size of said block is smaller than the size of the current block and

the size of the co-located block is the same as that of the current block and

wherein said block is arranged in a corner of the co-located macro-block,

determine a motion vector to perform motion compensation on the current block using the obtained motion vector,

wherein, when a size of the obtained motion vector is equal to or less than a predetermined value, the motion vector for the current block is determined (S402, S502, S702) to be "0", and,

when the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined (S404, S504, S704) using motion vectors of adjacent macroblocks located adjacent to the current macroblock,

perform motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block using the specified motion vector;

2. to provide the plaintiff with information on the extent to which it has committed the acts referred to under I.1. since October 6, 2015, stating

- a) the names and addresses of manufacturers, suppliers and other previous owners,
- b) the names and addresses of the commercial customers and the sales outlets for which the products were intended,
- c) the quantity of products manufactured, delivered, received or ordered and the prices paid for the products concerned;

whereby

- copies of the relevant purchase documents (namely invoices, or alternatively delivery bills) must be submitted as proof of the information, whereby details requiring confidentiality outside the data subject to disclosure may be blacked out;

3. to account to the plaintiff for the extent to which it has committed the acts described under I.1. since October 6, 2015, stating:

- a) of the individual deliveries, broken down by delivery quantities, times, prices and type designations as well as the names and addresses of the commercial customers,
- b) of the individual offers, broken down by offer quantities, times, prices and type designations as well as the names and addresses of the commercial offerees,
- c) of the advertising operated, broken down by advertising media, their circulation figures, distribution period and distribution area,
- d) the prime costs broken down by the individual cost factors and the profit generated,

whereby

- The defendant reserves the right to disclose the names and addresses of the non-commercial purchasers and the offerees instead of the plaintiff to a sworn auditor domiciled in the Federal Republic of Germany to be designated by the plaintiff and bound to secrecy towards it, provided that the defendant bears his costs and authorizes and obliges him to inform the plaintiff upon specific request whether a particular purchaser or offeree is included in the list;

4. to destroy at its own expense the products referred to in I.1.a) in its direct or indirect possession or in its ownership or, at its discretion, to hand them over to a bailiff to be appointed by the plaintiff for the purpose of destruction at its expense;

5. to recall from the distribution channels the products referred to under I.1.a), which have been in the possession of commercial third parties since October 6, 2015, by requiring those third parties who have been granted possession of the products by the defendant or with its consent to return the products to the defendant, with reference to the fact that the Chamber has found an infringement of the patent in suit by the judgment here, and to the third parties in the event of return

of the products is promised a refund of any purchase price already paid and the assumption of the costs of the return, and to take back the successfully recalled products.

II. It is established that the defendant is obliged to compensate the plaintiff for all damage caused to it by the events referred to in items I.1.a) and b) committed since October 6, 2015 and will continue to arise in the future.

III. The defendant is ordered to pay the costs.

IV. The judgment is provisionally enforceable with regard to items I.1, I.4 and I.5 against security in the amount of EUR 23,000,000.00, with regard to items I.2 and I.3 against security in the amount of EUR 6,000,000.00 and with regard to item III against security in the amount of 120% of the amount to be enforced in each case.

V. The amount in dispute is set at EUR 30,000,000.00.

Facts of the Case:

The plaintiff asserts claims for injunctive relief, information and accounting, recall and destruction as well as a declaration of liability for damages on the merits due to infringement of the German part of the European Patent EP A (submitted as Exhibit K 1, submitted in German translation as Exhibit K 2; hereinafter referred to as the "patent in suit"): Patent in suit), the German part of which bears the register number DE B and which was filed on August 28, 2003, claiming a Japanese priority of November 25, 2002 (JP C) and published as an application on August 31, 2005. The reference to the grant of the patent in suit was published on May 15, 2013.

The technical teaching of the patent in suit concerns a motion compensation method using motion vectors and image coding and decoding methods using the motion compensation method. In a writ dated July 3, 2017, the defendant filed a nullity action against the patent in suit (see Set of Exhibits B 42), which has not yet been decided.

The independent claims 1 and 4 of the patent in suit - filed and granted in English - reads as follows:

"1. a motion compensation method for generating a predictive image of a current block included in a current macroblock included in a B-picture, said motion compensation method comprising: obtaining a motion vector from a block for which motion compensation has been performed, said block being included in a co-located block, the co-located block being included in a co-located macroblock, the co-located macroblock being included in a picture subsequent in display order to said B-picture, wherein the size of said block is smaller than the size of the current block and the size of said co-located block is the same as the current block and wherein said block is located in a corner of said co-located macroblock;

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determining a motion vector for performing motion compensation on the current block using the obtained motion vector, wherein, when a size of the obtained motion vector is a predetermined value or less, the motion vector for the current block is determined (S402, S502, S702) to be "0", and when the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined (S404, S504, S704) using motion vectors of adjacent macroblocks which are located adjacent to the current macroblock; performing the motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block by using the determined motion vector.

4. A motion compensation apparatus (300) which generates a predictive image of a current block included in a current macroblock included in a B-picture, said motion compensation apparatus comprising: a motion vector obtaining unit (302) operable to obtain a motion vector from a block for which motion compensation has been performed, said block being included in a co-located block, the co-located block being included in a co-located macroblock, the co-located macroblock being included in a picture subsequent in display order to said B-picture, wherein the size of said block is smaller than the size of the current block and the size of said co-located block is the same as the current block and wherein said block is located in a corner of said co-located macroblock; a motion compensation unit (303) operable to determine a motion vector for performing motion compensation on the current block using the obtained motion vector, wherein, when a size of the obtained motion vector is a predetermined value or less, the motion vector for the current block is determined (S402, S502, S702) to be "0", and when the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined (S404, S504, S704) using motion vectors of adjacent macroblocks which are located adjacent to the current macroblock, and to perform the motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block by using the determined motion vector."

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Translated, claims 1 and 4 read as follows:

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"1. Bewegungskompensationsverfahren zum Erzeugen eines prädiktiven Bildes eines aktuellen Blocks, der in einem aktuellen Makroblock enthalten ist, der in einem B-Bild enthalten ist, wobei das Bewegungskompensationsverfahren umfasst: Erhalten eines Bewegungsvektors von einem Block für den Bewegungskompensation durchgeführt wurde, wobei der Block in einem co-lozierten Block enthalten ist, wobei der co-lozierte Block in einem co-lozierten Makroblock enthalten ist, wobei der co-lozierte Makroblock in einem Bild enthalten ist, das in Anzeigereihenfolge auf das B-Bild folgt, wobei die Größe des Blocks kleiner als die Größe des aktuellen Blocks ist und die Größe des co-lozierten Blocks die gleiche wie die des aktuellen Blocks ist und wobei der Block in einer Ecke des co-lozierten Makroblocks angeordnet ist, Bestimmen eines Bewegungsvektors zum Durchführen von Bewegungskompensation an dem aktuellen Block unter Verwendung des erhaltenen Bewegungsvektors, wobei, wenn eine Größe des erhaltenen Bewegungsvektors gleich oder kleiner als ein vorbestimmter Wert ist, der Bewegungsvektor für den aktuellen Block als "0" bestimmt wird (S402, S502, S702), und, wenn die Größe des erhaltenen Bewegungsvektors den vorbestimmten Wert überschreitet, der Bewegungsvektor für den aktuellen Block unter Verwendung von Bewegungsvektoren von benachbarten Makroblöcken bestimmt (s404, S504, S704) wird, die benachbart zu dem aktuellen Makroblock angeordnet sind. Durchführen der Bewegungskompensation (S403, S503, S703) für den aktuellen Block zum Erzeugen eines prädiktiven Bildes des aktuellen Blocks unter Verwendung des bestimmten Bewegungsvektors.

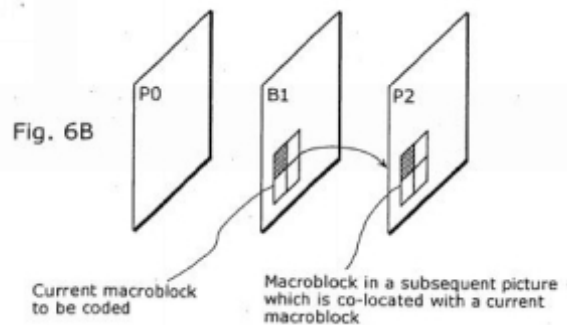
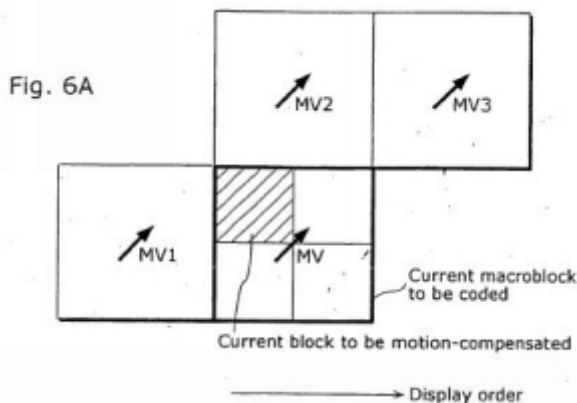
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4. Bewegungskompensationsvorrichtung (300), die ein prädiktives Bild eines aktuellen Blocks erzeugt, der in einem aktuellen Makroblock enthalten ist, der in einem B-Bild enthalten ist, wobei die Bewegungskompensationsvorrichtung umfasst: eine Bewegungsvektorerhaltungseinheit (302), die ausgestaltet ist zum Erhalten eines Bewegungsvektors von einem Block für den Bewegungskompensation durchgeführt wurde, wobei der Block in einem co-lozierten Block enthalten ist, wobei der co-lozierte Block in einem co-lozierten Makroblock enthalten ist, wobei der co-lozierte Makroblock in einem Bild enthalten ist, das in Anzeigereihenfolge auf das B-Bild folgt, wobei die Größe des Blocks kleiner als die Größe des aktuellen Blocks ist und die Größe des co-lozierten Blocks die gleiche wie die des aktuellen Blocks ist und wobei der Block in einer Ecke des co-lozierten Makroblocks angeordnet ist, eine Bewegungskompensationseinheit (303), die ausgestaltet ist zum Bestimmen eines Bewegungsvektors zum Durchführen von Bewegungskompensation an dem aktuellen Block unter Verwendung des erhaltenen Bewegungsvektors, wobei, wenn eine Größe des erhaltenen Bewegungsvektors gleich oder kleiner als ein vorbestimmter Wert ist, der Bewegungsvektor für den aktuellen Block als "0" bestimmt wird (S402, S502, S702), und, wenn die Größe des erhaltenen Bewegungsvektors den vorbestimmten Wert überschreitet, der Bewegungsvektor für den aktuellen Block unter Verwendung von Bewegungsvektoren von benachbarten Makroblöcken bestimmt (S404, S504, S704) wird, die benachbart zu dem aktuellen Makroblock angeordnet sind, und zum Durchführen der Bewegungskompensation (S403, S503, S703) für den aktuellen Block zum Erzeugen eines prädiktiven Bildes des aktuellen Blocks unter Verwendung des bestimmten Bewegungsvektors.“

The drawings reproduced in reduced form below were taken from the patent in suit and explain its technical teaching by means of preferred embodiments:

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Fig. 9

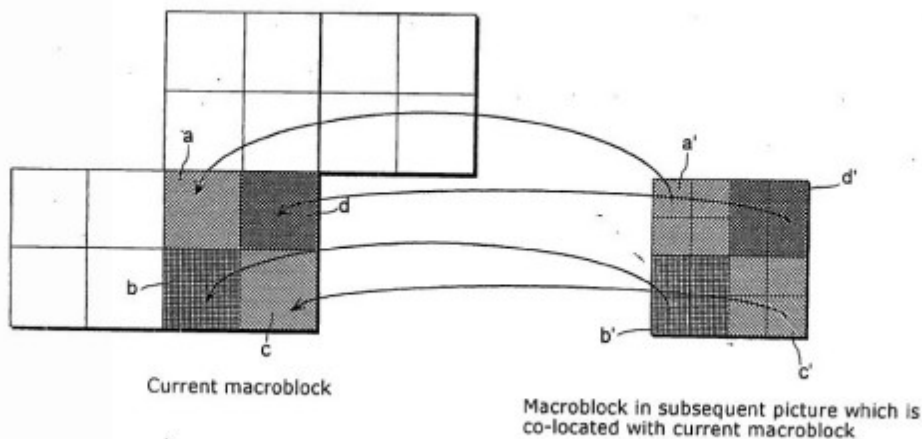
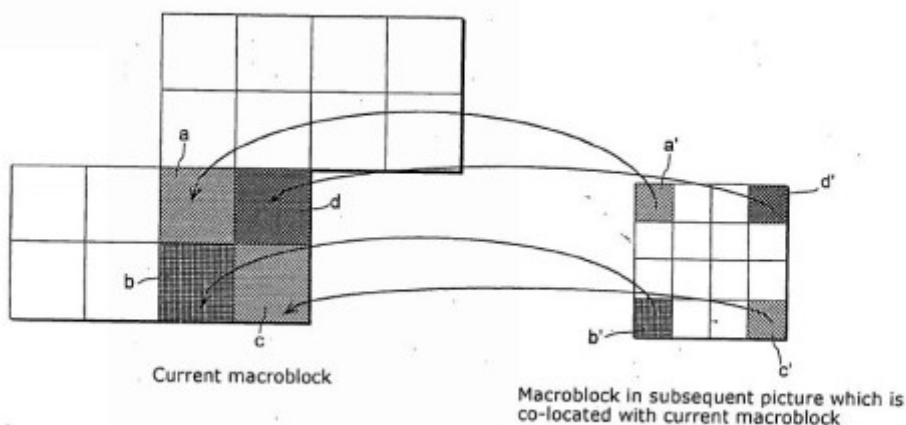


Fig. 11



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Figure 6A shows a diagram illustrating a method for determining the motion vector of the current macroblock to be coded or decoded using motion vectors in the adjacent blocks when the neighboring blocks are motion compensated in the same block size as the current macroblock to be coded or decoded. Figure 6B shows a schematic illustrating the relationship between the current block to be motion compensated and a block in a subsequent frame that is co-located with the current block when the current macroblock to be coded or decoded and the block in a subsequent frame that is co-located with the current block are motion compensated in the same block size. Finally, Figures 9 and 11 show schematics of different embodiments showing the relationship between the current block provided for motion compensation and the plurality of blocks in a subsequent frame that are co-located to the current block provided for motion compensation when the current macroblock to be encoded or decoded and the macroblock in a subsequent frame that is co-located to the current macroblock are motion compensated in different block sizes.

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The defendant is a German subsidiary of the Chinese D- Group, which sells, inter alia, the mobile devices with the following model names (hereinafter referred to as the challenged embodiments) in Germany: 16

- P9 17
- P9 Plus 18
- P Lite 19
- GX8 20
- Mate S 21
- Mate 8 22

The International Telecommunication Union (ITU) developed the Video Compression Standard ISO/IEC 14496-10. In 2001, the ITU group joined forces with MPEG-Visual and continued the development jointly. The aim of the project was to develop a compression method that would reduce the required data rate by at least half compared to previous standards, both for mobile applications and in the TV and HD sector, while maintaining the same quality. In 2003, the Standard was adopted by both organizations with identical wording. The ITU designation is H.264. At ISO/IEC MPEG, the Standard is referred to as MPEG-4/AVC (Advanced Video Coding). It is the tenth part of the MPEG-4 Standard for ISO/IEC No. 14496-10 (eighth edition September 1, 2014; submitted in extracts as Exhibit K 5, submitted in extracts in German translation as Exhibit K 5a, hereinafter referred to as the "AVC Standard"): AVC Standard). 23

The patent in suit is part of an AVC/H.264 Patent Pool (hereinafter: Patent Pool). The Patent Pool currently comprises approx. 5,000 patents which, including the plaintiff, have been contributed by almost 40 patent owners (see Exhibit K 10 - Exhibit C, Exhibit D). The Pool is administered by the company MPEG LA, LLC (hereinafter: MPEG LA). 24

MPEG LA as Pool Administrator has concluded more than 1,400 Pool License Agreements (AVC PPL) with worldwide validity. The License Agreement for the AVC Standard is a Standard License Agreement which is available on the MPEG LA website and can be viewed by anyone (Exhibit K 10 - Exhibit G). The same applies to a list of the property rights included in this Agreement and the associated claim charts or Cross-Reference Charts, which are intended to demonstrate the Standard-Essentiality by comparing patent rights and specific sections of the Standard. In addition, both a list of the approximately 40 Licensors and a list of Licensees are published on the MPEG LA website (Exhibit K 10 - Exhibit C; Exhibit K 10 - Exhibit F). 25

In particular, the following provisions in German translation are the subject of the Standard License Agreement: 26

"[Preamble] 27

[...] 28

Each Licensor hereby agrees to grant to individuals, companies or other entities individual licenses or sublicenses under all AVC Essential Patents on fair, reasonable, non-discriminatory terms and conditions in accordance with the terms and conditions agreed to herein, which may be granted by the Licensor (without payment to third parties).	29
Each Licensor grants to the License Administrator a worldwide, non-exclusive license and/or sublicense all AVC Essential Patents licensable or sublicensable by Licensor to enable the License Administrator to grant non-exclusive worldwide sublicenses to all such AVC Essential Patents in accordance with the terms of this Agreement.	30
[...]	31
Nothing in this Agreement prohibits each Licensor from licensing or sublicensing the rights under each AVC Essential Patent to manufacture, use, sell or offer for sale, including, without limitation, the rights granted under the AVC Patent Portfolio License.	32
[...]	33
2. Granting by the License Administrator	34
2.1	35
AVC Product(s). Subject to the terms of these Agreements (including, but not limited to, Sections 3 and 7), the License Administrator hereby grants to a Codec Licensee a royalty-bearing, worldwide, non-exclusive and non-transferable sublicense under all AVC Essential Patents in the AVC Patent Portfolio to manufacture, have manufactured, sell or offer for sale an AVC Product and [...].	36
[...]	37
3.	38
Fees and Payment	39
3.1	40
Fees for the licenses to the AVC Essential Patents in the AVC Patent Portfolio. For the licenses granted under Section 2 of this Agreement to the AVC Essential Patents in the AVC Patent Portfolio, Licensee shall pay to the License Administrator for the benefit of Licensor the fees set forth below for the term of this Agreement:	41
3.1.1.	42
AVC Product(s). Subject to the limitation in Section 3.1.9, the following fee shall be payable in each calendar year for the sublicense granted under Section 2.1 of this Agreement for any sale after December 31, 2004 of an AVC Encoder, AVC Decoder or AVC Codec (hereinafter referred to in this Article as a "Unit"); and	43

regardless of whether one or more units are integrated into a single product, the following fees must be paid:

Sale of units in any		44
<u>calendar year after December 31, 2004</u>	<u>payable fees</u>	45
0 to 100,000 units	0.00.	46
100,001 to 5,000,000 units	0.20 \$	47
per unit		
more than 5,000,000 units	0.10 \$	48
per unit		

However, in no event shall the fee for the sublicense granted under Section 2.1 of this Agreement exceed the amounts set forth below for the combined sale of AVC Products of a Licensee and its Affiliates: 49

Calendar year	payable fee per	50
	<u>company per year</u>	51
Sales 2005 and 2006	3,500,000 \$	52
Sale 2007 and 2008	4,250,000 \$	53
Sale 2009 and 2010	5,000,000 \$,	54
Sale between 2011 and 2015	6,500,000 \$	55
Sale 2016	8,125,000 \$	56
Sale between 2017 and 2020	9,750,000 \$"	57

Further provisions on the scope of the license granted are provided for in Section 2.2 to Section 2.10, whereby Section 2.9 states: 58

"Subject to Section 3.1.7, the licenses granted in Sections 2.1 - 2.7 of this Agreement do not entitle Licensee to grant sublicenses. The License Administrator agrees to grant an AVC Patent Portfolio License to each Subsidiary of the Licensee." 59

Finally, as a "Codec Licensee" pursuant to Section 1.17 of the Standard License Agreement means a person or entity that sells an AVC Product to (i) a Codec Licensee Customer (see Section 1.18 of the Agreement) or (ii) an End Customer." 60

In all other respects, reference is made to the Standard License Agreement due to its further content. 61

The AVC Standard contains various conditions, so-called Profiles, which in turn consist of various "features". The Profiles are subdivided into the categories Baseline, Extended, Main and High (Exhibit B 34; see Exhibit B 35, Appendix to the Standard). 62

The challenged embodiments are compatible with the AVC Standard.

As early as 2008, negotiations took place between the D Group, namely "E" ("D" USA, hereinafter: "D" USA) as a subsidiary of D (hereinafter: "D"), which is also the parent company of the defendant in this case, and MPEG LA with the aim of granting a Pool license. This license was initially intended to cover the MPEG-2 Standard. MPEG LA submitted a Standard License Agreement to this effect to "D" USA on November 3, 2008 (Annex B 3). 63

The subsequent correspondence in 2009 was mainly conducted on the part of "D" by its Vice President Mr. Yi Zhao and Mr. Wenyu (Wayne) Zhou (hereinafter: Mr. Wayne) and on the part of MPEG LA by Mr. Michael J. Zurat and the Vice President Licensing Mr. Dean Skandalis. By e-mail dated February 16, 2009, Mr. Zhao Zurat informed the parties that a package containing License Agreements relating to the MPEG-2, MPEG-4 Visual (Part 2) and AVC/H.264 (MPEG-4 Part 10) Standards had been sent (Annex B 5), the receipt of which Mr. Zhao confirmed by e-mail dated February 26, 2009 (Annex B 6). During the contract negotiations, which also in 2009 primarily related to the MPEG-2 Standard, "D" intended to become a party to any License Agreements, as it was the relevant company for distribution in the USA. MPEG LA, on the other hand, insisted on the parent company taking a license. In this context, "D" informed MPEG LA by e-mail dated March 18, 2009 (Annex B 7) that it was aware that companies such as Changhong Europe Electric s.r.o., Shenzhen Jiuzhou Electric Co. Ltd. and Shenyang Tongfang Multimedia Co. Ltd. were licensed independently of their parent companies with regard to the MPEG-2 Standard, as was "Haier America L.L.C." of the Haier Group. 64

After further e-mails, telephone conferences and personal meetings (see Exhibits B 8 to B 10), "D" submitted a license offer to "A" in consultation with its parent company, which now provided for "D" as the Licensee and stipulated that the Chinese market was to be excluded from the License Agreement with regard to the area of application. The Chinese market was to be regulated by a separate contract at a later date. However, MPEG LA ultimately rejected this approach, as "D USA" or "D" was not willing to make a formal declaration that the Chinese market would also be licensed at a later date. 65

MPEG LA informed "D" by e-mail dated September 6, 2011 (Exhibit B 19), which was addressed to Mr. Wayne (D USA), that it would distribute smartphones and tablets ("mobile handset products") that would make use of the Standard at issue (Exhibit K 10-Exhibit A). At the same time, MPEG LA sent a patent list (Exhibit K 10 Exhibit F). MPEG LA had already sent to "D" Group the license offer regarding the MPEG-2 Standard shown in Exhibit K 10-Exhibit G in November 2008 (Exhibit B 3) and in February 2009 (Exhibit B 5) as well as in November 2009 (Exhibit B 11). The electronic documents transmitted by e-mail on September 6, 2011 were sent to "D" by regular mail in February 2012 (Exhibit B 20). 66

The D Group responded through Mr. Zhou on September 15, 2011 to the submitted offer and asked for further discussions on this matter (Exhibit B 21). 67

In an e-mail dated February 21, 2012 (Exhibit B 23), "D" repeated its request to only take a license with reference to subsidiaries such as Haier America Trading LLC and Shenzhen Jiuzhou Electric Co. Ltd. whose parent company is not licensed. 68

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In the period that followed, it proved difficult to arrange appointments. In particular, scheduled personal meetings between high-ranking employees of MPEG LA and "D" repeatedly failed to materialize (Exhibit K 10-Exhibit A, I). As a result, further attempts at contact did not lead to the conclusion of a License Agreement. Rather, the license negotiations broke off in the middle of 2016. During a meeting on July 20, 2016, D asked MPEG LA whether, among other things, claim charts would be submitted to potential licensees to verify the alleged infringement (Exhibit B 28), which MPEG LA denied with reference to the Standard-Essentiality of all patents.

In the context of the present litigation, the defendant submitted in the statement of defence a first counteroffer dated July 3, 2017 (Exhibit B2, B 2a). The first counteroffer was submitted to the plaintiff by "D" Technologies Co Ltd, "D" Device (Dongguan) Co, Ltd and "D" Device Co, Ltd, all based in China. The offer took over from the Standard License Agreement the scale according to the number of units, but with different license rates for different regional markets (USA: 3.8 US cents/1.9 US cents; EU 1 US cent/0.5 US cents and PRC and others 0.55 US cents/0.27 US cents). The definition according to item 1, "China and others" covers China and the rest of the world with the exception of Europe and the USA. The plaintiff did not accept this offer. 70

By pleading of September 29, 2017 (Exhibit B 62, B62a), the defendant submitted to plaintiff an irrevocable bank guarantee from the Industrial and Commercial Bank of China for an amount of up to \$ 3,029,006. At the same time, the defendant announced the prompt settlement of license fees due in accordance with Sections 4.4 and 4.5 of the offer of July 3, 2017. 71

In a writ dated October 30, 2018, the defendant submitted a second counteroffer (Exhibit B 72) which it sent to the plaintiff by letter dated October 29, 2018 (Exhibits B 74), along with a statement of license fees for the period from January 2009 to December 2017. In contrast to the first offer, the defendant now offers a worldwide uniform license in the amount of 5.23/2.61 US cents without regional differentiation, but only for all patents of the plaintiff essential for the AVC Standard at issue. The defendant calculated the license rate pro rata from the amount which, in defendant's opinion, the plaintiff was entitled to according to the number of its patents in relation to the number of all patents in the Patent Pool, including a surcharge of 19% for the plaintiff's additional expenses due to licensing outside the Pool. The effective date of the Agreement is determined by the plaintiff's acceptance. Infringing acts in the past are to be remunerated on the basis of the license rates offered. At the oral hearing, the plaintiff also rejected this offer. 72

The FRAND compliance of the license offer and that of the two counteroffers is in dispute between the parties. Other Pool members (Tagivan II LLC, "J" Intellectual Property Corporation of America; Mitsubishi Denki K.K.) are also litigating against the defendant. In these proceedings, the defendant also agreed to conclude individual Portfolio License Agreements. 73

According to the plaintiff, the H.264 Standard makes use of the teaching of the patent in suit, so that the infringement of the asserted method and device claims already results from the possibility - undisputed in this respect - of reproducing the video encoded according to the H.264 Standard by the challenged embodiments. 74

It is irrelevant whether an 8x8 pixel sub-macroblock, which is to be motion-compensated as the current block, is further divided into 4x4 pixel blocks (sub-macroblock partitions), so that the already motion-compensated co-located (corner) block of the B-picture must be accessed not only once, but a total of 4 times, as the memory access load is also reduced in this case, as the memory only has to be accessed 4 times compared to the methods known in the prior art and 4 (different) blocks are not stored in the reference memory. Since a motion vector always consists of several vector components and the skilled person knows in this respect that a vector cannot assume a specific value, the patent in suit is to be understood in such a way that the decision as to whether a motion vector is determined or the vector components are set to "0" is made on the basis of a threshold value which can also comprise a rather undefined range of values. The Standard-Essentiality of the patent in suit is also not contradicted by the fact that the patent in suit only mentions one condition for the selection decision, whereas the H.264 Standard requires further criteria.

The realization of the protected teaching also results from the fact that the challenged 76
embodiments include the Google Chrome browser, which uses the FFmpeg codec to play
back H.264-encoded video files. In any case, the open-source parts of the Chromium browser,
which are accessible to everyone, would indicate the same.

The plaintiff is of the opinion that it has fulfilled its obligations under antitrust law vis-à-vis the 77
defendant had fulfilled its obligations. The plaintiff is of the opinion that it acted FRAND. The
relevant standard of review is the criteria to be taken from the Orange Book case law.

The plaintiff claims that MPEG LA is responsible for negotiating and concluding contracts. 78
was authorized to do so, which the defendant declares with ignorance. This is also known in
the licensing and electronics industry. In the preamble of the License Agreements, MPEG LA
is referred to as the "Licensing Administrator", which is undisputed. This makes it clear that
MPEG LA does not grant the Pool licenses in its own name, but as a sublicense. In any
case, it is effectively acting on behalf of the plaintiff. Similarly, on the liabilities side, it is
legitimate to want to conclude a Pool license with the defendant's parent company.
Incidentally, the defendant itself would pursue this intention in the license offers it submitted
(see Exhibit B 4, B72), since the Chinese parent company was specified as the Licensee.

The plaintiff believes that the e-mail of September 6, 2011 contains a sufficiently concrete 79
infringement notice and more specific information on the alleged infringing act were not
necessary. In particular, the retrievability of further information on the Internet on the publicly
accessible website of MPEG LA was sufficient to meet the requirements for the notice of
infringement. Moreover, "D" was aware of the need for a license from the previous contract
negotiations.

On the contrary, according to the plaintiff, "D" had not signaled its willingness to license. A 80
termination of the contract negotiations in the meantime was attributable to "D". In this regard,
the plaintiff claims that it was ultimately the defendant that no longer pursued the contract
negotiations. It had expressed its disinterest in the submitted Standard Pool License
Agreement by e-mail of September 28, 2016 (see Exhibit K 17) and had consistently insisted
on a license being taken by the American subsidiary.

With regard to the undisputed license offers submitted, the plaintiff believes that the FRAND requirements were met. The way in which the license fee is calculated is sufficiently clear from the license offer; the market acceptance of the license fees follows in any case from the large number of License Agreements concluded. 81

The plaintiff is of the opinion that the inclusion of the Chinese market in the Pool License Agreement is not discriminatory towards the defendant or the "D" group. In this regard, it claims that large companies not based in China and active in the electronics industry (I, Cisco, Dell, Google, HTC, LG, Microsoft, etc.) have taken a worldwide Pool License without suffering losses in competitiveness on the Chinese market compared to unlicensed competitors. Moreover, the plaintiff claims that the Chinese market plays only a minor role for "D", as its market share amounted to only 17.1%. Reference is made to the tabular presentation on p. 47 of the writ dated September 25, 2017 (p. 206 GA). 82

Furthermore, the plaintiff claims that, according to previous licensing practice, there also would be no License Agreements that were concluded to the exclusion of commercial activities on the Chinese market. The reason why the seven largest competitors of "D" based in China (Oppo Electronics, Xiaomi, Lenovo, ZTE and Vivo Communications Technology Co. Ltd.) are indisputably not licensed is their vehement rejection of a license, although MPEG LA has entered into corresponding correspondence with them. Licensing only by "D" or another company belonging to the "D" group, which in any case is not active on the Chinese market, is therefore inadequate and not customary in the industry, as the many contracts concluded would show. 83

According to the plaintiff, the worldwide uniform license rate, without being applicable to the Chinese market was justified because there are no serious price differences between the mobile devices sold in the USA, China and Europe (see table on p. 208 GA). 84

There is also no structural imbalance of the property rights that are included in the Pool. The defendant's own overview (Exhibit B 29) shows that patent rights in force in China have the fourth largest share in the License Pool. 85

The maximum amount clause provided for in Section 3.1.1 of the Standard License Agreement does not lead to any disadvantage for the defendant, as on the one hand smaller companies would also reach this limit and, on the other hand, "D" would already reach and exceed this amount with its non-Chinese business. Moreover, this Section had been accepted in the numerous License Agreements concluded. 86

The plaintiff claims that investigations of the contested embodiments had shown that "D's" products would contain all three Profiles provided for in the Standard (Exhibit K 8). The plaintiff believes that this justifies the inclusion of all Profiles in the Standard License Agreement. 87

The absence of an adjustment clause is harmless. The clause contained in Section 4.9 of the Standard License Agreement was accepted 1,400 times; certain flat rates were necessary. It is also undisputed that there were no fee adjustments when the number of patents included in the Pool increased. 88

The submitted License Agreements are suitable for demonstrating customary practice in the industry. The fact that some of them have different page numbers is due to content adjustments and changes over the years. Insofar as the defendant relies on an individual License Agreement concluded with Pool member "K", its relevance to the question of the FRAND conformity of the license offer or the existing indicative effect of the License Agreements is unclear. With the 3GPP patent portfolio, a standard other than the AVC Standard was already affected; moreover, there were no indications that the defendant had made use of its option right ("pick right"). In addition, MPEG LA had indicated that it would take this existing individual License Agreement into account and, after the conclusion of the Standard License Agreement with "D", would reimburse any license fees paid to "K" to "D" on a pro rata basis.	89
The individual Portfolio License to Standard-Essential Patents of the plaintiff sought by the defendant is not FRAND. This is because, as the plaintiff claims, the licensing practice has developed over the years into a Pool license. The preamble contained in the Standard License Agreement is historical and dates back to a time when there was no practice in the area of licensing the Standard.	90
The granting of installment payments for license debts in the past or a repayment plan is not equivalent to a discount. These measures are also offered to all Licensees.	91
Moreover, the counteroffer does not comply with FRAND principles, since the different license rates listed for different contract territories (USA, Europe, China and others) are not justified. In particular, it cannot be explained why the same license rates as in China should apply to other regions in addition to China, including the high-priced Japanese market. Furthermore, the average prices in China are also comparable with those in the USA and Europe.	92
The defendant is not entitled to the conclusion of an individual portfolio license. Although such an option was provided for in the preamble to the Standard License Agreement, it has practically never been used. This is shown by the more than 1,400 Pool License Agreements concluded. Industry practice had developed towards such agreements. For this reason, too, the defendant's counteroffer was not to be regarded as FRAND, especially since no objective reasons were apparent as to why "D" insisted on such a license.	93
Furthermore, the plaintiff is of the opinion that the patent in suit will prove to be legally valid in the decision on the defendant's nullity action. In particular, the defendant has not sufficiently demonstrated that the Draft Standard H.264 (Exhibit NK 6) cited under the aspect of lack of novelty was publicly available before the priority date of the patent in suit.	94
The plaintiff seeks,	95
to rule accordingly.	96
The defendant requests,	97
to dismiss the complaint.	98
<u>Alternatively,</u>	99

to stay the legal dispute until a final decision has been made in the nullity action pending before the Federal Patent Court concerning the patent in suit. 100

The defendant argues that the patent in suit is not standard-essential for the AVC Standard and that, moreover, the challenged embodiments do not realize the technical teaching of the patent in suit in a literal sense. In this respect, it claims that in the Standard the blocks to be specified also have a size of 4x4 pixels and thus the same size as the co-located blocks. It follows from this that, in the case of a current block within the meaning of the teaching of the patent in suit, the co-located (corner) block must also be accessed four times in total and that the aim of the invention, i.e. the reduction of the memory access load compared with the method known in the prior art, is therefore not achieved. According to the teaching of the patent in suit, the co-located block may only be accessed once. Furthermore, in contrast to the teaching of the patent in suit, the standard does not rely on a specific value, but only on an unspecific range specification for the decision as to whether the current block is motion-compensated or the vector is set to "0". 101

As far as the plaintiff wants to justify the infringement with freely accessible information on the Chromium browser, this is already unhelpful, as the defendant does not use this browser at all. The same applies to the FFmpeg codec, which is not used for the playback of H.264-encoded videos. 102

The defendant is of the opinion that the FRAND objection raised by it is valid. It believes that the plaintiff or MPEG LA did not behave in a FRAND-compliant manner. This question is to be examined on the basis of the criteria set out in the ECJ decision D/ZTE. 103

First, the defendant is of the opinion that there were no valid legal acts by the plaintiff, as it was not the plaintiff but MPEG LA that acted without having clear legal authority to do so. 104

The notice of infringement was insufficient. It would have required more detailed explanations of the alleged infringement and the property rights concerned, as it is undisputed that "D" itself does not have Standard-Essential Patents. Therefore, it was not familiar with the technology at issue. Already during the contract negotiations, the defendant claims, the "D" Group had doubted the essentiality of the patents and their infringement. 105

The defendant or the D-Group was ready for licensing at all times; this would be comprehensively proven by the e-mail correspondence (Exhibits B 6-8, B12, B17, and B21). Interruptions in negotiations in the meantime were the responsibility of MPEG LA. 106

There was no effective license offer within the meaning of the FRAND conditions. The plaintiff itself had not made any offer, not even an offer for an individual Portfolio License, which is undisputed between the parties. Furthermore, MPEG LA's offer did not constitute an offer attributable to the plaintiff. This also applies accordingly to other pre-litigation activities of MPEG LA. 107

Furthermore, the license offer sent did not constitute a legally binding offer, as these documents were only for the purpose of viewing and were accordingly headed "Sample" and had not been signed by MPEG LA. In addition, MPEG LA had stated in the infringement notice on the documents sent that these were not binding. 108

The defendant asserts that not all patents contained in the Pool are Standard-Essential. According to the defendant, out-of-court investigations commissioned by the Indian company "GConsulting" showed that 50% of the property rights in the entire Pool and 59% of the property rights in the plaintiff's specific portfolio and 70% of the property rights in all four plaintiffs in the parallel patent disputes conducted until recently before the Düsseldorf District Court were not Standard-Essential (see Exhibits B 37, B 40), which the plaintiff denies with ignorance. The inclusion of Non-Essential Patents (NEPs) is based on the Standardization Organization ISO, which does not require patent owners to disclose patent numbers, etc. The ease of declaration is also demonstrated by the sample application forms (Exhibits B 39, B 40). According to the defendant, the Patent Pool was therefore established in violation of antitrust law and the submission of a FRAND offer was not possible. Even on the basis of the corrected statistics (Exhibit B 48), it remains the case that primarily Non-Essential-Patents were included in the Pool. This is also due to the fact that there is an over-declaration of alleged SEPs. Thus, as the defendant claims, non-producing companies such as Tagivan were founded solely for the purpose of inflating the number of property rights.

The inclusion of the Chinese business in the Pool License is discriminatory. The defendant asserts that such a contractual provision deviates from previous licensing practice. To date, there is no such License Agreement that includes the Chinese market. No Chinese manufacturer that uses AVC technology has a license. Furthermore, the defendant's company cannot be compared to a multi-product company; it is a single-product company that only manufactures smartphones. A globally uniform license rate would not take into account the fact that different sales prices are achieved in different sales markets. In the Chinese market in particular, the number of units sold and the turnover generated would vary widely. The uniform license rate affects "D" above all because China is its largest sales market.

The defendant is also of the opinion that the royalty cap clause contained in Section 3.1.1 of the License Agreement is discriminatory, as it significantly hinders its competitive behavior. Firstly, which is undisputed, a staggered license is provided for up to a quantity of 5 million units and for each unit sold thereafter. In addition, however, a maximum amount is regulated, with the consequence that once this limit is reached, each additional unit sold no longer triggers a license fee. The effective license rate is therefore significantly below the graduated amount. The maximum amount for 2017 was USD 8.125 million. Such a regulation favors Licensees who generate a high turnover with a broad product portfolio. For example, the effective license rate in 2016, after both "F" and "D" had exceeded the current maximum amount limit, would be USD 2.3 for "F", whereas that of "D" would be USD 5.1.

It is also discriminatory that the license offer does not contain an adjustment clause to enable an adjustment of fees in the event of revocation or expiry of a patent.

Furthermore, the inclusion of all Profiles of which the disputed standard is constituted in the license offer is discriminatory, since - as the defendant claims - the implementation of all Profiles in mobile devices is not mandatory and is not actually the case in the challenged

embodiments (Exhibit B 33). The inclusion of all intellectual property rights and Profiles in the License Agreement does not sufficiently take into account the difference between multi-product manufacturers and single-product companies such as "D", which only use cell phone patents/Profiles. The fee structure of the HEVC Standard now provides for such a differentiation (Exhibit B 36).

The licensing practice is highly selective. Licensing on the cell phone product market is decisive. Looking at this relevant market on a global basis in terms of unit numbers, 56% was not licensed in the period from 2017 up to and including the second quarter of 2018. Of the 44% of the licensed market, 42% is attributable to members of the MPEG LA Pool. This means that only 2% of the market are licensees and are not members of the pool at the same time. Such a licensing practice is not meaningful and no reliable conclusions can be drawn from it for the market acceptance of the Standard License of MPEG LA. 114

The fact that all of the approximately 1,400 contracts could contain uniform provisions is contradicted by the consideration of individual License Agreements submitted. The contracts submitted are therefore unsuitable as a whole to prove the FRAND character. 115

For example, the ZDF contract submitted refers to a specific order form with which the contract alone is valid (Exhibit K 33 and Exhibit K 37 of Exhibit B 65). Some contracts were only incomplete or with page deviations - not all contracts had 32 pages. Changes to the content could therefore not be ruled out. Any renewal notifications were not available. Exhibit 1 to the Standard License Agreement, which contains information on Licensors and licensed patents, apparently defines the subject matter of the license. The fact that it had only been submitted for a single contract indicated that individually deviating agreements existed. A comparison of Exhibit 1 submitted with the currently available patent list shows a completely different set of property rights. The overview submitted by the plaintiff in Exhibit K 14 shows at least four different types of contracts in the third column "Associated Contracts", with each type being assigned USD amounts (\$ 0.35 to \$ 2.50), some of which differ considerably. 116

Finally, the fact that group companies of the defendant had concluded an individual License Agreement with K Inc., which is also a pool member, covering the entire portfolio of 3GPP/3GPP2-essential patents, also speaks against the assumption that the Standard License Agreement is so widespread in the market. The agreement provided for a style maintenance agreement, according to which "K" could not successfully assert claims from other SEPs, namely those that can be read on the AVC Standard, against the defendant's group companies. In this case, the group companies had the option of entering into a license with regard to these other SEPs by means of a unilateral declaration to "K" (so-called "pick right") if "K" asserted the corresponding patents. However, any license fee claims from these other SEPs were already settled with the payments for the 3GPP/3GPP2. The conclusion of a License Agreement on substantially different terms - as here - could therefore be contrary to the FRAND character of the plaintiff's offer. 117

Since MPEG LA had also raised the possibility of installment/one-off payments including discounts, this suggested that such differentiated arrangements had also been made with other Licensees. 118

The defendant denies with ignorance that Licensors have never (also) concluded individual licenses outside the Pool.

The defendant believes that in any case its second license offer is FRAND-compliant. It had made adjustments and thus reacted to the plaintiff's criticism. In particular, it would no longer adhere to the subdivision of the global market and the various license rates. 120

The defendant argues that the requested prohibition in bad faith is disproportionate, since an economically reasonable patent-free use of the challenged embodiments could be considered, in particular by affixing a corresponding warning. With regard to the requested accounting, the plaintiff could not demand information on prime costs and profit, as it had made a FRAND declaration and the damages owed were limited to the license analogy. 121

The defendant is of the opinion that the patent in suit will not prove to be legally valid in the decision on the nullity action pending before the Federal Patent Court. In particular, the technical teaching claimed by it is not new and was in any case obvious from the state of the art. 122

For further details of the facts of the case and the dispute, reference is also made to the written pleadings exchanged between the parties and to the documents submitted for the file. 123

Reasons of the Decision: 124

The admissible complaint is also successful on the merits. 125

A. 126

The action is well-founded, as both a direct infringement of device claim 4 and an indirect infringement of method claim 1 can be established. Since both claims contain the same features, the infringement is described below on the basis of method claim 1. 127

I. 128

The patent in suit relates to a motion compensation method using motion vectors and picture coding and decoding methods using the motion compensation method. 129

According to the patent in suit, technologies for compression and the standardization of such technologies are essential due to the processing requirements of the extremely large amounts of data from digital images. The patent in suit names some existing standards in section [0002]. 130

Traditionally, the data volume is reduced by reducing the redundancy in the temporal or spatial direction of motion image coding. Therefore, for picture inter-prediction coding with the aim of reduced temporal redundancy, motion estimation and generation of a predictive picture are performed on a single block basis with respect to a previous picture and a subsequent picture, and coding is performed for a difference value between an obtained predictive picture and a picture of a current macroblock to be coded. Here, the term "image" 131

stands for a display screen. The patent in suit describes different types of pictures in paragraph [0004]. A picture that does not have a reference picture and in which intra picture prediction coding is performed is called an I picture. Additionally, a picture in which only one picture is referred and inter picture prediction coding is performed is called a P picture. Moreover, a picture in which two pictures are referred at the one time and inter picture coding can be performed is called a B picture. In a B picture, two pictures can be referred as arbitrary combination from forward pictures or backward pictures in display order. Appropriate reference pictures can be selected for each block that is a basic unit for coding and decoding. A distinction is made between two reference pictures: a reference picture that is described earlier in a coded bitstream is the first reference picture, and a reference picture that is described later in the coded bitstream is the second reference picture. But it is necessary that the reference pictures are already coded or decoded as a condition in the case of encoding and decoding these pictures.

To code a P-picture or a B-picture, inter picture prediction coding using motion compensation is used. The inter picture prediction coding using motion compensation is a coding method in which motion compensation is applied to inter picture prediction. Motion compensation is a method that does not simply perform prediction based on the pixel values of a block in a reference frame that is co-located to a current block, but estimates the amount of motion (hereinafter this is called a "motion vector") of each part and performs prediction considering said motion amount to improve predictive accuracy and reduce the amount of data. For example, by estimating the motion vector of a current picture to be coded, obtaining a predictive value that has been shifted by the amount of the motion vector, and coding the predictive residual, which is the difference between the predictive value and a pixel value of each pixel in the current picture to be coded, the amount of data is successfully reduced. In the case of this method, information of a motion vector at the time of decoding is required and therefore the motion vector is also coded and recorded or transmitted.

132

The motion vector is estimated on a block-by-block basis, the blocks having a pre-determined size. Concretely, the motion vector is estimated by moving each block in a reference picture corresponding to each block in a current picture to be coded in a search area and recognizing the location of the reference block that is most similar to the current block to be coded.

133

The patent in suit describes in paragraph [0017], in particular when performing bi-predictive motion compensation of a B-picture whose pixel values are calculated by motion compensation of the current picture to be coded or decoded with respect to two pictures simultaneously, as disadvantageous that the overhead problem becomes larger when the size of the current block provided for motion compensation is small.

134

In paragraph [0018], the patent in suit cites as prior art disclosure JVT-C 115, ISO/IEC JTC1/SC29/WG11 and ITUT-T SG16 Q.6, which proposes a method for reducing accesses to the reference memory in temporal direct mode. If the temporally subsequent co-located macroblock contains sub-partitions, the motion vectors of the direct mode are only derived from the motion vectors that are adjacent to either the upper or the lower edge of the co-located macroblock.

135

Against this background, the patent in suit sets itself the task (the technical problem) of providing a motion compensation method that reduces access to the reference memory (cf. paragraph [0019]). In addition, the patent in suit aims to provide a picture coding method and a picture decoding method using the motion compensation method (see paragraph [0020]). 136

These tasks are solved by the method according to claim 1 of the patent in suit, which can be subdivided into the following features: 137

1. A motion compensation method for generating a predictive image of a current block included in a current macroblock included in a B-picture, the motion compensation method comprising: 138

2. Obtaining a motion vector from a block for which motion compensation has been performed, 139

3. said block being included in a co-located block, the co-located block being included in a co-located macroblock, the co-located macroblock being included in a picture subsequent in display order to said B picture, 140

3.1 wherein the size of said block is smaller than the size of the current block and 141

3.2 the size of said co-located block is the same as that of the current block 142

3.3 and wherein said block is located in a corner of said co-located macroblock, 143

4. Determining a motion vector for performing motion compensation on the current block using the obtained motion vector, 144

4.1 wherein, when a size of the obtained motion vector is a predetermined value or less, the motion vector for the current block is determined to be "0" (S402, S502, S702), and, 145

4.2 when the size of the motion vector obtained exceeds the predetermined value, the motion vector for the current block is determined using motion vectors of adjacent macroblocks (s404, S504, S704) which are located adjacent to the current macroblock. 146

5. Performing the motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block using the determined motion vector. 147

Furthermore, the tasks are solved by an apparatus according to claim 4 of the patent in suit, which can be subdivided into the following features: 148

1. A motion compensation apparatus (300) which generates a predictive image of a current block included in a current macroblock included in a B-picture, said motion compensation apparatus comprising: 149

2. a motion vector obtaining unit (302) operable to obtain a motion vector from a block for which motion compensation has been performed, 150

3. said block being included in a co-located block, the co-located block being included in a co-located macroblock, the co-located macroblock being included in a picture subsequent in display order to said B-picture, 151
- 3.1 wherein the size of said block is smaller than the size of the current block and 152
- 3.2 the size of said co-located block is the same as that of the current block 153
- 3.3 and wherein said block is located in a corner of the co-located macroblock, 154
4. a motion compensation unit (303) operable to determine a motion vector for performing motion compensation on the current block using the obtained motion vector, 155
- 4.1 wherein, when a size of the obtained motion vector is predetermined value or less, the motion vector for the current block is determined to be "0" (S402, S502, S702), and, 156
- 4.2 when the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined using motion vectors of adjacent macroblocks (s404, S504, S704) which are located adjacent to the current macroblock, and 157
5. to perform motion compensation (S403, S503, S703) for the current block to generate a predictive image of the current block by using the determined motion vector. 158

II. 159

There is - rightly - no dispute between the parties that the H.264 Standard makes use of features 1 and 2. The same applies, however, to the other disputed features or feature groups 3 to 5. 160

1. 161

The H.264 Standard also makes use of feature group 3. 162

a) 163

According to feature 1 of method claim 1, the latter relates to a motion compensation method for generating a predictive image of a current block being included in a current macroblock contained in a B-picture. The specific embodiment of the claimed method is described in the features or in more detail in feature groups 2 to 5. Thereafter, the motion compensation method comprises first obtaining a motion vector from a block for which motion compensation has already been performed (feature 2), wherein said block is included in a co-located block, wherein said co-located block is contained in a co-located macroblock, and wherein said co-located macroblock is contained in an image following the B-picture in display order (feature 3). The size of the co-located block according to feature 3 must be smaller than the size of the current block (feature 3.1) and the size 164

of the co-located block must be the same as that of the current block (feature 3.2). Feature 3.3 further requires that the block used for motion compensation is located in a corner of the co-located macroblock. Determining a motion vector for performing motion compensation on the current block is to be performed using the obtained motion vector (feature 4), wherein the teaching according to the patent in suit distinguishes two cases. When a size of the obtained motion vector is equal to or less than a predetermined value, the motion vector for the current block is to be determined as "0" (feature 4.1). If the size of the obtained motion vector exceeds the predetermined value, the motion vector for the current block is determined using motion vectors of adjacent macroblocks that are adjacent to the current macroblock (feature 4.2). In a final step, motion compensation shall be performed for the current block to generate a predictive image of the current block using the determined motion vector (feature 5).

The patent in suit assumes - as does the H.264 Standard - a division of an image based on a macroblock structure with fixed block sizes. The already motion-compensated block, i.e. the (reference) block from which the motion vector is obtained, is to be obtained in a co-located block, which in turn is to be obtained in a co-located macroblock, which in turn is contained in an image to be used for prediction. The person skilled in the art is aware that - as the patent in suit also states in its introduction to the prior art in paragraph [0007] - the individual images are basically divided into different (marker) blocks during video compression, which can be combined to form so-called slices. A macroblock always has a size of 16x16 pixels, while a sub-macroblock has a size of 8x8 pixels. The smallest size recognized by the Standard and the patent in suit is a sub-macroblock partition of 4x4 pixels. 165

According to feature 3, the (reference) block according to feature 2 is to be contained in a co-located block, wherein the co-located block is contained in a co-located macroblock and wherein the co-located macroblock is contained in an image. Taking into account the aforementioned size structure, the person skilled in the art recognizes that the co-located macroblock must have a size of 16x16 pixels, since it is a macroblock. With regard to the size of the co-located block contained in this 16x16 block, the skilled person then recognizes that it must have a size of 8x8 pixels, as it is to be contained in the macro block and must therefore be smaller. The block to be used for motion compensation should in turn be contained in this 8x8 pixel block, so that it must have a size of 4x4 pixels. 166

For the current block, the patent in suit requires that this block contains the (sub-macroblock) size of 8x8 pixels. This already follows directly from the wording of feature 3.1 and the aforementioned generally known common block structure in video compression. According to the clear wording of the claim, the size of the block from which the motion vector is to be obtained must be smaller than the size of the current block. Since the sub-macroblock partitions have a size of 4x4 as their smallest unit and the skilled person can infer from feature 3 that the block used as a reference is such a sub-macroblock partition, this means that the current block must have at least the next larger block size, i.e. a size of 8x8 pixels. 167

This interpretation results from the overall context of the wording of the claims, which determines the scope of protection of the patent in suit pursuant to Art. 69 (1) sentence 1 EPC. According to Art. 69 para. 1 sentence 1 EPC, the scope of protection of a patent is determined by the claims, whereby the description and the drawings are also to be taken into account (Art. 69 (1) sentence 2 EPC). In the interpretation of the patent claim required to determine the scope of protection, it is not the linguistic or logical-scientific meaning of the terms used in the patent claim that is decisive, but their technical meaning, taking into account the task and solution as these objectively result from the patent for the skilled person addressed by the patent in suit (Federal Supreme Court, GRUR 1975, 422, 424 - Streckwalze). In this context, the meaning of the patent claim as a whole and the contribution that the individual features make to the performance result of the patented invention must be taken into account (Federal Supreme Court, GRUR 2007, 410, 413 - Kettenradanordnung). In principle, it is irrelevant whether a different understanding of a term used in the patent specification arises from other documents outside the admissible interpretation material, as long as there are no indications in the patent specification that such an understanding is also to be taken as a basis in connection with the protected teaching. This is because the patent specification constitutes its own lexicon, as it were (Federal Supreme Court (BGH), GRUR 2002, 515ff. - Schneidmesser I; GRUR 1999, 909ff. - Spansschraube).

In this respect, the patent specification must be read in a meaningful context and, in case of doubt, the patent claim must be understood in such a way that there are no contradictions with the explanations in the description and the pictorial representations in the drawings, but that these are understood as related parts of the technical teaching provided to the skilled person with the patent as a meaningful whole (Federal Supreme Court BGH, GRUR 2009, 653, 654 - Straßenbaumaschine; Düsseldorf Higher Regional Court, Mitt. 1998, 179 - Mehrpoliger Steckverbinder). An example of an embodiment regularly does not allow a restrictive interpretation of a claim characterizing the invention in general (Federal Supreme Court, GRUR 2004, 1023, 1024f. - Bodenseitige Vereinzelungseinrichtung).

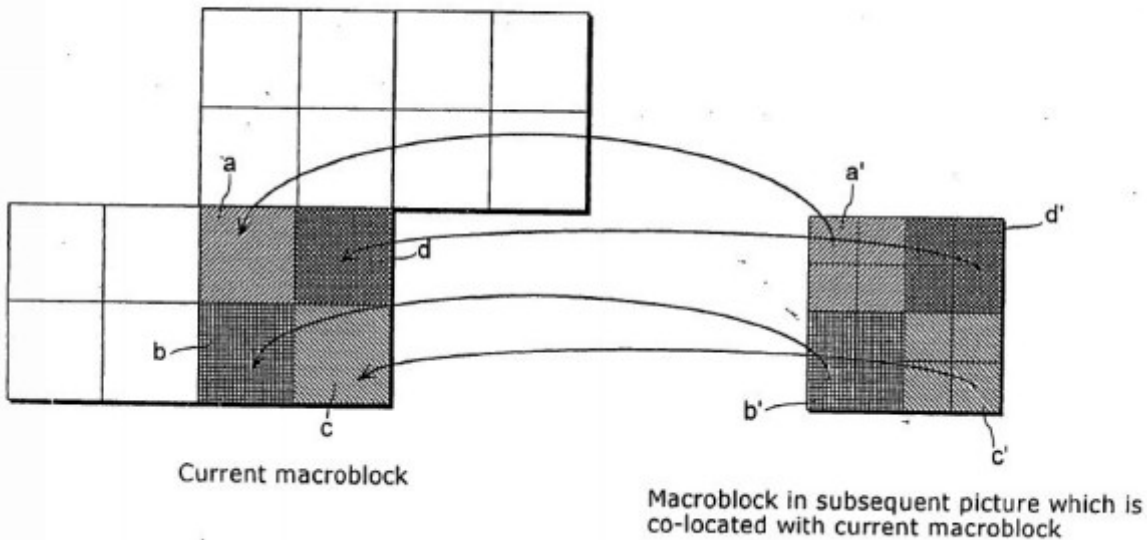
The skilled person is confirmed in this view by the description, which must be taken into account in the context of the interpretation. In paragraph [0045], the patent in suit describes a (first) example of an embodiment. It states: 169

"[...] In the following, the case where the block in a subsequent image which is co-located to the current block provided for motion compensation is motion compensated in a different block size than the current block provided for motion compensation is explained. In the image coding apparatus 300, when performing bi-predictive motion compensation of a B-picture, the motion compensation unit 303 and the motion vector estimation unit 302 perform motion compensation specifically on blocks having a predetermined size (for example, blocks of 8x8 pixels) that is larger than the smallest block (4x4 pixels) that can be used as the target block for unidirectional predictive motion compensation. [...]" 170

From this passage, the person skilled in the art understands that the patent in suit assumes a block of size 4x4 as the smallest possible block size and that the current block must therefore be at least 8x8 in size. 171

The skilled person will conclude nothing else from paragraphs [0046] et seq. and [0065] et seq., in which Figures 9 to 11 are explained in more detail. 172

Fig. 9



As can be seen from the above Figure 9 together with the descriptive passage in paragraph [0046] et seq., the current macroblock has the size 16x16 pixels, whereby it is divided into four 8x8 sub-macroblocks (a - d). The corresponding co-located macroblock (16x16) in turn consists of four sub-macroblocks (8x8), which in turn each consist of four sub-macroblock partitions of size 4x4 (a' - d'). In this respect, the motion vector of the 4x4 block a' in the corner is used to perform motion compensation for the current block a. The fact that the current block has the size 8x8 and the co-located block has the size 4x4 is clear from paragraph [0047], which states: 174

"[...] Since the size of the current block to be motion-compensated is 8 pixels x 8 pixels and the block in a subsequent image that is co-located with the current block to be motion-compensated has a size of 4x4 pixels. [...]" 175

The question of the size ratio of the block in the sense of feature 3, i.e. the block from which the motion vector originates, in comparison to the current block, must be distinguished from the question of whether the definition of the size of the current block to (at least) 8x8 pixels requires that this block must also be processed uniformly, i.e. for the motion compensation of the entire 8x8 block only 1x in total must be accessed on the 4x4 block of the co-located (sub-macro) block. i.e. for the motion compensation of the entire 8x8 block, the motion vector of the 4x4 block of the co-located (sub-macro) block located in the corner may only be accessed once in total, or whether the four-fold access to the same motion vector - as the plaintiff believes - is still covered by the method according to the patent in suit. Such quadruple access to the same block occurs when the current 8x8 block is divided into four 4x4 sub-macroblock partitions for processing. 176

Neither the wording of the claim nor the description indicates to the skilled person that the current block cannot be subdivided into four 4x4 sub-macroblock partitions, like the corresponding co-located block. Based on the (main) task of the patent in suit of limiting the accesses to the reference memory in order to reduce the data volume, the skilled person recognizes that it should be avoided that for each 4x4 block of the current block to be compensated, the corresponding 4x4 block in a co-located block is accessed and the movement vector obtained in each case is used (see also paragraph [0009]). This method 177

which is already known from the prior art, requires (very) high access to the reference image memory, particularly in the case of B prediction, in which two reference images must always be accessed. In this respect, the skilled person recognizes that the desired limitation of memory accesses can already be achieved if only a single motion vector of a co-located block has to be accessed for four 4x4 blocks of the split current 8x8 block and thus not four possibly different motion vectors. In this respect, only this one movement vector and not four different vectors need to be stored in the reference memory. Compared to the state of the art (4x storage and 4x access), the memory access load is already reduced if only one motion vector is stored per sub-macro block, even if this vector is accessed 4x (1x storage and 4x access).

Contrary to the defendant's view, the teaching according to the patent in suit does not require that only one motion vector is stored and, moreover, that the reference memory may only be accessed once for the entire 8x8 block (1x storage and 1x access). Although this method may be particularly desirable for the desired reduction in data volume, the skilled person will not find any indications in the patent in suit for such a narrow understanding. 178

According to paragraph [0075], the processing load, i.e. the accesses to the (reference) memory, is already reduced by the fact that only access to a single motion vector, which is also located in the corner, is required. The person skilled in the art can therefore infer from this passage that the objective of the patent in suit is already achieved if only a single memory operation is required for the motion compensation of a current block of the size 8x8 pixels. Conversely, however, this means that the skilled person also recognizes that it (then) no longer necessarily depends on how often this stored motion vector is accessed. 179

Moreover, the patent in suit speaks in the context of its problem definition in paragraph [0019] quite generally of the reduction of accesses to the reference memory, whereby it is clear to the person skilled in the art that the memory can be accessed in two directions, namely during (inward) storage and during readout. If the patent in suit had been (solely) concerned with the reduction of accesses during read-out, then a corresponding clarifying formulation would have been expected. The fact that the patent in suit distinguishes between the general access load on the memory (storing and reading out) and the load during pure reading out also follows from paragraph [0017] which still belongs to the disclosure of the known prior art and where the "[...] load of access (access for reading out) [...]" (emphasis added), whereby this paragraph concerns the special overhead problem of sub-pixel precision. 180

The skilled person does not conclude anything else from paragraph [0022], where it is stated: 181

"Furthermore, since the image encoding method and the image decoding method perform motion compensation with a larger size of the current block designated for motion compensation as a unit, it is possible, for example, to reduce the overhead by accessing an image memory when coding and decoding a B-picture using bi-predictive motion compensation." 182

Although the reduction of overhead is explicitly disclosed here as one of the advantages of the invention, this objective is introduced with the words "for example, it is possible", 183

so that the invention is in any case not limited to this objective alone. In addition, paragraph [0022] - as the skilled person will recognize - also relates to a special overhead problem which arises due to the fact that the smaller the blocks are, the higher the memory access load is in the case of motion compensation with sub-pixel precision (cf. paragraphs [0016]f.). Since motion compensation with sub-pixel precision always requires access to pixels of adjacent blocks, the smaller the blocks are, the higher the memory access load becomes, since the end result is that many small blocks require access to more (surrounding) pixels than a few larger blocks. Insofar as the patent in suit in paragraph [0019] then formulates the general task of providing a method with which access to the reference memory can be reduced, this task does not, however, relate solely to the overhead problem in the case of sub-pixel precision. The skilled person can already recognize this from the fact that this problem is explicitly addressed by paragraph [0022]. However, this would be superfluous if the overhead problem had already been included in paragraph [0019].

Finally, the person skilled in the art does not conclude from the description of the second embodiment that the patent in suit is necessarily also concerned with reading out the one stored motion vector only once. This is stated in paragraph [0065], which contains a description of the scheme shown in Figure 11: 184

"Fig. 11 is a diagram showing the relationship between the current block to be motion-compensated and the plurality of blocks in a subsequent image co-located to the current block to be motion-compensated when the current macroblock to be coded/decoded in a subsequent image co-located to a current macroblock are motion-compensated in different block sizes in the second embodiment. On the left side in Fig. 11, a current macroblock to be coded or decoded is shown in the current B-picture to be coded or decoded, similar to Fig. 9. On the right-hand side in Fig. 11, the macroblock is shown in a subsequent image that is co-located with the current macroblock, similar to Fig. 9. The image to which the macroblock in a subsequent image, as shown on the right side of Fig. 11, that is co-located to a current macroblock belongs is a P-picture or a B-picture; for example, motion vector estimation and motion compensation have already been performed for the macroblock with a 4 x 4 pixel block as the unit (the smallest area in Fig. 11). For the current macroblock shown on the left side of Fig. 11, motion vector estimation and motion compensation are performed using an 8 x 8 pixel block as the unit, similar to Fig. 9." 185

It is true that the patent in suit states that the motion compensation for the current 8x8 block is to be carried out "*as a unit*". However, contrary to the defendant's opinion, it does not follow from this that processing can only be said to be carried out as a unit if the stored and already motion-compensated (corner) block is accessed only once. Rather, the skilled person understands the phrase "*as a unit*" to mean that - if the current block is broken down into four 4x4 blocks for further processing - the same motion vector is used, so that the entire block - regardless of how often the stored vector is accessed - is moved uniformly. In this respect, the patent in suit is concerned with uniformly shifting the entire current 8x8 block, whereby only single or multiple access to the same stored motion vector is required for this and not also access only once. 186

b)

Taking this understanding into account, the H.264 Standard at issue makes use of feature 188
3.1.

Section 8.4 of the H.264 Standard contains requirements for the interprediction process that 189
is called up when decoding P and B macroblock types. The parties agree that the procedure
for deriving the motion vector (from the co-located 4x4 block) is described in more detail in
Section 8.4.1.2.1 and that the variables "mbPartIdx" and "subMbPartIdx" are important there.
According to Table 7.14 (page 105 of the Standard), mbPartIdx is a submacroblock of size 8
x8, while subMbPartIdx describes a submacroblock partition of size 4x4 according to the
parties' concurring submission.

Depending on whether the parameter "direct_8x8_inference_flag" is 0 or 1, the motion vector 190
is obtained from a 4x4 block co-located on the corner for an entire 8x8 block or only a 4x4
submacroblock partition. The two different cases allowed by the Standard can be illustrated
by the figures reproduced below and shown by plaintiff in its July 25, 2018 quintuplicate on
pages 16et seq:

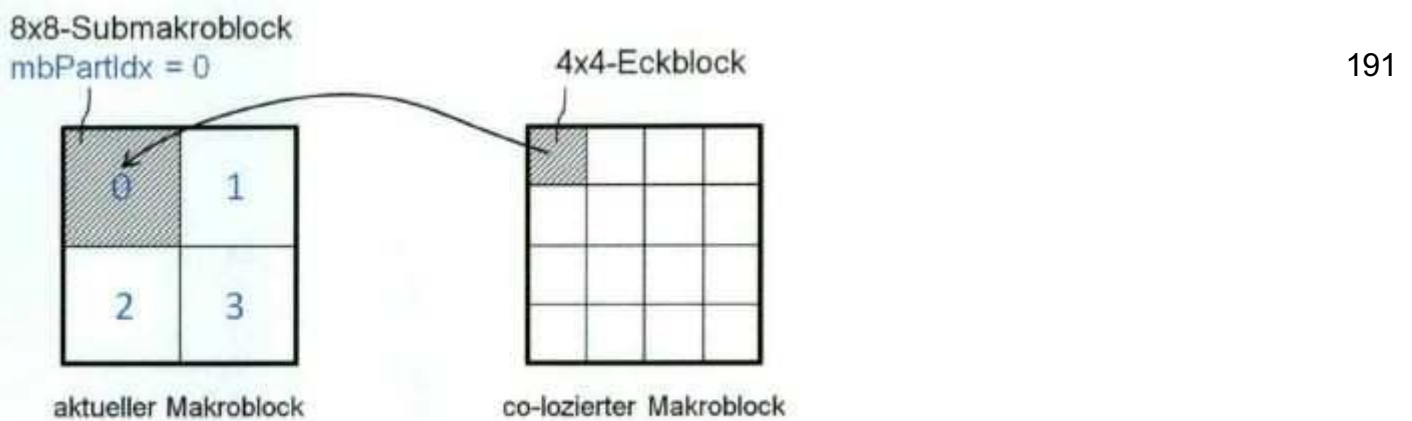


Abbildung 3

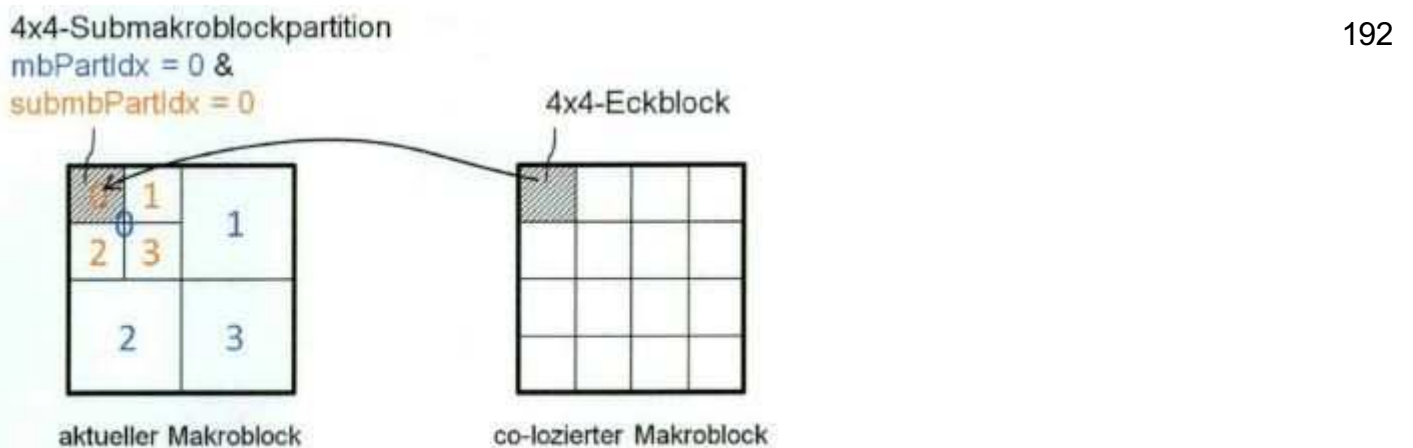


Abbildung 4

In the case "direct_8x8_inference_flag" equals 0, the motion vector is obtained (as shown in Figure 4) as a function of the variables mbPartIdx and subMbPartIdx (see also Exhibit K 5a, p. 162 below). The current block in terms of feature 3 is denoted by a blue 0. This block is divided into four sub-macroblock partitions of size 4x4 (marked in yellow). Depending on the variable subMbPartIdx, a movement vector from another block of the co-located block is obtained for each of the four yellow blocks of the current block (0, 1, 2 and 3). According to the plaintiff's submission, this case is not to be covered by the teaching according to the plaintiff's patent, since it concerns the previously known prior art with the high memory access load (obtaining a separate movement vector for each current 4x4 block).

The second case described in Section 8.4.2.1.1 of the Standard concerns "direct_8x8_inference_flag" equals 1. In this case, only mbPartIdx is processed. This text line of the Standard shows that the sub-macroblock partitions subMbPartIdx play no role in the case in question. As can be seen in Figure 3, a movement vector is obtained from the co-located 4x4 (corner) block for the entire 8x8 block 0. This means that the standard also covers the case according to the patent in suit where only a single motion vector is stored. 194

Insofar as the Standard in Section 8.4 (p. 158, second indent) also states that the block size of the current block is 4x4 pixels and in Section 8.4.1.2.2 states that the motion vectors mvLoN, mvL1N and the reference indices refIdxLoN, refIdxL1N are identical for all 4x4 sub-macroblock partitions, thus making it clear that the current macroblock is divided into 4x4 blocks, each of which is regarded as a current block in the context of spatial direct motion vector prediction, this is irrelevant according to the understanding of the teaching of the patent in suit described above. Since the patent in suit is not or not significantly concerned with whether the current block is further divided for processing, but only with reducing the reference memory access, this further division into sub-macroblock partitions is not significant as long as a uniform motion vector is processed, which is not denied that this is also the case in the AVC Standard. 195

Since, therefore, according to the teaching of the patent in suit, it does not matter whether the one stored motion vector is accessed 1x or 4x, i.e. the current sub-macroblock is further subdivided, the statements of the private expert consulted by the defendant, Mr. Farin, in his private expert opinion (Exhibit B 43) and its supplement (Exhibit B 43b) cannot justify a different assessment. 196

2) 197

Insofar as the parties dispute whether the H.264 Standard also makes use of feature 5, according to which motion compensation is performed for the current block to generate a predictive image of the current block using the specified motion vector, the discussion relates to the identical issues as those at issue in feature group 3, so that reference can be made to previous statements. 198

3) 199

Finally, the H.264 Standard also makes use of feature group 4. 200

201

a)

According to feature group 4, the motion vector for performing motion compensation on the current block is determined using the obtained motion vector, wherein, when a size of the obtained motion vector is equal to or less than a predetermined value, the vector is determined as "0" for the current block, or, when the size of the obtained motion vector exceeds the predetermined value, it is determined for the current block using motion vectors of adjacent macroblocks arranged adjacent to the current macroblock. 202

Taking into account the principles of interpretation set out in Section II.1.a), the person skilled in the art understands from the literal meaning of this feature that, when determining the motion vector for motion compensation, it is important - among other things - whether the size of the motion vector obtained, i.e. the motion vector derived from the block according to feature 3, exceeds a certain value. In the event that a certain value is not reached, the person skilled in the art takes from feature 4.1. that the motion vector for the current block is set to "0", i.e. no motion compensation is required. However, if the value is exceeded, the motion vector should be further determined using motion vectors from adjacent macro blocks. 203

The person skilled in the art therefore recognizes that the patent in suit makes a distinction between two groups of cases, whereby a further vector determination and consequently a movement compensation is only required when the condition - exceeding a predetermined value - occurs. The skilled person cannot directly infer from the wording any further details or requirements for this (threshold) value established as a criterion, in particular whether it must be a fixed value in the form of a fixed number (e.g. 1) or whether a range specification is also sufficient as a value within the meaning of this feature. 204

However, the skilled person is already aware, based on his specialist knowledge, that a (motion) vector consists of several vector components that significantly influence the size of the vector. In this respect, the skilled person is also aware that a vector cannot or cannot directly be compared with a value. The patent in suit therefore also refers to the size of a vector to be compared with a predetermined value in order to distinguish between the two alternative methods. 205

From a technical-functional point of view, the skilled person recognizes that feature 4 is solely concerned with whether or not the further vector determination provided for in feature 4.2. is required for the current block. The question as to which of the two alternatives of feature 4 (vector = 0 or 0.0 or determination of the vector) is chosen for the current block depends only on which (threshold) value is chosen, whereby the skilled person can take no further clues from either the claim or the description of the patent in suit as to which (concrete) value he/she can or should choose. In this respect, the patent in suit leaves it to the knowledge of the person skilled in the art to determine a suitable value. However, this value does not necessarily have to be a fixed number, but a range of values can also be chosen, since the patent in suit is only concerned with defining a - more or less broad - threshold, which can be either very precise (fixed number) or rather indefinite (range of values). It is not apparent why a broader threshold in the form of a range of values should not be suitable to serve as a distinguishing criterion. The same has not been argued. 206

The skilled person is also supported in this view by the description in paragraph [0038]. 207
There it says:

"[...] In other words, for this current motion compensation block, motion compensation is 208
performed using an inter-image prediction that determines that the motion vector is (0,0).
This means "the movement is small" means that the block is coded with reference to the
image that is closest to the image in which the block is contained and that the size (absolute
value) of the movement vector is within "1". However, "the movement is small" is also
acceptable if the size of the movement vector is the specified value or smaller. In addition,
"the movement is small" is also acceptable if it is determined that the image in question is
the reference image."

In this paragraph, three different cases are mentioned which are suitable to serve as selection 209
criteria for one of the two alternatives of feature group 4. While the second alternative, which
is the subject-matter of feature group 4 at issue, refers only to a value, the patent in suit refers
to the first alternative, in which two conditions must be met, inter alia to an absolute value of
the magnitude of the motion vector. The person skilled in the art therefore recognizes that the
patent in suit generally distinguishes between a value and an absolute value. However, if - as
the defendant believes - it always understood a value to be a fixed value in the form of a
number, this distinction between a value and an absolute value would simply be superfluous.
However, a person skilled in the art always reads (and understands) a patent in such a way
that he/she resolves contradictions and does not choose an interpretation that results in
superfluous terms and/or passages.

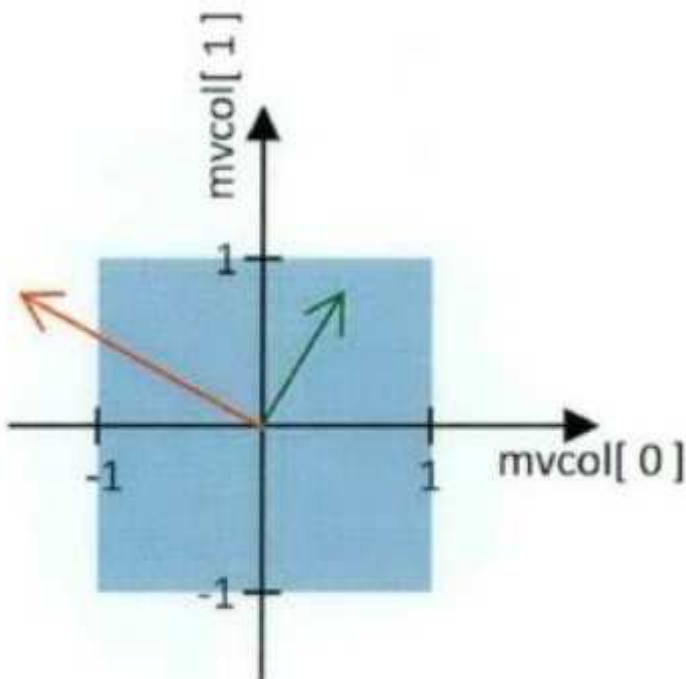
Contrary to the defendant's view, the skilled person does not understand feature group 4 as 210
conclusively establishing the only (sufficient) condition for when the motion vector for the
current block is determined to be "0". Neither the wording of feature 4 nor the general system
of the claim indicates to the person skilled in the art that the determination of the motion
vector for performing motion compensation on the current block should depend solely on
whether or not a predetermined value is present in the motion vector obtained. The mere fact
that the claim sets out a condition does not mean that there should only be this one condition
to be fulfilled or that the achievement of the desired success only depends on this one
condition. On the contrary, the skilled person recognizes directly and unambiguously from the
statements made in paragraph [0038] that there may also be other conditions which may
have to be fulfilled alternatively or cumulatively.

b) 211

Based on this understanding, the standard also makes use of feature group 4. 212

According to Section 8.4.1.2.2, which describes the derivation process for luma motion 213
vectors and reference indices in the spatially direct prediction mode, the standard specifies
as a (threshold) value that the two motion vector components mvCol[0] and mvCol[1] lie in
the range -1 to 1. In this respect, it is a predetermined value within the meaning of the patent
in suit in the form of a range specification.

The following figure, which serves to clarify the range of values provided for in the Standard 214
as a distinguishing criterion, was taken from plaintiff's reply dated



All motion vectors whose size is so 'small' that these lie within the blue value range (shown as an example using a vector represented by a green arrow) fulfill the conditions that their two motion vector components mvCol[0] and mvCol[1] lie within the range -1 to 1. As soon as at least one motion vector component lies outside the value range -1 to 1, the vector (shown here using a red arrow) is so large that - as feature 4.2 requires - motion compensation must be carried out for the current block.

216

III.

217

By offering and selling the attacked embodiment in the Federal Republic of Germany, the defendant infringes the patent in suit. This is because the challenged embodiment indisputably complies with the requirements of the AVC Standard, which in turn presupposes the use of the teaching of the patent in suit. This reasons both a direct infringement of claim 4 of the patent in suit and an indirect infringement of claim 1 of the patent in suit.

218

Insofar as the defendant itself does not play H.264 Videos, but only does so through its customers, it does not itself apply the method according to claim 1. In this respect, however, there is an indirect patent infringement of method claim 1 within the meaning of Section 10 (1) PatG. Accordingly, it is prohibited for third parties to offer means relating to an essential element of the invention for use of the invention in the Federal Republic of Germany to persons other than those authorized to use the invention without the consent of the patent owner, if the third party knows or it is obvious from the circumstances that these means are suitable and intended to be used for the use of the invention.

219

The challenged embodiments are undoubtedly means which relate to an essential element of the invention. This is understood to be means which are suitable to functionally interact with an element of the invention in the realization of the protected inventive concept (see Federal Supreme Court GRUR 2004, 758, 760f. - Flügelzähler). This excludes those means which can be used to use the invention, but which contribute nothing or practically nothing to the realization of the technical teaching - i.e. to the solution of the technical problem (see Federal Supreme Court GRUR 2007, 769ff. - Pipettiersystem). On the other hand, an element of the invention is regularly already essential if it is part of the claim (see Federal Supreme Court GRUR 2007, 773ff. - Rohrschweißverfahren).

The challenged embodiments are objectively suitable for direct patent use. This is the case if a direct patent infringement is objectively possible when using the means within the meaning of Section 10 (1) PatG together with other means or for the application of a method (see Federal Supreme Court (BGH) GRUR 2005, 848ff. - Antriebsscheibenaufzug). It is objectively possible to play H.264-encoded videos with challenged embodiments. 221

The challenged embodiments are also subjectively intended for use of the invention. For this purpose, the supplied party must want to assemble or prepare the device offered/delivered to it in such a way that it can be used in a way that infringes the patent (see Federal Supreme Court GRUR 2001, 228ff. - Luftheizgerät). The intention to act on the part of the offeree or supplier must be sufficiently foreseeable at the time of the indirect patent infringement. It is not necessary for the customer to have already determined the intended use upon receipt of the offer and for the offeror to be aware of this. Rather, it is sufficient that, from an objective point of view, the offeror has a sufficiently certain expectation that the customer will use the offered means for the infringing use (see Federal Supreme Court GRUR 2006, 839 et seq. - Deckenheizung). The subjective determination is usually obvious based on the circumstances if the means can only be used in a patent infringing manner (cf. Federal Supreme Court GRUR 2005, 848ff. - Antriebsscheibenaufzug). If a means can be used both patent-free and in accordance with the patent, obviousness is nevertheless to be assumed if the instructions for use or the like refer to both types of use equally, or even recommend them (see Federal Supreme Court GRUR 2007, 679ff. - Haubenstretchautomat). This is the case here. Insofar as the defendant does not already explicitly advertise the possibility of playing MPEG-4 videos with its cell phones, it must certainly assume that the end customer will play such videos due to the widespread distribution of the videos and the playback software installed. 222

Finally, there is also a double domestic connection. The prerequisite for this is that both the offering or supplying of the means and the patent-compliant use take place in Germany (Kühnen in Handbuch der Patentverletzung, 10th edition, Chapter A., para. 392 with further references). Doubts as to the defendant's intent with regard to the suitability for the patent-compliant use of the accused embodiments as well as for the intended use are neither apparent, nor has the defendant denied such intent. 223

In this respect, it was no longer necessary to go into the question of whether the plaintiff had also sufficiently demonstrated the realization of the disputed features by means of the analysis of one of the challenged embodiments submitted as Exhibit K 28 to the file. 224

IV. 225

226

The antitrust compulsory license objection asserted by the defendant does not apply.

The Chamber cannot find that the plaintiff has abused its dominant position (see 1) above) (see 2) above). 227

1) 228

The plaintiff has a dominant position within the meaning of Art. 102 TFEU. 229

a) 230

"Market dominance" means the economic power which enables an undertaking to prevent effective competition on the market (relevant in terms of time, territory and product) and to behave to an appreciable extent independently of its competitors, customers and consumers (ECJ ECR 78, 207 para. 65 et seq. - United Brands; ECJ ECR 79, 461 para. 38 et seq. - Hoffmann-La Roche; Kühnen, loc. cit., Chapter E, para. 214). 231

The necessary exact delineation of the (product and geographic) market on which companies compete can be carried out using the so-called demand market concept (for more details, see Wiedemann, in: Wiedemann, Kartellrecht, 3rd ed. 2016, Section 23 para. 11 seq. with further references). The competitive forces to which the companies concerned are subject must be determined. Furthermore, those companies are determined that are actually in a position to set barriers to the behavior of the companies involved and prevent the withdrawal of competitive pressure. It is necessary to clarify which products or services are functionally interchangeable from the point of view of customers. The same product market is assigned to those products or services that cannot be substituted by other products or services from the customers' point of view due to their respective characteristics, prices and intended uses. A combination of several factors (such as market share; company structure; competitive situation; behavior on the market; but generally not the price, see Wiedemann, loc. cit., Section 23 para. 12) must be taken into account. Individual factors do not necessarily have to be decisive in themselves. In this respect, the territory of the Federal Republic of Germany - like every Member State - also constitutes a substantial part of the common market (see ECJ [1983] ECR 3461, para. 103 - Michelin/Komm). 232

In connection with the prohibition rights from a patent asserted here, the delimitation described above must be made in relation to the licensing market (cf. Kühnen, loc. cit., Chapter E, para. 217): The supplier is the patent owner, who alone is able to grant a license to the respective patent; the demander is the user interested in the patented technology. In principle, each patent leads to a separate relevant product market, unless in individual cases an equivalent technology - from the point of view of the demanders - is available for the same technical problem. It is recognized that the mere ownership of patents does not constitute a dominant market position. However, if, due to additional circumstances, the patent owner is able to use its monopoly position to prevent effective competition on a downstream market (here: on the downstream product market for goods/services subject to licensing (due to the patent)), a dominant position exists (ECJ GRUR Int 1995, 490 - Magill TVG Guide; ECJ WuW 2013, 427 - Astra Zeneca). 233

Even a Standard-Essential Patent ("SEP") as such does not constitute a sufficient condition for market dominance; the Standard-Essentiality alone cannot even be used as the basis for a (rebuttable) presumption that the SEP holder can prevent effective competition precisely because the SEP must be used due to the Standard-Essentiality in order to be able to produce products compatible with the standard (Düsseldorf District Court, judgment of July 13, 2017, file no. 4a O 16/16, BeckRS 2017, 129534; Kühnen, loc. cit., Chapter E, para. 220; de Bronett, in Wiedemann, loc. cit., Sec. 22, para. 27; Müller, GRUR 2012, 686; loc. cit. Opinion of Advocate General Wathelet of November 20, 2014, file no. C-170/13 para. 57 = BeckRS 2014, 82403; ECJ loc. cit. para. 43 left the question open because market dominance in the individual case submitted was undisputed and therefore not the subject of the questions referred). With regard to each individual patent included in the standard, it is therefore necessary to assess its competitive significance for the downstream product market based on the circumstances of the individual case (Kühnen, loc. cit., Chapter E, para. 221 seq.): If it emerges in this respect that the use of the respective SEP virtually constitutes a prerequisite for market entry, a dominant market position must be affirmed even if the technical effect resulting from the respective SEP does not decisively influence market participation, but functions relevant to market entry could not be used for technical reasons, so that general interoperability/compatibility would no longer be ensured (cf. in particular Düsseldorf Higher Regional Court, judgment of March 30, 2017, I-15 U 66/15, GRUR 2017, 1219, 1222 - Mobiles Kommunikationssystem). The same applies if a competitive offer would not be possible without a license for the SEP in question (e.g. because there is only a niche market for non-patented products).

The defendant bears the burden of presentation and proof for market dominance in accordance with the general principles (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). In this respect, the defendant is required to present sufficiently concrete facts that allow a judicial review of whether or not a dominant position exists on the relevant geographic and product market. 235

b) 236

The plaintiff holds a dominant position on the market for the AVC Standard to be licensed because it or MPEG LA as Pool Administrator can decide on the granting of licenses with regard to the standard-relevant property rights. This puts it in a position to prevent competition on the downstream market, which consists of all AVC-capable end devices. Although the AVC Standard does not influence the downstream product market in the sense of a market entry requirement, as end products can in principle also be marketed without this common Standard, equipping end devices with this Video Standard is nevertheless a key factor. Without its provision, the products (TVs, smartphones, tablets, etc.) would in fact not be competitive because they would be practically unsuitable for playing videos and for the average user, who sees this playback option as an important function in the form of a "must have", due to the lack of (de)coding devices. There is no other Standard that could replace the AVC Standard. There is no interchangeability with other common Standards in the field of video coding such as AVI, DivX, Flash Video and WMV. Rather, it is common practice on the part of end device manufacturers to equip devices in such a way that all common standards are supported and video content can be played back correctly. This is because it is the content provider who chooses which standard is used for encoding. Accordingly, market penetration on the downstream product market is almost 100%. The defendant has 237

verified this percentage by random market analyses, the results of which it has submitted to the file as Set of Exhibits B 41. The cell phones examined from various manufacturers are all advertised as AVC-compatible.

2) 238

The plaintiff has sufficiently fulfilled its FRAND obligations arising from the prohibition of abuse and discrimination under antitrust law according to the case law of the ECJ. It does not abuse its dominant market position. 239

a) 240

The ECJ ruled in the case D Technologies v ZTE (case D v ZTE, file no. C-170/13, judgment of July 16, 2015 in the version of the rectification order of December 15, 2015, GRUR 2015, 764, hereinafter referred to as the ECJ judgment), on when the enforcement of the injunctive relief (and also the recall claim) from an SEP standardized by a Standardization Organization, the holder of which has undertaken to grant licenses to any third party on Fair, Reasonable And Non-Discriminatory terms (FRAND terms), does not constitute an abuse of a dominant market position within the meaning of Art. 102 TFEU. 241

Accordingly, the SEP holder must inform the alleged infringer (hereinafter: "infringer") of the patent infringement before asserting his claim for injunctive relief or recall (Guidelines and para. 61 ECJ judgment). If the infringer is in principle willing to take a license, the SEP holder must submit a specific written offer to license the SEP on fair, reasonable and non-discriminatory terms, including the manner in which the required license fees are calculated (para. 63 ECJ judgment). The infringer must respond to this in good faith and, in particular, without delaying tactics (para. 65 ECJ judgment). If the infringer does not accept the SEP holder's offer, the infringer must submit a counter-license offer within a short period of time that complies with the FRAND requirements (para. 66 ECJ judgment). If the SEP holder rejects this counter-offer, the infringer must account for the use of the SEP from this point in time and provide security for the payment of the license fees, which also applies to past uses (para. 67 ECJ judgment). However, the infringer may not be accused of abusive conduct by attacking the legal existence or Standard-Essentiality of the SEP during the license negotiation or by reserving the right to do so later (para. 69 ECJ judgment). The restrictions under antitrust law explicitly provided for by the ECJ for the injunctive relief and recall claim also apply to the destruction claim according to the general opinion (see Düsseldorf Higher Regional Court, decision of January 13, 2016, I- 15 U 65/15, para. 16, cited in juris; Düsseldorf District Court, judgment of March 31, 2016 - 4a O 126/14, BeckRS 2016, 08040 with further references). 242

When establishing these reciprocal and gradual obligations, the ECJ was clearly based on the model of parties willing to license and, in particular, an infringer willing to license who - as soon as the infringer has been made aware of the use of the patent in suit - seeks a speedy licensing on FRAND terms. Against such an infringer, there is no legitimate interest under antitrust law in enforcing the injunctive relief from an SEP. Instead, the two parties 243

must first endeavour to conclude a FRAND-compliant license agreement through out-of-court negotiations (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Düsseldorf District Court, judgment of March 31, 2016, file no. 4a O 126/14, BeckRS 2016, 08040; judgment of July 13, 2017, 4a O 154/15, para. 254 cited in juris).

According to the general principles applicable in German civil proceedings, the SEP holder must, after raising the antitrust objection in the infringement proceedings, demonstrate and prove that it has fulfilled the obligations set out by the ECJ so that it can assert the injunctive relief without abuse. However, insofar as these are obligations that must be fulfilled by the infringer, the burden of presentation and proof for the fulfillment of the respective obligation lies with the infringer. Accordingly, the SEP holder bears the burden of presentation and proof for the notification of infringement and the submission of a FRAND offer; the patent user bears the burden of presentation and proof for the request for licensing, the FRAND counter-offer, if required, as well as the settlement and provision of security (cf. Kühnen, loc. cit., Chapter E, para. 352 et seq.). 244

b) 245

Contrary to the plaintiff's view, the above-mentioned D-criteria are to be applied to the present legal dispute and not the principles laid down in the Federal Supreme Court's Orange Book decision (see Federal Supreme Court, GRUR 2009, 694, para. 29 - Orange Book Standard). 246

There is no apparent reason why the test steps as set out by the Federal Supreme Court (BGH) in the "Orange Book Standard" judgment, according to which in particular the submission of a license offer by the license seeker would be required first (see Federal Supreme Court (BGH), loc. cit., Orange Book Standard), should be applied. 247

The Orange Book Standard decision no longer applies for reasons of time alone. This is because it was issued around six years before the ECJ's decision, in which the ECJ established a generally applicable procedure ("D criteria") (see Block: Eighteen months after ECJ "D/ZTE", GRUR 2017, 121 (121)). There is no indication that the Federal Supreme Court (BGH), if it now had to resolve the case in light of the ECJ decision, would assess it in the same way. The fact that the Orange Book Standard was only a de facto standard and the patent owner did not make a FRAND declaration, whereas in the facts underlying the ECJ judgment, as in the present case, a legal ("de jure") standard is at issue and the patent owner (plaintiff) also made a FRAND declaration, speaks against this. 248

Contrary to the plaintiff's opinion, it cannot be inferred from the ECJ judgment that the established review regime and in particular the obligation of the patent owner to first submit a license offer should only apply in cases where there is an obvious information gap on the part of the license seeker, i.e. where there are neither publicly available License Agreements nor Standard License Agreements. 249

The requirement of a primary license offer by the patent owner is not, at least not exclusively, based on a possible lack of information on the part of the license seeker, but on the fact that the patent in suit is essential for a standard set by a Standard Organization and that there is an irrevocable commitment by the owner to grant licenses to third parties on FRAND terms. It is precisely with these aspects that the ECJ links the special catalog of obligations established for the patent owner, as can be taken from para. 51 of the ECJ judgment 250

(see also Düsseldorf District Court, judgment of November 9, 2018, 4a O 17/17). It is precisely because of the submitted declaration of commitment that third parties trust that they will receive a license on reasonable, non-discriminatory terms (see Kühnen, loc. cit., Chapter E, para. 258). This is also the position in the literature, which clearly identifies the submission of a FRAND declaration as a demarcation criterion (cf. Kühnen, loc. cit., Chapter E, para. 214).

A further delimitation of the initial situation described in this way to cases in which an existing licensing practice exists cannot be inferred from the ECJ judgment. Nothing else follows from para. 64 of the ECJ judgment cited by the plaintiff. It is true that the last sentence of the paragraph makes it clear that it is in principle the patent owner who finds it easier to assess whether a submitted offer is non-discriminatory than the license seeker. This information gap justifies first requiring the patent owner to submit a license offer. However, as the introduction of the sentence with the word "Furthermore" shows, this is merely a further and not the only reasons for the chosen order. Even without this last sentence, para. 64 already states that the patent owner can be expected to submit a license offer. Accordingly, it is not apparent that the ECJ wanted to create a further delimitation criterion. This is already contradicted by the linguistic introduction with the word "moreover", which merely marks an additional argument for the view that the patent owner must take the initiative to conclude a License Agreement. The systematic position of the statements in connection with the presentation of the patent owner's obligations, which results precisely from the special features described, also underlines the fact that only an additional argument for these obligations, but not a new distinguishing criterion, is to be presented (Düsseldorf District Court, judgment of November 9, 2018, 4a O 17/17). 251

In particular, taking into account para. 48 et seq., it is clear that the type of patent and the commitment to license were decisive for the ECJ in answering the question referred and that the "ratio" of the decision does not necessarily refer to existing License Agreements. It explicitly states in para. 48 that the underlying procedure, i.e. D/ZTE, has *special features* compared to other procedures. In the following paragraphs, the ECJ substantiates this by stating, on the one hand, that a patent essential to a standard set by a Standardization Organization is in dispute. Secondly, it refers to the irrevocable commitment of the patent owner to the Standardization Organization. The (non-)existence of already granted, possibly even industry-known License Agreements has not been used as a criterion to highlight the special nature of a procedure. 252

In addition, the view that an established License Agreement practice leads beyond the principles set out in the ECJ judgment also leads to practical delimitation problems as to when such a constellation is to be assumed. 253

c) 254

In the present case, the Chamber was able to establish that the procedural steps established by the ECJ and also applicable in the present legal dispute were complied with. 255

aa) 256

The plaintiff has duly notified the defendant of the infringement. The relevant notice of infringement is contained in MPEG LA's e-mail of September 6, 2011 (cf. 257

According to the procedural steps resulting from the ECJ judgment, it is initially incumbent on the patent owner to notify the alleged patent infringer of the infringement. The infringer is to be notified of its potentially unlawful conduct, whereby the SEP concerned is to be designated and the manner in which it is alleged to have been infringed is to be indicated (see para. 61 ECJ judgment). 258

As a result, at least the publication number of the patent in suit, the challenged embodiment and the alleged act(s) of use (within the meaning of Sections 9 et seq. of the German Patent Act) must be stated to the infringer (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Düsseldorf District Court, judgment of March 31, 2016, file no. 4a O 126/14, BeckRS 2016, 08040; Kühnen, loc. cit., chapter E, para. 328). However, the notice of infringement does not require detailed (technical and/or legal) explanations of the infringement; the other party must only be put in a position (if necessary, with the help of experts) to examine the allegation of infringement made against it (Kühnen, loc. cit., Chapter E, para. 328). Contrary to the opinion of the Mannheim Regional Court, the notice of infringement therefore does not (yet) require any reference to the Standard-Essentiality of the asserted patent and/or the submission of claim charts (see Mannheim Regional Court, judgment of January 29, 2016, file no. 7 O 66/15 cited in juris). Neither a reference to the Standard-Essentiality of a patent nor a comparison of the claim features with the features of the Standard is required. This is because the (substantive) requirements for the notice of infringement must not be so excessive that the patent owner is already obliged at this early stage of the dispute to provide detailed reasons as to how the individual features of the claim are realized and to legally derive his claims. It is initially up to the infringer to examine the content of the infringement allegation (see Kühnen, loc. cit., Chapter E, para. 328). 259

According to this provision, the letter from MPEG LA dated September 6, 2011 proves to be sufficient evidence of infringement in the present case. 260

(i) 261

The infringement notice could be effectively given by MPEG LA on the plaintiff's side and effectively received by its parent company or sister company on the defendant's side. 262

It is undisputed between the parties that the plaintiff did not represent itself vis-à-vis the D Group at any time up to the beginning of this legal dispute. Instead, only MPEG LA acted on its behalf, with Mr. Michael J. Zurat as Licensing Associate (see Exhibit B 7), followed by Mr. Dean Skandalis as their Vice President Global Licensing (see Exhibit B 13) and Mr. Ryan Rodriguez as Licensing Associate (Exhibit B 21). 263

As License Administrator, MPEGA LA was entitled to perform legal acts in connection with the granting of licenses to the AVC/H.264 Patent Pool, including in particular the conclusion of License Agreements and the necessary preparatory steps. 264

The ECJ judgment does not preclude such action. 265

266

It states, among other things, that the SEP holder must fulfill conditions to ensure a fair balance of interests (ECJ judgment, para. 55). In this respect, only the SEP holder is mentioned throughout, who must take action against the license seeker and fulfil the established obligations. Subsequently, it is also the patent owner it who files a complaint against the infringer.

Nevertheless, this ECJ judgment does not at the same time result in a restrictive understanding to the effect that, in addition to the SEP holder, a third party may not also perform the legally relevant acts on the SEP holder's behalf. This possibility is not expressly provided for in the ruling. However, there are no reasons that speak against such a variant of action. As a result, it remains the case that an effective action attributable to the patent owner exists and only the patent owner is entitled and obliged. 267

This does not impair the interests of the license seeker that are worthy of protection. This applies in any case if and as long as the License Administrator makes it clear that he is not the patent owner himself, but that there are patent owners behind him for whom he is acting. This ensures that the license seeker is sufficiently informed, as he is aware of the identity of the rights holder. The specific legal structure of the legal relationship between the patent owner and the third party/License Administrator - and the question raised by the parties as to whether representation by the MPEG LA is based on the provisions of German civil law, namely Sections 164 et seq. German Civil Code (BGB), in particular § 167 BGB, where the very fact that the acts constituting the representation did not take place in Germany should speak against it - is not relevant, especially since various legal ways of structuring it are conceivable (trust, representation). In any case, the dialog of "reciprocal obligations" from the ECJ judgment is not affected by this form of action. 268

In addition, the Standard License Agreement submitted to the file provides more detailed information on the legal relationship between the plaintiff as patent holder and MPEG LA. 269

After the introductory passage, 270

"This Agreement is entered into on XXX 20XXX between MPEG LA, LLC, a Limited Liability Company organized under the laws of the State of Delaware with its principal place of business in Denver, Colorado, USA (hereinafter referred to as the "License Administrator"), and XXX (hereinafter referred to as the "Licensee").", 271

the Standard License Agreement for the Pool at issue here (Exhibit K 10 - Exhibit G - a) is concluded between MPEG LA and the respective Licensee. For this purpose, MPEG LA is granted sublicenses by the owners of the pool patents: 272

"Each Licensor grants to the License Administrator a worldwide, non-exclusive license and/or sublicense to all AVC Essential Patents licensable or sublicensable by the Licensor to enable the License Administrator to grant worldwide non-exclusive sublicenses to all such AVC Essential Patents in accordance with the terms of this Agreement." 273

Section 3.1 of the Standard License Agreement (Exhibit K 10 - Exhibit G - a) also states: 274

275

"For the licenses granted in Section 2 of this Agreement under the AVC Essential Patents in the AVC Patent Portfolio, Licensee shall pay to the License Administrator, in favor of Licensor, the fees set forth below for the term of this Agreement:"

On the basis of these contractual passages, it is therefore clear that MPEG LA is a License Administrator who has been commissioned by each patent owner who has contributed its property rights to the Patent Pool at issue here, in particular also the plaintiff, to make the patents in the Pool available to interested licensees by way of a sub-pool license. 276

The defendant must be admitted that the wording in the preamble may not make a clear distinction between vicarious action, which the plaintiff also refers to in its submission, and the granting of sublicenses. In this relationship, the wording of the contract offer is to be given the greater importance, which speaks for the granting of sublicenses to MPEG LA (Exhibit B 30, p. 2 a.E). Ultimately, however, there is no need for a final legal clarification of the manner in which MPEG LA has acted here. This is because the plaintiff can in any case be bound by the license offer submitted. MPEG LA has submitted an offer to "D", as was the plaintiff's intention from the outset. For the submission of an effective offer (also attributable to the plaintiff, it is only decisive that a connection to the patent owner can be established at all. 277

This is the decisive ratio of the ECJ judgment. Even though the decision refers to the patent owner as the person who must comply with the D criteria, the Chamber is of the opinion that this should not be understood in such absolute terms. There is no indication in the decision that it is not also possible to act on behalf of the patent owner via an agency constellation (or similar legal structure) and that the persons of the plaintiff for injunctive relief and the provider (etc.) may be separated in this respect. 278

In addition, the provision on p. 2, 2nd paragraph from the bottom of the license offer also speaks in favor of attributing the conduct of MPEG LA to the respective patent owners in the present case. This is because it states that each Licensor is obliged to grant licenses [...] on fair, reasonable and non-discriminatory terms. The listed adjectives make the FRAND conditions a direct and explicit subject of the License Agreement. There is no indication that the regulatory intention was not to allow these conditions to be fulfilled by other legal arrangements, including the use of commissioned third parties. However, if this had been the intention, an explicit provision would have been obvious, as it was already foreseeable at the time the contract was drafted that a License Administrator would act on behalf of the patent owners and its pre-contractual actions should have been foreseeable for the patent owners in this respect. 279

Furthermore, MPEG LA's role as a License Administrator in the licensing and electronics industry is well known because this is precisely its business purpose, as can be seen from its own information material (see Exhibit B 1, B 1a) and its website. 280

But even beyond this, the defendant cannot significantly deny that the MPEG LA has proper authority to act. The defendant is acting in bad faith if it invokes a lack of authority to act on the part of MPEG LA. The defendant may not plead ignorance with regard to the authority of MPEG LA pursuant to Section 138 (4) Code of Civil Procedure (ZPO) (see Düsseldorf 281

Higher Regional Court, judgment of December 20, 2017 - I-2 U 39/16 -, juris, para. 143; Düsseldorf District Court, judgment of December 12, 2018, file no. 4b O 4/17).

Pursuant to Section 138 (4) Code of Civil Procedure (ZPO), a prerequisite for admissibility is that the declaration concerns facts that were neither the party's own actions nor the subject of its own perception. In principle, this applies to the process of any granting of authority between the plaintiff and MPEG LA. However, it is not compatible with the meaning and purpose of the provision, which is to improve the opposing party's inferior position due to ignorance, to allow the other party to benefit from its lack of knowledge at any price. The line must be drawn where the principle of good faith is no longer upheld. This is the case here. 282

This is because the D Group (more details on this below) entered into license negotiations with MPEG LA over a period of several years. Thus, the e-mail correspondence submitted to the file begins in 2008 (Exhibit B 3) and has continued largely continuously since then until the e-mail of September 6, 2011 (infringement notice), but also beyond that date. Notwithstanding the fact that the correspondence between MPEG LA and the defendant's Chinese parent company or "D USA" ("Futurewei Technologies") in the early years was aimed at the conclusion of a License Agreement regarding the MPEG-2 Standard, it was even the defendant's group itself that expressly requested the conclusion of such an agreement (cf. Exhibit B 4, e-mail dated February 13, 2009) and obviously assumed that the contractual negotiations conducted with MPEG LA would lead to an effective License Agreement. 283

The situation is exactly the same for the AVC/H.264 Standard. The MPEG LA also has the necessary authority to conclude a License Agreement in this respect. The AVC/H.264 Standard was the subject of reciprocal communication in 2009 and the D Group could clearly recognize and assumed itself that it would also be MPEG LA that would act on behalf of the patent owners in this context (see Exhibit B 5, e-mail from Mr. Zurat dated February 16, 2009; e-mail B 7, e-mail from Wayne dated March 18, 2009). 284

This business contact maintained over the years created a basis of trust in favor of MPEG LA to the effect that the exchanged correspondence would actually lead to the conclusion of a contract, as there were no doubts about the legitimacy of MPEG LA. As a result, the defendant may no longer rely on such doubts, which were expressed for the first time in the present proceedings. 285

(ii) 286

The infringement notice could be addressed to a company affiliated with the defendant, namely Futurewei ("D USA"). It was not necessary to contact the defendant directly; the fact that the first contact only came about as a result of the present legal dispute is harmless. 287

This is because groups of companies are to be regarded as a single entity, particularly with regard to antitrust issues (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Düsseldorf District Court, judgment of November 4, 2015, file no. 4a O 93/14 cited in juris; Kühnen, loc. cit., Chapter E, para. 329). This means that the obligation to notify is already satisfied if information is provided to the parent company of the alleged infringer, as it can generally be assumed that the parent company has informed the subsidiaries concerned in the individual countries, in which the SEP is 288

used (see Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). The same situation must be assumed if a subsidiary or a specific employee there has played a leading role in license negotiations over many years and has negotiated primarily with the relevant contact persons on the plaintiff's side.

The subsidiary "D USA" had been in negotiations with MPEG LA since 2008, initially only about the MPEG 2 Standard, and later also about the AVC Standard at issue here. Already since 2009, Mr. Wenyu Zhou, called Wayne - to whom the e-mail of September 6, 2011 is addressed (Exhibit K 10 - Exhibit A) - was involved there as the responsible employee, who was in exchange with the other group companies of the defendant with regard to licensing. For example, the December 9, 2009 email from Mr. Wayne to Mr. Dean Skandalis of MPEG LA (Exhibit B 16, 16a) shows that Mr. Wayne was in contact with the other regional offices outside of China as well as with the Chinese branch of the defendant and coordinated the licensing negotiations. Therefore, Mr. Ryan Rodriguez of MPEG LA, on the recommendation of Mr. Skandalis, also contacted Mr. Wayne in September 2011 when he pointed out the infringement of the AVC Standard by the defendant's cell phones and tablets and the resulting need for a license. Thus, he identifies Mr. Wayne's role at the beginning of the e-mail of September 6, 2011 ("I get in touch with you because you handle patent licensing matters at D") and Mr. Wayne also obviously felt obliged to continue the negotiations, as he suggested a telephone call in the e-mail of September 15, 2011 (Exhibit B 21, 21a). In particular, Mr. Wayne did not refer Mr. Rodriguez to another employee or to another group company.

(iii) 290

MPEG LA's e-mail of September 6, 2011 also satisfies the content requirements for a notice of infringement. 291

The defendant must be conceded that the letter from MPEG LA dated September 6, 2011 only contains general information on the infringing product - referred to as "mobile handset and tablet products" and on the infringed property right(s) - in the form of a reference to "the AVC Patent Portfolio" with "more than 1000 essential AVC Patents from 25 patent owners". The publication numbers of specific patents are not mentioned, nor are the specific names of allegedly infringing products. 292

However, this content is exceptionally sufficient against the background of the prior correspondence between the defendant's parent company and MPEG LA and the conduct of the defendant's parent company after the infringement notice (see also Düsseldorf District Court, judgment of November 9, 2018, 4a O 17/17). 293

Thus, it has already been addressed in the e-mail of November 12, 2009 from Dean Skandalis, Vice President of the Licensing Department of MPEG LA, to Mr. Wayne, "D" Technologies Co. Ltd (Exhibit B 11). The AVC Standard and initial details on the content of the license (licenses, royalty cap and term of the protected entity) as well as the cell phones with T-DMB functions are mentioned as infringing products. In the e-mail of September 6, 2011 (Exhibit K 10, Exhibit A), the MPEG LA ultimately only picked up on interrupted conversations with the repeated reference to the AVC license. This is also made clear by the fact that Mr. Wayne did not request any further explanations following the infringement notice, but instead requested a telephone appointment to discuss the matter "further". (Exhibit B 21). 294

Insofar as the defendant refers back to the fact that no specific reference is made to the patent in suit, this is harmless. Exhibit K 10 Exhibit E shows that the defendant or its group companies were able to view the relevant SEP list for the Pool together with Cross-Reference Charts on the Internet at www.mpegla.com, naming the associated Standard sections that make use of the associated SEPs. Even if these are not classic claim charts - which Düsseldorf Higher Regional Court case law does not even require at this stage of the negotiations (see Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem) - they were no longer necessary because the plaintiff already had the opportunity to take note of them. The fact that the parent company was in any case aware of the activities of MPEG LA - which suggests that it was not unaware of its internet presence - is already apparent from the e-mail from Mr. Jason Ding dated July 1, 2009 to Larry, Bill and Ning from MPEG LA (see Exhibit B 8). 295

Finally, it should also be noted in the context of the content requirements that a notice of infringement can be a mere fabrication or a reference to its absence can be an abuse of rights if knowledge can already be assumed. This is the case with the defendant due to the circumstances already described. 296

Contrary to the defendant's opinion, the fact that the infringement notice did not contain any claim charts does not constitute a defect in the infringement notice. This is because their provision is not yet necessary at this point in the proceedings (see Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). Moreover, in a meeting in July 2016, the defendant requested for the first time the transmission of further documents such as claim charts or a Proud List (Exhibit B 26), which would enable it to adequately investigate the infringement allegation. Until then, MPEG LA had no indication that "D" was unable to comprehensively investigate the allegation of infringement on the basis of the available information material. 297

Insofar as the defendant refers to the e-mails of MPEG LA of February 16, 2009 and November 12, 2009 (Exhibits B 5 and B11) and complains about the designation of the challenged embodiment "products using the Standard", this is not relevant. It is undisputed that these e-mails originate from a period prior to the relevant infringement notification (from September 2011). 298

d) 299

"D", the parent company of the defendant, has shown sufficient willingness to license in the present case. 300

The content of the request for licensing required in the infringement notice is not subject to high requirements. It can be general and informal, but the conduct of the patent user must indicate a clear intention to take a license (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Kühnen, loc. cit., Chapter E., para. 333). The declaration of willingness to license may not subsequently be deviated from, so that it is still valid even if the patent owner has to submit its FRAND offer (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). Substantive statements, which are not required, can prove to be harmful if the patent owner must assume on their basis that a willingness to take a license only exists under very specific, non-negotiable conditions which are not FRAND 301

and which the property right holder therefore does not have to agree to (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem, para. 197 a. E.; Kühnen, loc. cit., Chapter E., para. 333). However, high demands must be placed on the establishment of such facts. The indication of the desired license terms only invalidates the assumption of willingness to take a license if it allows the certain conclusion that the patent user does not in fact wish to take a license (Düsseldorf Higher Regional Court, decision of November 17, 2016, file no.: I-15 U 66/15, para. 9, cited in juris).

Based on this Standard, the basic willingness of the defendant's group to license was apparent to the plaintiff. After the parent company's chief negotiator had received the e-mail of September 6, 2011, he requested a telephone call by e-mail of September 15, 2011 (Exhibit B 21, B 21a) "so that the further details of this matter can be discussed". The reply - when viewed in isolation - also leaves room in principle for the possibility that there is no interest in a legally binding agreement at the end of the conversation (after all), which would then also not be worth sending contract documents from the plaintiff's point of view. 302

However, the reply e-mail of September 15, 2011 was not to be understood in this way when considering the overall context of the exchange that had already taken place between the parent company and MPEG LA in 2009 (on the fundamental consideration of the overall context also: Düsseldorf Higher Regional Court, Düsseldorf, loc. cit. - Mobiles Kommunikationssystem, para. 198). 303

A reference by MPEG LA to the AVC/H.264 licensing vis-à-vis the parent company can already be found in Mr. Zurat's e-mail of February 16, 2009 (Exhibit B 5, B 5a). The parent company also responded to this reference in an e-mail dated March 18, 2009 (Exhibit B 7, B 7a) by naming the Standard - in general terms as MPEG 4 (which includes other Standards not at issue here, such as MPEG-4 Visual (part two)) - and linked this to the group's efforts to agree on licensing only from subsidiaries (in particular "D USA"). Subsequently, this demand was consolidated, especially with regard to the licensing of the MPEG-2 Standard, but also in connection with the "MPEG 4 Standard" (see e-mail Jason Ding dated July 1, 2009, Exhibit B 8, B 8a). MPEG LA continued the discussions with the parent company with knowledge of this demand, initially mainly with reference to the licensing of the MPEG-2 Standard, but always also with reference to the AVC/H.264 Standard (cf. e.g. e-mail Mr. Dean Skandalis dated November 12, 2009, Exhibit B 11, B 11 a). It is clear from this that MPEG LA and the group company were already in negotiations prior to the e-mail of November 6, 2011, which was understood as a notice of infringement. Against this background, the letter of November 6, 2011 proves to be a concretization of the contract negotiations previously conducted with a focus on the MPEG-2 Standard to the AVC/H.264 Standard. When "Wayne" then suggested further discussion of the matter, this was therefore to be understood as meaning that the negotiations that had already begun were to be continued. 304

The insistence on the question of the (non-)inclusion of the Chinese market in the License Agreement (see Exhibits B 7 - B 14) is not in itself sufficient to deny D any willingness to license. Rather, from their point of view, it should not have been ruled out that MPEG LA would adjust/change its negotiating position in this respect and that the License Agreement could be brought to a positive conclusion on the basis of past negotiations. 305

At best, the question would have to be asked as to whether the permanent inquiries about the territorial scope could stand in the way of the seriousness of the willingness to obtain a license, but this can ultimately be answered in the negative.

The willingness to license is to be regarded as "serious" if the license seeker shows through its overall conduct that it is committed to the conclusion of a contract. This could be lacking because, as the "D" must have taken note of during the contract negotiations, nothing has changed in MPEG LA's view to exclude the Chinese market from a possible contract. As a result, the repeated inquiries ultimately lead to a delay in the conclusion of the contract. "D" must also have been aware of this. However, the fact that the contact was maintained despite this difference of opinion speaks against the assessment of these inquiries as harmful in the context of the licensing request, which proves that "D" had a continuous interest in the licensing. 307

In any case, the defendant has signaled several times in the course of the present proceedings and through its own license offer from August 2017 that it is willing to license. Most recently, "D" again updated its willingness to license with the second counter-offer of October 26, 2018. 308

e) 309

The license offer submitted several times and most recently by e-mail on September 6, 2011 in connection with the documents of the Standard License Agreements submitted on February 10, 2012 meets the "formal" requirements established by the ECJ and also proves to be fair, reasonable and non-discriminatory in terms of content. 310

aa) 311

The sending of the Standard License Agreement meets the (rather) "formal" requirements that the ECJ places on the patent owner's offer. 312

Accordingly, the offer must be made in writing and must also be specific in the sense that it must state the license fee and the relevant calculation parameters (relevant reference value, applicable license rate, graduation if applicable) as well as the method of calculation (Düsseldorf Higher Regional Court, loc. cit. para. 203 - Mobiles Kommunikationssystem; Kühnen, loc. cit., chapter E. para. 325). The points that are usually the subject matter of License Agreements must be included in the offer in the form of meaningful provisions (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). 313

These criteria are met by sending the Standard License Agreement document. 314

i) 315

First, plaintiff's February 2012 mailing of its Standard License Agreement to defendant's in-house licensing contact, Wayne, constitutes a license offer that complies with FRAND principles. 316

As already stated in the notice of infringement, Wayne is the correct addressee, who was the person in charge of licensing issues within the defendant's group. Wayne received the Standard License Agreement (Exhibit K 10 Exhibit G) at the beginning of February 2012, 317

as can be seen from the e-mail dated February 10, 2012 (Exhibit B 20).

The Standard License Agreement was sent by MPEG LA and, according to the wording of the preamble, is to be understood as an offer by the plaintiff to the defendant's group. Each Licensor undertakes to grant individual licenses or sublicenses under all AVC Essential Patents to individuals, companies or other legal entities on moderate, reasonable and non-discriminatory terms and conditions in accordance with the terms and conditions agreed herein, which may be granted by the Licensor (without payment to third parties) (see Exhibit K 10 Exhibit G, page 2, 3rd paragraph). The Licensor (the plaintiff) continues to grant a license to the License Administrator (MPEG LA) to enable it to administer the license (cf. Exhibit K 10 Exhibit G, page 2, last paragraph). 318

Insofar as the defendant does not wish to attribute the actions of MPEG LA to the plaintiff, MPEG LA's own actions may exist because it grants a sublicense. Nevertheless, this action by sublicensing is ultimately only an activity that MPEG LA carries out instead of the plaintiff (and all other Pool members). The fact that this administrative activity is justified is clear from the above-mentioned passages of the Standard License Agreement itself. During the entire out-of-court negotiations, the defendant did not question the authorization of MPEG LA to act on behalf of the Pool members, but only made sure on the occasion of the meeting on July 20, 2016 that MPEG LA was not itself entitled to sue (see Exhibit B 26, B 26a). Even if one did not want to assume a prior authorization of the MPEG LA with regard to all acts relating to the licensing of the patent in suit as part of the patent pool, the filing of the action must in any case be seen as an authorization of the plaintiff. The Chamber does not see why the dialogue between the SEP holder and the prospective Licensee provided for by the ECJ should be severely disrupted if negotiations are initially conducted with a Pool Administrator instead of the individual pool member, given that it is apparently common practice in the field of SEP licensing for companies to make their patents available by way of a Pool solution and that there is therefore one contact person for the entire Pool. 319

ii) 320

The sending of the Standard License Agreement in February 2012 is to be seen as a sufficiently concrete offer due to its objective explanatory value. 321

Wayne, the person responsible for coordinating the Group-wide license negotiations, was provided with a complete contract document containing all the contractual terms and conditions for a license to the patents essential to the AVC Standard. In particular, Section 3.1.1. contains the required parameters for the license calculation. Section 2.1. contains the granting of the license for AVC Products, whereby Section 1.10 contains the definition of AVC Products. The essentialia negotii of licensing are thus determined. 322

Contrary to the defendant's view, the document was not merely a model contract for information purposes. It was clearly a self-contained contractual document that was not specifically tailored to one of the group companies, but was intended as a standard contract for a large number of Licensees (see Düsseldorf District Court, judgment of November 9, 2018, file no. 4a O 17/17). The date and name of the Licensee are left blank. The note in MPEG LA's e-mail of September 6, 2011 (Exhibit B 19, B 19a) that the electronic copies are for information purposes only and cannot be used as copies shows precisely that, conversely, the documents 323

sent by regular mail should fulfill the function of signature copies (see Düsseldorf District Court, judgment of November 9, 2018, file no. 4a O 15/17).

iii) 324

As a result, the method of calculating the license fee has also been sufficiently explained. 325

In this context, Düsseldorf case law requires that the SEP holder must explain the main reasons why it considers the remuneration parameters proposed by it to be FRAND. If it has previously granted licenses to third parties, it must, depending on the circumstances of the individual case, provide more or less substantiated reasons as to why the license remuneration proposed by it is FRAND against this background (see Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). If there are a sufficient number of License Agreements and acceptance on the market has been demonstrated in this way (e.g. via the market share of the products licensed at a certain fee level), no further information on the appropriateness of the license fee level will generally be required (Düsseldorf District Court, judgment of July 13, 2017, file no.: 4a O 154/15, para. 311 - cited in juris; Düsseldorf District Court, judgment of July 11, 2018, file no. 4c O 77/17, BeckRS 2018, 25099, para. 137). In principle, the explanation of the calculation as well as the offer itself must be made in good time so that the infringer has sufficient time to react (cf. July 13, 2017, file no.: 4a O 154/15, para. 319 - cited in juris; Düsseldorf District Court, judgment of July 11, 2018, file no. 4c O 77/17, BeckRS 2018, 25099, para. 144). If the need for more specific explanations does not yet exist at the time of the offer due to the individual circumstances of the case addressed, this may arise during the proceedings if individual material FRAND requirements are substantiated by the infringer, so that all calculation factors must in any case then be specifically set out (see Düsseldorf Higher Regional Court, decision of November 17, 2016, file no. I-15 U 66/15, para. 19 - cited in juris; Düsseldorf District Court, judgment of March 13, 2016, file no. 4a O 126/14 para. 254). However, the specific additional information must not contradict the original more general information, otherwise the offer is to be regarded as abusive in the absence of FRAND conditions. 326

Although the Standard License Agreement itself does not contain any statements on the manner in which the license is calculated, such statements are not required in the specific individual case according to the previously established standards. The plaintiff has submitted a Standard License Agreement, which it has submitted to a large number of Licensees with the same conditions. The more License Agreements concluded with similar license terms, the stronger the presumption that the license fees demanded are FRAND (see Düsseldorf District Court, judgment of March 31, 2016, file no. 4a O 126/14 para. 219 - cited in juris). In the present case, it is a Standard License Agreement, as is already apparent from the pre-formulated contract text, which Mr. Wayne, as the responsible negotiating partner of the defendant's group, was already essentially familiar with from the years of previous negotiations. Apart from the fact that the list of licensees who had already concluded the contract is available on the Internet (Exhibit K 10 - Exhibit F), Mr. Wayne knew Licensees, such as Haier America Trading, LLC, who had concluded the contract - albeit not group-wide - as evidenced by the e-mail dated February 21, 2012 (Exhibit B 23, B 23a). In this respect, the group company already had all the information it needed to enter into the negotiations, which it then continued with the justification already given for the MPEG-2 327

Standard that, like these companies, it only wanted to license individual group companies. In addition, the defendant did not question the calculation of the license amount as such until the end of the oral hearing.

Finally, there are also no indications that a further explanation of the calculation parameters or a presentation of the concluded license agreements themselves are usually provided as part of the contract offer. There is no evidence that this is customary in the industry. 328

f) 329

The offer under review here also complies with FRAND principles in terms of content. 330

"Fair and reasonable" contractual terms are to be understood as those that are not offered to the Licensee by exploiting a dominant market position. The contractual terms must be reasonable and must not be exploitative (Düsseldorf Higher Regional Court, decision of November 17, 2016, file no.: I-15 U 66/15, juris, para. 15). A Licensor's offer may prove to be unfair/unreasonable in particular if a license fee is demanded that significantly exceeds the hypothetical price that would have been formed in the event of effective competition on the dominated market, unless there is an economic justification for the pricing (Düsseldorf District Court, judgment of March 31, 2016, file no.: 4a O 73/14, para. 225, cited in juris; Huttenlauch/Lübbig, in: Loewenheim/ Meessen/ Riesenkampff/ Kerstin/ Meyer-Lindemann, Kartellrecht, Kommentar, 3rd edition, 2016, Art. 102 TFEU, para. 182; Kühnen, loc. cit., Chapter E., para. 245). In the case of a Standard IP right, unreasonableness may also result from the fact that, in the event of a license claim, a cumulative total license burden would also result for the other Standard IP rights, which is not economically viable (Kühnen, loc. cit., Chapter E., para. 246). It should be noted in this context that a mathematically precise derivation of a FRAND-compliant license fee does not have to be made; rather, an approximate decision based on valuations and estimates must be made (Kühnen, loc. cit., Chapter E., para. 425). Comparable License Agreements can be a weighty indication of the appropriateness of the license terms offered (Düsseldorf District Court, judgment of March 31, 2016, file no.: 4a O 73/14, para. 225, cited in juris; Kühnen, ibid., chapter E., para. 245, para. 430). Furthermore, the contractual offer must also prove to be reasonable with regard to the other contractual conditions (intellectual property rights subject to licensing, license territory, etc.). 331

The prohibition of discrimination standardizes an obligation of equal treatment for the dominant company in that it must grant trading partners who are in the same situation the same prices and terms and conditions (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). Only comparable situations are to be included in the equal treatment requirement, while even market-dominant companies can react differently to different market conditions. Unequal treatment is therefore permissible if it is objectively justified. The broad scope for objective justification to which the holder of an industrial property right is generally entitled is limited if, in addition to the dominant market position, there are other circumstances which show that the unequal treatment jeopardizes the freedom of competition (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). These may consist in particular in the fact that access to a downstream product market is dependent on compliance with the patent teaching (Federal Supreme Court (BGH), GRUR 2004, 966 (968) - Standard-Spundfass) or the product - as here - is only competitive when the patent is used (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). 332

The license seeker has the burden of presentation and proof for unequal treatment (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem) or the existence of an exploitative situation (Düsseldorf District Court, judgment of November 30, 2006, file no.: 4b O 58/05, para. 140 - Videosignal-Codierung I, cited in juris; Kühnen, loc. cit., chapter E., para. 247, para. 308). However, account must be taken of the fact that the license seeker regularly has no detailed knowledge of the SEP holder's licensing practice, in particular of existing license agreements with third parties and their regulatory content. This justifies imposing a secondary burden of proof on the SEP holder, who is naturally aware of the contractual relationships with other licensees and who can reasonably be expected to provide more detailed information in this respect (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Kühnen, loc. cit., Chapter E., para. 311). In this context, the information on the licensees must be complete and must not be reduced to a few well-known companies in the industry (Kühnen, loc. cit.). The submission must also contain information on which - specifically named - companies with which significance on the relevant market have taken a license and under which specific conditions (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). If unequal treatment is established, it is incumbent on the patent owner to explain and, if necessary, prove any circumstances justifying the different treatment (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem; Kühnen, loc. cit.).

aa) 334

Based on this standard, the defendant's objections to FRAND compliance do not prevail. 335

i) 336

The Chamber is unable to establish that the Patent Pool is composed in violation of antitrust law. 337

The determination of a "fair and reasonable license offer" in connection with a Patent Pool, i.e. in the form of an association of several property right holders for the joint licensing of the patents held by them, first requires substantiated factual submissions on the use of the patents from the pool (Düsseldorf Higher Regional Court, decision of November 17, 2016, file no.: I-15 U 66/15, para. 26 et seq.; Kühnen, loc. cit., chapter E., para. 420). In this respect, however, a degree of conviction measured against Section 286 Code of Civil Procedure (ZPO), which requires a personal certainty that silences doubts without completely ruling them out, is not required (m. w. w. Nach. Greger, in: Zöller, Code of Civil Procedure (ZPO, Kommentar, 32nd edition, 2018, Section 286, para. 19), is required. Rather, Section 287 (2) Code of Civil Procedure (ZPO) is applicable, which - in reduction of the standard of proof of Section 286 ZPO - allows a preponderance of probability to suffice (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem).

A corresponding factual submission is generally made by submitting so-called claim charts for selected portfolio patents, which assign the specifically relevant passages of the relevant Standard to the respective SEPs (Düsseldorf Higher Regional Court, loc. cit. - Mobiles Kommunikationssystem). 339

Such a reference list - relating to all Pool patents - is available as Exhibit K10 - Exhibit E. 340

Offering a license in a Patent Pool does not in itself justify the accusation of abusive inappropriateness. As a rule, it serves as the well-understood interest of any license seekers 341

that they are offered a license to use the entire Standard from a single source at uniform conditions, because this relieves them of the need to apply to each individual property right holder for a license for their patents (Düsseldorf District Court, 4b O 508/05, para. 119 - Videosignal-Codierung I, cited in juris). In this respect, the "Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements of March 28, 2014 (Official Journal C 89/3) (hereinafter in short: "the Guidelines") provide guidance (see generally Kühnen, *ibid.*, Chapter E., para. 299). They provide the following for the handling of the prohibition of cartels under Art. 101 TFEU in para. 245:

"[...] Technology Pools can have a pro-competitive effect, especially as these reduce transaction costs and set limits on the accumulation of license fees, thus avoiding double profit maximization. They enable centralized licensing of the technologies held by the Pool. This is particularly important in industries where intellectual property rights are of central importance and where it is necessary to obtain licenses from a significant number of licensors in order to maintain a market presence. [...]."

A restrictive effect on competition can only be assumed if further-reaching circumstances emerge, which is also expressed in para. 246 of the Guidelines:

"Technology Pools may also restrict competition because their creation necessarily implies joint selling of the pooled technologies, which may lead to a price fixing cartel in the case of Pools consisting exclusively or predominantly of substitutable technologies. In addition, Technology Pools may not only reduce competition between the parties to the agreement, especially if they support or de facto establish an industry standard, but may also reduce innovation competition by excluding alternative technologies. An existing Standard and a corresponding Technology Pool can make market access for new and improved technologies more difficult."

Based on this Standard, the offer of a license to a Patent Pool only proves to be unreasonable or discriminatory, and therefore in breach of antitrust law, if special circumstances exist. However, such circumstances cannot be established.

In particular, such circumstances do not arise from the fact that - as the defendant claims - mobile network providers typically use only one of the essentially four Profiles provided by the Standard and only certain features of these.

(1)

The defendant argues that the fact that the AVC/H.264 Standard consists of different Profiles (essentially four: "Baseline (CBP/BP)", "Extended (XP)", "Main (MP)" and "High (HiP)"), with each Profile having certain features, but that manufacturers of mobile devices generally only use a few selected Profiles, in particular "Baseline", and even then only use certain features of these profiles (features such as "flexible macroblock ordering (FMO)", "arbitrary slice ordering (ASO)", "redundant slices (RS)", "data partitioning" and "SI/SP slices", for example, are not used), mobile network providers are burdened with an excessive license.

This objection may in principle be suitable to demonstrate that the license fees are unreasonable. It is comparable to cases in which not all patents in a Pool are used (cf. Kühnen, loc. cit., para. 412). However, as in the present case, objective reasons can be cited against an unreasonable impediment in this sense (Kühnen, loc. cit.).

According to these standards, the defendant has not sufficiently shown that the relevant profiles Baseline, Extended, Main and High are not made available in the challenged embodiments in such a way that they are used when playing video sequences. 350

The defendant argues in general terms that a Wikipedia article (Exhibit B 33) shows those Profiles that are typically not supported by mobile devices. The defendant does not make specific reference to a particular passage of this Wikipedia article (Exhibit B 33) as evidence that not all Profiles are implemented in the challenged embodiments. For the same reasons, the reference to the website excerpt submitted as Exhibit B 34 (www.superuser.com) does not work either, since it also only addresses mobile devices and unimplemented Profiles in general terms. With this submission, the defendant refers to the fact that its products would not realize the Profiles. However, this does not say anything about their technical ability to implement these Profiles. 351

On the other hand, the plaintiff was able to establish through its own investigations that the Profiles in the challenged embodiments are preset by the manufacturer. This was proven by the test results summarized in Exhibit K 8. 352

However, if it is established that the Main and High Profiles are used, this also necessarily applies to the Baseline Profile. This is because, as can be seen in particular from the excerpt from the homepage www.superuser.com submitted as Exhibit B 34 to the file, the Main and High Profiles merely add some features to the Baseline Profile and therefore build on it. Nothing else can apply to the Extended Profile. 353

Even if not all features of a profile were realized in the challenged embodiments, the defendant's submission cannot invalidate that of the plaintiff. On the one hand, the defendant does not specify which features of a Profile are not to be realized. On the other hand, these are optional, i.e. selectable features, but which can in any case be assigned to a specific Profile and represent it. 354

Thus, it could not be established that "D" would be unduly burdened by the inclusion of all Profiles in the License Agreement, especially since its product portfolio also includes various AVC-capable product types, such as tablets and set-top boxes in addition to smartphones, so that the licensing of all Profiles even appears advantageous in this respect. 355

Finally, a comprehensive inclusion of the Profiles in the Standard License Agreement is justified because, on the one hand, certain generalizations in such agreements are necessary for reasons of practicability (Düsseldorf District Court, judgment of September 11, 2008, 4b O 78/07, para. 101, cited in juris) and, on the other hand, the video content producer determines which coding is used and manufacturers for end devices thus increase the probability that customers can actually play video sequences by providing all Profiles in the challenged embodiments. 356

The defendant is also unable to derive unequal treatment from the fact that, according to its submission, the fee structure of the HEVC Standard, which is a further development of the AVC Standard at issue, now provides for a differentiation of the license rates according to the extent to which a product makes use of the profiles of the standard (Exhibit B 36). This is because, as the defendant itself states, this is the successor Standard, which does not provide any compelling conclusion as to the fee structures of the Standard in question. In addition, Exhibit B 36, entitled "Summary of In-Compliance Royalty Rates with Trademark Discount", only shows an excerpt of the fee provision, whereby the entire agreements on license fees would have to be consulted for a comprehensive assessment. 357

Insofar as the defendant invokes a prohibition of tying with regard to the inclusion of unused Profiles, an inadmissible tying cannot currently be established because there are no Profiles that are not used by the defendant. 358

(2) 359

The defendant further complains with regard to the IP rights combined in the AVC Patent Pool that they are not all Standard-Essential. The combination of all rights and thus their inclusion in Pool License Agreements is only justified if the Standard-Essentiality of each property right can be established. 360

Based on the principle established above, it is the responsibility of the license seeker to demonstrate that patents (not used by it) covered by the Patent Pool are not Standard-Essential. These property rights must be specifically identified (see Kühnen, loc. cit., Chapter E., para. 256; Düsseldorf District Court, judgment of. November 30, 2006 - 4b O 508/05 -, para. 126 et seq. (132), cited in juris). If it succeeds in doing so, it is up to the patent owner to show objective reasons for their inclusion, even if the market presence of the license seeker does not in principle depend on these rights. The limit of admissibility is the prohibition of tying under antitrust law (see Kühnen, loc. cit., Chapter E, para. 415). Only if no objective reasons can be given for the inclusion of non-Standard-Essential Patents in the Pool is the license offer un-FRAND, as it is exploitative and unreasonable. This follows from the purpose of such a Patent Pool, which is to bundle technologies that complement each other in terms of content and where the use of one is not possible without the other. This is what characterizes the Standard-Essentiality of a patent. Non-essential property rights, on the other hand, are not indispensable for the use of a technology, although their inclusion may also be permissible under certain circumstances. 361

The defendant was not able to demonstrate that the Patent Pool covers intellectual property rights that are not actually essential with regard to the Standard at issue. It has not satisfied its burden of proof against the background of the plaintiff's considerable counterclaim. There are no significant doubts as to the Standard-Essentiality of the patents included in the Pool or as to objective reasons for their inclusion in the Pool. The defendant has not sufficiently specified the individual factors on which it bases the lack of Standard-Essentiality of the property rights included in the patent pool. This applies irrespective of which scientific method was used as a basis for the investigations commissioned by "D" and which employee of company "G" prepared the respective tables and diagrams (see Exhibit B 37). 362

According to the tabular presentation in Exhibit B 48, there were 2,173 patents of the four plaintiffs (relating to the legal disputes conducted until recently before the Düsseldorf District Court) and 2,874 patents of other owners, whereby 439 and 788 patents, respectively, were analyzed in English. Of the 29 English patents of the plaintiff analyzed, 12 were Standard-Essential, 6 were non-essential and 11 were informative.

These figures are not able to provide the necessary evidence for the essentially non-Standard composition of the Pool. As the title of Exhibit B 37 "overall summary" already indicates, the results of the investigation presented therein are merely general and simplified summaries. Although a numerical list of the IP rights and their classification was provided separately for the companies or groups of companies that were involved in infringement disputes on the plaintiff side before the Chambers of the Düsseldorf District Court, it is not clear in any case which patent or patent family is specifically involved. There is no explanation as to why the assignment of the examined IP rights to the standard was not positive in the end. Furthermore, 139 patent families of the plaintiffs were not examined at all before the Chambers of the Düsseldorf District Court, without it being apparent on the basis of which criteria this selection decision was made. Finally, there was no comparison of the property rights with passages of the standard ("Essentiality Cross Reference Charts") which could prove the incompatibility. It is undisputed that "D" had access to the necessary information via the MPEG LA website and that, according to both its expertise and its personnel resources, there are no reasonable doubts about "D's" ability to carry out reviews of patent rights with regard to their Standard-Essentiality (see infringement notice above). 364

Exhibit B 38 cannot change this assessment either. Contrary to the defendant's opinion, this document is not a substantiated expert report that provides information on the investigations carried out, even in view of its small size. There is no indication of the origin of the document or that it is a publicly authorized testing unit. Apart from this, information submitted as Exhibits to the file is only to be taken into account by the court in terms of content if written submissions are made with reference to specific passages. Apart from this, this document does not contain any more detailed information than Exhibits B 37, B 48, as only a superficial description of the working methods is presented, with the majority of the explanations relating to the composition of the team at "G" and its expertise. In addition, it is stated that the results obtained were compiled in an Excel document, which the defendant did not submit to the file and which would only have had added value if it had contained more information than just the tables in B 37 and B 48. 365

In particular, Exhibit B 48, which is supposed to show a downwardly corrected number of non-essential rights, shows that there may be reasonable doubts about the summarized results of the external consulting firm and that the consulting firm consulted cannot reliably determine the relevance of the rights either. The defendant does not provide an explanation as to how the "slightly downwardly adjusted" result should have come about. It does not state what reason company "G" had for a further evaluation. The argument is limited to the fact that it is a matter of "current figures". 366

With regard to the alleged antitrust infringement, the defendant's objection is unsuccessful because its figures do not show that significantly more NEPs are part of the Patent Pool than SEPs. Even according to their investigation, a total of 51% SEPs are in the Pool at issue. Last but not least, the objection remains that the result is based on a sample and that not all Pool patents were examined.

In contrast, the plaintiff has disputed the figures claimed and pointed out that the patents submitted are first examined by independent experts for their Standard-Essentiality, as provided for in the guidelines under the safe harbor regulation (para. 261, b)). Against this background, the regulations of the Standardization Organization (ISO/ITU/IEC rules) do not play a significant role. 368

In its assessment of this factual submission, the Chamber does not fail to recognize that the requirements for the burden of presentation incumbent on the license seeker, in this case the defendant, must not be overstretched and therefore a detailed description of the (in)compatibility with the Standard cannot be expected for all possible patent rights. However, it can be expected that the IP rights, which are in any case only selected as examples, are examined in detail and that these examination results are also presented with reference to the respective patent in suit, for example, so that the examinations by the consulting firm can be understood. However, this was not done in the present case. 369

(3) 370

Doubts about the existence of the required Standard-Essentiality do not arise from the fact that the IP rights were subjected to an examination for essentiality by the patent law firm "H", which is active in the European area, before they were included in the Pool. Although these patent attorneys involved in the examination of applications for inclusion in the Standard are not completely independent, but act on the side of the owners of SEPs in infringement proceedings, this in itself is not sufficient to justify doubts about the results of their examination (see Düsseldorf District Court, judgment of November 30, 2006 - 4b O 508/05 -, para. 132, cited in juris). 371

The objection that it is easy for an IP right holder to declare a patent as Standard-Essential on the basis of the FRAND declaration of readiness to be completed in the case of ISO/Matsushita (see Exhibits B 39 and 40) and that the requirements for such information may not appear very high also remains irrelevant. In any case, an independent body subjects the IP rights applied for to an examination as to their Standard-Essentiality. Without further evidence, it is not possible to draw conclusions about the false declaration. 372

(4) 373

The defendant's submission, which criticizes the alleged licensing practice and claims that non-essential patents are massively over-declared in order to be able to generate higher license fees without these being offset by an appropriate patent value, does not lead to any other conclusion. 374

In support of this claim, the defendant refers to the companies Ericsson, Nippon Telegraph, HP and Tagivan, which all became pool members without having only one SEP. The non-producing company Tagivan was founded solely for the purpose of unreasonably inflating the number of Pool patents. 375

Its portfolio would consist of divisions of patent families held by pool members (here: "J") and corresponding divisional applications and would not have its own property rights.

The Chamber is unable to identify any systematic approach to over-declaration in the formation of Tagivan, the plaintiff in the parallel proceedings in file no. 4a O 17/17, whereby the economic value of its portfolio is completely absorbed into "J's" portfolio in part through transferred divisional applications and bifurcations. The same applies to the assertion of a J-SEP outside the Pool by Optis Wireless Technology, LLC and other SEPs held by "J" outside the Pool. The investigation of G (Exhibit B 54) submitted in this respect meets the same thorough concerns as the investigation in Exhibits B 37 and 38. The transactions described are "neutral" as such and the defendant does not submit anything that justifies a systematic abuse, especially since the increase in the number of patents is not accompanied by an increase in the license fee (see Düsseldorf District Court, judgment of November 9, 2018, file no. 4a O 15/17).

376

The reasons relating to an alleged SEP strategy of "J", which is intended to represent an unreasonable increase in the overall license fee burden, also do not apply and do not justify any exploitative conduct on the part of the plaintiff or MPEG LA. The defendant refers to proceedings conducted in the USA against "D" on the basis of patent US 7769238B2, which, although outside the Pool, is nevertheless declared to be AVC Essential (see Exhibit B 50). The plaintiff in these American proceedings is part of Panoptis Equity Holding LLC, which also includes Optis Wireless Technology LLC, to which the US patent previously belonging to "J" was transferred. The US patent also belongs to a patent family comprising 134 patents, of which 57 intellectual property rights are outside the Pool and 9 were transferred to Panoptis as a third party outside the Pool.

377

This submission is countered by the fact that essential patents outside the Pool are not relevant precisely because they are not currently included in the Pool. Moreover, this circumstance cannot be established for the alleged property rights, even with reference to Exhibit B 52, which contains an analysis of property rights in terms of their Standard-Essentiality. Finally, it cannot be established that the conduct described above, including the patent transfers outside the Patent Pool, constitutes a planned cooperation of these companies with the intention of exploiting the license seekers. Consequently, it cannot be established that this conduct would result in a fee structure that would place an excessive burden on license seekers. This applies irrespective of the fact that the defendant has also not specifically shown how this alleged excessive increase is noticeable and has an effect in terms of amount.

378

Finally, the plaintiff argued at the hearing that by being included in the Pool, the Pool members are also obliged to include other Standard-Essential Patents in the Pool. If a Licensee then finds itself exposed to a claim by a Pool member on the basis of a patent not included in the Pool, it is entitled under US law to invoke the Standard License Agreement, which precludes the separate assertion of rights to be included in the Pool.

379

(5)

The composition of the Pool is not exploitative towards "D" for other reasons as well.

380

381

This would be the case if "D" were forced to take a license even for such (non-essential) property rights that it does not use at all. However, the defendant has not demonstrated this. There is no submission from which it can be recognized that the use of the challenged embodiments would not make use of all Standard-Essential or, if not Standard-Essential, at least complementary rights related to the Standard. Due to the "D" group knowledge of the industry and the documents relating to the AVC Standard, the Cross-Reference-Charts and the Standard License Agreement already provided in the course of the negotiations, all of which can be viewed on the MPEG LA website, it could also be assumed that the defendant would in principle have been able to make such a submission. 382

Since the lack of Standard-Essentiality has already not been demonstrated, it is irrelevant whether the plaintiff could have put forward a factual reason for the inclusion of non-essential patents. 383

(6) 384

It is also not objectionable that no adjustment clause is provided for in MPEG LA's license offer. 385

Such an adjustment clause is considered to be an adequate means of achieving FRAND compliance of an offer extending to a Patent Pool in order to compensate for a possible imbalance between the fixed license fee and the variable subject matter of protection in the event that the existence of the Pool changes (Düsseldorf Higher Regional Court, decision of November 17, 2016, file no.: I-15 U 66/15, para. 32, cited in juris; Kühnen, loc. cit, Chapter E., para. 419), for example due to the expiry of the term of protection of Pool patents or their legally binding destruction. However, it is also possible to compensate for an unreasonable level of license fees inherent in the variability of the property right portfolio by other mechanisms (Düsseldorf Higher Regional Court, loc. cit.). 386

This is the case here. 387

Here, Section 4.9 of the License Agreement governs: 388

"Licensee and the License Administrator acknowledge that the royalties payable will not increase or decrease because the number of AVC Patent Portfolio Patents licensed increases or decreases or because the prices of AVC Royalty Products increase or decrease." 389

Inherent in the clause is that the Licensor assumes the risk of an increase in the Pool patents and the Licensee assumes the risk of a minimization of the same. According to the plaintiff, the clause takes into account the development of the Patent Pool over time, according to which a lower number of patents is to be expected at the beginning and end of the term in particular, while a larger number of patents is stored in the Pool. 390

The fact that the Standard License Agreement has been accepted by the Licensees in this form is an expression of the fact that this is a compensation mechanism in line with their interests, as is the fact that the risk thus distributed has so far only materialized with regard to the Licensor. This is because the license fees have not been increased since the Pool 391

was established in 2004, although the number of patents has risen from an initial 41 to over 5,000.

Discrimination would only exist if the license seeker was disadvantaged by the contractual provision compared to other Licensees. This cannot be established here, as the Chamber was unable to determine that the inclusion of such a clause in the Standard License Agreements is customary in the industry and that there is a negative deviation from this practice if such a provision is not provided for in the License Agreement with the D-Group. 392

The indicative effect of the Standard License Agreement is in favor of the plaintiff because this agreement has actually been concluded more than 1,400 times in practice. 393

The indicative effect could be countered by the fact that these many contracts themselves were not concluded under FRAND principles and show deviations that speak against the assumption that the Standard License Agreement was concluded more than 1,400 times with the same content. 394

Furthermore, according to Section 6.4 of the Standard License Agreement, Licensees have the right to voluntarily terminate the contractual relationship subject to a notice period of 30 days. This gives the Licensee the opportunity to react to changing circumstances that no longer appear favorable for the continuation of the contractual relationship and to withdraw from the License Agreement. There is therefore no need for a separate adjustment clause to protect the Licensee from a constant license fee in the event of declining property rights. 395

Thus, to the extent that the defendant cites reasons that are intended to shake the circumstantial effect, it does not prevail with any of them, which will be discussed below: 396

bb) 397

The defendant's further objections to the circumstantial effect of the extensively concluded Standard License Agreement are also unsuccessful. 398

i) 399

Insofar as the defendant objected to the incompleteness of individual License Agreements submitted, these deficiencies have since been remedied by the plaintiff; it has submitted complete License Agreements, in particular with regard to AHT Holding B.V. and Sony Computer Entertainment Inc. in Exhibits K 34 to K 36. The plaintiff plausibly gave the reasons for the incomplete initial submission of the contracts as scanning errors. 400

ii) 401

The plaintiff also comprehensibly explains the difference in pages (ranging from less than 32 pages to more than 32 pages) of some of the submitted License Agreements, which the defendant has already criticized only in general terms, since without reference to specific contracts. Thus, differences are due to the fact that the number of Pool patent holders named at the beginning of the contract document has increased, that changes have been made to the preamble, that the definition of the Standard has been changed and that the Exhibit 1 included has itself been changed. This is even subject to a quarterly update. 402

The defendant does not significantly counter this argument in its writ dated October 31, 2018. In this respect, the defendant only shows its actual efforts to carry out a contract review. A substantive examination of the license agreements no longer takes place.

iii) 403

It is also irrelevant that Exhibit 1 of the Standard License Agreement was only made available for inspection in addition to the License Agreement with Fujitsu Limited Japan from 2004 (Exhibit B 66/K34/K26). It serves to summarize all property rights currently included in the Patent Pool and is subject to constant changes and adjustments in view of the expiry of property rights etc., cf. section 1.8 of the Standard License Agreement. The content of Exhibit 1 is not in itself a binding part of the contract; it only becomes effective when it has also been published on the MPEG LA website. This is stated in Section 8.2.1. of the Standard License Agreement. The content then published applies equally to all Standard License Agreements in force. 404

iv) 405

Similarly, no change in the content of the license offer in dispute can be identified compared to previous license offers. It is true that the defendant has made a comparison of the model License Agreement with the agreement of Huizhou For You General Electronics Co. Ltd. from 2006 and submitted screenshots of changes made by the Relativity computer program. However, it is not specifically stated where the differences in content lie. Nor does this comparison say anything about the other License Agreements concluded in many cases and their content. It would have no representative effect on other contracts, even if it were assumed that there were changes in content. 406

v) 407

Similarly, the contract overview (Exhibit K14) does not provide a sufficiently reliable indication of changes in content. Although varying contract types (e.g. Contract 4, Contract 6) and different dollar amounts are mentioned there under column 3, which is headed "associated contract", this is irrelevant for the License Agreements for the AVC Standard concluded by the thousands, since this table refers to the MPEG-2 Standard as shown in column 1. 408

vi) 409

With Set of Exhibits K 38, the plaintiff has now also submitted the renewal notices for License Agreements expiring in 2010 for the file. In its most recent writ, the defendant no longer adheres to its original concerns that this could result in changes in content compared to the previous License Agreements. In any case, there is no specific submission on the deviations in content identified. 410

vii) 411

In addition, the plaintiff also submitted the order form as Exhibit K 37, which is valid for the validity of the License Agreement with ZDF as evidenced by the note in its upper right corner ("Applies only in connection with the ZDF order", handwritten): 412

4500165362) is required. The explanation for the combination of this License Agreement with an order form is that this is common practice for public companies. As a result, the incomplete presentation of the contract criticized by the defendant has been remedied.

Even if, in addition, the submission on the sales prices shown in the order form is not considered comprehensible due to a lack of further explanations, this does not change the existing indicative effect. This is because it would merely be a contract compared to numerous unchallenged contracts, which would not be able to shake the validity of the other contracts. 413

viii) 414

It must also be taken into account that the License Agreements challenged by the defendant, even if not all License Agreements were examined due to a possible lack of time, represent only a small percentage of the Agreements actually concluded and therefore do not in any case allow the conclusion that all Agreements were only submitted to the file in an inadequate manner, which could be detrimental to the plaintiff. 415

ix) 416

Finally, the significance of the thousands of License Agreements concluded is not diminished by the fact that the defendant has submitted data material (Exhibits B 75) based on information from the International Date Corporation (IDC), which shows that from 2017 to the second quarter of 2018 only 44% of the global cell phone market was licensed, with 42% of Licensees being Pool members and only 2% of Licensees being companies outside the Patent Pool. From this percentage ratio, the defendant deduces that the licensing practice of MPEG LA is not generalizable and representative, at least with regard to external competitors. For several reasons, however, this criticism does not hold water. 417

It is therefore not apparent that only products that are also AVC-capable were included in the calculation. This is because only such end devices, whereby it can be left open here whether only smartphones or all end devices are considered, are affected at all and could be considered as potential Licensees of MPEG LA. Furthermore, there are doubts about the criteria on the basis of which the (non-)licensed companies were selected. For example, the tabular compilation in Exhibit B 75 shows that companies were also included that are obviously not mobile communications companies or electrical companies at all (e.g. Obi, Auchan). It is also irrelevant that - assuming the figures are correct, which could also be supported by the figures submitted by the plaintiff at the hearing (bar chart and tabular presentation), as they are only slightly different at best - a large proportion of the Licensees are also members of the Patent Pool relevant here. In the oral hearing, the plaintiff used Pool member "I" as an example to show, which remained undisputed, that not every Pool member benefits to the same extent from participation in the Pool. For example, company "I" itself only has 10 Standard-Essential Patents of its own and therefore has to pay higher license fees to the Pool than it receives in distributions from the total license fees collected through its pro rata participation in the Pool. The situation is mirrored for pool member "J", which is one of the largest Pool patent holders. The plaintiff has thus clearly shown that the market 418

power of a Pool member, which obviously exists at "I", has no influence on how the internal license fees are structured.

cc) 419

The license offer is also in line with the defendant's statements on a License Agreement with "K" FRAND. 420

In view of its License Agreement concluded with Pool member "K" for its entire portfolio of 3GPP/3GPP2-Essential Patents (see Exhibit B 60), "D" is not subject to any discrimination or exploitation, provided that it would also agree to the worldwide License Agreement envisaged by MPEG LA. Nor does this Agreement contradict the assumption that the content of the numerous Standard License Agreements is identical. 421

First of all, it is not objectionable that "K", despite being a member of the AVC Pool, also concludes License Agreements for Standard-Essential rights outside the Pool. The Standard License Agreement grants the Pool members this possibility and must do so in order to comply with the antitrust requirements of the EU Commission's guidelines and not to establish exclusivity on the intellectual property rights brought into the Pool (Guidelines para. 261; see Düsseldorf District Court, judgment of December 12, 2018, file no. 4b O 4/17). 422

Nevertheless, the reference to the contract with "K" is not suitable to show that the provisions in the numerous License Agreements are not identical and therefore cannot have any indicative effect. 423

The License Agreement with "K" submitted as Exhibit B 60 is primarily aimed at the 3GPP/3GPP2 Standard and not at the AVC Standard here. In any case, the Section 5.2.1. does not state with sufficient clarity that the AVC Standard is also to be included. It only mentions "any use of the licensed product". However, there is no definition of which products the Agreement considers to be licensed. 424

The contractual clause (cf. Clause 5.2) provides that "D" has a "pick right" to take additional licenses to AVC-Essential property rights of "K" as soon as the latter asserts the infringement of the SEP against the licensee in court. 425

However, there is no unequal treatment or exploitation of "D", as the MPEG LA has shown itself willing to negotiate with "D" on how to deal with license fees already paid to the Pool member regarding the AVC Standard. The MPEG LA would reimburse license fees paid to "D" on the instructions of the Licensor. As a result, "D" would not be exposed to a double license payment. 426

The fact that, due to the existing contract with "K", special negotiations were held with "D" on how license payments from "D" to the Pool member "K" should be treated, rather speaks for a FRAND-compliant conduct of MPEG LA. This is because these would be individual, possibly partial, deviating regulations, since only the rights of one Pool member are affected, which would also benefit "D" and would not constitute unequal treatment. "D" must also have been aware of this because - according to its own minutes of July 20, 2016 (Exhibit B 26) - MPEG LA had already indicated that it would take this contractual arrangement into consideration and refund the license fee paid to the Pool member. 427

Moreover, even the defendant has not claimed to have already made use of the "pick right". However, in addition to the conclusion of the Standard License Agreement, this would be the prerequisite for the fact that rights could no longer be asserted against "D" with regard to the Standard at issue here ("global standstill agreement") and the question of offsetting license fees already paid would become virulent.

dd) 429

The inclusion of the Chinese market at the same license rates in the License Agreement with "D" is FRAND-compliant. There is no discrimination. 430

i) 431

In addition to direct unequal treatment, unequal treatment vis-à-vis other Licensees can also be based on the fact that the patent owner only selectively enforces its prohibition rights, which means that it files complaints against individual competitors in order to press for the conclusion of a License Agreement, whereas other Licensees are allowed to make unhindered use of the property right. In effect, this means that the Licensees who are not sued benefit from a free license, although their competitors have to pay license fees or alternatively are subject to a conviction. However, abuse by the patent owner only exists in such constellations if the patent owner can also be expected to take legal action against the spared competitor. When this is the case must be determined based on the circumstances of the individual case. The decisive factor is whether the patent owner is aware of the infringer and the extent of the acts of use. It must also be conceded to the patent owner that it takes concentrated action against individual infringers and cannot act against all infringers at the same time for both personnel and, above all, financial reasons (see Kühnen, loc. cit., Chapter E, para. 243). Nonetheless, it is necessary that the patent owner demonstrates that it is prepared in principle and intends to take action against further infringers in the future. Only then is equal treatment under antitrust law satisfied. 432

Even taking into account the plaintiff's supplementary submission at the hearing on November 8, 2018, an inadmissible, selective approach towards potential Licensees is not apparent. 433

First of all, it is not objectionable that the Licensor approaches that part of the company of an infringer/license seeker which is authorized to conclude contracts with worldwide effect and is even involved in the distribution of the products to be licensed. In this respect, the patent owner regularly has an interest in approaching the parent company in order to bring about a comprehensive, but at the same time less costly and less burdensome solution (see Mannheim Regional Court, judgment of January 8, 2016 - 7 O 96/14 -, para. 119, juris). 434

This is because the patent owner generally has a legitimate interest in regulating all acts of use of a group by means of a License Agreement instead of having to take legal action for individual property rights or in individual countries in order to conclude a License Agreement in this respect as well. In addition, the SEP holder would incur higher costs if it were forced to license out its entire portfolio in various License Agreements (for a number of patents and a number of countries). Furthermore, it is often more difficult to monitor compliance with the Agreements and to prosecute infringements if there are multiple Agreements (Düsseldorf 435

District Court, Partial judgment of March 31, 2016 - 4a O 73/14 -, para. 227, juris).

Accordingly, it is not objectionable that MPEG LA is (only) prepared to conclude License Agreements with the defendant's parent company, "D", with a worldwide scope. In this way, it is guaranteed that all distribution activities of a group of companies are covered by a License Agreement. 436

This is not contradicted by the fact that MPEG LA has indisputably concluded License Agreements with companies other than the parent company in other cases. There are no objections to this approach if these Agreements are concluded with all sales-relevant individual companies of a group in order to achieve (gradual) worldwide license coverage in this way. This is what happened in the present case with companies based in China such as Changhong Europe Electric s.r.o., Shenzhen Kiuzhou Electric Co. Ltd. and Shenyang Tongfang Multimedia Co. Ltd. The same procedure was followed with the Haier Group. The reasons why Haier America LLC became the Licensee were that it was the only company active in distribution at the time the contract was concluded. 437

However, the approach of demanding a worldwide license from "D" including the Chinese market is only FRAND if it is customary in the industry to always license the Chinese market as well. 438

This is the case here. There are no efforts on the part of MPEG LA or the plaintiff that could justify the conclusion that the law is only selectively enforced. 439

Approximately 100 globally active competitors of "D" without a registered office in China have indisputably concluded the Standard License Agreement. These Licensees include above all: I, Cisco, Dell, Delphi Electronics, Google. There are only Chinese manufacturers that operate on the Chinese market without an AVC License. In addition to the "D" Group, these are Lenovo, Oppo, Xiaomi, Vivo and ZTE. The plaintiff has not positively exempted these companies from the license obligation; rather, it is also trying to conclude License Agreements in this respect, but these companies consistently refuse to do so. The fact that no License Agreements have been submitted in this respect is therefore not due to incompleteness on the part of the plaintiff, but is simply due to the fact that such Agreements do not yet exist. 440

Nevertheless, the plaintiff contacted all of "D's" competitors by email for this purpose. Most recently, the plaintiff had met with Chinese companies one week before the oral hearing of the present legal dispute on November 8, 2018, whereby the discussions had revealed that the outcome of the proceedings before the Düsseldorf District Court should be awaited before a final decision was made on taking a license. 441

The defendant's denial with ignorance regarding MPEG LA's email correspondence with the Chinese competitors is irrelevant. This is because it is known to the court, namely from the proceedings of the parallel Chamber in file no. 4b O 4/17, that the defendant there, ZTE, has always refused to enter into license negotiations. Moreover, D knew from the minutes of the negotiation meeting with MPEG LA of 20 July 2016 (Exhibit B 26) that MPEG LA had held talks with Xiaomi, Oppo and Vivo with the aim of obtaining an AVC License. 442

is in line with industry practice. For only if such a staggering has taken place vis-à-vis other Licensees would it be necessary to proceed in the same way vis-à-vis D. However, it is not apparent that such a practice has developed.

It is undisputed and also follows from the indicative effect of the more than 1,400 License Agreements concluded that the MPEG LA has not yet concluded any License Agreements that provide for license rates that take into account regional particularities on the market. Accordingly, no practice of setting country-specific license rates has developed. In this respect, there is no discrimination against "D". 449

Irrespective of the question of why the enforcement of patent rights in the Chinese system should be relevant for the defendant as Licensee when assessing the license rates, since a patent must be taken into account from the time it exists (Düsseldorf District Court, judgment of November 9, 2018, file no. 4a O 17/17), all licensees would in any case be equally affected by any peculiarities or difficulties of the Chinese patent enforcement system. This does not put "D" in particular at a disadvantage. 450

Finally, it is also irrelevant how the patents included in the Pool are weighted according to their origin and whether Chinese patents are possibly underrepresented in it. In view of the regional distribution of the property rights, the FRAND compliance of the license rates could only be questionable if license fees are also demanded for countries in which only a single SEP is in force and used; even in such cases, however, this approach is not objectionable if it is customary in the industry. 451

In this case, it is not objectionable to consider IP rights in force in China in their entirety and on an equal footing with the other IP rights. This is because, on the one hand, it is customary in the industry, since all licensees are equally affected by any underrepresentation. Secondly, the plaintiff countered the defendant's submission, which criticizes the inclusion of Chinese rights, in any case in a significant way by showing in a table that Chinese patents have the fourth largest share of the Patent Pool. The defendant has not challenged this argument. Finally, the defendant has also not shown that even the few Chinese patents would not be able to keep an interested party out of the Standard-defined market (see Düsseldorf District Court, judgment of September 11, 2008 - 4b O 78/07 - Videosignal-codierung III, juris, para. 101 f.). 452

ee) 453

The submission of documents other than the Standard License Agreements themselves was not required to determine the FRAND compliance of the license rates. In particular, it was not necessary to submit the Membership Agreements. This is because these Agreements exist between MPEG LA as License Administrator and the Pool members, who are also Licensees. The defendant insists on the submission of this document, as otherwise it cannot be determined to what extent the license offer to "D" is comparable to those License Agreements with Pool members and how the license income is divided within the Pool. However, this is not relevant for the question of the FRAND conformity of the license offer. This is because, as the defendant itself states, the Membership Agreements are internal to the Patent Pool, which relate to its internal entrepreneurial structures and have no direct influence on the License Agreements. The mere existence of these Membership Agreements, which is due to the Pool Membership, says nothing about the fact that the License Agreements concluded with Pool 454

members are structured differently in terms of content. Moreover, it follows from the indicative effect of the thousands of License Agreements concluded that there are no differences in the content of these Agreements compared to external Licensees, which the plaintiff has also shown specifically using the example of the I-Group.

These additional documents would also only serve to check the effective license fee (effective license rates). However, these effective license rates are not relevant for checking the FRAND compliance of a license offer. This is because the effective license rate is not sufficiently reliable, as it depends on many factors that cannot be influenced by the Licensor (e.g. sales strength, product portfolio), and also varies within the group of Pool members as Licensees. 455

ff) 456

The license offer submitted does not discriminate against "D" because, as the defendant claims, it would not be granted any discounts compared to other Licensees. 457

It has not been shown that other Licensees have been granted discounts. 458

Insofar as the defendant refers to installment payment and crediting agreements, these represent regulations on the payment modalities, which, however, do not affect the fees to be paid in accordance with the Standard contract in principle. 459

Insofar as offsetting agreements are involved, abusive unequal treatment is already ruled out because it is merely a matter of compensating for any services already rendered by the Licensee, meaning that there is in any case an objective justification. The defendant has also not shown that there is already a need for offsetting on its side. With regard to the possibility of installment payments, the plaintiff has stated that this possibility is granted to everyone. In this respect, however, the defendant has not presented any need for such an agreement on its side. 460

There are also no other indications which could lead to deviations from other Licensees with regard to the license amounts to be paid, which are wrongly not offered to "D". The defendant does not substantiate this. In particular, such indications do not follow from the overview of (originally) concluded License Agreements submitted as Exhibit K 14. According to the first column, these contracts refer to the MPEG-2 Standard. However, it is irrelevant for the MPEG-4 Standard relevant here whether different contract types were available for selection within the framework of another Standard. With specific reference to License Agreements of the Standard at issue here, the defendant has in any case not shown that other provisions were made. 461

gg) 462

The maximum amount clause integrated into the license offer in Section 3.1.1 "Royalties and payments" is appropriate and does not discriminate against the "D" Group. 463

i) 464

465

Defendant cannot rely on the argument that the royalty caps are unreasonable and discriminatory because multi-product sellers are more likely to benefit from the cap, which was \$8,125,000 in 2016, due to their broader product line.

In general, there is no obligation to grant most-favored-nation treatment. Even a market-dominant company cannot be prevented from reacting to different market conditions in a differentiated manner. This means that contracts concluded with the other side of the market do not always have to lead to the same economic result (see Düsseldorf District Court, judgment of November 9, 2018, file no. 4a O 17/17 with further references). Discrimination is ruled out if there is already no difference in treatment. 466

The provision of Section 3.1 provides for a cap from a certain license amount paid as well as a free license for the first 100,000 units sold. 467

Section 3.1.1 of the License Agreement provides for the following maximum amounts for the years from 2006 to 2020: for the period between 2011 and 2015, this amount was \$6,500,000, for 2016 at \$8,125,000 and for the years from 2017 to 2020 at \$9,750,000 per year. In practice, this regulation means that the previous license rate is subsequently (arithmetically) relativized once this limit is reached or exceeded and the Licensee has effectively paid a lower license rate per unit sold ("effective license rates"). It is inherent in this regulation that companies with high sales figures benefit from relativizing royalty rates per unit more quickly than those with lower sales. 468

The possible cross-subsidization of companies that offer AVC Products from different sectors of the electronics industry and thus reach the capping limit more quickly than a single-product manufacturer due to a diversified product range is neither the result of unequal treatment nor can the clause be qualified as inappropriate for this reason. 469

The cap initially creates an economic incentive to sell large quantities in order to become license-free when sales are high. However, this promotes natural competition. Promoting competition also results in good enforcement of the Standard. It corresponds to natural market and competitive conditions that companies with certain market shares and a certain market presence are rewarded. For example, the mechanism of discounting - which is all that happens when the cap is reached - is a common practice in the economy for large quantities. 470

There is also no unequal treatment of single-product manufacturers compared to multi-product manufacturers. Unequal treatment presupposes that both groups of manufacturers are comparable at all. This is not the case here, because the licensing of the AVC Product covers various downstream product markets, whereby the products are not substitutable with each other (televisions and cell phones). In this respect, the plaintiff offers the same capping limits to all manufacturers and there is no obligation to differentiate. Insofar as the defendant uses multi-product manufacturers as an example of disproportionate favoritism, it also disregards the fact that multi-product manufacturers also leave the area of license-free production of the first 100,000 units more quickly. The fact that the Standard License Agreement covers coding and decoding of AVC videos and thus various downstream markets (mobile devices, televisions, etc.) on which this technology is used does not constitute inadmissible bundling. The technology of the video format is licensed, regardless of the 471

device/on which end device it is used. The tying is not apparent because the use of the AVC format is provided in a uniform manner for use in return for payment. The technology of the AVC format covered by the Patent Pool is also not substitutable as such. As seen, substitutability is not established by the fact that the format is used in different receivers or transmitters.

In addition, the established cap also applies to single-product manufacturers whose sales activities are limited to mobile devices. The achievement of high sales figures is not solely due to the selection of products, but is also attributable to the individual business practices of the respective competitor. Good marketing and brand management, well-developed infrastructures and reliable distribution networks all play a role. The commercial success of a product is based on numerous factors. 472

These factors mean that the clause at issue does not ultimately constitute an abuse under antitrust law and that the consequence of cross-subsidization, which can occur in a company that is successful on the market, is acceptable. 473

In the present case, the fact that licensees are actually in a position to achieve such turnover speaks for the appropriateness of the maximum amounts chosen. The plaintiff substantiates this by showing the number of units sold, the respective annual turnover and the percentage share of the global market for the year 2016 using the example of "D" in tabular form, with the exception of the Chinese market (p. 231 GA). The defendant does not significantly dispute these figures. It was only correct to complain, and in this respect now corrected by the plaintiff in the surrejoinder, that the column of units sold refers to quantities, so that the \$ sign was incorrectly indicated. 474

Moreover, even the defendant argues that "D" exceeds the maximum amount limit (see Tab. 1, writ of July 3, 2017, p. 54; p. 107 GA; Exhibits B 31 and 32). In this respect, it only refers to the fact that the effective license rate resulting for it in this way is higher compared to the F Group. Nor does the defendant's reference to the IDC report submitted in part to the file as Exhibit B 47 and the figures on units sold presented there lead to a different result. This is precisely because the fact that the unit figures listed in the overview Exhibit B 47 for the years 2014 and 2016 deviate upwards from the table introduced in the lawsuit by the plaintiff, it can be assumed a fortiori that the capping limit in dispute is also exceeded on the basis of this data. 475

g) 476

The defendant did not fulfill its obligation arising from the procedure established by the ECJ and did not submit a FRAND-compliant counter-offer. 477

In accordance with the ECJ's reciprocal D criteria, the license seeker must always respond to a FRAND-compliant offer carefully and in good faith and in accordance with accepted business practices in the sector. If it does not wish to accept the offer, it has the option of submitting a counter-offer which, like the original license offer, must fully comply with the FRAND criteria. In addition, this must be done within a short response period to the offer (Kühnen, loc. cit., Chapter E, para. 338). 478

Neither the first (August 2017) nor the second counter-offer (October 30, 2018) are FRAND-compliant. 479

aa) 480

The defendant is only relying on its offer of October 30, 2018, so that the first counter-offer no longer needed to be examined. 481

The second counter-offer does not comply with FRAND principles. 482

i) 483

Although the second counter-offer contains changes compared to the first counter-offer and, in particular, the three-part division of the license rates has been abandoned, these are still not sufficient for the offer as a whole to be considered FRAND. 484

ii) 485

The defendant is not entitled to the grant of a Portfolio License. 486

The defendant has to admit that the preamble of the License Agreement provides for the possibility for Licensors to grant individual licenses and sublicenses. In the German translation, p. 2, 3rd paragraph, it literally states: 487

"Each Licensor hereby agrees to grant to individuals, companies or other entities individual licenses or sublicenses under all AVC Essential Patents on fair, reasonable and non-discriminatory terms and conditions in accordance with the terms and conditions agreed herein, which may be granted by the Licensor (without payment to third parties)." 488

For antitrust reasons alone, the plaintiff was obliged to include this wording in the Standard License Agreement and to grant potential Licensees the option of individual licenses. Otherwise, it would inadmissibly restrict the freedom of contract of license seekers to a specific Licensor and, above all, to a specific contractual content, namely the Patent Pool. The license seekers would have no choice but to accept the offer from the contracting party on the terms submitted in order not to cut off their ability to compete on the downstream product market. 489

A contractual restriction of the freedom of choice to a Pool license, which is generally permissible as described above, is also not justified by the fact that - according to the plaintiff's undisputed submission - the granting of individual licenses has never been used in practice because the actual practice in the industry has developed towards the granting of Pool licenses from the outset. It is generally recognized in case law that a developed industry practice can be a suitable argument for the FRAND conformity of certain contractual provisions. However, this would de facto mean that the offer of a licensing option other than a Pool license, which is required under antitrust law, could be undermined by de facto customs. It is conceivable that Pool members could begin to exclusively take Pool licenses and that this would be sufficient to establish such a practice due to the not inconsiderable number of Pool members. Licensees outside the Pool would then be exposed to this practice without being able to influence it. 490

The exercise of the remaining option of only licensing the plaintiff's portfolio is in itself neutral under antitrust law (Düsseldorf District Court, judgment of December 12, 2018, file no. 4b O 4/17). 491

However, the possibility of taking a license other than the one offered by the patent owner is not unlimited. Rather, the conduct of the license seeker must be measured against antitrust law standards. It may not exploit mandatory antitrust law provisions in its favor, which would ultimately lead to a disadvantage for the FRAND-behaving property right holder. This is because it would be forced to grant an individual Portfolio License. 492

Therefore, if a Licensee requests a deviation from the previously practiced equal treatment of all Licensees, it must present compelling, objectively comprehensible reasons for this. Only then could it be justified from a FRAND perspective to include selected intellectual property rights of a Licensor in the counter-offer. 493

Objective reasons for requesting an individual license may be, for example, that the license seeker only makes use of the Standard-Essential property rights of this one patent owner or that the license seeker, if it uses other SEPs, also intends to take individual licenses from the other SEP holders. These requirements follow in mirror image from the prohibition of selective enforcement to which the patent owners are subject. With regard to a license seeker who is aware of the realization of third-party property rights, it is in any case unacceptable that it only takes isolated and selected individual Portfolio Licenses without the existence of an objective reason. 494

Measured against these criteria, the defendant has not succeeded in demonstrating an objective justification for an individual license. 495

On the one hand, the defendant has not argued that it does not use any SEPs other than those of the plaintiff. Secondly, it has not shown that it seriously intends to seek individual Portfolio Licenses from other patent owners. 496

This is because the alleged willingness to license with regard to individual licenses cannot be established with the necessary certainty. It is true that the defendant also submitted a license offer to the respective plaintiff in the parallel proceedings (4a O 17/17 and 4a O 63/17) with regard to a Portfolio License. However, this is not sufficient to prove a serious willingness to license, as the Pool consists of 38 members. In this respect, it is also neither shown nor apparent that the defendant/"D" does not make use of the SEPs of the other members or has also expressed its willingness to license to the other Pool members. Moreover, the indications suggest that such contact has not yet been made. This is because the defendant only makes vague statements in the writ and only envisages the submission of further offers in the event that acts of use other than those currently under attack before the Düsseldorf District Court "come into consideration". With this submission, the defendant does not position itself clearly, although it is possible for it to determine whether other SEPs are currently being used. 497

This blanket statement shows that the defendant is actually unwilling to conclude individual licenses on its own initiative. In addition, the defendant is blocking any licensing efforts 498

of the Pool members.

This is because the conduct of a license seeker no longer complies with the FRAND principles if the license seeker would only enter into negotiations on a License Agreement on the basis of infringement proceedings, which would have to be brought by the patent owners and would also be cost-intensive (see Mannheim Regional Court, judgment of May 27, 2011, file no. 7 O 65/10). There would then no longer be a balance in the license negotiations to be conducted, as there would be pressure on the part of the patent owners to take legal action in order to preserve the possibility of being able to enforce their rights. This is incompatible with the test criteria established by the ECJ. According to these criteria, bona fide parties should face each other, conduct serious and balanced negotiations and have a mutual interest in a license. For the counter-offer in particular, the ECJ stipulates that the alleged infringer must respond to the offer made to him with due diligence, in accordance with accepted commercial practice and good faith in the field. 499

The defendant's conduct is wrongly tactical and delaying, although in any case the Standard-Essential rights are infringed. If it emphasizes several times during the proceedings that it intends to take the licenses to the rights it uses, then it must be required to take active steps to substantiate the seriousness of this intention. Without this, the defendant/"D" would exploit the antitrust regulations that licensors are also obliged to grant individual licenses without being able to justify this objectively. 500

The motivation for the conclusion of individual Portfolio Licenses, which was further cited in the oral hearing, is also not suitable to dispel the concerns about the defendant's tactical approach. For example, "D" intended to conclude cross-licenses with the individual SEP holders and to offer the SEP holders its own intellectual property rights in exchange for the SEPs. However, the defendant was not able to name any of its own property rights in this context in which the licensors could have a serious (economic) interest. This would have been particularly important in view of the fact that "D" itself is not the owner of SEPs. Thus, there are no reasonable reasons why "D" should choose a contractual arrangement with the Portfolio License that objectively puts it at a disadvantage compared to the Pool License. This is because it has to conduct individual license negotiations with all Pool members, is exposed to higher license payments and higher transaction costs, even though it does not ultimately acquire licenses to more IP rights than under the Standard License Agreement (see Düsseldorf District Court, judgment of December 12, 2018, file no. 4b O 4/17). A bona fide license seeker would therefore prefer a Pool license. 501

Since there is already no FRAND-compliant counteroffer, it is not important whether sufficient security has been provided. 502

IV. 503

The infringement of the patent in suit has the following legal consequences: 504

1) 505

Since the defendant has unlawfully used the patent in suit, it is obliged to cease and desist from the acts of use pursuant to Art. 64 EPC, Sec. 139 (1) PatG (German Patent Act). 506

Insofar as there is only an indirect patent infringement with regard to procedural claim 1, the defendant was also to be ordered to cease and desist in full in this respect (prohibition by implication). It is true that a prohibition in bad faith in the case of indirect patent infringement is generally only justified in cases in which the offered or supplied means - technically and economically reasonable - can only be used in a patent-infringing manner and not otherwise (see Kühnen, loc. cit., Chapter A, para. 414). If a patent-free use of the challenged embodiments is also possible, only a limited condemnation is generally required, which ensures that, on the one hand, the economic traffic with the attacked objects outside the right of action remains unimpaired and, on the other hand, the patent-infringing use by the customers is excluded with sufficient certainty (cf. Kühnen, loc. cit., chapter A., para. 417). In particular, warnings to the customers or contractual agreements to cease and desist are suitable means of ensuring that the property right is protected (see Federal Supreme Court (BGH) GRUR 2007, 685 - Haubenstretchautomat), whereby the circumstances of the individual case are decisive. However, in exceptional cases, a prohibition in bad faith may be issued against the supplier despite the possibility of use being patent-free in principle, if neither the warning notice nor other means offer sufficient guarantee that no patent infringement will occur. This is to be assumed, for example, if the patent infringement is practically undetectable for the supplier and at the same time it is reasonable to expect the supplier to redesign the means in such a way that it can no longer be used in accordance with the patent (see Düsseldorf Higher Regional Court, InstGE 4, 252 - Rohrschweißverfahren). The burden of presentation and proof for the lack of a patent-free possibility of use (negative fact) lies with the plaintiff in accordance with the general principles of civil procedure, but it is initially sufficient for the plaintiff to make a general assertion that such a possibility does not exist. It is then up to the defendant to name specific possible uses outside of the patent (see Kühnen, loc. cit., chapter A., para. 415; OLG Karlsruhe, judgment of July 23, 2014, ref. July 23, 2014, file no. 6 U 89/13 - cited in juris).

Taking these principles into account, a prohibition of bad faith was appropriate. It is true that the challenged embodiments can also be used in an economically meaningful way beyond the use of the protected teaching of the patent in suit. Nevertheless, a prohibition for the worse was to be imposed. Milder means than a prohibition in the strict sense are not suitable here to prevent a patent-infringing use of the challenged embodiments; in particular, a warning or the obligation to conclude cease-and-desist agreements with customers of the challenged embodiments subject to penalty appear unsuitable here. Ultimately, the challenged embodiments are regularly used by end consumers for private purposes. These customers cannot be prohibited from using the patent in suit in the private sphere for non-commercial purposes pursuant to Section 11 No. 1 PatG. Furthermore, it is practically impossible for the plaintiff to check whether the protected teaching is being used in the case of mobile telephones such as the challenged embodiments. 508

In addition, in the case of a patent-free use, a prohibition of bad use may also be justified in particular if the attacked object can be easily modified in such a way that it no longer complies with the requirements of the patent, but nevertheless does not lose its suitability for patent-free use (Düsseldorf Higher Regional Court, judgment of March 29, 2012 - file no. I-2 U 137/10 - para. 83 at Juris; Düsseldorf District Court, InstGE 5, 173 - Wandverkleidung). In such cases, the patent-compliant design of the product is not required to ensure use in the public domain outside of the patent; the party offering or distributing the product can therefore have no interest worthy of protection. 509

The defendant has not countered the plaintiff's submission on modifiability. It is also not apparent what technical difficulties could exist in preventing the use of the patent-compliant teaching. 510

Insofar as modifiability is made more difficult by the fact that the use of the entire AVC/H.264 Standard is made impossible due to the Standard-Essentiality of the patent in suit without using its teaching, this does not, in principle, preclude a prohibition in principle. The associated disadvantageous consequences for the patent infringer are compensated by the antitrust restrictions of the injunctive relief from the Standard-Essential Patent. If the FRAND objection - as here - does not prevail, a patent infringer cannot claim that a patent-free modification of the challenged embodiment is not possible or inappropriate because this also prevents the use of the Standard. 511

2) 512

The defendant is also at least negligent. This is because the defendant, as a specialist company, could have recognized and avoided the use of the patent in suit if it had exercised the care required of it in business transactions, Section 276 German Civil Code (BGB). For the period from the plaintiff's entry in the register, the defendant therefore owes compensation for the damage that the plaintiff has suffered and will suffer, Art. 64 EPC, Sec. 139 (2) PatG. Since the exact amount of damages has not yet been determined, as the plaintiff has no knowledge of the extent of the acts of use and infringement by the defendant, it has a legal interest pursuant to Section 256 Code of Civil Procedure (ZPO) in having the defendant's liability for damages determined on the merits. 513

3) 514

In order to enable the plaintiff to quantify the damages and reasonable compensation to which it is entitled, the defendant is obliged to provide an account of its acts of use to the extent awarded, Art. 64 EPC, Section 140b PatG in conjunction with Section 242 German Civil Code (BGB). Contrary to the defendant's view, in the present case it also owes an accounting of production costs and profits. In cases in which the SEP holder has made a FRAND declaration, the claim for damages may be limited to a license analogy, with the consequence that only those factors that are necessary for the calculation of the license must be taken into account, i.e. not also profits on the part of the defendant. However, this only applies if the defendant has fully complied with its FRAND obligations (see Kühnen, loc. cit., Chapter E., para. 389), which could not be established in the present case. 515

4) 516

Pursuant to Art. 64 EPC, Sec. 140a (1) and (3) PatG, the defendant is also obliged to destroy and recall the objects infringing the patent in suit in the manner awarded. 517

V. 518

In view of the defendants' objections to the right to bring an action, it was not necessary to suspend the legal dispute pursuant to Section 148 Code of Civil Procedure (ZPO) until a decision had been reached on the nullity action, even in the first instance. 519

1)	520
According to the established case law of the Chambers (Mitt. 1988, 91 - Nickel-Chromium-Legie-rung; BIPMZ 1995, 121 - Hepatitis-C-Virus), which has also been approved by the Higher Regional Court of Dusseldorf (GRUR 1979, 188 - Flachdachabläufe; Mitt. 1997, 257, 258 - Steinknacker) and the Federal Supreme Court (GRUR 1987, 2784 - Transport-fahrzeug), an opposition against the patent in suit or the filing of a nullity action as such does not constitute a reason to suspend the infringement dispute, because this would in fact amount to attributing to the attack on the patent in suit an effect inhibiting patent protection which is alien to the law. Rather, a stay is generally only required if it can be expected with sufficient probability that the patent in suit will not withstand the nullity action brought (see Federal Supreme Court BGH GRUR 2014, 1237, 1238 - Kurznachrichten; Kühnen, loc. cit., Chapter E., para. 652).	521
This cannot normally be assumed if the invalidity attack is aimed at questioning the novelty or the inventive step in finding the teaching according to the patent in suit, but reasonable arguments can still be found for affirming patentability, which also depends in this respect on the assessment of the competent instances. The same applies in cases in which the prior art cited against the patent in suit has already been taken into account in the grant proceedings or the patent in suit has been upheld at first instance (see Kühnen, loc. cit., Chapter E., para. 655f.).	522
2)	523
The Chamber was not able to establish a sufficient probability of success of the nullity action.	524
It is already doubtful whether the citation JVT-E146d37 (NK 6) cited by the defendant, which is the draft standard for the H.264 Standard, was actually publicly available before the priority date of the patent in suit (November 25, 2002). In principle, only documents which were publicly available before the filing or priority date can be taken into account in the examination as belonging to the state of the art, Art. 54 (2) EPC.	525
However, the statements and documents submitted by the defendant, which has the burden of presentation and proof in this respect, are not suitable to provide the necessary proof of the public accessibility of NK 6.	526
Public accessibility does not initially result from NK 6 itself. The indication "Generated: 2002-11-17" on the title page of the document suggests at best November 17, 2002 as the creation date, but not to a publication in a publicly accessible directory with the title "Geneva".	527
Contrary to the defendant's view, nothing else emerges in combination with the document submitted as Exhibit NK 7, which was published on the occasion of the Standardization Meeting in Japan from 5 to 13 December 2002 (i.e. after the priority date). It states that one month after the Geneva Standardization Meeting (9 to 17 October 2002), NK 6 was added to the corresponding list. However, it is not clear whether this is an exact date or merely an approximate time. The latter variant is supported by the fact that the author of NK 7 only vaguely states "from one month after [Geneva [meeting]]"	528

("One month after the Geneva..."). However, this circumstance is of considerable importance in the present case in view of the priority date of November 25, 2002, since this date is also only a good month after the end of the Geneva meeting. Sufficient certainty that NK 6 was uploaded to the directory before November 25, 2002 and also in the version submitted here cannot be derived from the approximate date.

Pre-publication is also not indicated by the quote from the "AgendaWithNotesdraft11" (NK 13/NK 13a), which is said to originate from the conference in Geneva. This quote merely refers to other JVT documents, but not specifically to NK6. 529

It is also irrelevant that NK6 appears in various EPO search reports as having been published in October 2002. This already contradicts the defendant's submission that NK6 was not published until November 17, 2002. In view of such contradictions, the search reports cannot be relied upon with sufficient conviction. 530

Finally, the defendant cannot rely on prima facie evidence that documents were published on the Internet within one month. Even if such prima facie evidence existed, it would in any case not be applicable in the present individual case. In view of the fact that the ITU publishes a large number of documents on an ongoing basis, which are also constantly being revised, and it can therefore not be ruled out that individual documents may be uploaded to the servers later than usual, there can be no prima facie evidence in the present case that all ITU documents are always accessible within one month. Nor can anything else be inferred from the fact that there are regular meetings of the individual ITU groupings and that there is therefore a need for proposals to be uploaded to the servers promptly. It can always be assumed (and ultimately not unlikely) that individual documents will be uploaded later, as they are either not yet available or have simply been forgotten. 531

The defendant was also unable to prevail with its objection that the plaintiff could not dispute the publication of NK 6 before the priority date with ignorance within the meaning of Section 138 (4) Code of Civil Procedure (ZPO), since the patent applicant, the company "J" , was its legal predecessor and it had still participated in the Geneva meeting under its old company name Matsushita Electric Industrial Co., Ltd. and in this respect had its own knowledge. The defendant did not counter the plaintiff's submission that the company "J" . was neither an economically affiliated company nor its legal predecessor. In this respect, any knowledge that "J" may have had about the publication date of NK 6 would not be the plaintiff's own perceptions, which would exclude a denial with ignorance (see Greger in Zöller, Kommentar zur Zivilprozessordnung, 32nd ed. 2018, Section 138, para. 14). It remains to be seen whether the plaintiff is obliged to make inquiries with "J", with the consequence that a denial with ignorance would only be admissible if these efforts were unsuccessful, since - as will be explained below - NK 6 cannot be held against the patent in suit even if prior publication is assumed. 532

3) 533

534

The Chamber was unable to determine with sufficient certainty that the Federal Patent Court would destroy the patent in suit for lack of novelty in the light of citation NK 6.

A citation is prejudicial to novelty if the entire teaching of the patent in suit claimed as an invention is apparent to the skilled person on the priority date from that document, the overall content of which is to be determined, in such a way that the technical solution presented therein directly and unambiguously discloses all the features of the invention to him/her. The technical teaching of the patent specifications is not limited to the content of the claims, but includes all the technical information that an average person skilled in the art can gather from the claims, description and illustrations (see Federal Supreme Court GRUR 2009, 382, 384 - Olanzapin). 535

In NK 6, both a method for motion compensation in the temporal direct mode and a method for the spatial direct mode are disclosed. Both parties agree and rightly assume that the teaching according to the patent in suit and thus also patent in suit claim 1 only relate to the spatial direct mode and that it is therefore necessary for the reasons of novelty that the features of patent in suit claim 1 in NK 6 are directly and unambiguously disclosed in relation to the spatial direct mode. 536

Only one method is explicitly disclosed for the spatial direct mode in section 8.4.1.4.2.2 of NK 6, in which 4x4 blocks in the current macro block are assigned to the corresponding 4x4 blocks in the co-located macro block (NK 6, p. 97 below). This is the method already recognized as prior art by the patent in suit and described as disadvantageous, in which all four 4x4 blocks of the co-located block are stored and these four blocks are also accessed in each case, i.e. four times in total. Although NK 6 also discloses a method in which actual larger blocks (8x8) are used, this expressly concerns only the temporal direct mode. The defendant also admits this on page 72 et seq. of its rejoinder (p. 301 et seq.), where it states: 537

"The spatial direct mode does not (yet) present a literal description of the corner 4x4 block situation for the case of the block size restriction to 8x8 pixels like the temporal direct mode." 538

The Chamber, which is not technically skilled, cannot determine with sufficient certainty that the skilled person - as the defendant believes - automatically reads a corresponding disclosure for the spatial direct mode at the point where the method for the temporal direct mode is disclosed. The fact that there is an extra Section in NK 6 for the spatial direct mode, namely 8.4.1.4.2.2, in which no reference is made to the method in the temporal direct mode, already speaks against this. In this respect, the skilled person is presented with a different technical solution for the spatial direct mode than for the temporal direct mode. In the context of its argumentation, the defendant itself states that the skilled person must transfer the solution taught for the temporal direct mode to the spatial direct mode, meaning that the defendant assumes that a transfer is required. However, this means that the skilled person cannot directly infer the teaching of the patent in suit from NK 6. In addition, there is a lack of unambiguousness of a corresponding disclosure in NK 6, since the skilled person must combine several sections with each other that are not technically directly related. 539

4)

With regard to a possible lack of inventive step based on NK 6, the Chamber is also unable to establish a sufficient probability of revocation. 541

The Chamber, which is not technically skilled in the art, could not determine with sufficient certainty that the skilled person would transfer the method disclosed for the temporal direct mode in NK 6 to the spatial direct mode without a further inventive step. The introduction of citation NK 9, which the defendant cited for reasons, cannot contribute to the understanding of the skilled person at the priority date, as this is a document published after the priority date. 542

It cannot be established with the necessary certainty that there is such a close relationship between the two modes mentioned that a transfer is obvious. The technical facts of the case are so complex that the Chamber cannot really gain a deeper insight into the circumstances and assess the various arguments put forward by the parties in favor of or against a relationship. Consequently, a stay should be refrained from (see also Kühnen, loc. cit., Chapter E. para. 657). 543

VI. 544

The ancillary rulings follow from Sections 91 (1), 709, 108 Code of Civil Procedure (ZPO). 545

1) 546

The security deposit was to be set at the amount in dispute. 547

The enforcement damages - and thus the security - generally correspond to the amount in dispute. This is because the determination of the amount in dispute is based on the plaintiff's interest in the requested court decision, for the calculation of which, in the case of a claim for injunctive relief - which is also in the foreground here - not only the value and significance of the infringed legal position of the plaintiff, but also the scope of the challenged acts are decisive (Düsseldorf Higher Regional Court, GRUR-RR 2007, 256 - Sicherheitsleistung/ Kaffeepads). In any case, the security for enforcement is typically not higher than the amount in dispute. This is because, while the amount of the enforcement security to be ordered by the District Court only depends on the presumed enforcement loss of the debtor in the short period up to the appeal hearing and the subsequent announcement of the appeal decision, because it creates a separate, new basis for enforcement, and, furthermore, non-enforceable parts of the judgment (such as the declaratory judgment) are to be disregarded, all claims and the entire period up to the regular end of the patent term are taken into account when determining the value in dispute (Düsseldorf Higher Regional Court, GRUR RR 2012, 304 - Höhe des Vollstreckungsschadens). If, on the other hand, it is to be expected - as an exception - that a security set in the amount in dispute will not fully cover the impending enforcement damage, it is up to the defendant to provide the court with concrete evidence of this (see Düsseldorf Higher Regional Court, InstGE 9, 47). This does not require detailed accounting or the disclosure of internal business information. Rather, a generalized presentation that makes the alleged turnover and profit figures comprehensible and plausible is sufficient, but also necessary. In many cases, it will suffice to refer to third parties, such as 548

annual reports or the like, or to submit an affidavit from the managing director or another responsible employee specified in accordance with the above explanations (see OLG Düsseldorf, InstGE 9, 47).

The defendant has not provided any concrete evidence that there is a fear of enforcement damages exceeding the amount in dispute. The defendant has submitted that in 2017 a gross profit of 193.03 million US dollars was achieved with the sale of cell phones compatible with the AVC/H.264 Standard, which corresponds to a sum of 169.46 million euros. However, the affidavit of Mr. Zhongming Liu, Supervisor of the Operational and Management Department of D Terminal Cl. Ltd. (Exhibit B 84) does not indicate that this is a profit of the defendant here, i.e. the German subsidiary of "D". The affidavit merely states that a gross profit of USD 193.03 million was achieved with the sale of AVC-compatible terminals in Germany, but neither explains why an approximately equal profit is to be expected in the future, nor for what reason this should be relevant in favor of the defendant here. This is also not apparent from the press article submitted as Exhibit B 85. In addition, formal aspects cast doubt on the superficial information in the affidavit. The declaration was made by a person not resident in Germany and a person not working for the defendant here, so that there are reasons to doubt that the statements made were made with reference to the German defendant. 549

2) 550

The defendant is not to be granted protection against enforcement within the meaning of Section 712 Code of Civil Procedure (ZPO), as it has neither set out the requirements of Section 712 (1) Code of Civil Procedure (ZPO) nor made them credible in accordance with Section 714 (2) Code of Civil Procedure (ZPO). 551

3) 552

The defendant's unadmitted writs dated November 30, 2018 and December 11, 2018, which were submitted after the conclusion of the oral hearing, were not taken into account in the decision and did not give rise to a reopening, Sections 296a, 154 Code of Civil Procedure (ZPO). 553

4) 554

The amount in dispute was finally set at € 30,000,000.00. This is because only the plaintiff's interest - not that of the entire Patent Pool - amounts to \$ 100,000,000 in license debts. This ultimately only addresses the interest with regard to the determination of damages. Taking into account the claims for injunctive relief, recall, destruction and information, the amount in dispute provisionally determined in the amount of € 5,000,000.00 is considered to be well underestimated. 555