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4b O 4/17



Announced 12.12.2018



Düsseldorf Regional Court
ON BEHALF OF THE PEOPLE

Judgment

In the proceedings

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I. The defendant is ordered to pay the costs,

1. to refrain from imposing an administrative fine of up to EUR 250,000 - as a substitute administrative detention - or an administrative detention of up to six months, in the case of repeated infringements of up to a total of two years, on avoidance of an administrative fine to be determined by the court for each case of infringement,

a) decoding means for blockwise decoding an encoded image, the encoded image being obtained by transforming the image into coefficients showing spatial frequency components,

to offer, place on the market or use them in the Federal Republic of Germany or to import or possess them for the aforementioned purposes,

said devices comprising:

a prediction unit adapted to determine a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block disposed above the current block and a total number of non-zero coefficients contained in a decoded block disposed to the left of the current block,

wherein each non-zero coefficient represents a transform coefficient with a level value is different from "0",

a table selection unit adapted to select a variable length coding table based on the determined prediction value, and

a variable length decoding unit adapted to decode encoded data obtained by encoding the total number of non-zero coefficients contained in the current block using the selected variable length encoding table,

wherein the prediction unit determines a prediction value having a value of "0" when no decoded

blocks above and to the left of the current block;

(direct patent infringement, device claim 4)

and / or

b) decoding devices suitable for blockwise decoding an encoded image, the encoded image being obtained by transforming the image into coefficients showing spatial frequency components,

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

with:

determining a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block arranged above the current block and a total number of non-zero coefficients contained in a decoded block arranged to the left of the current block;

wherein each non-zero coefficient represents a transform coefficient with a level value is different from "0";

selecting a variable-length encoding table based on the specified prediction value; and

decoding encoded data obtained by encoding the total number of non-zero coefficients contained in the current block using the selected variable length encoding table,

wherein the prediction value is determined as a value of "0" if no decoded blocks have been found above and to the left of the current block;

(indirect patent infringement, procedural claim 1)

2. to inform the applicant of the extent to which it has committed the acts referred to in paragraph 1 above since 6 October 2015, indicating
 - a) the names and addresses of manufacturers, suppliers and other previous owners,
 - b) the names and addresses of the industrial purchasers and of the points of sale for which the products were intended,
 - c) the quantity of products manufactured, delivered, received or ordered and the prices paid for those products;

where

to provide proof of the information, a copy of the relevant purchase receipts (namely invoices, alternatively delivery notes) must be submitted.

where confidential details may be blacked out outside the data to be disclosed;

3. to account to the applicant for the extent to which it has committed the acts referred to in paragraph 1 above since 6 October 2015, stating that it has done so:
 - a) the individual deliveries, broken down by quantities, times, prices and types, as well as the names and addresses of the industrial customers,
 - b) the individual tenders, broken down by quantity, time, price and type, and the names and addresses of the commercial recipients of the tenders,
 - c) the advertising pursued, broken down by advertising medium, their circulation, distribution period and distribution area,
 - d) the cost of goods sold and the profit realised, broken down by cost factor,

where

the defendant retains the right to communicate the names and addresses of the non-commercial purchasers and the addressees of the offer instead of the plaintiff to a sworn auditor, to be designated by the plaintiff and sworn to secrecy by the plaintiff and established in the Federal Republic of Germany, provided that the defendant bears the costs and authorises and undertakes the defendant to inform the plaintiff, upon specific request, whether a particular purchaser or addressee of the offer is included in the list;

4. return, at his own expense, the products referred to in 1(a) which are in his direct or indirect possession or property to a bailiff to be appointed by the applicant for destruction;
 5. to recall the products referred to under 1. a) which have been placed on the market since 6 October 2015 vis-à-vis the commercial customers, with reference to the patent infringing state of the goods established by the court (judgment of the Landgericht Düsseldorf of 12 December 2018, Case No 4b O 4/17) and with the binding promise to reimburse any fees as well as to bear the necessary packaging and transport costs and the customs and storage costs associated with the return and to repossess the products.
11. it is held that the defendant is under an obligation to compensate the applicant for all damage suffered by it as a result of the measures referred to in I.1(a) and (b) committed since 6 October 2015 has arisen and will arise.
- III. Orders the defendant to pay the costs.
- IV. The judgment is provisionally enforceable against a security of EUR 30,000,000, with the following partial security being established for the enforcement of individual enforceable claims:
- number 1. 1., 4., 5.: EUR 23,000,000
number I. 2., 3.: 6,000,000 EUR
number III: 110% of the amount to be enforced in each case.

facts of the case

The applicant takes the defendant for infringement of the German part of the European patent EP [REDACTED] (Annex K 1, filed in German translation as Annex K 2, hereinafter 'Annex K 2): patent) for injunctive relief,

information, invoicing, destruction, recall as well as determination of the liability for damages.

The applicant is the proprietor of the patent. The application underlying the patent action was filed on 27 March 2003, claiming Japanese priority on 15 April 2002. The publication of the application took place on February 07, 2007. On August 12, 2009, the reference to the granting of the patent was published. The patent is in force in the Federal Republic of Germany. The German part of the action patent is registered at the German Patent and Trade Mark Office under file number [REDACTED] (Annex K 3).

The defendant filed a nullity action against the patent of the action in a pleading dated 02 October 2017, which has not yet been decided.

The patent action concerns an image decoding process.

Claims 1 and 4 of the patent, as defended by the applicant in the invalidity proceedings, are as follows:

Claim 1

A decoding method for blockwise decoding a coded image, the coded image being obtained by transforming the image into coefficients showing spatial frequency components, comprising: "decoding the coded image by blockwise decoding a coded image, the coded image being obtained by transforming the image into coefficients showing spatial frequency components:

determining a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block disposed above the current block and a total number of non-zero coefficients contained in a decoded block disposed to the left of the current block, each non-zero coefficient being a transform coefficient having a level value other than "0", for a total number of non-zero coefficients contained in a current block to be decoded, and a total number of non-zero coefficients contained in a decoded block disposed to the left of the current block, wherein each non-zero coefficient is a transform coefficient having a level value other than "0",

selecting a variable length coding table based on the determined prediction value, and decoding coded data obtained by coding the total number of non-zero coefficients contained in the current block using the selected variable length coding table,

where the prediction value is determined as a value of "0" if no decoded blocks have been found above and to the left of the current block."

Claim 4

"A decoding apparatus for blockwise decoding an encoded image, the encoded image being obtained by transforming the image into coefficients showing spatial frequency components, the apparatus comprising:

a prediction unit (1501) adapted to determine a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block disposed above the current block and a total number of non-zero coefficients contained in a decoded block disposed to the left of the current block, wherein each non-zero coefficient is a transform coefficient having a level value other than "0", a table selection unit (1504) adapted to select a variable length table for coding based on the determined prediction value, and a variable length decoding unit (1506) adapted to decode encoded data obtained by encoding the total number of non-zero coefficients contained in the current block using the selected variable length encoding table,

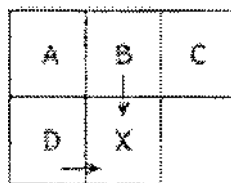
wherein the prediction unit (1501) determines a prediction value having a value of "0" if no decoded blocks are found above and to the left of the current block."

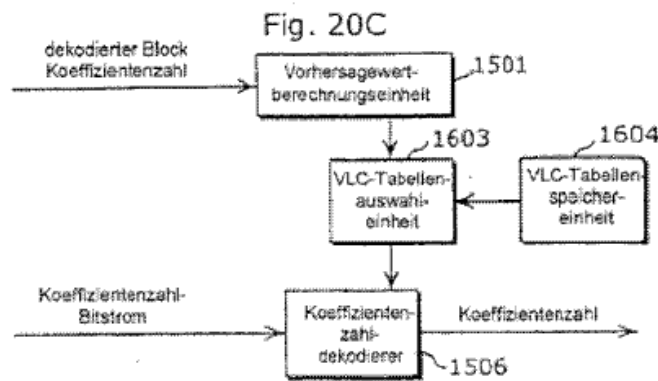
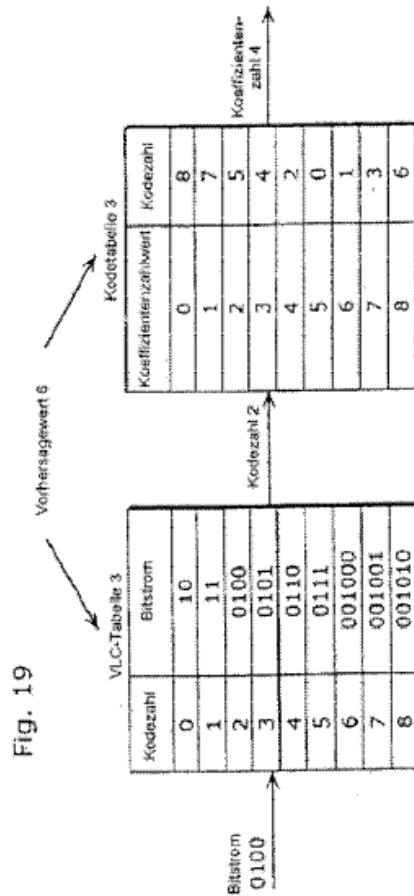
The following illustrations show preferred examples of the invention. Fig. 4B shows a pattern diagram showing a physical position of a current block to be coded and of the coded block used as reference. This is a case of using two adjacent blocks.

Fig. 19 shows the case where a bit stream of a number of coefficients is transformed into the number of coefficients with reference to tables.

Fig. 20C finally shows a case of using a VLC table without using code tables.

Fig. 4B





The defendant, domiciled in the Federal Republic of Germany, sells in Germany inter alia the telephones "P9", "P9 Plus", "P9 Lite", "GX8", "Mate S" and "Mate 8" (challenged design).

The International Telecommunication Union (ITU) developed the video compression standard ISO/IEC 14496-10. In 2001, the ITU Group merged with MPEG-Visual to develop

together. The aim of the project was to design a compression method that would reduce the required data rate by at least half compared to previous standards for mobile applications as well as for TV and HD while maintaining the same quality. In 2003, the standard was adopted by both organisations with identical wording. The ITU designation is H.264. For 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 01.09.2014; excerpts submitted as Annex K 5, excerpts submitted in German translation as Annex K 5a, hereinafter referred to as "Annex K 5a"): AVC standard).

The compromised design is compatible with the AVC standard. The "test files" played on the attacked devices use the "Baseline", "Main" and "High" profiles of the AVC standard.

The patent action is part of an AVC/H.264 patent pool (hereinafter: patent pool). The patent pool currently comprises approximately 5,000 patents, which, including the plaintiff, have been contributed by almost 40 patent holders (see Annex K 10 - Exhibit C, Exhibit D). The pool is managed by [REDACTED], LLC (hereinafter referred to as [REDACTED]).

[REDACTED] maintains on its website (www.[REDACTED].com) the license agreement presented as Annex K 10 -Exhibit G/G-a as a standard license agreement (hereinafter: Standard License Agreement). Currently, more than 2,000 licensees have concluded this license agreement with [REDACTED], whereby it is in dispute whether each of these licensees has concluded the standard license agreement specifically referred to. Concordance lists/cross reference charts (Annex K 10 - Exhibit E) can be downloaded from the above website, which assign relevant standard passages to the pool patents. A list of licensors is also available (Annex K 10 - Exhibit D).

The standard license agreement contains, among other things, the following provisions in German translation:

"[Preamble]

[...]

Each Licensor hereby agrees to grant to any individual, company or other entity individual licenses or sublicenses under all AVC Essential Patents on reasonable, reasonable, non-discriminatory terms and conditions in accordance with the terms and conditions hereof, which may be granted by Licensor (without payment to any third party).

Each Licensor grants to the Licensee a worldwide, non-exclusive license and/or sublicense to all patents essential to AVC that may be licensed or sublicensed by the Licensor to enable the Licensee to grant to the Licensee worldwide, non-exclusive sublicenses to all such patents essential to AVC under the terms of this Agreement.

1-1

Nothing in this Agreement prohibits any individual licensor from licensing or sublicensing the rights under any of AVC's essential patents to manufacture, use, sell or offer for sale, including but not limited to the rights granted under AVC's patent portfolio license.

1-1

2. Granted by the licence administrator

2.1

AVC products. Subject to the terms of this Agreement (including but not limited to Articles 3 and 7), the Licensee hereby grants a codec licensee a royaltyable, 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 [...].

1-1

3.

Fees and payment

3.1

Fees for the licenses to the AVC essential patents in the AVC patent portfolio. For the licences granted under Article 2 of this Agreement under the AVC Essential Patents in the AVC Patent Portfolio, the licensee shall pay to the licensee the following fees to the benefit of the licensors for the term of this Agreement:

3.1.1

AVC product(s). Subject to the limitation in Article 3.1.9, the following fee shall be payable in each calendar year for the sublicense granted under paragraph 2.1 of this Agreement in respect of any sale after 31 December 2004 of an AVC Encoder, AVC Decoder or AVC Codec (hereinafter referred to as "Unit" in this Article) whether or not one or more Units are incorporated into a single Product:

Sale of units in any

<u>Calendar year after 31 December 2004</u>	<u>Fees to be paid</u>
0 to 100,000 units	0,00.
100,001 to 5,000,000 units	0,20 \$ per unit
more than 5.000.000 units	0,10 \$ per unit

However, the fee for the sublicense granted pursuant to Section 2.1 of this Agreement shall in no event exceed the amounts set forth below for the combined sale of AVC Products by a licensee and its subsidiaries:

<u>Calendar year</u>	<u>Fee to be paid after</u> <u>Company per year</u>
Sold in 2005 and 2006	3,500,000 \$
Sale 2007 and 2008 ⁴	,250,000 \$
Sale 2009 and 2010 ⁵ .	000.000 \$

Sale 2016	8,125,000 \$
Sale between 2017 and 2020	9.750.000 \$"

Further provisions on the scope of the licence granted are provided for in Clause 2.2 - Clause 2.10, where Clause 2.9 states:

"Subject to Article 3.1.7, the licenses granted in paragraphs 2.1 - 2.7 of this Agreement shall not entitle Licensee to grant sublicenses. The License Manager is willing to grant an AVC Patent Portfolio License to any subsidiary of the Licensee."

Finally, a "Codec Licensee" under Clause 1.17 of the Standard License Agreement is a person or entity who sells an AVC Product to (i) a Codec Licensee customer (see Clause 1.18 of the Agreement) or (ii) an End User.

In addition, reference is made to the standard license agreement because of its further content.

Since 2009, "[REDACTED] USA", which, like the defendant, is a group company of the Chinese parent company [REDACTED] [REDACTED] (hereinafter referred to as the parent company), has initially conducted license negotiations with [REDACTED], in which the parent company was later also involved. The negotiations initially only dealt with the MPEG 2 standard. A key issue on which the parties did not reach agreement was the licensing of the regional market of the People's Republic of China (PRC). The parent company favoured worldwide licensing with the exception of VRC, [REDACTED] insisted on the inclusion of the Chinese market.

In an e-mail dated 6 September 2011 (Annex K 10 - Exhibit A, A-a), [REDACTED] once again contacted [REDACTED] USA regarding the AVC standard in question. That's what the German translation says:

"Dear [REDACTED],

[REDACTED] has advised me to contact you as you are responsible for patent licensing issues at [REDACTED]. I would therefore like to introduce myself and also ask for your help in a matter concerning some of [REDACTED] products.

As we have heard, [REDACTED] now also offers mobile handset and tablet products that include [...] AVC/H.264 functionality [...]. Therefore, these products must be licensed under patents that are essential to these technologies, and I would like to draw [REDACTED] attention in this regard to our licenses for the [...] AVC patent portfolio.

Background: [...] our license for the AVC patent portfolio [comprises] more than 1000 essential AVC patents from 25 patent holders [...].

Today I am sending you copies of our [...] AVC license [...] for review. The license documents should be sent to you via FedEx within the next few days. Enclosed I send you a .pdf version of all licenses for easier viewing. [...]"

[REDACTED] USA responded by e-mail of 15 September 2011 (Annex B 21, 21 a) from Mr [REDACTED], called [REDACTED], in which he asked for a telephone call to discuss further details of the matter. By email dated February 10, 2012, [REDACTED] confirmed receipt of the license documents that had previously been accidentally sent to the address of his previous office.

In the subsequent communication - as in the negotiations on the MPEG-2 standard - it was discussed whether licensing would only be possible to individual group companies without affecting the Chinese parent company or the Chinese market. The talks ended in November 2013, before a new meeting was held in July 2016 to negotiate the licensing of the AVC standard, among other things. However, licensing did not take place.

In the course of the litigation in this case, the defendant submitted an initial counteroffer dated 3 July 2017 (Annex B2, B2a) as part of its response. The first counter-offer was made to the applicant by [REDACTED], [REDACTED] Device ([REDACTED]) Co, Ltd and [REDACTED] Device Co, Ltd, all established in PRC. The offer took over the staggered number of units from the standard license agreement, but with different license rates for different regional markets (USA: 3.8 US cents/1.9 US cents; EU 1 US cents).

cents/0.5 US cents and PRC and other 0.55 US cents/0.27 US cents). The definition of 'PRC and others' is shown in paragraph 1 to cover China and the rest of the world with the exception of Europe and the USA. The applicant did not accept that offer.

By letter dated 29 September 2017, the defendant submitted to the plaintiff an irrevocable bank guarantee from the [REDACTED] for an amount of up to \$ 3,029,006 (Annex B 42, 42a). At the same time, the defendant announced the prompt settlement of any license fees pursuant to Sections 4.4 and 4.5 of the Offer dated 3 July 2017.

By letter of 30 October 2018, the defendant submitted a second counter-offer (Annex B 87), which it sent to the applicant by letter of 29 October 2018 (Annexes B 89, 89a), as well as a statement of royalties for the period from January 2009 to December 2017 (Annexes B 88, 88a). In contrast to the first offer, the group companies of the defendants [REDACTED] Technologies Co., Ltd., [REDACTED] Device ([REDACTED]) Co. Ltd. and [REDACTED] Device ([REDACTED]) Co. Ltd. now offer 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 that are essential for the AVG standard at issue. The defendant calculated the royalty rate pro rata from the amount to which the plaintiff is entitled according to the defendants' opinion according to the number of its patents in proportion 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 entry into force of the contract is determined by the applicant's acceptance. Violations in the past are remunerated on the basis of the license rates offered. At the hearing, the applicant also rejected that offer.

Apart from the dispute in this case, one case brought by the local applicant against [REDACTED] is pending before the Chamber (Case No 4b 5/17). Other pool members ([REDACTED] II LLC, [REDACTED]; [REDACTED] K.K.) are also litigating against the defendant. In these proceedings, too, the defendant agreed to conclude individual portfolio policy agreements.

The applicant submits that the patent is standard essential for the use of the AVC standard. The AVC standard refers "block-based", i.e. based on 4x4 luma/chroma blocks, to a decoding process for decoding an "encoded image". The 'coded image' (the coded image) is acquired by converting an image into 'coefficients having local frequency components' (transformation coefficients). This also applies to the chroma values. Also at the sampling rates 4:2:0 and 4:2:2, the coded image is obtained by transforming coefficients of the chroma components Cb and Cr, which showed spatial frequencies. When decoding the image, these spatial frequency components of the chroma components Cb and Cr would have to be transported back in order to obtain the decoded image together with the transformed luma spatial frequency components.

A 'predictable value for a total number of non-zero coefficients' (nC) in a 'current block' (a current macroblock) to be decoded using a 'total number of non-zero coefficients' (nB) is also used, said decoded block (blkB) being included in a "decoded block located above the current block" and a "total number of non-zero coefficients" (nA) included in a "decoded block located to the left of the current block" (blkA) are determined.

The - undisputed - determination of the prediction value for a total number of non-zero coefficients for a 4x4 luma block is sufficient. The applicant submits that the patent only requires the determination of the predictive value for a total number of non-zero coefficients contained in a current block for a single block of the image.

A 'variable code length table' (Sp. 2 of Table 9-5 in combination with one of Sp. 3 to 6 of Table 9-5 of the AVC standard) is selected on the basis of the determined 'predictable value' (nC). The selection of a VLC table for a Luma block of the coded image is sufficient. A VLC table additionally records the first two columns of Table 9-5 of the AVC standard, because this results in the assignment of the VLC code words to the decoded values "TrailingOnes" and "TotalCoeff".

Table 9-5 of the AVC standard thus contains several VLC (sub)tables. A VLC table is selected from different VLC tables depending on the prediction value as required by the patent action.

In addition, the defendant narrowed the term 'table' too much. The task mentioned in the patent application concerning the function of the table is to assign a variable length code to a value so that the value corresponds to the variable length code. It is decisive that the table transforms a value into a code or transforms the code into the corresponding value. In the case of a VLC table, the VLC code represents "coded data" in the sense of the patent and the value represents the decoded representation of this "coded data". The table according to the lawsuit patent covers all implementation variants that allowed the transformation of a VLC code to corresponding decoded data.

The AVC standard presupposes a doctrine according to the invention, because a VLC code word of Table 9-5 of the standard is assigned the corresponding decoded total number of non-zero coefficients ("TotalCoeff(coeff token)") via the second column of Table 9-5.

A bad prohibition is justified; a warning would be ineffective and would not prevent the purchasers of the challenged design form from using the patent-protected teaching.

In connection with the antitrust compulsory license objection, the plaintiff alleges that it contacted all AVC-liable companies that had not yet concluded a license with serial e-mails, including the Chinese competitors of the defendants [REDACTED]. The applicant claims that [REDACTED] has the power or authority to act on behalf of the applicant in respect of the patent. It further claims that all members of the pool have always and exclusively licensed through the pool and that none of the pool members has granted an individual licence of IPRs directly and outside the pool. The entire lecture is denied by the defendant with Nichtwissen.

The applicant further denies with ignorance that the chances of success in Chinese patent infringement proceedings are lower.

The applicant takes the view that the principles established by the ECJ in the '██████████' decision are not applicable in this case, but that the principles established by the BGH in the 'Orange Book' decision are applicable. There is a standard licence agreement in the electronics industry that has been offered for years and is well known in the industry, so that there was no information asymmetry, as was the case with the decision "██████████" of the ECJ. In this respect, the defendant should have submitted an offer immediately after the start of use of the AVC technology and should have invoiced on an ongoing basis.

The applicant, as well as the other members of the patent pool, granted ██████████ the mandate and the simple licence to conclude the standard licence agreement on its behalf. It is obvious that ██████████ is a licence manager and that it is therefore responsible for granting licences in the name and on behalf of the pool members, including the applicant.

The global activities of the ██████████ Group on the one hand and the global coverage of the AVC standard and pool patents on the other would require licensing talks with the top management. Otherwise, there would also be a risk of abuse that the mobile telephones at issue in this case would also be sold as volatile goods in unlicensed countries. Apart from that, the parent company is the manufacturer and is therefore the actual source of the infringing distribution, which requires licensing.

Already in the e-mail of 6 September 2011 (Annex K 10 - Exhibit A, A-a) a sufficient indication of infringement was to be seen, because the concrete actions, the distribution of mobile phones and tablets, had been pointed out. Moreover, the substantive requirements for the indication of infringement laid down by the defendant were only a formality, because the defendant, as a leading IP company with one of the largest patent divisions of the PRC, was very familiar with the technology at issue in the dispute. The request for Claim Charts or a Proud List was first raised in the July 2016 meeting.

Furthermore, the applicant also submitted a written offer of FRAND. The standard licence agreement sent by e-mail on 6 September 2011 was the agreement which had been concluded almost 1,400 times unchanged without any exception, and the note 'sample' did not alter that. That information was also communicated to the applicant at an early stage. The only open issue was the arrangement for the [REDACTED] group's licence debt for the past.

The defendant was able to convince itself of the standard essentiality of pool patents on the basis of the Essentiality Cross Reference Charts, and was also easily able to do so as a company with one of the largest patent departments, which is in contact with all well-known IP law firms worldwide. In any event, the defendant could have sought external expert advice.

All previous licensees of the patent pool regarded the demonstration of essentiality on the basis of the abovementioned charts as sufficient, which is already conclusive evidence that the charts are part of the business practices in the AVC sector of interest here for the purpose of demonstrating essentiality.

According to the applicant, the cartel law assessment is that the agreement of several patent holders to pool their standard essential patents in a patent pool and to offer third parties a uniform licence for all pool patents, whether themselves or through a pool administrator (patent pool licence), is unobjectionable, especially since the Commission had expressly advocated in one of its most recent communications the promotion of the creation of patent pools. For the use of the AVC technology, the standard licence offered by the applicant in the present case prevailed. The thousands of licences show that it is one of the established licensing practices for the AVC industry and that there is no need for other forms of licensing. It also serves the interests of licence seekers that they are offered a licence to use the entire standard from a single source on uniform terms, because they are thus relieved of the necessity and burden of having to apply for a licence from each and every proprietor of industrial property rights.

The standard licence agreement was always granted with the same content without exception. Independent, neutral experts have come to the conclusion that

the patents in the pool are SEPs. This is also evidenced by the fact that almost 1 400 worldwide operating companies took the standard licence and none of them accepted an over-declaration. The submission of a so-called 'proud list' is not necessary in view of the essentiality cross reference charts and the action patents from the parallel proceedings brought. The danger of over-declaration would not exist vis-à-vis [REDACTED] [REDACTED] because the patents would only be included in the patent pool if the independent expert examination confirmed the standard essentiality. A unilateral, unaudited declaration according to ISO/ITU/IEC rules would therefore play no role.

All licensees, without exception, would benefit from tiered licensing and royalty cap. The defendant's group has already reached the cap since 2014 with sales outside China accounting for 80% of global group sales. According to its functionality, a smartphone is not only a mobile phone, but also a video player. The video coding technology is licensed. An obligation to treat unequal undertakings equally is precisely not covered by the prohibition of discrimination.

A numerical lump sum without an adjustment clause is justified because pool licensing benefits considerably from the initial pool licensing of all pool patents initially existing.

A large number of non-Chinese licensees such as [REDACTED] [REDACTED] are successfully active on the Chinese market and pay royalties in return. A global corporation, to which the defendant belongs, calculates its profits globally and evaluates its sales activities globally. In that regard, it is the globally averaged price which matters and not any artificially reduced price in a single distribution area. The uniformly global pool licence therefore serves to ensure equal treatment of all licensees.

The PRC is one of the strongest patenting nations in the patent pool, so that there is no unequal geographical weighting of the pool patents. There were also no significant price differences between the USA, PRC and Europe.

The fact that some mobile device licensees use only a few selected profiles of the AVC standard applies equally to all licensees. In this respect, there would be no unequal treatment. The HEVC standard is not relevant.

It is a different technology and the licence programme is not offered by [REDACTED].

Differing page numbers in the more than one thousand license agreements concluded resulted from adjustments due to changes regarding the patent owners and the pool patents and changes in the designation of the AVC standard.

The contract with NTT [REDACTED] relates exclusively to NTT [REDACTED] 3GPP patent portfolio. It was also unclear whether the licensee's option right also applied to the AVC products subject to licensing here. Irrespective of this, the defendant has so far not exercised this option right and [REDACTED] has already stated in the negotiations that, if applicable, the share of the licence fees attributable to NTT [REDACTED] under the standard licence agreement could be reimbursed on the instructions of the patent holder.

The granting of instalment payments for licence debts in the past or a repayment schedule is not equivalent to any discount. These measures would also be offered to all licensees.

The defendant's alleged selection criterion, i.e. to take only one licence for patents of an applicant pool party, is arbitrary and cannot be justified either under cartel law or technically. The thousandfold licensing proves that AVC standard-compatible products also require a license to the pool patents of the non-claiming pool members. In this context, the offer of an individual licence is 'unfrand'. In this respect, deviations from the standard pool license would undermine the own pool license program and the pool patent holders would run the risk of exposing themselves to the cartel law accusation of discrimination by granting corresponding individual deviations.

With regard to the first counteroffer, it was not clear why the defendant differentiated the licence rates between the USA, the EU and PRC, whereby PRC, together with all other countries, constituted a worldwide distribution area.

The applicant claims that the Court should

I. order the defendant to pay the costs,

1. to refrain from imposing an administrative fine of up to EUR 250 000 as a substitute administrative detention - or an administrative detention of up to six months, in the case of repeated infringements of up to a total of two years, on avoidance of an administrative fine to be determined by the court for each case of infringement,

a) decoding means for blockwise decoding an encoded image, the encoded image being obtained by transforming the image into coefficients showing spatial frequency components,

to offer, place on the market or use them in the Federal Republic of Germany or to import or possess them for the aforementioned purposes,

said devices comprising:

a prediction unit adapted to determine a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block disposed above the current block and a total number of non-zero coefficients contained in a decoded block disposed to the left of the current block,

wherein each non-zero coefficient represents a transform coefficient with a level value is different from "0",

a table selection unit adapted to select a variable length coding table based on the determined prediction value, and

a variable length decoding unit adapted to decode encoded data obtained by encoding the total number of non-zero coefficients contained in the current block using the selected variable length encoding table,

wherein the prediction unit determines a prediction value having a value of "0" when no decoded

blocks above and to the left of the current block;

(direct patent infringement, device claim 4)

and / or

- b) decoding devices suitable for blockwise decoding an encoded image, the encoded image being obtained by transforming the image into coefficients showing spatial frequency components,

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

with:

determining a prediction value for a total number of non-zero coefficients contained in a current block to be decoded based on a total number of non-zero coefficients contained in a decoded block arranged above the current block and a total number of non-zero coefficients contained in a decoded block arranged to the left of the current block;

wherein each non-zero coefficient represents a transform coefficient with a level value is different from "0";

selecting a variable-length encoding table based on the specified prediction value; and

decoding encoded data obtained by encoding the total number of non-zero coefficients contained in the current block using the selected variable length encoding table,

wherein the prediction value is determined as a value of "0" if no decoded blocks have been found above and to the left of the current block;

(indirect patent infringement, procedural claim 1)

2. to provide the applicant with information on the extent to which it has committed the acts referred to in paragraph 1 since 6 October 2015, indicating

- a) the names and addresses of manufacturers, suppliers and other previous owners,
- b) the names and addresses of the industrial purchasers and of the points of sale for which the products were intended,
- c) the quantity of products manufactured, delivered, received or ordered and the prices paid for those products;

where

a copy of the relevant proofs of purchase (namely invoices or, in the alternative, delivery notes) as proof of the information provided - a copy of the invoice (or, in the alternative, a copy of the delivery note)

whereby confidential details may be blacked out outside the data to be disclosed;

3. to account to the applicant for the extent to which it has committed the acts referred to in paragraph 1 since 6 October 2015, stating that it has done so:

a) the individual deliveries, broken down by quantities, times, prices and types, as well as the names and addresses of the industrial customers,

b) the individual tenders, broken down by quantity, time, price and type, and the names and addresses of the commercial recipients of the tenders,

c) the advertising pursued, broken down by advertising medium, their circulation, distribution period and distribution area,

d) the cost of goods sold and the profit realised, broken down by cost factor,

where

the defendant retains the right to communicate the names and addresses of the non-commercial purchasers and the addressees of the offer instead of the plaintiff to a sworn auditor, to be designated by the plaintiff and sworn to secrecy by the plaintiff and established in the Federal Republic of Germany, provided that the defendant bears the costs and authorises and undertakes the defendant to inform the plaintiff, upon specific request, whether a particular purchaser or addressee of the offer is included in the list;

4. return, at his own expense, the products referred to in 1(a) which are in his direct or indirect possession or property to a bailiff to be appointed by the applicant for destruction;
5. to recall the products referred to under 1. a) which have been placed on the market since 6 October 2015 from the commercial customers, with reference to the patent infringing condition of the goods established by the court (judgment of ... of ...) and with the binding promise to reimburse any fees and to bear any necessary packaging and transport costs as well as customs and storage costs associated with the return and to repossess the products;

II. declare that the defendant is under an obligation to compensate the applicant for all damage caused and to be caused by the acts referred to in I. 1(a) and (b) committed since 6 October 2015.

The defendant claims that the Court should

dismiss the action;

in the alternative, fail to allow the defendant to avert enforcement against the provision of security (bank or savings bank guarantee);

in the further alternative, suspend the proceedings until a final decision has been reached on the action for annulment pending before the Bundespatentgericht (Federal Patent Court) in respect of the patent in respect of which an action has been brought.

The applicant contests the application for suspension.

The defendant is of the opinion that the plaintiff's patent is not standard essential. The AVC standard does not reveal the determination of quantized transformation coefficients for all of the luma signals (Y) and chroma signals (U, V). One

such revelation is necessary, however, because otherwise a coded image (composed of all chroma and luma signals of all pixels) cannot be sensibly transmitted. Not all "nC" values according to the AVC standard would be predicted, namely not those corresponding to the most common sampling rates for chroma signals, namely 4:2:0 (for nC = -1) and 4:2:2 (for nC = -2), cf. 8.7 of the AVC standard. Therefore, the image cannot be meaningfully coded or decoded.

The applicant further submits that the patent also provides that, in determining the total number of non-zero coefficients of the upper and left neighbouring blocks, all transformation coefficients with a level value other than '0' are to be taken into account. However, the prediction value determined according to the AVC standard is not determined on the basis of the total number of non-zero coefficients of the upper and left neighbouring blocks, but in accordance with Note 1 in Section 9.2.1 of the AVC standard, omitting the level value of the chromaDC level (equal share).

According to the patent doctrine, a variable-length coding table is selected on the basis of the specific prediction value. Contrary to the state of the art cited in the patent application, it is undisputed that this can be selected from several existing tables. The standard, on the other hand, only defines the use of a single VLC table. This is because the different groups of code words (columns 3 to 6 of Table 9-5) are not contained in several VLC tables, but are merely combined in one VLC table, Table 95.

The term 'table' designates a specific data structure, and only as such 'selectable' according to the patent, which, according to expert understanding, requires an arrangement of data in rows and columns. The applicant also submits that the 'table' is technically and functionally determined by the fact that it must be suitable for 'variable length coding'. The plaintiff's patent refers to it as tables which make an association between variable-length code words (VLC codes) and code numbers. The code numbers are intermediate values, which would still require further conversion into the final numbers of non-zero coefficients. However, according to the AVC standard, a particular column of a single table is selected at most, but that column does not in itself constitute a 'table' within the meaning of the patent, because a single column is not a 'table' in itself.

alone does not match the assignment of the values to be (de-)coded. That is only possible in combination with another column containing those values, which the applicant has not demonstrated for the AVC standard. In addition, Table 9-5 of the AVC standard does not contain any allocations of VLC code words and code numbers.

According to claim 1 of the patent application, the table selected according to the predictive value is used to decode the number of non-zero coefficients of the current block. It further follows from the patent definition according to which the coded data were 'obtained by coding the total number of non-zero coefficients' that, in addition to that coding of the total number of non-zero coefficients, no further coding steps are necessary to obtain the data to be decoded.

However, Table 9-5 according to the AVC standard shows that the coded data ("coeff token") according to the standard would not only be obtained by coding the total number of non-zero coefficients ("TotalCoeff(coeff token)"). Rather, for decoding the value coeff token, the trailing coefficients ("TrailingOnes(coeff token)") are additionally coded. According to Table 9-5, these trailing coefficients are also decisive for determining the bit sequences listed in columns 3 to 6. Therefore, the length of the code words is also optimized for the frequency of this combination and no longer for the frequency of the respective numbers of non-zero coefficients. This is already apparent from the fact that combinations which each contain the same number of non-zero coefficients (e.g. the number 10) correspond to different code words, depending on the number of trailing ones. Such a coding of combinations of different values, however, no longer solves the inventive task of coding as efficiently as possible the number of non-zero coefficients with code words of variable length.

The plaintiff also did not substantiate the patent infringement because there were alternative implementation possibilities to the use of a (single) VLC table as defined by the standard. Table 9.5 could be circumvented by means of a case distinction. In addition, the default allows the nC value to be set to "1" if there are no blocks above or to the left of the current block.

A bad prohibition is disproportionate and unjustified with regard to the asserted indirect patent infringement, because an economically sensible patent-free use of the challenged embodiments can be considered. Therefore, the applicant may at most demand measures to prevent direct patent infringements by third parties.

The defendant claims that the figures submitted by the defendant concerning the dissemination of the standard licence agreement in the mobile communications industry for the period 2017 up to and including the second quarter of 2018 originate from the database of the International Data Corporation (IDC). Furthermore, the staff of [REDACTED] had analysed the entire AVC pool, Ms [REDACTED] had identified and analysed those AVC pool patents which had been published in English. The applicant contests the entire submission with ignorance.

The defendant denies with ignorance that all other licence agreements submitted concern the same portfolio and are therefore comparable. It further denies, with ignorance, that the scope of the examination and the level of evidence in the US case [REDACTED] are comparable to German court practice, so that the judgment of the US District Court of Washington of Seattle of 25 April 2013 makes no statement as to the FRAND compliance of [REDACTED] standard licence for this case.

The defendant is also of the opinion that the assertion by the plaintiff of its claims for injunctive relief, recall and destruction is contrary to antitrust law because the plaintiff failed to comply with the procedure established by the ECJ in the "[REDACTED]" decision.

Before the action was brought, the defendant was in no way in contact with the applicant. But even [REDACTED] had not sufficiently informed "[REDACTED] USA" and the parent company about the violation.

The applicant itself did not act. In this respect, it does not fit together that [REDACTED] should be able to close licenses in the name and under power of attorney of the pool patent holders on the one hand - then it would act as a representative - or on the other hand grant rights of use by way of a single sub-license, then it would be a matter of

to grant a license to a third party in its own name. However, if [REDACTED] acts as licensor with the authority to sublicense, this precludes any attribution of action to the plaintiff. The dialogue envisaged by the ECJ would be severely disturbed if negotiations were first conducted with the pool.

An injury report was not available. The mere reference to the distribution of the defendant's products intended to operate under the AVC standard and the sending of a patent list attached to the standard license agreement are not sufficient.

At no time was a list of representative patents (so-called proud list) sent, including a comparison of the individual patent claims with the corresponding passages of the standard. With a reference list of 5,000 patents, even an expert familiar with the technology would be unable to independently examine the specifically asserted patent claims and their infringement. This applies all the more to the defendant, which itself does not have any AVC-essential property rights and is therefore not familiar with the technology on which the plaintiff's patent is based.

The transmission of the standard license agreements, in particular also in February 2012, did not constitute an effective offer to conclude a contract. They were merely model contractual terms which did not contain a signature and did not specify the licensee either. In this respect, this would at best constitute an *invitatio ad offerendum*. Moreover, the main considerations on the basis of which [REDACTED] considered its proposed remuneration parameters for FRAND were not explained. This applies even if the essentiality of the (vast majority of) intellectual property rights for the asserted standard is not disputed, but is all the more true if - as here - there is reason to assume that the vast majority of all portfolio intellectual property rights bundled in the pool are actually not essential. There is an inadmissible "bundling". The joint licensing of essential and non-essential patents by the pool leads to a prohibited price cartel of the pool members. The standard pool license offers massive incentives to over-declare. The ISO/ITU/IEC rules applicable to the AVC standard would hardly provide for measures to prevent inappropriate inflation of SEP portfolios.

The defendant also considers that it is discriminated against, both with regard to sales in China and on the grounds of disproportionately high

degressive effective license rates/units in relation to large-volume multi-product vendors and pool members.

No licence agreement on the AVC technology at issue was concluded with a Chinese manufacturer of mobile telephones which also included sales in the PRC. The licenses of existing licensees did not record sales by Group companies in the PRC.

The offer does not take into account the fact that in different sales markets very different selling prices and consequently different licence levels prevail. The sales achieved in the PRC were significantly lower than outside the PRC. If licensing did not take this into account, this would result in a clearly excessive total license charge measured against the sales price. The fact that, despite larger sales volumes in the PRC, the sales achieved there were significantly lower is evidence of the more favourable prices in the PRC. As is apparent from the English judgment in [REDACTED], the calculation of the FRAND licence rate in China must be based on a factor of 50% of what can be regarded as FRAND in other markets.

Furthermore, [REDACTED] grants the pool licenses in different regions, so that the parent company and/or all group companies are not necessarily licensed in every case. From the point of view of equal treatment, the defendant's Chinese parent company could then also remain exempt from licensing.

The capping of the volume-based graduated license rate favours disproportionately large-volume licensees with high sales figures. In particular, the defendant is discriminated against in relation to multi-product suppliers, as these reach the capping limit much more quickly with TV sets etc. and benefit from discriminatory effective licence rates. The greater the delta between the actual quantities of a licensee and the quantities alone necessary to reach the maximum amount, the greater the spread between the applicable effective licence rates.

The defendant also suffers competitive disadvantages because the standard ultimately consists of different substandards (profiles) which are not all supported by the defendant's equipment. And even with the supported profile ("baseline"), there are optional features whose support is not mandatory for the realized profile (such as FMO, ASO, RS, data partitioning and SI/SP

slices and which are not actually implemented in the defendant's terminal equipment. The successor standard H.265 or HEVC provides for different rates depending on the extent to which a licensee's products make use of the standard's profiles.

The economic value of the patent pool no longer corresponds to that of the pool in 2004. In addition to the decrease in the essentiality rate, the contract did not take account of the fact that the standard as a whole had decreased in importance and thus in economic value. Rather, it is applied schematically over years.

The vast majority of patents administered by the pool are in force in the USA (16%) and Japan (13%), while only 5% come from the PRC. The application of the standard license rates also for the PRC would lead to a comparatively disproportionate weighting of territorially underrepresented intellectual property rights.

The standard licence agreement did not prevail on the market in competition with alternative licence offers, since such offers simply did not exist. The licensing practice of the patent pool is aimed exclusively at the standard license, while at the same time the pool members refused individual portfolio licenses.

The licensing practice is highly selective. The decisive factor is licensing on the relevant product market for mobile telephones. Looking at this relevant market, on the basis of a worldwide analysis by number of units, 56% were not licensed in a period from 2017 up to and including the second quarter of 2018. Of the 44% of the licensed market, 42% are members of the [REDACTED] Pool. Thus, only 2% of the market is licensee and pool member 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 [REDACTED] standard license.

The contracts submitted are inappropriate to demonstrate the FRAND character.

For example, the ZDF contract submitted refers to a specific order with which the contract alone is valid (Annex B 65 to Annex K 33, Annex K 37 to Annex K 34), the

was incomprehensible. Some contracts were incomplete or with page deviations - not all contracts counted 32 pages. Changes in content cannot therefore be ruled out. Any extension notifications were not available. Annex 1 to the Standard Licence Agreement, which contains information on licensors and licensed patents, appears to define the subject matter of the licence. The fact that it was submitted in respect of only one contract indicates that individually divergent agreements exist. The comparison of Annex 1 submitted with the currently available patent list showed a completely different picture and considerable differences. From the overview submitted by the applicant in Annex K 14, in the third column, 'Associated Contracts', there are at least four different types of contract, with each type being allocated amounts, in some cases substantially different from the US dollar (\$ 0.35 to \$ 2.50). This also argues against the fact that all licence agreements were concluded with the same content.

Finally, the fact that the defendant's group companies concluded an individual licence agreement with NTT [REDACTED] Inc., which is also a pool member, for the entire portfolio of 3GPP/3GPP2 essential patents speaks against the assumption that the standard licence agreement is so widespread in the market. The agreement provides for a style retention agreement according to which NTT [REDACTED] cannot successfully assert claims from other SEPs, in particular those which can be read on the AVC standard, against the defendant's group companies. Here the group companies had the option, by unilateral declaration to NTT [REDACTED], to enter into a license with respect to these other SEPs as well (so-called "pick right") if NTT [REDACTED] asserted the corresponding patents. However, any licence fee claims from these additional SEPs had already been settled with the payments for 3GPP/3GPP2. The conclusion of a licence agreement on substantially different terms - as here - could therefore conflict with the FRAND character of the plaintiff's offer.

Since [REDACTED] had also introduced the possibility of instalment/one-off payments including discounts, this led to the assumption that such differentiated arrangements had also been made with other licensees.

Since the possibility of individual licenses with the individual pool members must continue to exist, the individual license and the standard license agreement for the patent pool exist side by side as alternatives which are both FRAND-compliant.

The first counter-offer took into account the regional distribution of the pool patents, the plaintiff's share of all essential pool patents declared, the share of those profiles and features typically not supported by mobile devices, namely those of the defendant or the defendant group, and the differences in the price level and effectiveness of patent enforcement in China compared to the US and the EU, as well as the 50% discount under English case law.

Moreover, the plaintiff's patent would not prove to be legally valid because the patent-appropriate doctrine was anticipated as harmful to novelty by the citations EP [REDACTED] (Anlagenkonvolut B 44, there NK 5) and JVT-F100 (NK 7). It should be borne in mind that the claim of priority of 15 April 2002, as stated in the patent specification of the action, is invalid.

Furthermore, the object of the independent claims is not inventive in relation to the publication "Emerging H.264", which was not taken into account in the examination procedure. Standard: Overview and TMS320C64x Digital Media Platform Implementation, "White Paper" (NK 8) in combination with the expert knowledge or with the ISO-IEC 14496-2:1999 (Annex B 62 / NK 15) and VCEG-L28 (Annex B 63 / NK 16) or with a combination of the JVT-B045 (NK 9) and JVT-B101 (NK 10) publications not considered in the examination procedure.

The file 4b 0 5/17 consulted was the subject of the oral proceedings.

Reference shall be made to the pleadings exchanged between the parties and to the documents filed in the files for the further details of the facts and of the dispute.

decision reasons

A.

The action is admissible and well founded.

The plaintiff is entitled to claims against the defendant for injunctive relief, provision of information, rendering of accounts, destruction, recall and determination of liability for damages on the merits pursuant to Art. 64(1) and (3) EPC in conjunction with Sections 9 sentence 2 No. 1, 10(1), 139(1) and (2) sentence 1, 140a(1) and (3), 140b PatG, Sections 242, 259 BGB.

I.

The invention on which the patent application is based concerns an image decoding procedure.

From the state of the art a coding of moving images was known, which generally divides an image into blocks of a certain size and carries out an inframe prediction and an interframe prediction for each block (Annex K 2, paragraph [0002], the following information refers to the patent application unless otherwise stated). It then applies an orthogonal transformation, such as a discrete cosine transformation or the like, to each block of the smallest unit of a region (i.e. 4x4 pixels) to thereby perform a coding using a variable length coding based on the run plane coding for coefficients having spatial frequency components obtained by orthogonal transformation.

The variable length encoding assigns a variable length code to the values of the coefficients contained in the block to which the orthogonal transformation is applied (plane) and to the numbers consisting of a series of coefficients 0 (run) (paragraph [0003]). In this case, a table corresponding to the values with the variable length code is called a VLC table. With the conventional method, only one table is prepared as a VLC table for intraprediction coding and interprediction coding respectively (reference to ISO/IEC 14496-2: 1999 (E) Information Technology -- coding of audio-visual objects, Part2: Visual (1.12.1999) p. 119, 7.4.1 Variable length decoding). There is therefore the problem that the coding efficiency differs greatly depending on the quality of a current image to be coded.

In order to solve this problem, according to the patent specification, a procedure is conceivable which prepares several tables in order to refer to them through

Switch between them according to the number of coefficients not equal to 0 contained in a current block to which the orthogonal transformation is applied (par. [0005]). In order to achieve that, it is necessary to carry out coding by applying a variable-length coding for the number of coefficients not equal to 0, but the coding method and the decoding method have not yet been created.

From the state of the art the document EP [REDACTED] was known, which refers to an image encoder and decoder. In accordance with this notification, it is proposed that the mode data of a block to be encoded be predicted from the mode data of the adjacent blocks already encoded and encoded using a codeword table switched according to a prediction hit rate (paragraph [0006]). In the code word table, the code word length is set shorter than for the coding modes with a higher hit rate.

Gisle Bjontegaard's article "Improved low complexity entropy coding for transfer coefficients" (Improved low complexity entropy coding for transfer coefficients) regarding a proposal based on entropy coding was also well known. The basic idea of the work is to create a more self-adaptive method and the proposed method uses only a single scan.

Against this background, the patent action specification refers to the task of proposing an image decoding method and an image encoding method which efficiently implements the encoding of the number of coefficients other than 0 contained in the block to which the orthogonal transformation is applied, irrespective of the quality of the current image (paragraph [0008]).

To solve this problem, the patent in Claim 1 provides for a procedure and Claim 4 for a device with the following characteristics:

Claim 1

1. A decoding method for blockwise decoding an encoded image, 1.1 wherein the encoded image has been obtained by transforming the image into coefficients showing spatial frequency components,
 - 1.2with :
 - 1.2.1Determining a prediction value,
 - 1.2.2 Selecting a table,
 - 1.2.3 Decoding encoded data.
2. determining a prediction value for a total number of non-zero coefficients contained in a current block to be decoded,
 - 2.1 based on a total number of non-zero coefficients contained in a decoded block located above the current block,
 - 2.2 and a total number of non-zero coefficients contained in a decoded block located to the left of the current block,
 - 2.3. where each non-zero coefficient is a transform coefficient with a level other than '0',
 - 2.4 where the prediction value is determined as a value of "0" if no decoded blocks have been found above and to the left of the current block.
3. Select a table to encode with variable length based on the specific prediction value.
4. Decoding of coded data,
 - 4.1 obtained by coding the total number of non-zero coefficients contained in the current block,
 - 4.2 using the selected variable length coding table.

Claim 4

1. A decoding apparatus for blockwise decoding an encoded image, 1.1 wherein the encoded image is obtained by transforming the image into coefficients showing spatial frequency components, 1.2 wherein the apparatus comprises:
 - 1.2.1A prediction unit (1501),
 - 1.2.2A table selection unit (1504),
 - 1.2.3 a variable length decoding unit (1506).

2. The prediction unit (1501),
 - 2.1 is designed to determine a prediction value for a total number of non-zero coefficients contained in a current block to be decoded,
 - 2.1.1 based on a total number of non-zero coefficients contained in a decoded block located above the current block,
 - 2.1.2 and a total number of non-zero coefficients contained in a decoded block located to the left of the current block,
 - 2.1.3. where each non-zero coefficient is a transform coefficient with a level other than '0',
 - 2.2 The prediction unit (1501) determines a prediction value with a value of "0" if no decoded blocks are found above and to the left of the current block.

3. The table selection unit (1504) is designed to select a table for variable length encoding based on the specified prediction value.

4. The variable length decoding unit (1506) is designed to decode coded data,
 - 4.1 obtained by coding the total number of non-zero coefficients contained in the current block,
 - 4.2 using the selected variable-length encoding table.

TWO.

With regard to the dispute between the parties, features 1 and 1.1, 3, 4.1 and feature group 2 of claim 1 and claim 4 require interpretation.

1.

Claim 1 of the patent action requires a decoding method for blockwise decoding an encoded image, the encoded image having been obtained by transforming the image into coefficients showing spatial frequency components (Features 1 and 1.1). Claim 4 is protected by an appropriate decoder (Features 1 and 1.1).

The patent action is based on the assumption that in the coding of moving images, the individual image is first divided into blocks of a certain size and an intra-image prediction and an inter-image prediction are carried out for each block. Then an orthogonal transformation such as a discrete cosine transformation or the like is applied to each block of the smallest unit of a range (Abs. [0002]). Thus transformation coefficients are obtained for the values of a block, which show spatial frequency components, which are coded afterwards by means of codes of variable length (see Abs. [0003]).

The doctrine of claims 1 and 4 of the plaintiff's patent is linked to such a coding method when it is stated in features 1 and 1.1 that the decoding concerns the blockwise decoding of a coded image, the decoded image being obtained by transforming the image into coefficients showing spatial frequency components. The patent claims assume that the entire coded image has been obtained by transforming the image consisting of all blocks or other subdivisions into coefficients.

The division of the image into blocks can, for example, be done in such a way that the values for the luminance (luma signal) and for the colour difference (chroma signal) form different blocks. Each pixel of an image is characterized by a luma value and two chroma values. This differentiation between brightness and colour value is also mentioned in the patent specification (para. [0056]). However, the doctrine of the patent of action is not limited to this.

As far as feature 1.1 describes the coded image as being obtained by transforming the image into coefficients showing spatial frequency components, only a state of the art procedure is described: All image data, i.e. the pixel values of a block, are subjected to a transformation, e.g. a discrete cosine transformation (Abs. [0002]). The result is a transformation matrix with coefficients representing the coefficients for the respective spatial frequencies. Each position of the matrix corresponds to the corresponding spatial frequencies f_x and f_y . These give

the frequencies present in the block of the output image in horizontal and vertical direction, starting with the lowest frequencies f_x and f_y for x

$= 0$ or $y = 0$ and ascending for higher x and y . In particular, in the case $x = y = 0$, the spatial frequency is zero. At the position $x = y = 0$, the equal part of the image is displayed regularly. This does not mean that the transformation coefficient at this position is also zero. Rather, the value at this position reflects the equal portion of the image. It goes without saying that the blockwise transformation of the entire image into coefficients for the coded image must capture all pixels and also reproduce the equal component. Basically, the transformation leads to a coefficient matrix with entries at all positions.

The desired compression is achieved by quantizing the transformation coefficients in a further step. The coefficients are reduced and rounded, whereby the coefficients regularly assume the value zero, especially at the higher-frequency positions of the transformation matrix.

Claims 1 and 4 of the plaintiff's patent therefore distinguish between non-zero coefficients and coefficients with a value of zero. Non-zero coefficients are defined in characteristic 2.3 of claim 1 and characteristic 2.1.3 of claim 4 and are transformation coefficients with a level value other than '0'. Each block contains a certain number of non-zero coefficients. The doctrine of the patent action is aimed at decoding this total number of non-zero coefficients in a block using the total number of non-zero coefficients of other blocks. The distinction between non-zero coefficients and coefficients with a value of zero plays for Characteristics 1

and 1.1 of claim 1 or claim 4 of the patent.

2.

Characteristic group 2 deals with the determination of the prediction value, which deviates from characteristic 1.1 and does not apply to the entire image, but only to a current block to be decoded. Characteristics 2 and 4.1 of claim 1 and characteristics 2.1 and 4.1 of claim 4 show that the current block refers to the block to be decoded. This is confirmed in the description of the execution examples in paras. [0031], [0042], [0051], [0067], [0124] for coding and in paras. [0107], [0112], [0144] for decoding. It does not matter what type of blocks are involved. It is also not necessary to determine a prediction value according to characteristic group 2 for all blocks of the entire image. Claims 1 and 4 do not contain any restrictive requirements in this respect. The current block must also be distinguished from reference blocks whose non-zero coefficients are used to determine the prediction value of the current block, as can be seen from features 2.1 and 2.2 of claim 1 and features 2.1.1 and 2.1.2 of claim 4. By the way, this is vividly expressed in paragraph [0124], which refers to "reference blocks for the current macroblock".

The prediction value is determined for a total number of non-zero coefficients contained in a current block that is to be decoded using the total number of non-zero coefficients in reference blocks, in already decoded blocks above and to the left of the current block. Depending on the prediction value determined according to characteristic group 2, a table for coding with variable length is then selected according to characteristic 3. Using this selected table, the coded data obtained by coding the total number of non-zero coefficients contained in the current block can then be decoded according to feature group 4. Contrary to the state of the art, which is assessed by the patent, the total number of non-zero coefficients of a block is not coded and decoded with only one coding table (paragraph [0004]) according to the doctrine of the patent, but a selection from several tables dependent on a prediction value takes place according to characteristic 3. This allows the higher coding efficiency sought by the patent action with the same image quality (cf. paras [0008] and [0212]). That's what

However, it is not necessary to determine the prediction value according to characteristic group 2 for all blocks of the entire screen. The efficiency gain can also be achieved - albeit to a lesser extent - if the technical doctrine of the plaintiff's patent is applied only to individual blocks of an image. Exactly this is also expressed in the wording of claims 1 and 4: Claims 1 and 4 of the plaintiff's patent do not contain a limitation that the total number of non-zero coefficients must be determined for all luma and chroma blocks. In contrast to characteristic 1.1, characteristic group 2 for determining the prediction value refers only to the current block to be decoded and not to each block of a full screen (see above).

Nor does anything else follow from characteristics 1 and 1.1 or from characteristic group 4 of claims 1 and 4, because these characteristics do not refer to the determination of the predictive value.

3.

The prediction value is determined according to characteristics 2.1 and 2.2 in such a way that the total number of non-zero coefficients of already decoded blocks is determined. Specifically, the coefficients of the two blocks arranged above and to the left of the current block are to be used. A prediction value is then determined on the basis of this total number; this does not necessarily have to be identical to the total number of non-zero coefficients determined. The prediction value is determined to be zero if no decoded blocks are found above or to the left of the current block (characteristic 2.4 of claim 1 and characteristic 2.2 of claim 4). This is the case when the current block is at the top left of the image.

The prediction value forms the basis for the selection of the table mentioned in characteristic 3 of claims 1 and 4. In this respect, the specification that if reference blocks are missing above and to the left of the current block to be decoded, the prediction value must be set to zero ensures that a particular table is selected.

4.

According to characteristic 3 of claims 1 and 4 of the plaintiff's patent, a table is used for co-examination.

The variable-length dieren are selected on the basis of the specific prediction value.

The possibility of selecting a table assumes that several tables are available for coding with variable length, from which one can be selected. Thus the doctrine of the plaintiff's patent differs from that of the prior art, which knew only the use of a single table (para. [0003]). The inventive teaching thus enables a higher coding efficiency with the same image quality (cf. par. [0005], [0008] and [0212]), since a selection of (more advantageous) codes can now be made depending on the value of the total number of non-zero coefficients.

Functionally, a table within the meaning of feature 3 of patent claims 1 and 4 presupposes that, in any case, it assigns a variable-length code to a certain total number of non-zero coefficients in the current block. This results from feature 3 and feature group 4: Accordingly, the table is to be used to decode data obtained by coding the total number of non-zero coefficients contained in the current block (feature 4.1), whereby the coding - i.e. the reverse direction - was performed with the variable-length coding table (feature 3). Thus the table mentioned in the patent claims does not functionally differ from the VLC table known in the state of the art, which assigns a variable length code to a value so that the respective value corresponds to the variable length code (see paragraph [0003]). However, the inventive teaching now provides for several such tables, one of which is selected on the basis of the prediction value.

According to the wording of the patent claims and also from a functional point of view, it cannot be ruled out that several prediction values lead to the selection of the same table. The efficiency gain sought by the patent does not require that each possible predictive value be assigned exactly one table which differs from the tables for the other predictive values. This is also shown in diagram 5 in the patent claim specification, which assigns a VLC table to several predictive values. In addition, the phrase "based on the particular prediction value" in Feature 3 indicates that the prediction value is the starting point of the selection, but not that each prediction value is to be assigned exactly one table and vice versa.

The claims 1 and 4 of the patent action do not contain any further specifications regarding the selection of the table. This does not exclude the possibility that even with a prediction value other than zero the same table may be selected as with a prediction value of zero on the basis of characteristics 2.4 of claim 1 and 2.2 of claim 4.

Paragraph [0065] of the patent does not provide otherwise. This shows that if reference blocks are missing above and to the left of the current block to be decoded, another value could be specified in addition to the prediction value zero. The plaintiff's patent has opted for the value zero in claims 1 and 4. However, this does not exclude the possibility that the same VLC table may be selected even for higher prediction values. The decisive factor is the unique assignment at the prediction value of zero. The above statements also apply to paragraph [0032] and [0052] (old version).

How the prediction values are ultimately assigned to the tables with the variable-length codes is left to the expert in the patent suit. It is also possible in this respect that instead of several individual tables for each prediction value, a table exists in which the individual tables are included, so that prediction values and codes are assigned to each other via the individual rows and columns, as shown in diagram 4 in combination with diagram 5 of the patent specification.

It is also not excluded that a so-called code table is used in addition to a VLC table to carry out the coding (e.g. par. [0028], [0116]). The code table is a table for transforming the number of coefficients into a code number, while the VLC table is a table for transforming the code number obtained from the code table into a code of variable length (paragraph [0028]). The coding and decoding processes are illustrated e.g. in Fig. 5 and 19. The code table or the VLC table can also be "fixed" according to the plaintiff's patent, so that switching is not necessary (par. [0059], [0140]). The patent also describes the possibility not to use code tables (paragraph [0139] and Fig. 20C). In this case a direct transformation of the number of coefficients into a code of variable length (Abs. [0139]) takes place. The use of the code table is not mandatory according to requirements 1 and 4 for lack of corresponding specifications.

According to claims 1 and 4, the only relevant factor is that the table is selected on the basis of a prediction value (characteristic 3), the determination of which is the subject of characteristic group 2 of claims 1 and 4 (see above). Therefore, it cannot be excluded that further values play a role in the selection.

It is therefore conceivable that several tables can be selected for the same prediction value, with other parameters being included in the selection. According to the wording of the claim to the plaintiff's patent, the selection is then made "on the basis of the particular prediction value". As long as this function of assigning tables with codes of variable length to the respective prediction values is fulfilled, it does not matter whether the coding or decoding is associated with a particular computational effort, for example because several tables are linked together and the selection of the respective table depends on further parameters.

Claims 1 and 4 do not contain any specifications as to how the tables mentioned in Feature 3 are to be implemented in software or hardware terms in a decoding device or for the application of the protected process. Conceptually, tables are nothing more than a graphically clear representation of data in rows and columns, whereby the entries of rows and columns are regularly related to each other. A certain way of implementation is not associated with the concept of a table and therefore cannot be inferred from the description of the patent. Rather, the diversity of possible tables indicates that their implementation is ultimately left to the expert, as long as only the assignment of prediction values to a set of variable-length codes, presupposed by the patent, is available, with which the total number of non-zero coefficients in the current block was coded. Even if there are particularly advantageous solutions for the implementation of tables - e.g. in the form of table arrays - the plaintiff's patent ultimately leaves it to the expert how to assign the prediction values to the respective set of variable-length codes.

5.

Claim 1 further requires the decoding of coded data obtained by co-decoding of the total number of non-zero coefficients obtained in the

current block (characteristic 4.1). Claim 4 refers to a corresponding unit.

The patent merely requires that the coded data be obtained by coding the total number of non-zero coefficients, without excluding any further co-ordination steps. The wording "through" does not narrow the inventive doctrine to the effect that only the total number of non-zero coefficients should be used to code as efficiently as possible. The latter is also not presupposed by the plaintiff's patent, according to which it is important to improve coding efficiency and not to achieve the best possible efficiency (paragraph [0008]).

III.

By offering and selling the challenged design in the Federal Republic of Germany, the defendant infringes the plaintiff's patent. It is undisputed that the challenged form of execution corresponds to the requirements of the AVC standard, which in turn presupposes the use of the doctrine of the plaintiff's patent. This constitutes both a direct infringement of Claim 4 and an indirect infringement of Claim 1.

1.

The challenged execution form corresponds to the specifications of the AVC standard, the requires the use of the doctrine of the patent of action.

a)

The AVC Standard is based on encoded images as defined by Features 1 and 1.1 of Claims 1 and 4. In particular, by default the coded image is obtained by transforming the image into coefficients showing spatial frequency components.

This is undisputed with regard to the Luma blocks between the parties. However, this is not sufficient for the realization of the doctrine in accordance with the patent of the action, as explained in the context of the interpretation. According to the patent action, the entire coded image, consisting of luma and chroma signals, must have been obtained by transforming the image into coefficients.

But also the chroma blocks are transformed by default into transformation coefficients showing spatial frequency components. This applies in particular to a coded image at the sampling rates disputed between the parties 4:2:0 (ChromaArrayType = 1) and 4:2:2 (ChromaArrayType = 2). Transformation coefficients for the chroma components Cb and Cr are relevant in this context (for these symbols, see point 3.24 of the standard).

According to section 8.5.4 of the AVC standard, a variable "chromaList", a list of 16 entries, is derived for each 4x4 chroma block at the above sampling rates. 15 entries of which have chromaAC levels (clause 8.5.4.2.a.E. of the AVC standard). The AC entries are transformation coefficients (cf. Section 8.5.4 of the AVC standard) which show spatial frequencies and are decoded again (cf. the formation of the array u according to Section 8.5.4 a.E. and the image construction process according to Section 8.5.14 of the AVC standard).

The first entry in the "chromaList" is a value from the array dcC (section 8.5.4.2.a of the AVC standard), which - undisputedly - represents a DC transformation coefficient (see section 8.5.4.1 of the AVC standard). According to section 3.38 of the AVC standard, a DC transformation coefficient is a transformation coefficient in which the frequency index is zero in all dimensions. Thus the value ChromaDCLevel is the direct component of the corresponding chroma block, i.e. the spatial frequencies for this value are zero. The fact that the corresponding transformation coefficient in the form of the value ChromaDCLevel is part of the encoded image or block results directly from the AVC standard, because the chromaList derived from the encoded data has exactly this value in addition to the 15 ChromaACLevel values (Section 8.5.4.2.a of the AVC standard), which then enters the u array as part of the transformation decoding process and is subjected to the image construction process within that array (clause 8.5.14 of the AVC standard). This can't be any different, because every picture and every block of a picture has an equal part, which is coded and then decoded again. Another question that is not relevant for characteristics 1 and 1.1 is whether the chromaDCLevel value is also taken into account for determining the prediction value.

b)

The group of characteristics 2 of claims 1 and 4 of the patent action is also represented by the AVC standard has been implemented.

According to the correct interpretation, it is sufficient for the realization of the patent theory if the prediction value for a current block is determined as specified in characteristic group 2, as is done according to the AVC standard in the case of the Luma blocks.

The objection that, instead of a value of '0', the prediction value according to the AVC standard could also be determined as a value of '1', because a prediction value nC of '1' according to Table 9-5 leads to the application of the same codes, does not prevail. In such a case, the value "1" is to be equated with the value "0", because both values lead to the application of the same table. As explained in the context of the interpretation of characteristic 3, it cannot be ruled out that different prediction values may lead to the same table. Functionally, feature 2.4 only requires the table to be used that is assigned a prediction value of "0" if there are no decoded blocks above and to the left of the current block. However, this is the case according to the AVC standard (see sections 9.2.1 and 6.4.11.4 of the AVC standard).

c)

The AVC standard also implements feature 3 of claims 1 and 4. Table 9-5 of the AVC standard is a patent pending table. According to the correct interpretation, it is harmless that it is ultimately a table with several (sub)tables and that a code table is not used. The selection of the variable-length codes is made within the framework of the coding on the basis of the assignment to the values in the first two columns (TrailingOnes and TotalCoeff) as well as on the basis of the prediction value nC, which is determined by means of the blocks on the left or above the block to be decoded. The latter represents the specific prediction value (Section 9.2.1 of the AVC standard). According to the correct interpretation, the use of other values in addition to the certain prediction value to select a coding table is harmless.

It also does not matter whether there is a difference in computational effort between the use of multiple tables under the patent and Table 9-5 under the AVC standard.

d)

Finally, the AVC standard realizes feature 4.1 of requirements 1 and 4. The standard decoding is carried out according to Table 9-5. The original

Coding of the data is reversed in the opposite direction and the data is decoded by selecting the column in Table 9-5 which is decisive for the decoding as a function of the prediction value (nC) and determining the total number of non-zero coefficients (TotalCoeff) and further values (here: TrailingOnes) on the basis of the bit sequence read out in the bit stream - the length-variable code. The fact that the table thus serves not only to decode the total number of non-zero coefficients but also other values is irrelevant if the interpretation is correct.

e)

Insofar as the defendant objects that the AVC standard does not specify how mapping between variable-length code words and coded information is to be implemented, and in addition to implementation by means of a table there are other implementation possibilities which do not make use of the teaching of the plaintiff's patent, this does not take effect. Even if an array or the like is advantageous from a programming point of view for the implementation of a table, the general concept of the table in Feature 3 and in Feature Group 4 of the patent claims is not, if interpreted correctly, limited to a particular implementation, but - as explained above - to be understood as the assignment of variable-length codes to the total number of non-zero coefficients.

Therefore, the Board cannot accept the defendant's argument that Table 9-5 can be circumvented by a simple distinction of cases. After the interpretation of the claims of the plaintiff's patent, it can be left open how the concrete implementation of the standard will take place in the challenged forms of execution, as long as these perform what the claims of the plaintiff's patent presuppose. The fact that they do so results from the standard, which provides the necessary allocations in the form of Table 9-5.

Furthermore, the defendant itself does not claim to use a decision tree or any other implementation of the AVC standard in the challenged embodiment which does not correspond to the implementation of the AVC standard which it considers to be a patentable implementation of a table.

2.

Due to the AVC standard compatibility of the challenged devices, the offer and sale of the challenged design form constitute a direct infringement of the plaintiff's patent in the form of patent claim 4 pursuant to Sec. 9 S. 2 No. 1 PatG. The challenged execution form has a prediction unit, a table selection unit, and a variable length decoding unit capable of realizing features 2 through 4 as required by the AVG standard.

3.

In addition, the offer and distribution of the challenged design form constitute an indirect infringement of the plaintiff's patent in the form of patent claim 1 pursuant to Sec. 10 (1) Patent Act.

The challenged execution form is a means within the meaning of Sec. 10 (1) Patent Law which is objectively suitable for the application of the procedure protected by the action patent claim 1. This is because the AVC standard compatibility of a mobile device presupposes - as shown - the suitability for the application of the protected procedure. The attacked design form is such AVC standard compatible devices.

Thus, the challenged embodiment also refers to an essential element of the invention. This is the case if the means is suitable for functionally interacting with an essential element of the invention, namely an element mentioned in the patent claim, in such a way that the invention idea is realised (BGH, judgment of 04.05.2004, X ZR 48/03, GRUR 2004, 758, 760 - impeller wheel counter; judgment of 07.06.2005, X ZR 247/02, GRUR 2005, 848 - traction sheave elevator; judgment of v. 22.11.2005, X ZR 79/04, GRUR 2006, 570 - extracoronary bed load). In the event of a dispute, the decoding procedure in accordance with the patent can be set in motion by the challenged execution form because the challenged execution form has been programmed or set up accordingly.

The defendant undisputedly offers the challenged embodiment in domestic law for use of the invention and supplies it. It is obvious from the circumstances that the challenged embodiment is suitable and intended to be used for the use of the invention. In this respect, it is decisive whether in the

The time of the offer or the delivery after the entire circumstances of the case the threatening patent infringement was so clearly recognizable from the point of view of the offerer or supplier that an offer or a delivery is to be equated with the knowingly patent endangerment (BGH, Urt. v. 09.01.2007, X ZR 173/02, GRUR 2007, 679 - Haubenstretchautomat). It is sufficient if, from the point of view of the third party, there is a sufficiently certain expectation from an objective point of view according to the circumstances that the customer will determine the offered or delivered means for the patent-infringing use (BGH, Urt. v. 13.06.2006, X ZR 153/03, GRUR 2006, 839 - Deckenheizung).

In the event of a dispute, the establishment of AVC standard compatibility is the result of the defendant's targeted and purposeful implementation. Playing AVC video content is only possible in a patent infringing manner. The fact that the defendant subjectively expects that users will almost certainly play AVC videos is obvious because it opens up this function to users in a target-oriented and purposeful manner by providing the corresponding compatibility. From the point of view of a third party, it is also practically certain to expect that users will also play AVC content. In order to ascertain this fact, one can fall back on experiences of daily life (BGH, Urt. v. 07.06.2005, X ZR 247/02, GRUR 2005, 848, 851 - Antriebsscheibenaufzug). According to the study, the playback of video content on mobile phones is now one of the core functions of modern smartphones, which, according to general life experience, almost every smartphone user makes use of. Since by far the most common video format is undisputedly the AVC format, the application of the patent-protected process by the purchasers of the challenged design can certainly be expected.

IV.

The antitrust objection to compulsory licensing asserted by the defendant does not take effect.

The Board cannot find that the applicant abused its dominant position (see 1) (see 2).

1.

The applicant holds a dominant position on the market.

a)

In this context, market dominance is understood to mean the economic power which allows an undertaking to prevent effective competition on the relevant market (temporally, geographically and objectively) and to behave to an appreciable extent independently of its competitors, customers and consumers (OLG Düsseldorf, Urt. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1221 - Mobile Communication System w.m.N.). According to the Düsseldorf Higher Regional Court, the necessary exact definition of the (product and geographic) market on which companies compete can be carried out by means of the so-called demand market concept. Account shall be taken of the competitive forces to which the undertakings concerned are subject. It also identifies those undertakings which are effectively able to constrain the behaviour of the undertakings concerned and to prevent withdrawal of competitive pressure. It must be clarified which products or services are functionally interchangeable from the point of view of the consumers. The same product market is allocated to what cannot be substituted by other products or services from the point of view of the customer due to the respective characteristics, prices and intended uses. A combination of several factors (such as market share, company structure, competitive situation, behaviour on the market, but in principle not price) must be taken into account. Individual factors do not necessarily have to be decisive in their own right. In this respect, the territory of the Federal Republic of Germany - like any Member State - also constitutes a substantial part of the common market (see, with regard to all OLG Düsseldorf, Urt. 30.03.2017, 115 U 66/15, GRUR 2017, 1219, 1221 - Mobile Communication System).

In connection with the rights claimed here from the plaintiff's patent, the distinction is made with regard to the licensing market. The supplier is the patent owner, the buyer is the user interested in the protected technology. In principle, each patent leads to its own relevant product market unless an equivalent technology is available for the same technical problem. Nevertheless, market dominance can only be presumed to exist in further circumstances if the patent proprietor has effective

may prevent competition on a downstream product market. Such a downstream product market exists for goods/services licensed under the patent. Standard essentiality alone is not enough for this. However, this is the case if a competitive offer would not be possible without a licence on the standard essential patent because the technology is not only of minor importance for the consumer on the product market (see on all OLG Düsseldorf, Urt. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1222 - Mobile Communication System). The defendant bears the burden of presentation and proof for market dominance (see OLG Düsseldorf, Urt. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1222 - Mobile Communication System).

b)

As the proprietor of the patent, the applicant undisputedly holds a dominant position in the market. As seen, the relevant market is not the licensing market, but the downstream product market. Therefore, these are not AVC-enabled products in general, but further differentiation is needed between individual AVC-compatible products, each of which may create a separate product market for itself. In the present case of the mobile terminal devices which are the only devices under attack here, they form a separate product market.

According to the unchallenged submission of the defendant, almost all marketable mobile devices are currently equipped with the asserted AVC standard. This is also evident from the B 43 system portfolio, in which the features of ten well-known models from different manufacturers are considered as examples and all are described as AVC-compatible. In times in which video formats of all kinds (streaming services; media libraries; short films in news apps, users' own short films in messenger apps, etc.) exist and are also widely used, decoding technology for playing MPEG-4 files is a "must-have" for the average user of mobile devices, in particular smartphones. This relevant product market does not include other MPEG-4-capable recording, playback or transmission devices such as televisions, notebooks, PCs, etc., which may constitute a separate product market. Because a customer who wants to buy a smartphone that can also be used to watch videos or messages in media libraries on the go will not choose a TV, a notebook and probably not even a tablet instead. These products are not interchangeable, as the customers can use the

Smartphone because of the manageable size, the possibility to establish a telephone connection and the usually longer battery life. Furthermore, the AVC standard is not interchangeable because the video format used is defined by the content provider and not by the manufacturer of the terminal. Therefore all end devices support different standards to ensure a correct playback of the video in every case. The applicant therefore holds a dominant position on the relevant product market for smartphones. The relevant geographic market is the worldwide market. Smartphones are traded worldwide as so-called "volatile goods" and homogeneous competitive conditions exist. Especially for the function of (mobile) playback of pictorial material, which is the subject of this dispute, there are no regional particularities. Customers worldwide will exchange the different models of mobile phones, in particular for the video function. Even if one also considers the core function of telephoning to be decisive, a regional restriction is not achieved by the mobile phone hardware, but - if at all - by the use of a corresponding SIM card.

This also applies to the technical function protecting the patent of action. The plaintiff itself claims that the plaintiff's patent is standard essential for the use of the AVC standard (see paragraph III above).

2.

On the other hand, it cannot be established that the plaintiff is abusing its dominant market position by abusing the "roadmap" established in the "████████ ████████" judgment (see ECJ, GRUR 2015, 764; summarising the individual steps instead of all: OLG Düsseldorf, Urt. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1223 - Mobile Communication System).

The purpose of the negotiation process outlined above is to achieve a situation which is closest to that of free competition. The ECJ lays down minimum requirements which are to represent negotiations conducted by honest parties on both sides in a serious and balanced manner. This requires a license offer in accordance with FRAND principles by the SEP holder following a notice of infringement by the SEP holder and a sign of the infringer's willingness to license.

must react in accordance with FRAND principles and - if the SEP holder refuses to do so - deposit a security deposit and provide information for the past.

On the basis of these criteria (see a) above), it must be assessed whether the parties sought to conclude a licence agreement.

Since, after the infringement notice (see b)), the defendant has shown willingness to license (see c), the plaintiff has submitted an offer that is reasonable, fair and non-discriminatory (FRAND; see d)), but the defendant has not submitted a counteroffer that also complies with these principles (see e), the injunction, recall and destruction claims are enforceable.

a)

If the applicant takes the view that the principles of the [REDACTED] case-law do not apply in this case, the Board of Appeal cannot go further. The principles also apply to the case in question.

The applicant's wording argument, in paragraph 64 of the judgment, states that, furthermore, where neither a standard licence agreement nor licence agreements already concluded with other competitors have been published, the SEP holder is in a better position than the alleged infringer to examine whether his offer meets the conditions of equal treatment and therefore, in the case of a standard licence agreement, it would not be possible to comply with the prescribed negotiating model. The passage does not mark an exception, but is only an additional argument for the initiative behaviour of the patentee. Similarly, there may also be a lack of information on the part of the defendant regarding the use of the plaintiff SEP in the case of a standard license agreement (see LG Düsseldorf, Urteil vom 9.11.2018 - 4a 0 17/17). A further complicating factor is that the demarcation criterion of the "established licensing practice" is contourless and in practice leads to further demarcation problems with regard to the question when a licensing practice is to be described as established (see LG Düsseldorf, Urteil vom 9.11.2018 - 4a 0 17/17). The legitimate expectations of the SEP holder

with the FRAND declaration, will ultimately be strengthened if there is already an active licensing practice (see LG Düsseldorf, judgment of 9.11.2018 - 4a O 17/17).

b)

The plaintiff has submitted a sufficient notice of infringement. The notice of infringement can be found in the e-mail dated 6 September 2011 (Annex K 10, Exhibit A).

aa)

It is irrelevant that an infringement complaint is filed against a sister company (██████ USA) or there against an employee who is the main contact person for group-wide licensing matters.

Thus, there is no duty of disclosure at all if, on the basis of the circumstances, it can be assumed with certainty that the alleged infringer is aware of the use of the plaintiff's patent and his objection that the plaintiff did not notify him of this appears to be an abuse of rights (see OLG Düsseldorf, Urt. v. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1224 - Mobile Communication System). In any case, the duty to notify is already satisfied if information is already provided to the parent company of the alleged infringer, as it can be assumed that the latter will inform the relevant subsidiaries in the individual countries in which the SEP is used (see OLG Düsseldorf, judgment v. v. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1224 - mobile communication system). The same situation must be assumed if a subsidiary or a certain employee of that subsidiary has assumed a leading role in license negotiations lasting many years and has primarily negotiated with the corresponding contacts on the plaintiff's side. Since 2009, the subsidiary ████████ USA has been in negotiations with ████████ initially only about the MPEG 2 standard, later also about the AVC standard which is the subject of this dispute. Since 2009, Mr ████████, called ████████ - to whom the e-mail of 6 September 2011 was addressed (Annex K 10 - Exhibit A) - has been involved there as the responsible employee, who is responsible for licensing in exchange with the other

the defendant's subsidiaries. For example, [REDACTED] e-mail of 9 December 2009 to Mr [REDACTED] of [REDACTED] (Annex B 16, 16a) shows that [REDACTED] was in contact both with the other regional offices outside China and with the defendant's Chinese office and coordinated the licensing negotiations. Therefore, Mr. [REDACTED] of [REDACTED] on the recommendation of Mr. [REDACTED], also contacted [REDACTED] in September 2011 when he pointed out the violation of the AVC standard by the defendant's mobile phones and tablets and the resulting licensing requirement. Thus, he names [REDACTED] role at the beginning of the September 6, 2011 email ("I get in touch with you because you handle patent licensing matters at [REDACTED]) and [REDACTED] also obviously saw himself under an obligation to continue the negotiations as he proposed a telephone call in the September 15, 2011 email (Annex B 21, 21a). In particular, [REDACTED] did not refer Mr [REDACTED] to any other employee or group company.

bb)

In any event, the notice of infringement was given with the consent of the plaintiff and thus constitutes a notice of infringement on the part of the plaintiff.

The defendant denies with ignorance that the plaintiff may have granted power of attorney to [REDACTED] or that [REDACTED] was and is authorized to conclude a pool license in the plaintiff's name which also includes the plaintiff's patent. Even if, in the event of a dispute, this dispute is specifically directed at the plaintiff's license offer, it also has consequences in connection with the infringement notice, which must also be filed by the plaintiff.

Both the licence agreement offer (Annex K 10, Exhibit G) and the infringement notice of 6 September 2011 (Annex K 10, Exhibit A) are to be regarded as those of the plaintiff. The defendant does not penetrate with its denial, since the chamber comes to the conviction according to the principles of § 286 ZPO that the [REDACTED] acted in knowledge and with consent of the plaintiff (see (aaa)). Moreover, it seems questionable in principle whether in the present case a dispute with a lack of knowledge can already be ruled out on the grounds of a breach of trust (see (bbb)).

(aaa)

First, denial with ignorance is admissible in principle, since the plaintiff was not personally present at any granting of power of attorney or license from the plaintiff to [REDACTED] and insofar the process was beyond her control. The court may therefore apply the fact in question only if it is convinced of it in the context of the free assessment of evidence. § Paragraph 286(1) of the Code of Civil Procedure orders in this respect that the court is free to decide whether it considers an actual assertion to be true or not, taking into account the entire content of the proceedings and the result of any taking of evidence. It follows from the wording "any" that the necessary evidence in the individual case may also be obtained without a formal taking of evidence in accordance with §§ 371 et seq. of the German Civil Code. ZPO can be considered to be conducted. The judicial formation of conviction can therefore be based solely on the conclusiveness of the factual argument of a party and/or on its procedural conduct and/or that of the opponent (see OLG Düsseldorf, Urteil vom 20.12.2017, 1-2 U 39/26).

Following the largely undisputed submission by the parties to the pre-trial license negotiations, the Board is convinced that [REDACTED] is the plaintiff's licensee and acted with the plaintiff's consent. In any event, the plaintiff approved the actions of [REDACTED] at the latest upon filing the complaint.

The entitlement of [REDACTED] already results from the text of the transmitted standard license agreement, according to which the licensor (plaintiff) grants the license administrator ([REDACTED]) a license in order to enable it to manage the license (cf. Annex K 10 Exhibit G, page 1, penultimate paragraph).

None of the defendant's affiliates had ever questioned the license administrator's authority in the pre-trial license negotiations, which as seen was specifically addressed in the sublicense agreements that the pool enters into with the respective AVC standard users. Even before September 2011, the license to the AVC standard had been mentioned several times, and even in this context the defendant's group companies never questioned the authorization. [REDACTED], employee of [REDACTED], addressed the use of the AVC standard to the Vice President of [REDACTED] USA Dr. [REDACTED], Vice President of [REDACTED] Technology ([REDACTED] USA) in the e-mail of February 16, 2009 (cf.

Appendix B 5, "offers products that make use of the [...] AVC/H.264 (MPEG-4 Part 10) Standards"). In an email dated November 12, 2009 from [REDACTED], Vice President of Licensing at [REDACTED] to [REDACTED], named [REDACTED], [REDACTED] Technologies Co. Ltd. (see Appendix B 11), the AVC standard and first details on the content of the licence (licences, royalty cap and concept of protected entity) are again addressed. The plaintiff was also publicly mentioned on the Internet as a pool member (Annex B 1), so that it was known in the relevant industry circles that licences for the plaintiff's SEPs could be obtained via [REDACTED]. There is therefore no indication that [REDACTED] did not act on behalf of the plaintiff in the licensing process with the knowledge and understanding of the plaintiff.

The plaintiff approved the actions of [REDACTED] at the latest with the filing of the complaint and with her presentation in court, since she thereby adopts their actions as her own.

In this respect, the actions of a pool licence administrator in the context of licence negotiations are to be regarded as those of the SEP holders who are members of the pool. According to § 286 ZPO there is therefore no doubt at all that [REDACTED] acted justifiably on behalf of the plaintiff.

(bbb)

Also from the point of view of the principle of good faith, which also applies in procedural law (cf. BVerfG, Beschluss vom 5.12.2001- 2 BvR 527/99 u.a., NJW 2002, 2456), the defendant cannot penetrate with a denial with ignorance. The defendant's conduct is contradictory. In the Board's view, the defendant cannot claim for itself that it did not itself act inconsistently. Even if certain other Group companies involved in Group licensing issues were active in the run-up to the merger, which is common practice in the area of pool licensing for standard essential patents and cannot seriously question the defendant either, the defendant must adhere to the conduct of its Group company. The consideration that such a denial would - as not - lead to the taking of evidence can, from an objective point of view, ultimately only be interpreted as an attempt to delay the proceedings. Circumstances which are undoubtedly clear to the defendant, who is an active participant in economic life, and which were never, not even slightly, doubted by her in the past, are now being investigated on the basis of

in the context of § 138 (4) ZPO (Code of Civil Procedure). This regulation protects a litigant who is inferior in knowledge. The defendant cannot be regarded as such in view of all the conduct of the defendant.

cc)

In terms of content, the duty to provide information does not require detailed (technical and/or legal) explanations of the allegation of infringement, but it is sufficient if the other part is enabled to form its own opinion of the justification of the allegation submitted to it (see OLG Düsseldorf, Urt. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219 - Mobile Communication System).

The [REDACTED] did not mention either the publication number or specifically the challenged forms of execution, but made general reference to the infringing products ("In particular, we understand that [REDACTED] now offers mobile handset products and tablet products that include [...] AVC/H.264 [...]"). In the present case, however, no more specific information is required. The license for the AVC standard has already been the subject of many years of preliminary correspondence.

It was already mentioned in the e-mail of 12 November 2009 from [REDACTED], Vice President of the Licensing Department of [REDACTED], to [REDACTED], called [REDACTED], [REDACTED] Technologies Co. Ltd. (Annex B 11) has been addressed. Mention is made of the AVC standard and first details of the content of the licence (licences, royalty cap and concept of protected entity) as well as mobile phones with T-DMB functions as infringing products. In the email of September 6, 2011 (Annex K 10, Exhibit A), [REDACTED] finally resumed only interrupted conversations with another reference to the AVC license. This is also made clear by the fact that [REDACTED] did not ask for further explanations in the aftermath of the infringement notice, but instead asked for a telephone appointment to discuss the matter "further" (Annex B 21, 21a).

If the defendant withdraws to the effect that no concrete reference is made to the patent, this is harmless. For example, the defendant or its group companies were able to view the relevant SEP list for the pool together with cross-reference charts, as shown in Annex K 10 Exhibit E on the Internet at [www.\[REDACTED\].com](http://www.[REDACTED].com), along with the associated standard sections which make use of the associated SEPs. Even if these are not classic claim charts - which the Düsseldorf jurisprudence in this case law does not take into account.

The court did not even require this at the second stage of the negotiations (see OLG Düsseldorf, Urteil v. 30.03.2017, Az. 1-15 U 66/15, GRUR 2017, 1219, 1223 - Mobiles Kommunikationssystem) because the plaintiff already had the opportunity to take note. The fact that the parent company was in any case aware of the activities of [REDACTED] - which suggests that its Internet presence is also not unknown to it - is already apparent from the email sent by Mr [REDACTED] to [REDACTED] from [REDACTED] on 1 July 2009 (cf. Annex B 8, 8a).

Finally, it should also be noted within the framework of the substantive requirements that a notice of infringement can be merely a formality or a plea of lack of knowledge that may constitute an abuse of rights. This is the case with the defendant from the circumstances already described.

c)

[REDACTED], the employee acting as the defendant's key corporate contact, signaled the group's willingness to license to [REDACTED], which represented the plaintiff's licensing interests.

aa)

There are no high requirements to be met by the licensing request, but an informal and general declaration of the license seeker is sufficient, in which his willingness to license is clearly expressed, even conclusive action can be sufficient depending on the situation of the individual case (see OLG Düsseldorf, Urteil v. 30.03.2017, Az. 1-15 U 66/15, GRUR 2017, 1219, 1225 - Mobiles Kommunikationssystem).

bb)

In response to the infringement complaint, [REDACTED] reply on 15 September 2011 (Annex B 21, 21a) included a request for a telephone call to discuss details of the matter. This can already be seen as conclusive action that signals a willingness to license. In this respect, the previous negotiations on the MPEG 2 standard, in which the defendant

persistently refused to take a license even for the VRC, the general will to take a license for the AVC standard did not. In the end, the email in September 2011 was a message in the context of stalled license negotiations, which mainly concerned the MPEG 2 standard until 2011, but already from November 2009 also included the AVC standard, and were resumed.

d)

The sending of the plaintiff's standard license agreement in February 2012 to [REDACTED], the defendant's internal contact for licensing questions, is to be seen as a license offer that complies with FRAND principles. In this respect, the persons involved in the exchange of offers acted on behalf of the parties involved in the respective legal dispute (see aa)), the formal requirements for an offer in accordance with FRAND principles are met (see bb)) and the content requirements for an FRAND offer are also met (see cc)).

aa)

As already stated in the infringement complaint, [REDACTED] the correct addressee of the defendant's group of companies, the person in charge of licensing matters. [REDACTED] received the standard license agreement (Annex K 10 Exhibit G) at the beginning of February 2012, as stated in the email dated 10 February 2012 (Annex B 20, 20a).

The standard license agreement was sent by [REDACTED] and, according to the wording of the preamble, is to be understood as an offer by the plaintiff to the group of defendants. Each Licensor undertakes to grant individual licences or sub-licences to individuals, companies or other legal entities in accordance with all AVC essential patents on moderate, reasonable and non-discriminatory terms and conditions in accordance with the terms and conditions agreed here, which may be granted by the Licensor (without payment to third parties) (cf. Annex K 10 Exhibit G-a, page 2, 3rd paragraph). The licensor (the applicant) continues to grant the licence administrator ([REDACTED]) a licence in order to enable it to manage the licence (see Annex K 10 Exhibit G a, page 2, last paragraph).

If the defendant does not want [REDACTED] actions to be imputed to the plaintiff, [REDACTED] may be acting on its own because it grants a sublicense. However, this sublicensing activity is ultimately only an activity carried out by [REDACTED] in place of the plaintiff (and all other pool members). The fact that this administrative activity is carried out in a justified manner results from the aforementioned passages of the standard license agreement itself. The defendant did not question [REDACTED] right to act on behalf of the pool members during the entire out-of-court negotiations, but only assured itself during the discussion on July 20, 2016, that [REDACTED] was not entitled to bring an action itself (cf. Annex B 26a). Even if one did not want to assume that [REDACTED] was entitled in advance to all acts relating to the licensing of the plaintiff's patent as part of the patent pool, the filing of the action must in any event be regarded as an authorisation by the plaintiff. Why the dialogue between SEP holder and prospective licensee envisaged by the ECJ should be severely disturbed if negotiations are initially conducted with a pool administrator instead of the individual pool member, the Chamber does not see why it is apparently common in the area of SEP licensing for companies to make their patents available by way of a pool solution and thus have a contact person for the entire pool.

bb)

Due to its objective explanatory value, the sending of the standard license agreement in February 2012 must be seen as a sufficiently concrete offer negotiation.

[REDACTED], the person responsible for coordinating the group-wide licensing negotiations, had a complete contractual document with all the terms and conditions for a license to the AVC standard essential patents. In particular, Section 3.1.1. contains the necessary parameters for the license calculation. Art. 2.1. contains the granting of the licence for AVC Products, whereby Art. 1.10 defines the AVC Products. The essentialia negotii of licensing are thus determined.

Contrary to what the defendant maintains, the document did not serve merely as a model contract for information purposes. It was clearly a self-contained contractual document, which was not specifically targeted at one of the following

Group companies, but as a standard contract for a large number of licensees (cf. LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a 0 17/17). Date and name of the licensee are left blank. The reference in the e-mail of the [REDACTED] of 6 September 2011 (Annex B 19a) that the electronic copies are for information purposes only and cannot be used as copies shows that, conversely, the documents sent by post should fulfil the function of signed copies (cf. LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a 0 17/17).

As a result, the way in which the licence fee is calculated is also sufficiently explained.

In this context, the Düsseldorf case-law requires that the SEP holder explain the main reasons on the basis of which he considers the remuneration parameters proposed by him to be FRAND. If he has already previously granted licenses to third parties, he must, depending on the circumstances of the individual case, give more or less substantiated reasons, in particular why the license fee he intends to pay is FRAND precisely against this background (cf. OLG Düsseldorf, Urt. v. 30.03.2017, 1-15 U 66/15, GRUR 2017, 1219, 1227 - Mobile Communication System). If there are a sufficient number of licence agreements and acceptance on the market is proven in this way (e.g. market share of the products licensed at a certain fee level), no further information on the appropriateness of the licence fee level will normally be required (LG Düsseldorf, Urt. v. 13.07.2017, Ref.: 4a 0 154115, marginal 311 -quoted after juris; LG Düsseldorf, Urt. v. 11.07.2018, Az. 4c 0 77/17, BeckRS 2018, 25099, marginal 137). In principle, the calculation explanation as well as the offer itself must be made in time so that the infringer has a sufficient reaction time (see LG Düsseldorf, Urt. v. 13.07.2017, Ref.: 4a 0 154/15, marginal 319 - quoted according to juris; LG Düsseldorf, Urt. v. 11.07.2018, Az. 4c 0 77/17, BeckRS 2018, 25099, marginal 144). If at the time of the offer there is no need for more concrete explanations due to the individual circumstances mentioned, this may arise during the proceedings if individual substantive FRAND requirements are substantiatedly disputed by the infringer, so that in any case all calculation factors must then be specifically explained (see OLG Düsseldorf, Beschluss vom 17.11.2016, Az. 1-15 U 66/15, para. 19 - quoted after

juris; LG Düsseldorf, Urt. v. 13.03.2016, Az. 4a O 126/14 marginal 254). The concrete further information may not, of course, contradict the original more general information, otherwise the offer is to be regarded as abusive due to the lack of present FRAND conditions.

Although the standard license agreement itself does not contain any information on the method of calculating the license, such information is not required in the specific individual case according to the previously established standards. The applicant submitted a standard licence agreement, which it submitted to a large number of licensees on those same terms. The more concluded licence agreements with similar licence conditions were concluded, the stronger is the presumption that the required licence fees are FRAND (cf. LG Düsseldorf, judgment v. v. 31.03.2016, ref. 4a O 126/14 marginal 219 - cited according to juris). This is a standard license agreement, as is already apparent from the pre-formulated text of the agreement, which [REDACTED], as the responsible negotiating partner of the defendant's group, was already largely aware of from years of negotiations before.

Apart from the fact that the list of licensees who had already concluded the contract is available on the Internet (Annex K 10 - Exhibit F), [REDACTED] was aware of licensees such as [REDACTED] who had concluded the contract - but not throughout the group - according to the email of 21 February 2012 (Annex B 23, 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 standard that, like these companies, it only wanted to license individual group companies. In addition, the defendant did not question the calculation of the licence amount as such until the end of the oral proceedings.

Finally, there is also no indication that further explanation of the calculation parameters or submission of the concluded license agreements themselves usually takes place as part of the contract offer. No such customary practice in the industry has been presented or is apparent.

cc)

Furthermore, the applicant's offer is fair, reasonable and non-discriminatory.

(aaa)

Fair and reasonable" contractual terms are those which are not offered to the licensee as an abuse of a dominant position. The contractual conditions must be reasonable and must not be exploitative (OLG Düsseldorf, Beschluss v. 17.11.2016, Az. 1-15 U 66/15, para. 15, quoted after juris). An offer by the licensor may, in particular, prove unfair/inadequate if a licence fee is charged which significantly exceeds the hypothetical price which would have arisen if competition had been effective on the dominant market, unless there is an economic justification for the price formation (LG Düsseldorf, Teilurt. v. 31.03.2016, Az.: 4a 0 73/14, marginal 225, cited after juris; LG Düsseldorf, judgment of 9.11.2018, Az. 4a 0 17/17). A strict mathematical derivation is not necessary, sufficient is - as far as possible - to demonstrate the acceptance of the required license rates on the market via license agreements that have already been concluded (LG Düsseldorf, Urt. v. 13.07.2017, ref. no. 4a 0 154/15, marginal no. 311 - cited according to juris). The presentation of contracts already concluded has priority. The FRAND moderation can be more easily and more reliably established by the result of various, already successful, actual licence agreements than by the presentation of the individual factors which can or should play a more or less important role in licence agreement negotiations to be determined in more detail (see LG Düsseldorf, Urt. v. 13.07.2017, ref. no. 4a 0 154/15, marginal no. 312 - cited according to juris). The general objection (cf. Kurtz/Straub, GRUR 2018, 136) that this is not a suitable indication because these contracts per se appear to involve the exploitation of market power does not catch on because, in addition to the submission of the contracts, it is also necessary to demonstrate acceptance on the market, which can result in particular from comparability between licensees and license seekers.

The contractual offer must also prove to be appropriate with regard to the other contractual conditions (intellectual property rights subject to licence, licence area, etc.).

The prohibition of discrimination establishes an obligation of equal treatment for the dominant undertaking by requiring it to grant the same prices and conditions to trading partners who are in the same position (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 173 -mobile communication system). The principle of equal treatment applies only to facts which are comparable. There is no legal obligation to ensure schematic equal treatment of all trading partners. On the contrary, even the dominant undertaking is not prevented from reacting differently to different market conditions. A difference of treatment is therefore permissible if it is objectively justified (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 173 - Mobile communication system). 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, other circumstances arise from which it results that the unequal treatment jeopardises the freedom of competition (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 174 - Mobile communication system). These may in particular consist in the fact that access to a subordinate product market is dependent on compliance with the patent doctrine or that the product - as here - is only competitive when the patent is used (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 173 - Mobile communication system).

The licence seeker is obliged to provide evidence and evidence for unequal treatment (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 177 - Mobile communication system). However, account must be taken of the fact that the licence seeker regularly has no detailed knowledge of the SEP holder's licensing practice, in particular of existing licence agreements with third parties and their regulatory content. This justifies the imposition of a secondary burden of disclosure on the SEP holder, who by its nature is aware of the contractual relationships with other licensees and who can reasonably be expected to provide more detailed information in this regard (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 177 - Mobile communication system). The information on the licensees must be complete in this context and may not be reduced to a few well-known companies in the industry (LG Düsseldorf, Urt. v. 9.11.2018, 4a O 17/17). The presentation must also contain information on which - concretely to be named - companies are associated with which

the importance of a licence on the relevant market and the specific conditions under which a licence was granted (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 177 - Mobile communication system). If unequal treatment has been determined, it is incumbent on the patent proprietor to explain and, if necessary, prove any circumstances justifying the unequal treatment (OLG Düsseldorf, Urt. v. 30.03.2017, GRUR 2017, 1219, Az.: 1-15 U 66/15, marginal 173 - Mobile communication system).

(bbb)

Measured by these standards, the offer submitted is to conclude the standard license agreement FRAND.

The applicant has substantiated that the standard licence offered was accepted on the market, which has already been concluded a thousand times, as shown by the submission of the licence agreements. This indication was not able to shake the defendant, who was burdened with the burden of proof in this respect. Her presentation does not reveal any inappropriateness of the licence conditions, nor does she give any factual reason why only she is eligible for other licence conditions, nor that she is comparable with licensees who have not concluded the standard licence agreement under the conditions shown in Annex K 10 Exhibit G either.

(i)

The Board cannot establish that the pool as such is composed contrary to antitrust law (under (1)), nor that the so-called "royalty cap" clause entails an unreasonable or discriminatory and therefore unreasonable licensing (under (2)), nor that the license amount is unreasonable due to a missing adjustment clause (under (3)).

(1)

Licensing by means of a pool license as such is unobjectionable under antitrust law. There is also no dispute between the parties in principle that a certain lump sum, which necessarily goes hand in hand with a pool licence, is not objectionable as such.

The pool license combines various advantages in itself, first of all a possible simplified use of the recorded standard, as the license seekers receive the license from a single source at uniform conditions (so-called "one-stop-shop" solution; see LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a 0 17/17 m.w.N.). The Commission Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements of 28 March 2014 (hereinafter referred to as the Guidelines) set out the positive and pro-competitive effects in principle, such as reduction of transaction costs, cumulation of royalties and central licensing (Guidelines, recital 245). This is accompanied by better enforcement of the SEP holder's licence due to easier control of contracts and easier prosecution of infringements. The Commission does not adopt a restrictive effect on competition until a pool consists exclusively or to a significant extent of substitutable technologies leading to collective tying and price-fixing between competitors (Guidelines, paragraphs 246 and 255). An exploitative offence will regularly be affirmed if, in a pool, industrial property rights not necessary for compliance with the standard are included in the licence agreement according to plan, so that the purpose of unjustifiably increasing the licence fees by including as many patents as possible becomes apparent (LG Düsseldorf, judgment of 9.11.2018, ref. no. 4a 0 17/17 m.w.N.).

The Board cannot establish that the latter is the case with the patent pool at issue.

First, the determination of a fair and appropriate license offer for a pool requires a substantiated factual presentation on the use of the patents from the pool (see OLG Düsseldorf, Beschluss vom 17.11.2016, Az. 1-15 U 66/15, para. 26). A corresponding submission can be made by submitting a so-called proud list with claim charts, provided this is customary in the industry (see OLG Düsseldorf, Beschluss vom 17.11.2016, Az. 1-15 U 66/15, para. 26). The defendant's objection that the plaintiff did not provide it with a proud-list with claim-charts on the basis of which the defendant or its sister company could examine the infringement and the standard obsession is not caught. It remains to be seen whether the cross-reference charts (Annex K 10 - Exhibit E), which can be viewed on the Internet, can already be regarded as claim-charts, since they contain the relevant AVC standard passages.

all pool patents (according to LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a O 17/17), or whether in any case this list was customary in the industry and it no longer required the submission of separate claim charts. In several respects, it appears to be far-fetched that the IP department of the defendant group should not have been able to examine the question of standard essentiality: On the one hand, the defendant group undisputedly has one of the largest patent departments in the PRC. On the other hand, it does not seem plausible that the defendant should not be familiar with the AVC technique on which the plaintiff's patent is based if that very technique is used in its products - as the underlying case shows. Finally, it cannot be explained that the defendant's parent company did not request claim charts for the first time until 2016, although negotiations had already started in 2011, and that apparently thousands of other licensees were in a position to examine the standard essentiality on the basis of the cross-reference charts. It is also striking that the question of over-declaration was not an issue at all in the pre-trial negotiations. Moreover, in an e-mail dated July 1, 2009, in the context of the negotiations on MPEG 2 and the exchange of ideas on the establishment of LTE pools by Mr. [REDACTED] (Annex B 8, 8a), there is even a general reference to the fact that the defendant's group played with the idea of adopting the certification procedure for essential patents established by [REDACTED].

On the basis of the ECJ's model of bona fide negotiating parties in undistorted competition, the Chamber is inclined to assume that parties who are actually interested in concluding a contract do not present their constructive concerns regarding mutual claims "slice by slice", but concentrate the substance of the negotiations. All the more so when it comes to fundamental questions such as the composition of the pool.

Nor does the defendant's further submission support the assertion that there are considerably more non-standard essential patents (so-called NEPs) than SEPs in the patent pool at issue.

In this respect, the defendant submitted an essentiality analysis of the IP consulting firm [REDACTED] together with the corresponding explanation as Annexes B 37, 37a, B 38, 38a. According to this, in addition to pool patents of the companies [REDACTED] [REDACTED] the pool patents of the plaintiff are not standard essential. This is the result of a random examination of a number of selected patents relating to their

standard essentiality. Of a total of 5,047 patents filed (2173 + 2873), 1,227 (439 + 788) were analysed in English. These include 221 patents held by the plaintiff. Of these 221 patents, 74 are SEPs, while 147 are NEPs. It is not possible to ascertain which pool patents (publication number) were examined and which deficits exactly exist with regard to the standard. The selection of patents - with the exception of language - is not comprehensible. 139 patent families of the four plaintiffs in the proceedings here and in the parallel proceedings have not been examined. Even if one were to take the view that the investigation is representative and undoubtedly represents a realistic distribution, in view of the applicant's submitted pool patents, the distribution could only affect the level of the licence offered, the acceptance and appropriateness of which, as such, was not disputed by the defendant until the end of the hearing. Even then, the question would remain open as to whether the freedom to use several thousand patents legally and to move freely within the AVC standard within the framework of the one-stop-shop solution justifies a certain amount of monetisation, even if there is a risk that NEPs are among these patents.

On the other hand, the applicant contested the figures put forward, pointing out that the patents contributed were first examined by independent experts as to their standard essentiality, as provided for in the guidelines under the safe-harbour scheme (recital 261(b)). Against this background, the regulations of the standardization organization (ISO/ITU/IEC rules) do not play a significant role.

With regard to the alleged cartel infringement, the defendant does not succeed anyway, because its figures do not show that there are considerably more NEPs in the patent pool than SEPs. Even according to their study, a total of 51% of SEPs are in the pool at issue. No other results can be derived from Annex B 50, 50a. Last but not least, the objection remains that the result is based on a sample and that not all pool patents were examined.

Nor is the Board able to identify any systematic approach to over-declaration in the creation of [REDACTED], the plaintiff in parallel proceedings No 4a O 17/17, whereby the economic value of its portfolio is partly due to

transferred divisional applications and branches are fully integrated into [REDACTED] portfolio. The same applies to the assertion of a [REDACTED] SEP outside the pool by [REDACTED] and other SEPs held by [REDACTED] outside the pool. The [REDACTED] investigation submitted in this respect (Annex B 54) meets the same serious concerns as the investigation in Annex B 37, 37a, B 38, 38a. The transactions described are as such "neutral" and, moreover, the defendant does not submit anything which justifies a systematic abuse, especially since the increase in the number of patents does not lead to an increase in the licence fee (see LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a O 17/17). In addition, the plaintiff stated in the oral proceedings that each pool member undertakes to contribute all SEPs when entering the patent pool. If the member holds SEPs outside the patent pool and thus claims a licensee of the patent pool, the licensee can also counter this (non-pool) SEP with the standard license at the patent pool. The standard license then has a third-party effect, so to speak, on the SEP held outside the patent pool. This circumstance also speaks against systematic abuse.

(2)

The clause in Art. 3.1 of the standard licence agreement is also appropriate and non-discriminatory with regard to the capping limits.

The defendant cannot rely on the fact that the royalty caps are inappropriate and discriminatory because multi-product suppliers are more likely to benefit from the cap, which was \$ 8,125,000 in 2016, due to their broader product range.

In general, there is no obligation to most-favoured-nation treatment. Even a dominant undertaking cannot be prevented from reacting differently to different market conditions. This means that contracts concluded with the opposite side of the market do not always have to lead to the same economic result (see LG Düsseldorf, Urt. v. 9.11.2018, Az. 4a O 17/17 m.w.N.). Discrimination is ruled out if there is already no difference in treatment.

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

The possible cross-subsidisation of companies which offer AVC products from various sectors of the electronics industry and thus reach the capping limit faster than a single-product manufacturer due to a diversified product range is neither a consequence of unequal treatment nor can the clause therefore be qualified as inappropriate.

The capping limit initially provides an economic incentive to sell large quantities in order to become royalty-free when turnover is high. However, natural competition is being promoted in this way. At the same time, promoting competition results in good enforcement of the standard. It is natural market and competitive conditions for companies to be rewarded with certain market shares and a certain market presence. Thus the mechanism of discounting - nothing else happens when the cap limit is reached - is a common means in the economy for large quantities.

There is also no difference in treatment between single-product producers and multi-product producers. Any unequal treatment presupposes that the two groups of producers are comparable at all. This is not the case in the present case because the licensing of the AVC product covers several downstream product markets where the products are not substitutable with each other (televisions and mobile phones). In this respect, the plaintiff offers all manufacturers the same capping limits; there is no obligation to differentiate. In so far as the defendant uses multi-product manufacturers as an example of a disproportionate advantage, it also ignores the fact that multi-product manufacturers also leave the area of licence-free production of the first 100,000 units more quickly. The fact that the standard licence agreement covers the encoding and decoding of AVC videos and thus various downstream markets (mobile terminals, televisions, etc.) in which this technology is used does not constitute unlawful bundling. The technology of the video format is licensed, regardless of the facility/device on which it is used. Even the coupling is not obvious, because the use of the AVC format is currently being made uniformly available for paid use. The AVC format technique covered by the patent pool is not substitutable as such. As seen above, substitutability is not achieved by the fact that the format is used in different receivers or transmitters.

In addition, the cap also applies to one-product manufacturers whose sales activities are limited to mobile terminals. The achievement of high sales figures is not only due to the choice of products, but also to the individual business conduct of the respective competitor. Good marketing and brand management, a well-developed infrastructure and reliable distribution networks all play a role. The economic success of a product is based on numerous reasons.

All these factors lead to the fact that the clause at issue in the dispute ultimately does not constitute an abuse under cartel law and that the consequence of a cross-subsidisation which may occur in a company successful in the market is to be accepted.

(3)

The level of licence offered in the standard licence agreement does not prove to be inappropriate either because there is no provision for an adjustment clause.

In principle, an adjustment clause is required in order to allow a price adjustment if there are noticeable changes in the property right portfolio (cf. OLG Düsseldorf, Beschluss v. 17.11.2016, Az.: I-15 U 66/15, para. 32 - quoted after juris). However, it is also possible to compensate an inappropriate amount of the licence fees invested in the variability of the property right portfolio by other mechanisms (cf. LG Düsseldorf, judgment of 9.11.2018, ref. no. 4a O 17/17).

The standard license agreement sets the price regardless of the increase or decrease in the number of licensed AVC patent portfolio patents (cf. Art. 4.9 of the standard license agreement). In fact, despite the growing pool portfolio (currently more than 5,000 patents), license fees have not changed to the disadvantage of licensees to date, only the upper cap limit has been raised at irregular annual intervals. If the defendant states that the non-essentiality rate has changed, this is on the one hand not substantiated enough (see above) and on the other hand the change has not yet reached a level that makes the license appear inappropriate. With regard to the economic value of the AVC standard, it is not evident that its importance would have decreased to such an extent that a

license reduction is displayed. For example, the defendant does not claim that the AVC technology at issue in this case has been completely replaced by the successor standard.

Apart from this, the standard license agreement provides for further adjustment options for such changing circumstances. Thus, Art. 6.4 provides for an ordinary right of termination within a period of 30 days and otherwise Art. 6.1 provides for a term of 5 years, whereby the (automatic) extension by [REDACTED] can be made subject to the condition that appropriate contractual changes can be made. Changes may reflect prevailing market conditions, changes in the technology environment and available commercial products. It is not apparent that [REDACTED] will not terminate the agreement if the licensees object to the unilateral amendments to the agreement made by [REDACTED]. There is also nothing to the contrary in the extension notifications submitted in the K 38 plant package for Annex K 34, which were sent to all licensees in a standardised form and contained changes to the contract.

In this respect, it is guaranteed that the standard license agreement reflects the intellectual property rights situation in a contemporary and realistic manner. Finally, the thousandfold conclusion of the contract is also an indication that the existing compensation is to be regarded as customary in the industry.

(ii)

Nor can the Board find that the offer to the defendant is otherwise unreasonable or discriminatory.

The FRAND moderation is indicated by the standard licence agreements concluded in the mobile telephone sector (see (1) below). In its dispute with the submitted contracts, the defendant has also failed to identify any other circumstances that would conflict with the indicative effect of the license agreements already concluded (see (2) below). A worldwide licence including the PRC is neither an antitrust violation from the point of view of selective enforcement of intellectual property rights (see (3)), nor is the level of licence fees including the PRC (see (4)) and all standard profiles (see (5)) unreasonably high.

(1)

The fact that half of the mobile telephony market is not licensed by [REDACTED] and that the vast majority of licensees are pool members at the same time does not raise doubts as to market acceptance in the mobile telephony segment.

The defendants have submitted in Annex B 90, 90a figures based on information from the International Data Corporation (IDC) showing that 56% of the relevant mobile phone market is unlicensed in terms of units in the period from 2017 up to and including Q2 2018. Of the 44% of the licensed market, 42% is accounted for by pool members. If, at the hearing, the plaintiff denied with ignorance that the figures had been collected by IDC, it is not clear what conclusion it intends to draw from this. She stated that, as is normally the case, the data creator is not derived from Annex B 90, 90a, but that the figures are prepared.

At the hearing, the applicant provided actual figures, which it had prepared itself, on the basis of the Excel spreadsheet ([REDACTED] Data) and the column chart (AVC Handset Sales Worldwide), which were based on the market knowledge of the [REDACTED] and data from the Gartner database - as the applicant's representative confirmed at the Court's request - without the sources being visible on the spreadsheet/diagram. In this respect, the Board does not see that the denial of origin implies a denial of the content.

The figures of both parties are only representative to a limited extent because they take into account the worldwide number of mobile phone sales. It obviously also includes sales outlets which are neither usual manufacturers nor traders, such as the French department store chain Auchan (Annex B 90, p. 2; Exceltable Klägerin, p. 3) or the German DIY chain Obi (Annex B 90, p. 5; Exceltable Klägerin, p. 3).

However, the plaintiff also comes close to the same figures with regard to licensing in the mobile communications sector, namely 42.69% of licensed mobile phones, 41.55% of which are licensed devices of pool members (Licensor) (see excel sheet plaintiff, last page below).

The fact that between 42% and 44% of the mobile phones sold are licensed by [REDACTED] leads to the conclusion that the standard license has found wide acceptance in the mobile market. This figure represents almost half of the market share. Furthermore, the applicant has shown, on the basis of the column chart submitted at the hearing, that the

licensing rate was still over 70% in 2011 (blue column far left) and has steadily decreased since 2013. This development since 2013 goes hand in hand with the growing market share of Chinese companies (blue bar on the far right), which includes the defendant's group as well as [REDACTED], all of which have not yet taken a standard license. In addition, unlicensed mobile phones also include those whose providers do not exceed the license-free number limit of 100,000 mobile phones.

The fact that only 2% of the telephones come from licensees who are not also pool members does not prevent the general acceptance of the contract terms. The defendant's objection that the pool members would compensate additional expenses due to the license payments at the same time as increasing license revenues was refuted by the plaintiff in the oral hearing. In this respect, it has argued that the royalties generated are paid pro rata depending on the patents contributed. An example of a pure net payer holding only nine patents in the pool (see Annex 10 - Exhibit C) is the [REDACTED] Group, which produces and sells the second highest number of AVC-enabled mobile devices in the world. There is no correlation between pool patents and significance on the market, but rather a complete separation of pool data from market data, with the result that pool members are treated like any other licensee. In this respect, it is not clear why the licenses concluded should not be a valid indicator of market acceptance. Nor has the defendant substantiated anything against this except that the pool members have a general interest in the functioning of the pool system. On the one hand, every licensee who wants to benefit from the One-Stop-Shop-System pursues such an interest. On the other hand, it shows that even market-leading companies such as Samsung and [REDACTED] have agreed to the license terms, whereby [REDACTED] undoubtedly draws no profit from its pool membership. Both companies have significant market power and are able to enforce reasonable conditions in licensing negotiations. The fact that they have also concluded these licences indicates that the conditions are FRAND-compliant. If the defendant states that it does not know the membership contracts of the pool members, there is no reason to submit them, since even the objective circumstances - to the extent known - do not even suggest any facts which support the defendant's fear that

several major players have joined forces to impose certain licensing conditions on the market.

(2)

The defendant was unable to identify any differences in the licence agreements already concluded which were relevant to the dispute in this case and which could lead the Board to doubt the fundamental FRAND compliance.

(α)

If the defendant complains about the contract with ZDF (Annex B 65 to Annex K 33, Annex K 37 to Annex K 34), it is to be granted the right to use the AVC/H.264 technology for HDTV programme distribution via satellite and cable with the aid of a professional AVC/H.264 transmission encoder, as shown in Annex K 37 to Annex K 34. There we call a unit price of € 1.903,53 and a total price (net) of € 3.807,06. In this respect, it is a standard license agreement, the license amount of which has obviously been changed. However, this does not remove the indication effect of the contracts relating to the mobile telephony segment, as ZDF appears to be a broadcaster and provider of telemedia services. ZDF is therefore not a licensee comparable to the defendant, so that the contract does not provide any indication of unequal treatment that would remove the indicative effect.

Thus, the defendant itself correctly states that other licensees have also concluded non-comparable license agreements, such as suppliers of security products ([REDACTED]) or digital and video cameras ([REDACTED]). However, this does not undermine the indicative effect with regard to licensees offering mobile handsets, as they are not comparable. The Board is unable to establish that the non comparable contracts, as claimed by the defendant, are the vast majority of the pool licence agreements already concluded.

(β)

At the latest since the oral hearing it is indisputable between the parties that the companies [REDACTED] are not licensees and therefore no contracts can be submitted.

(Y)

The plaintiff eliminated the incompleteness of the documents complained of by the defendant. The license agreements of [REDACTED] and [REDACTED] [REDACTED] are now fully available as Annex K34 and Annex K 35 to Annex K 34. The contracts of [REDACTED] [REDACTED] [REDACTED] [REDACTED] of which initially only the cover sheet and signature page were available, have now also been filed in their entirety as investment volume K 36 for Annex K 34. The plaintiff understandably justified the incompleteness with scan errors. The defendant no longer contested that decision.

(δ)

The defendant's inference from the quantitative differences in the number of pages to significant substantive changes is not mandatory. This is all the more true as the plaintiff has explained the different number of pages, inter alia with changes in the preamble and the legal definition 1.3.1, which result from the changed number of pool patents and the listed patent holders. This was accompanied by an amendment to Annex 1 of the standard license agreement. With a change in the definition of the standard, the scope of the contract text also increased at this point.

(ε)

The fact that the contracts submitted, with the exception of the contract with [REDACTED], are not accompanied by Annex 1 does not give rise to the presumption that there are individual agreements to the contrary for all other contracts. The denial with ignorance that the other licence agreements submitted concern the same portfolio is therefore meaningless.

Contrary to the defendant's view, Annex 1 does not serve as a binding determination of the specific contractual protective rights regulated in Section 2.1. Annex 1 is ultimately the result of the definition in Section 1.8, which provides for a dynamic adjustment (addition, reduction) of the AVC patent portfolio. It follows from Section 8.2.1 that, notwithstanding any agreements to the contrary in the Standard License Agreement, changes to Appendix 1 of the Agreement shall not take effect until a new Appendix 1 has been published on the License Manager's website, of which notice shall be given. In this respect, Annex 1 will be updated and the current status of the contractual protective rights, insofar as they are published on the [REDACTED] website, will form the uniform subject matter of the contract for all standard license agreements. Against this background, no direct conclusions can be drawn from any differences in Annex 1, which was initially made available to the licensee in paper form, as to a modified subject-matter.

(ç)

Finally, there are no indications of a contract design deviating to a large extent from the standard license, because the overview in Annex K14 shows different contract numbers with different US dollar amounts in the third column "Associated Contracts". According to the first column, this table refers to the patent pool "MPEG 2" and thus neither to the patent pool at issue nor to the standard at issue here.

(3)

The worldwide extension of the standard license agreement to include the Chinese market does not constitute discrimination contrary to antitrust law from the point of view of selective law enforcement.

A selective law enforcement exists if a patent owner in a dominant position selectively takes (judicial) measures against individual infringers, while he allows other infringers to do so if he cannot justify the selection (see OLG Düsseldorf, Beschluss v. 17.11.2016, 1-15 U 66/15). This is discrimination where certain competitors are allowed to use the product free of charge without any objective reason and others are not.

First of all, in the absence of any substantial dispute on the part of the defendant, the applicant's submission is admitted that a large part of the suppliers operating on the Chinese market, in particular [REDACTED], have also taken licences for the PRC. In so far as the defendant has failed to notify the undertakings [REDACTED] without a license for the PRC, are licensees for the non-disputed standard MPEG 2 (cf. Annex B 7, B 7a). The fact is therefore of no relevance to the present case.

The applicant has further argued that [REDACTED] is seeking to license the previously unlicensed large Chinese companies as well. In particular, it argued at the hearing that all four major Chinese competitors [REDACTED] had refused licences on the same grounds, namely that their respective competitors were also royalty-free on the Chinese market. One week before the oral hearing here on 6 November 2018, the plaintiff/[REDACTED] had still met with representatives of [REDACTED]. They had stated that they wished to await the outcome of the proceedings in Düsseldorf and that only then, if necessary, would they be prepared to conclude the standard licence.

The defendant no longer opposed this submission. Only the plaintiff's assertion, also expressed in this context, that [REDACTED] had contacted all AVC-liable companies that had not yet concluded a license with serial e-mails, including the defendant's Chinese competitors [REDACTED], was denied by the defendant with ignorance. It remains to be seen whether the negotiations began in this way. Even if the denial with ignorance was generally directed at the parallel negotiations with the competitors and their reactions, the defendant does not penetrate with it. On the one hand, the Board of Appeal has come to the conclusion, on the basis of the standard for denying with ignorance already explained, that the plaintiff or [REDACTED] was and is in negotiations with other Chinese companies. Thus, it is already apparent from the defendant's minutes of the meeting of 20 July 2016 (Annex B 26) that [REDACTED] informed the parent company that it also had discussions with [REDACTED] ("(6) [...] [REDACTED] said that it was talking with

██████████ about this issue."). It is not apparent from the minutes that the parent company questioned this information. On the other hand, the Chamber is aware from the parallel proceedings of the plaintiff against the defendant ██████████ ██████████ (Case No. 4b 0 5/17) that the conclusion of the standard license agreement by its parent company was also rejected there until the pending legal dispute. These circumstances, however, confirm the submission that the plaintiff is also endeavouring to persuade the other Chinese companies not yet licensed to conclude a license.

The fact that the plaintiff, in addition to ██████████ - in this respect representing the ██████ Group - did not take legal action against any of the other unlicensed companies named in more detail does not lead to any other assessment. The plaintiff is entitled to a differentiated assertion due to the associated cost risk (see LG Düsseldorf, Urteil vom 9.11.2018, Az. 4b 0 17/17). In this respect, the applicant plausibly justified its selection by stating that it first wished to assert its rights against the largest market player - the defendant - with the largest number of units. Apart from the fact that this is the biggest damage, the applicant expects to have a deterrent effect on the other companies. This appears against the background that the largest Chinese producers refuse not only a licence for the PRC, but also worldwide, with reference to the other licence-free companies, not to act as an antitrust violation but as an appropriate means to break through such behaviour, which rather gives the impression of delaying tactics in order to be able to close serious negotiations.

(4)

The worldwide royalty does not appear to be unreasonably high taking into account the Chinese market, nor does it discriminate against the defendant vis-à-vis other licensees.

The defendant has not shown in its dispute with the submitted license agreements that there are other licensees who, according to its allegation, pay lower royalties for sales in PRC. In so far as it refers to alleged discriminatory conduct by ██████████ because licences had been concluded without any involvement of the parent companies, a

the Commission did not sufficiently demonstrate such conduct by [REDACTED] in relation to the AVC standard at issue. The licensing practice with regard to the company [REDACTED] was substantiated by the plaintiff to the extent that separate licenses are only granted to group companies if the acts of patent use can be restricted to this specific group company. On the other hand, the defendant has not shown that its group is in a comparable situation. Rather, the defendant's group undisputedly acts worldwide, as can undoubtedly be seen from the overview of sales units in Annex B 49, 49a.

The plaintiff has already shown by the numerous license agreements already concluded that it is customary in the industry to conclude group-wide licenses.

The Chamber cannot determine that the defendant will no longer retain a profit in the licensing of the standard license agreement in view of the staggering of \$0.20 per unit (sales of 100,001 to 5,000,000 units per year) or \$0.10 per unit (sales of more than 5,000,000 units per year).

If the defendant takes a turnover-based approach and argues across the board that the share of the total value of the AVC technology or the price per unit sold attributable to terminal equipment sales in the PRC in the portfolio of the pool is many times higher than in other countries, this objection is not easily caught. The applicant has submitted concrete sales prices of the defendant's group in the PRC, USA and Europe which do not reflect the difference alleged by the defendant. According to this, prices are very similar in all three segments:

Premium: VRC \$ 384, USA \$ 336, Europe \$ 320

Basic: VRC \$ 151, USA \$ 166, Europe \$ 141

Utility: VRC \$ 53, USA \$ 53, Europe \$ 52

The defendant did not contest the award of the prize. The defendant merely states that its group sold some 85 million units in Asia in 2016, of which approximately 77 million were sold in the PRC and approximately 140 million worldwide (Annex B 49, 49a). This proves the lower price within the PRC for the majority of sales outside the PRC. Apart from the fact that the defendant's group does not contest the actual mobile telephone prices, those figures are in turn offset by other sales figures of the applicant. According to this, the worldwide sales of the defendant's group in 2016 will amount to approximately 122 million units,

with sales in the PRC already excluded. Finally, both figures do not indicate whether they refer exclusively to mobile phones or to AVC-enabled products as a whole (e.g. including tablets). This factual presentation does not result in a disadvantage due to the Chinese price development, which is to the detriment of the defendants.

There are no other apparent circumstances which would lead to the conclusion that the share of fees for distribution activities in the PRC is unreasonably high and that no commercially reasonable licensee could be expected to pay this.

The defendant itself does not claim that there is an unreasonable excessive total license burden. If the defendant fears such a case, it does not set out concrete reasons for it, nor can such reasons be inferred from the circumstances already discussed.

The general reference to the English [REDACTED] judgment and the appropriateness of a 50% discount for sales in the PRC also do not explain why only a correspondingly reduced license should be FRAND, in contrast to the license scale at issue. The findings which the English court is alleged to have obtained after a comprehensive clarification of the facts - as the defendant points out - are not communicated. In this respect, there are also doubts as to the extent to which results which concern a completely different case with a different standard and different negotiation modalities and which were obtained according to a completely different code of procedure can be easily transferred to this case in another jurisdiction. The defendant cannot close its mind to the latter argument either, since in other contexts it denies with ignorance the scope of the examination and evidence that prevails in the US proceedings.

The fact that Chinese patents are less enforceable has been denied on the one hand with ignorance and on the other hand with the concrete patent pool probably no argument for a license reduction because the defendant in another context just cites that only 5% Chinese patents within the scope of the patent pool are in force. Apart from that, the possibility of patent enforcement is also not primarily important, because a patent must in principle be observed if it exists (see LG Düsseldorf, judgment of 9.11.2018, ref. no. 4a O 17/17).

The defendant's objection that the standard licence agreement does not differentiate between the different profiles and characteristics of the AVC standard and is therefore not FRAND is unfounded. In this respect, the defendant considers that the AVC standard standardises various profiles and characteristics which do not fully support all terminal equipment and also not the challenged design of the defendant. The AVC standard virtually establishes substandards, all of which are bundled in a pool licence. Since the standard license agreement does not differentiate between different profiles in terms of the license amount, companies with devices that make use of all profiles benefit from this compared to providers of mobile devices. The chamber cannot follow this.

The uniform licensing under the Standard License Agreement of intellectual property rights under the AVC Standard, without differentiation between individual profiles and their characteristics, constitutes a permissible lump sum which, in the event of a dispute, does not result in the license being unreasonable or in the defendant being discriminated against in relation to other licensees.

From the printout of the Wikipedia entry on H.264/MPEG-4 AVC submitted as Annex B 33 / B 33a, it follows that a profile in the sense of the AVC standard comprises a set of capabilities addressing specific classes of applications. In particular, profiles for non-scalable 2D video applications include the Baseline, Extended, Main and High profiles, while other profiles such as Constrained Baseline, Progressive High or Constrained High correspond to the aforementioned profiles with certain restrictions. The aforementioned profiles describe the typical capabilities of mainstream consumer products (see page 12 of Annex B 33 / B 33a for the High 10 profile). The fact that the standard license agreement does not differentiate between these profiles is irrelevant. First, the tests presented as Appendix K 8 demonstrate that the attacked executable is capable of decoding files that use the Baseline, Main, and High profiles. As a result, the defendant is no worse off than other providers of mobile terminals, as it uses all the usual profiles for mobile terminals. If the Extended profile is not listed, it can be left open whether it cannot be used anyway due to its suitability for the Main and High profiles. In any event, uniform licensing is a permissible flat-rate system of licensing conditions and rates, because a differentiation with regard to each individual profile with a

would require unreasonable effort. This applies even more to individual characteristics of the profiles. For each device type, the profiles and features it supports would have to be tracked. Software updates that were accompanied by a change in profile compatibility would not be comprehensible for a licensor anyway. In the absence of a submission to the contrary by the defendant, it cannot be assumed that this effort would be justified by clear differences in the level of the licence if a distinction were actually made between individual profiles. Therefore, to the extent that licensees have different types of mobile devices in their product portfolio, of which the simpler devices only operate profiles such as Baseline or Main, while higher-value devices also provide the High profile, the standardisation provided by the standard licence agreement is acceptable, especially as it offers the possibility of using profiles such as Main and High in the lower segment with the development of new mobile devices with even higher performance, without having to conclude a new licence agreement.

Ultimately, the standard license agreement offers a uniform license for the common use of the AVC standard in the market: While the use of the Baseline profile was initially limited due to the limited computing power of the devices, devices with higher computing power made it possible to use other profiles (cf. Annex B 34 / B 34a). However, it cannot be presumed that progress in technology necessarily leads to higher licence rates, even if the different technological possibilities are defined in a standard.

Another result is not achieved by looking at the other profiles offered by the AVC standard and covered by the standard license agreement. The other profiles such as High 10 and, building on this, High 4:2:2 and High 4:4:4 exceed the requirements for mainstream consumer products; the latter two profiles are also aimed at professional applications (see p. 12 f of Annex B 33 / B 33a for the High 10 and High 4:2:2 profile). Whether and to what extent devices using profiles beyond High are used in the relevant product market does not need to be decided. Even if this were the case, it is not argued that these profiles are made available on mobile terminals to such an extent that a uniform licence for all profiles would prove to be inappropriate and discriminatory vis-à-vis providers of

devices that do not include all profiles. Precisely because the profiles beyond High-10 are aimed at professional users, it can be assumed that they will at best be used to such a small extent in the relevant market that differentiation in this respect proves to be inappropriate for the reasons mentioned above.

The same applies to the profiles High 10 Intra, High 4:2:2 Intra, High 4:4:4 Intra and CAVLC 4:4:4 Intra. These profiles are intended for camcorders, cameras and video editing systems and similar professional applications (see p. 13 of Annex B 33 / 33a) and therefore do not concern the relevant market for mobile terminals. In this respect, there can be no talk of discrimination against suppliers of other products such as cameras, televisions or the like. The fact that the license turns out to be inappropriate or even exploitative when viewed exclusively in terms of the providers of mobile terminals is neither claimed nor apparent. The same applies to the profiles with the Multiview Video Coding extension such as Stereo High and Multiview High. Although they are typically not used in mobile devices, they are such special extensions that, for example, stereoscopic dual 3D video can be used, that their licensing together with the basic profiles does not carry any weight and a flat rate is justified. The same applies to Scalable Video Coding enhancements that simply add a scalability tool to existing profiles.

The reference to the successor standard HEVC is also irrelevant in this context, as it is a different technology. The fact that licensing there is divided into profile groups can have a variety of reasons and may be necessary taking into account all other circumstances to be included in this licensing (cf. LG Düsseldorf, judgment of 9.11.2018, ref. no. 4a O 17/17). However, no reliable conclusions can be drawn from this on the case of the AVC standard which is to be decisive here.

(iii)

The defendant's further objections also do not substantiate any inadequacy of the licence fee or lead to discrimination against the defendant.

(1)

The inappropriateness of the license fee does not result from the fact that only 5% of the pool patents in the patent pool are in force in the PRC.

This is not a situation in which a fee is also charged for an act subject to licensing in a country in which only one SEP is in force and used (see OLG Düsseldorf, Beschluss v. 17.11.2016, Az. I-15 U 66/15).

A certain proportion of the pool patents (5% of all patents) are in force in the PRC. The special situation addressed in the case law of the Düsseldorf Higher Regional Court does not exist at the moment. In this case, the opposite view of the Düsseldorf Regional Court should rather be used, namely that the number of property rights in force in a country must not be overestimated, because on the other hand even one patent is sufficient to keep an interested party away from the standard defined market. Whether additional property rights must also be licensed for the local market in order to be able to market the standardised technology in the relevant sales territory can only play a subordinate role in the interest of the licence seeker in gaining legal market access (see LG Düsseldorf, judgment of 11.09.2008, file no. 4b 0 78/07 - Videosignal-Codierung III, marginal no. 102 - cited after juris). This flat rate is a bit of an acceptance for the advantage of being able to use the standard essential technology worldwide. In addition, the PRC is the fourth strongest nation in terms of the share of pool patents (see Annex B 29).

(2)

The fact that pool members refuse to conclude individual licences and offer to conclude standard licences - as the applicant also does - does not constitute market abuse.

The advantages of the pool license, which the licensee receives with a one-stop-shop solution and which also serve to enforce the AVC standard and are also highlighted and welcomed by the European Commission, have already been outlined above. The licensees of the pool are also not placed at a disadvantage in relation to those licensees who conclude individual licenses with the respective pool members because the pool members internally agree to this

are also obliged to license all SEPs held outside the patent pool to the pool licensees (see above). In this respect, the plaintiff has the right, to which it is entitled within the scope of its contractual freedom, to offer the standard license agreement for ██████████ which it favours.

The fact that the defendant's group's business strategy is to conclude cross-licenses - as the defendant explained at the hearing - is not a circumstance which forces the plaintiff to offer an individual license. The most-favoured-nation principle does not apply at the moment.

The fact that there are isolated companies that are neither pool members nor licensees of the patent pool and that may nevertheless hold AVC-standard essential patents, such as ██████████, does not argue against the FRAND character of the standard license agreement either.

(3)

It is not clear to what extent the agreement between the defendant's group companies and NTT ██████████ is intended to militate against the FRAND character of the plaintiff's bid.

The fact that the pool members are free to license their SEPs outside the pool is already clear from the preamble to the standard licence agreement ([...] Nothing in this agreement prohibits individual licensors from licensing or sub-licensing the rights under individual AVC essential patents [...], including inter alia the rights granted under the AVC patent portfolio licence. [...]). The standard licence agreement provides for this because otherwise it would not comply with the guidelines, which explicitly state for the safe-harbour sector that licences for combined technologies may not be granted exclusively to the pool (see recital 261 of the guidelines). If the pool administration practice did not open up this possibility, it would be contrary to antitrust law for this reason alone.

The fact that NTT ██████████ individually licenses its own patent portfolio in addition to the standard license agreement is not objectionable as such and does not constitute a license agreement with substantially different terms. The examination of the facts of discrimination would at most be opened if these were the licensing of AVC-standard essential patents (which would be held within or outside the patent pool). This is

but not the case right now. This is about licensing 3GPP/3GPP2 essential patents.

With regard to the option right/pick-right (Art. 5.2, Annex B 48) of the defendant's group companies, which apparently also includes the defendant as an "associated company", this is a special constellation that only applies if an AVC standard essential patent is required for the use of the 3GPP-licensed products (Art. 5.2.1, Annex B 48) and NTT ██████ asserts the infringement of this SEP against the defendant's group companies. This does not constitute a comprehensive granting of rights to the AVC standard essential patents. In addition, the defendant has not argued that NTT ██████ has so far asserted infringement of a non-licensed AVC standard essential patent against the defendant's group companies. In this respect, it is no longer important that ██████ had also promised that when the standard license agreement was concluded, license fees already paid to NTT ██████ on the occasion of the pick-right could be credited.

(4)

Any installment payment and crediting agreements do not constitute an infringement of the However, these do not in principle affect the amount of the fees to be paid under the standard contract (see LG Düsseldorf, judgment of 9.11.2018, Az. 4a O 17/17). With regard to possible imputation agreements - the need for which has not been substantiated in the concrete case and, at most, has not been presented with regard to the contract with NTT ██████ apparently covering the defendant as well, whereby there is no presentation with regard to the prerequisites (cf. above) - unequal treatment is ruled out because it merely concerns compensation for any services already rendered by the licensee and there is an objective justification in this respect (see LG Düsseldorf, judgment of 9 November 2018, Case No. 4a O 17/17).

e)

In the event of a FRAND offer by the applicant, the defendant is entitled, on its part, to submit a counter-offer, which it may use against the FRAND offer.

principles, have not been used. Neither the first counteroffer of 3 July 2017 (see aa) submitted with the statement of defence nor the second counteroffer of 29 October 2018 (see bb)) were FRAND.

aa)

Whether the first counter-offer is FRAND can in principle be left open as it has been replaced by the second counter-offer. Only the latter are the current license conditions, which the defendant put up for discussion until the end of the oral proceedings and to which she felt bound.

Even if one wanted to see it differently, the first counteroffer contradicts the FRAND principles.

The offer contained an unfair distinction of licence rates in relation to regional use. The offer distinguished the following 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 cent/0.27 US cents)

The regional distinction as such appears questionable even before the fact that the defendants' pricing of their mobile phones shows virtually no differences between continents. In all three countries, prices for mobile phones are similar in the premium segment (between \$380 and \$320), basic segment (between \$141 and \$166) and utility segment (\$52, \$53). These prices have not been substantially contested by the defendant, as already explained.

In any case, however, it is not conclusively demonstrated why the rest of the world should belong to the low-price mobile communications market in addition to the PRC. The definition of 'PRC and others' is shown in paragraph 1 to cover China and all other continents with the exception of Europe and the USA. This is doubtful to the extent that the defendant itself describes Japan as a high-priced market. Since the defendant uses precisely the allegedly different market conditions as a criterion for differentiation, it cannot arbitrarily neglect that differentiation by imposing a

high price market combined with a low price market (cf. LG Düsseldorf, Urt. v. 9.11.2018, Az. 4b O 17/17). There is no factual justification as to why uses in Japan, which is otherwise also listed separately from Asia by the defendant in its sales overviews, should now be remunerated in the same way as those in the PRC.

bb)

But even the second counterbid does not comply with FRAND principles.

In view of the dispute between the parties on this point, it should be noted that the mere fact that an offer for a worldwide licence is directed exclusively at the entire plaintiff AVC-essential portfolio (including pool patents and SEPs held outside the pool) cannot in itself be qualified as abusive.

Both parties have an option to offer both an individual license and a pool license. This possibility is rightly provided for in the standard license agreement, as otherwise the pool management practice of ██████████ would itself be contrary to antitrust law (see above). In this respect, nothing else follows from the decision Video Signal Coding III (LG Düsseldorf, Urt. v. 11.09.2008, 4b O 78/07): With regard to the predecessor standard and the predecessor standard license agreement, which also provided for the option of a pool license or individual license on the plaintiff's patent, the Chamber ruled that the defendant was not entitled to a third option in the form of a pool license only for Germany (pool license only for Germany). In contrast, however, the defendant here simply made use of one of the two possible options.

The pure exercise of the option to license only the plaintiff's portfolio is in itself neutral under antitrust law.

However, the passage in the preamble does not entitle the defendant to the conclusion of such an individual license. The applicant exercised its option in favour of the pool licence. Their contractual freedom would be restricted by antitrust law only if circumstances existed which objectively justified treating the defendant differently from the other licensees and forced the applicant to conclude an individual license in this respect.

However, this is not the case here, so that the defendant should have agreed to a pool license. It would be incompatible with the freedom of contract if the defendant could

insist without objective reason on its claim and force the applicant, contrary to the licensing model of a pool licence practised by it, into an individual licence agreement. The applicant has granted a pool licence in a large number of cases. The defendant, which is already faced with an offer from the applicant in accordance with FRAND, has not explained why an individual licence agreement with the applicant alone is justified for it. It should be noted here that the SEPs held by the plaintiff outside the pool are also co-licensed with the standard license agreement on the basis of the internal agreement of the pool members. In this respect, the choice of the standard license agreement does not put it in a worse position. The defendant's expressed interest in maintaining its accustomed licensing model in the form of cross-licensing is not in itself a compelling reason why the acceptance of a pool license for the defendant is excluded. This is particularly not the case because it does not hold any AVC-SEPs itself and could therefore only cross-license with intellectual property rights from other technologies. From an objective point of view, the defendant prefers a contractual agreement which, according to objective criteria, places it in a worse position: It must conduct individual license agreement negotiations with all pool members, they face higher overall license payments and transaction costs, and as a result it does not receive more rights licensed than it would de facto receive under the standard license agreement.

Even if one wanted to see it differently, there is another fundamental and decisive point which contradicts the FRAND character of the counter-offer.

As already mentioned at the beginning, the purpose of the negotiation process outlined above according to the ECJ case law is to strive for a negotiation situation which corresponds most closely to that in free competition. There, honest parties face each other, who conduct serious and balanced negotiations and are interested in a license on both sides. The European Court of Justice postulates with regard to the counter-offer (cf. judgment v. 16.07.2015, Az. C-170/13 ([REDACTED]), GRUR 2015, 764, Rn 65, 66): The alleged infringer, on the other hand, is responsible for responding to this offer with care, in accordance with accepted business practices in the field and in good faith, which must be determined on the basis of objective considerations and implies, inter alia, that no delaying tactics will be pursued.

The Board takes the view that, in the circumstances of this particular case, it is no longer a matter of a diligent offer made in good faith. To this end, the overall conduct of the defendant and its group must be taken into account. Since the beginning of the negotiations, the defendant's major affiliates have refused to license on the grounds that they did not wish to pay licenses for PRC or for certain affiliates. In the context of the negotiations with [REDACTED], they also did not consider the possibility of entering into individual negotiations with the plaintiff concerning its AVC portfolio, in any event that is not stated. The persons present on behalf of the defendant's group companies rather assured themselves in the conversation in July 2016 that at least [REDACTED] was not entitled to sue, but only the individual patent holders. As a result, the Group waited five years for the action against the defendant in order to make two offers from the relevant Group companies only in the course of the lawsuit, which are now directed only at the plaintiff's AVC standard essential patents. The same conduct is demonstrated by the defendant's group companies in parallel proceedings 4b 0 15/17 against another plaintiff.

No party that seriously wants to obtain a FRAND license behaves in this way. A party which responds at all only under the pressure of the lawsuit with a counter-offer five years after the plaintiff's offer acts like a party which in principle is not interested in a licence or wishes to delay it as long as possible.

However, the defendant has thus removed itself from the basic prerequisites of the negotiation situation intended by the ECJ. This is not the much-quoted negotiation ping-pong, but the defendant lacked any reciprocity until the action was brought. Against this background, the defendant's offers are no longer within the negotiating corridor that corresponds to that of free competition.

f)

In view of the fact that the objection has already failed because of the counter-offer, it is no longer important whether sufficient security has been provided.

V.

Since the challenged form of execution thus constitutes a product which is the subject of claim 4 of the plaintiff's patent without the defendant being entitled to use the plaintiff's patent (Sec. 9 sentence 2 no. 1 Patent Law) and the defendant indirectly infringes claim 1 of the plaintiff's patent with the challenged form of execution (Sec. 10 (1) Patent Law), the following legal consequences are justified.

1.

Pursuant to Article 64(1) and (3) EPC in conjunction with Sec. 139(1) Patent Law, the defendant is obliged to refrain from offering, supplying, placing on the market or using infringing smartphones in the Federal Republic of Germany or either importing or owning them for the aforementioned purposes.

It is undisputed between the parties that the defendant marketed the challenged embodiment in the territory of the Federal Republic of Germany. The risk that further infringements will be repeated in the future, which is necessary for the injunction claim, arises in relation to all the above-mentioned types of use of Sections 9 S. 2 No. 1, 10 PatG from the fact that the defendant has used the patented invention in the past. Since it was not entitled to do so under Sections 9 and 10 of the Patent Law, it is obliged to refrain.

The imposition of a bad prohibition is also justified if the injunction claim is based on acts of use within the meaning of Sec. 10 (1) Patent Law. A bad prohibition in the context of an only indirect patent infringement is generally out of the question if the challenged execution form can also be used patent free (cf. Schulte/Rinken, PatG, 10. Aufl., 2017, § 10 Rn. 40 ff.). However, something else applies if neither a warning nor a contractual penalty agreement can guarantee that the use of the product will not result in a patent infringement, a possible patent infringement is practically undetectable for the owner of the property right and the supplier can be reasonably expected to redesign the product in such a way that it can no longer be used in accordance with the patent (Schulte/Rinken, PatG, 10. Aufl., 2017, § 10 para. 43).

This shall be affirmed in the event of a dispute. This is because the infringing AVC application is only used by the end user of the attacked smartphones, usually a private end user. Contractual penalty agreements prohibit this. But even a warning label is out of the question,

because this would regularly be a waste of time: A statement not to be allowed to use the AVC compatibility is not only inaccurate vis-à-vis an end consumer, but would also constitute a serious obstacle to purchase. The same applies to the indication that the challenged embodiment is not AVC-capable. Moreover, the applicant cannot establish whether the purchasers of the contested design are using the patented decoding process, contrary to a warning. On the other hand, the defendant can easily be expected to modify the challenged form of execution in such a way that the protected decoding procedure is no longer available to the users by removing the corresponding codec program components (even if the hardware-technical prerequisites are still given).

2.

Furthermore, the defendant has to pay damages on merits for acts of use since 6 October 2015, Art. 64 (1) and (3) EPC in conjunction with Sec. 139 (2) Patent Law.

The defendant committed the patent infringement culpably because, as a specialist company, it could at least have recognised the patent infringement by applying the care required in business transactions, § 276 BGB.

The plaintiff is currently not in a position to quantify the actual damage. However, it is not unlikely that the plaintiff, as the proprietor of the plaintiff's patent, has suffered further damage as a result of the patent infringement. The interest in the declaratory judgement required for the admissibility of the request for a declaratory judgement pursuant to § 256 (1) ZPO arises from the fact that without a legally binding declaratory judgement of the liability for damages there is a risk that claims for damages will become statute-barred.

3.

The plaintiff is also entitled to information and accounting against the defendant, Art. 64(1) and (3) EPC in conjunction with Sec. 140b(1) PatG, Secs. 242, 259 BGB. The claim to information on the origin and the distribution channel of the challenged execution form results directly from Sec. 140b (1) Patent Law due to the unauthorized use of the invention object, the scope of the duty to provide information from Sec. 140b (3) Patent Law. The further obligation to provide information and the obligation to render accounts follow from §§ 242, 259 BGB, so that the plaintiff is put in a position to quantify the claim for damages to which it is entitled. The applicant relies on the information relied on, on which it can rely without

does not have own fault. The defendants, on the other hand, are not unreasonably burdened by the information requested of them.

4.

Finally, the plaintiff is happy to claim against the defendant the destruction of patent-infringing products and recall from the distribution channels. Art. 64 (1) and (3) EPC in conjunction with Sec. 140a (1) and (3) Patent Law, as the defendant used the invention in accordance with the action patent in the sense of Sec. 9 (2) No. 1 Patent Law without being entitled to do so. There are no sufficient indications of the disproportionate nature of the claim and the defendant does not assert this either.

B.

A suspension of the hearing pursuant to § 148 ZPO until the nullity proceedings have been settled is not required. For the sufficient probability of success of the nullity action required for a suspension cannot be determined (cf. BGH, Beschl. v. 16.09.2014, X ZR 61/13, GRUR 2014, 1237, 1238, para. 4 - Kurznachrichten).

I.

The claim of priority of 15.04.2002 stated in the patent action is effective.

The substantive requirements of a claimed priority are verifiable in infringement proceedings (cf. BGH, judgement v. 30.10.1962, I ZR 46/61, GRUR 1963, 563, 566 - Suspension device; BeckOK Patent Law/Beckmann, 9th edition, as at 26.07.2018, § 41 marginal 52).

1.

A subsequent application (the patent for an action) and the priority document contain the same invention under Article 87(1) EPC only if the relevant disclosure is identical in both documents (Schulte/Moufang, PatG, 10. A., 2017, Sec. 41 marginal 33 m. w. N.). The content of the priority application is determined by the entirety of the application documents, not by the content of the claims; the decisive factor is the understanding of the person skilled in the art at the time of filing the priority application.

(Schulte/Moufang, PatG, 10. A 2017, Sec. 41 marginal 33 m. w. N.).

It must also be taken into account that the priority of a pre-announcement can also be claimed if the instructions for the skilled person described there on the basis of an example of execution or in any other way present themselves as a form of the more general technical doctrine described in the pre-announcement and this doctrine can already be inferred from the pre-announcement as belonging to the invention applied for in the general public disclosed in the pre-announcement (BGH, Urt. v. 11.02.2014, X ZR 107/12, GRUR 2014, 542, 544 marginal 25 - Communication channel). However, the fact that all the examples of implementation described in an application for registration have a particular characteristic does not preclude protection being claimed for embodiments without that characteristic if the content of the application for registration does not show any concrete connection between the characteristic concerned and the means provided in the claim for solving a technical problem described (BGH, judgment of 07.11.2017, X ZR 63/15, GRUR 2018, 175, 177 para. 35 - Digitales Buch).

a)

The features 1 and 1.1 of claims 1 and 4 of the action patent are originally disclosed in the preliminary application (Annex NK 6, filed in German translation as Annex NK 6a), in particular that the coded image was obtained by transforming the image into coefficients showing spatial frequency components. In that regard, paragraph [0035] of the notification states that the case may also be dealt with where length coding is carried out on coefficients produced by frequency conversion other than DCT. In any case, the reference to frequency conversion should be seen as a reference to local frequency components. In addition, the DCT transformation is an image transformation that allows the determination of spatial frequency components of an image.

In this respect, it is not harmful that claims 1 and 2 of the pre-announcement do not contain a direct reference to local frequencies. Because this component of the later claims 1 and 4 is in any case implicitly disclosed.

b)

Group 4 of features of claims 1 and 4 of the plaintiff's patent is also included in the preliminary examination. In claims 1 and 2 of the pre-announcement reference is made to

taken at a coding step with the function of converting a number of coefficients into a code number by means of a code table and converting the code number into a variable length code by means of a VLC table. In addition, paras [0011] and [0012] implicitly follow from the pre-registration that the number of non-zero coefficients of the image to be coded is to be coded. In addition, these paragraphs refer to variable length coding (VLC). The VLC coding of the number of non-zero coefficients produces a VLC code (a bit sequence) for the corresponding total number of non-zero coefficients, so that the VLC code represents the coded data according to feature group 4 of claims 1 and 4 of the patent action. Thus, coded data obtained by coding the total number of non-zero coefficients are disclosed in the advance notification.

The use of a VLC table for encoding within the meaning of feature 4.2 of claims 1 and 4 of the patent action without the additional selection of a code table will also be disclosed in the pre-announcement. As far as paragraph [0006] is concerned, the coding and decoding procedures of the invention selected an optimal code table or VLC table or both, based on the number of coefficients in the adjacent blocks, and performed the coding and decoding.

It is not harmful that the requirements and execution examples of the pre-registration provide for a code table in addition to the use of a VLC table. On the one hand, it must be taken into account that claims in a (pre-)application are only of a provisional nature. For it is only in the course of the subsequent examination procedure that it must be worked out what is protectable under consideration of the state of the art and for which claims the applicant seeks protection (BGH, judgment of 07.11.2017, X ZR 63/15, GRUR 2018, 175, 177 marginal 33 - Digitales Buch). On the other hand, the prior application contains sufficient technical instructions which represent the design of a procedure or device as disclosed in the patent of action and which can be gathered in their generality from the prior application.

The pre-registration first describes the goal in paragraph [0005] to provide coding and decoding techniques for moving images that can encode the number of non-zero coefficients contained in a block with constant high efficiency, regardless of the type of current image. The achievement of a high

efficiency, however, does not mean achieving maximum efficiency, but improving it.

The function of the code table is to record the number of coefficients and their distribution (see par. [0037]). Even if the code table was used for "translation" at the time of publication of the pre-announcement, because there were many VLC tables for different types of coding, this would not have prevented the expert from dispensing with the code table. Paragraphs [0034], [0090], [0110], [0119] and [0127] show the expert that it is possible, according to the technical doctrine of pre-registration, to specify one of the tables - the code table or the VLC table. He thus recognises that the well-founded choice between tables of only one type belongs to the invention and the associated reduction in coding efficiency is accepted (cf. paragraph [0034]).

The code tables and VLC tables shown in the description further show the expert that with fixed code tables (e.g. code table 1 in paragraph [0017]) the coefficient number can also be directly assigned to the code of the respective VLC table depending on the prediction value. Against this background the explanations in paragraph [0006] are to be seen, where it is concisely stated that the means to solve the technical problem is to select an optimal code table or VLC table or both.

This result does not change even if an added value of the code tables should be seen in the fact that they are based on statistics (cf. paragraph [0037]). This function corresponds to the translation function of the code tables mentioned above. Similarly, any additional value due to the use of several code tables, cf. only paragraph [0018], does not argue against the above explanations. It is decisive that the expert derives the use of the VLC table alone for the assignment of coefficients to bit sequences from the pre-announcement on the basis of the explanations in paragraphs [0034], [0090], [0110], [0119] and [0127] and evaluates it as belonging to the technical teaching of the pre-announcement.

c)

A decoding device according to claim 4 of the plaintiff's patent is in any case disclosed in Fig. 14 (in conjunction with para. [0075]) as well as in Fig. 16A of the pre-announcement.

2.

Whether a material examination of the priority by the EPO examiner has actually taken place may remain open in the light of the above. Even if such a priority has taken place, this does not relieve the Board of itself from examining the substantive conditions of a priority claimed (see above). This applies in particular if a claimed citation falls into the priority phase between the priority date and the filing date, as in the present case JVT-F100 (NK 7).

It does not appear sufficiently probable that the invention was prejudicial to novelty under the action patent pursuant to Art. 64 (3) EPC in conjunction with Sec. 3 PatG.

1.

With regard to the citation WO [REDACTED] (= EP [REDACTED], Anlagekonvolut B 44, there NK 5), the destruction of the plaintiff's patent due to lack of novelty is not to be expected with predominant probability.

The document is a post-published prior art within the meaning of Sec. 3 (2) Patent Law. The citation does not directly and unambiguously disclose feature 2.4 of claim 1 and feature 2.2 of claim 4 of the action patent. The equations on p. 34 f. do not show that the prediction value is set to zero if no decoded blocks are found above and to the left of the current block. Already the mention of N_{c_L} and N_{c_T} shows that according to the equations in principle it can be assumed that the blocks exist. The value to be used can be zero.

Rather, the expert takes from the citation that for the first blocks to be (de-)coded, the decoder must know the VLC table from which the number of coefficients was selected (cf. p. 40, lines 14-28 of NK 5). From this it follows that the prediction value for the non-existent neighboring blocks is not necessarily set to zero in order to determine the coefficient number using the corresponding VLC table. The number of coefficients can be decoded directly by the communication of the VLC table.

Insofar as the citation of so-called skip blocks in Table 3 is mentioned, this is not sufficient for a direct and unambiguous disclosure of the characteristics 2.4 or 2.2 of claims 1 and 4. This is because reference blocks above and to the left of the skip block are not referred to in this respect.

2.

The JVT-F100 (NK 7) citation does not anticipate the doctrine according to the invention as harmful to novelty, because it is not a pre-published state of the art. The citation dates from 16 February 2003 (see cover page) and is therefore not pre-priority.

3.

The remaining citations are not discussed in writing by the parties, so that a discussion with them is unnecessary.

III.

It does not appear sufficiently probable that the invention under the action patent is not based on an inventive step, Art. 64 para. 3 EPC in conjunction with Sec. 4 Patent Law.

1.

It is not sufficiently probable that the skilled person would arrive at the technical teaching in accordance with the invention by combining the script NK 8 with the general specialist knowledge.

It remains to be seen whether the NK 8 citation belongs to the pre-published state of the art. In any case, it is not clear why, in addition to the citation NK 8, the expert should select the solution from the general expert knowledge to set the prediction value to zero if reference blocks to the left and top of the current block are missing (characteristics 2.4 or 2.2 of claims 1 and 4). For the expert further alternatives were conceivable, e.g. the use of fixed values of a code table.

Moreover, the citation NK 8 does not reveal the determination of prediction values. The NK 8 makes no reference to prediction values on p. 10, p. 6, paragraph 2, and p. 11, paragraph 1.

2.

It is also not sufficiently probable that the skilled person would arrive at the technical teaching in accordance with the invention on the basis of the combination of the script NK 8 with the citation B 63 / NK 16. The defendant already does not point out what reason the skilled person should have had to arrive at the doctrine according to Scripture NK 16.

The same applies to a combination with Scripture B 62 / NK 15 and any general expertise.

3.

Furthermore, it is not sufficiently probable that the expert would arrive at the technical teaching according to the invention on the basis of the combination of the writings JVT-B101 (NK 9) and JVT-B045 (NK 10) with the general expert knowledge - also by supplementing the writings NK 16 and NK17. In this respect, the defendant has not already shown what reason the expert should have had to refer to the citation NK 10 or the writings NK 16, NK 17, starting from the writing NK 9.

The realization that the writings NK 9 and NK 10 concern entropy coding procedures is not sufficient for this purpose. NK 9 undoubtedly refers to adaptive VLC coding and NK 10 to adaptive CABAC coding. As the defendant himself points out, both coding methods have different applications, so that it is even less clear why the expert should use the NK 10 font accordingly.

C.

The decision on costs is based on § 91 (1) ZPO, the decision on provisional enforceability is based on §§ 709 p. 1 and 2, 108 ZPO. The amount of the security had to be fixed at the amount in dispute.

As a general rule, the damage caused by the enforcement - and thus the security - corresponds to the amount in dispute. For the determination of the amount in dispute is based on the interest of the plaintiff in the requested court decision, the calculation of which, in the case of a claim for injunctive relief - which is also in the foreground here - is based not only on the value and significance of the infringed legal position of the plaintiff, but also on the extent of the actions challenged (OLG Düsseldorf, GRUR-RR 2007, 256

- security deposit/coffee pads). In any event, enforcement security is typically not to be rated higher than the value of the claim. This is because the level of enforcement security to be ordered by the Regional Court depends only on the debtor's presumed enforcement damage in the short period up to the appeal hearing and the subsequent pronouncement of the appeal decision, because it creates its own new basis for enforcement, and, in addition, non-enforceable parts of the judgment (such as the declaratory tenor), all claims and the entire period up to the regular end of the patent term are relevant for the assessment of the value in dispute (OLG Düsseldorf, GRUR RR 2012, 304 - Höhe des Estreckstreckungsäden). If, on the other hand, it is to be expected - exceptionally - that a security fixed at the amount in dispute will not fully cover the imminent damage caused by the enforcement, it is up to the defendant to provide the court with the concrete indications for this (see OLG Düsseldorf, InstGE 9, 47). This requires neither detailed accounting nor the dissemination of internal business information. A generalizing presentation that makes the claimed sales and profit figures comprehensible and plausible is sufficient, but also necessary. In many cases, it will suffice to fall back on documents such as business reports or the like which are accessible to third parties anyway or to submit an affidavit of the managing director or another competent employee specified in accordance with the above (cf. OLG Düsseldorf, InstGE 9, 47).

The defendant has not provided any concrete indications that there is to be feared in this case a damage caused by the enforcement exceeding the amount in dispute. The defendant limits itself to an estimate of the gross profit from the sales of mobile telephones in Germany in 2017. The affidavit (Annex B 92) shows only the bare figure for 2017, but not further information as to why an approximately equal profit can be expected in the future. This is also not apparent from the press article submitted as Annex B 93. Nor is it apparent how revenue and profit will be lost if mobile devices are offered without AVC standard compatibility. In spite of the AVC standard compatibility required in principle for a competitive product, it cannot be assumed that the defendant will no longer sell smartphones from one day to the next.

D.

Protection against enforcement within the meaning of § 712 ZPO is not to be granted to the defendant, since it neither sets out the requirements of § 712 (1) ZPO nor likes to do so. § 714 (2) ZPO (Code of Civil Procedure).

E.

The defendant's pleadings of 30 November 2018 and 11 December 2018, which were submitted after the conclusion of the oral proceedings, were not taken into account in the decision and did not give rise to reopening, §§ 296a, 154 ZPO.

F.

The amount in dispute shall be EUR 30 000 000. According to the plaintiff's statements in the oral hearing, the value in dispute was to be increased to € 30,000,000.00, however. According to this, only the plaintiff's interest - not that of the entire patent pool - already amounts to \$ 100,000,000 license debt alone. Thus, in the final analysis, only the interest with regard to the determination of damages is addressed. Taking into account the claims for injunctive relief, recall, destruction and information, the provisionally determined amount in dispute in the amount of € 5,000,000.00 appears to be far underestimated.

Dr. Voß
Chairman Judge at District Court

Dr. Thom
Judge at District Court

Makoski
Judge at District Court

Certified
Clerk of the registry office
Düsseldorf Regional Court