
Date: November 9, 2018
Court: Düsseldorf District Court
Panel: 4a O Patent Chamber
Type of decision: Judgment
File number: 4a O 63/17
ECLI: ECLI:DE:LGD:2018:1109.4A.O63.17.00

Tenor:

- I. The defendant is sentenced,
 1. to refrain from doing so under penalty of a fine of up to € 250,000.00 - or alternatively imprisonment - or imprisonment for up to six months, in the event of repeated infringements up to a total of two years, to be determined by the court for each case of infringement,
 - a) Motion vector decoding means for generating a precomputed motion vector for a current block to be decoded and for decoding an encoded motion vector of the current block using the precomputed motion vector,

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

wherein the motion vector decoding device comprises: an

assignment unit

for assigning an identifier to a respective motion vector of the plurality of decoded blocks on a block basis

according to a sequence in which the motion vectors of each block appear in a bit stream,

if at least one block from a plurality of decoded blocks in the neighborhood of the current block contains two

motion vectors,

which refer to reference images in the same direction in display sequence;

a deriving unit for deriving the predicted motion vector for each motion vector of the current block using the motion vectors having the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks;

and/or

b) Motion vector decoding devices suitable for performing a motion vector decoding process for generating a precomputed motion vector for a current block to be decoded and for decoding an encoded motion vector of the current block using the precomputed motion vector,

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

wherein the motion vector decoding method comprises:

Assigning,

if at least one block from a plurality of decoded blocks in the neighborhood of the current block has two motion vectors,

which refer to reference images in the same direction in display sequence,

an identifier to a respective motion vector of the plurality of decoded blocks on a block basis

according to an order in which the motion vectors of each block appear in a bit stream, and

Derive the predicted motion vector for each motion vector of the current block using the motion vectors with the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks;

2. to provide the plaintiff with information on the extent to which it has committed the acts referred to in point 1 since 11.02.2015, stating

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

whereby

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

3. to account to the plaintiff for the extent to which it has committed the acts referred to in point 1 since 11.02.2015, stating:

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

whereby

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

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

5. to recall the products referred to under 1.a), which have been in the possession of third parties since 11.02.2015, by requesting those third parties who have been granted possession of the products by the defendant or with its consent to return the products to the defendant, with reference to the fact that the Chamber has found an infringement of the patent in suit in this judgment, and by promising the third parties a refund of any purchase price already paid and the assumption of the costs of the return in the event that the products are returned, and to take back the successfully recalled products.

II. It is noted,

that the defendant is obliged to compensate the plaintiff for all damages that she has suffered and will suffer as a result of the acts described under I.1.a) and b) committed since 11.02.2015.

III. The defendant is ordered to pay the costs.

IV. The judgment is provisionally enforceable against provision of security in the amount of € 5 million. In addition, the claims for injunctive relief, recall and destruction (I.1., I.4. and I.5. of the operative part) are separately provisionally enforceable against provision of security in the amount of 3,750,000.00; furthermore, the claims for information and accounting (I.2., I.3. of the operative part) are jointly provisionally enforceable separately against security in the amount of € 750,000.00. As regards costs, the judgment is separately provisionally enforceable against security in the amount of % of the amount to be enforced in each case.

4a O
63/17



Announced on 9.11.2018

Brassel, Principal Judicial Secretary as clerk of the court registry

Düsseldorf Regional Court

ON BEHALF OF THE PEOPLE

Verdict

In the legal dispute	2
the 4a. Civil Chamber of the Düsseldorf Regional Court on the basis of an oral hearing on 02.10.2018 by the presiding judge at the Regional Court Dr. Crummenerl, the judge at the Regional Court Dr. Gräwe and the judge at the Regional Court Dr. Schumacher	3
found to be right :	4
I. The defendant is sentenced,	5
1. it is subject to a fine imposed by the court for each case of infringement to refrain from imposing a fine of up to € 250,000.00 - or alternatively imprisonment - or imprisonment for up to six months or, in the event of repeated infringements, up to a total of two years,	6
a) Motion vector decoding devices for generating a pre-calculated motion vector motion vector for a current block to be decoded and to decode an encoded motion vector of the current block using the precalculated motion vector,	7
to offer, place on the market or use in the Federal Republic of Germany or to import or possess for the aforementioned purposes,	8
wherein the motion vector decoding device comprises:	9
one allocation unit	10
for assigning an identifier to a respective motion vector of the plurality of decoded blocks on a block basis	11
according to a sequence in which the motion vectors of each block in a bit stream appear,	12
if at least one block from a plurality of decoded blocks in the neighborhood of the current block has two movement vectors,	13
which refer to reference images in the same direction in display sequence;	14
a derivation unit for deriving the predicted motion vector for each Motion vector of the current block using the motion vectors with the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks;	15
and/or	16
	17

b)	Motion vector decoding devices suitable for performing a motion vector decoding process for generating a precomputed motion vector for a current block to be decoded and for decoding an encoded motion vector of the current block using the precomputed motion vector,	
	to customers in the territory of the Federal Republic of Germany and/or to sell them to such customers.	18
	deliver,	
	wherein the motion vector decoding method comprises:	19
	Assign,	20
	if at least one block from a plurality of decoded blocks in the neighborhood of the current block has two movement vectors,	21
	which refer to reference images in the same direction in display sequence,	22
	an identifier for a respective motion vector of the plurality of decoded blocks on a block basis	23
	according to a sequence in which the motion vectors of each block in a bit stream appear, and	24
	Derive the predicted motion vector for each motion vector of the current block using the motion vectors with the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks;	25
2.	to provide the applicant with information on the extent to which it has used the services referred to in point 1.	26
	has committed the aforementioned acts since 11.02.2015, stating	
a)	the names and addresses of manufacturers, suppliers and other previous owners,	27
b)	the names and addresses of the commercial customers and the Sales outlets for which the products were intended,	28
c)	the quantity of products manufactured, delivered, received or ordered products and the prices paid for the products in question;	29
	where	30
	-The corresponding proofs of purchase (namely invoices, alternatively delivery bills) must be submitted in copy, whereby details requiring confidentiality outside the data subject to disclosure may be blacked out;	31
3.	to account to the applicant for the extent to which it has used the services referred to in point 1.	32
	has committed the aforementioned acts since 11.02.2015, stating:	
a)	of the individual deliveries, broken down by delivery quantities, times and prices and type designations as well as the names and addresses of the commercial customers,	33
b)	of the individual offers, broken down by offer quantities, times and prices and type designations as well as the names and addresses of the commercial	34

Offeree,

c) of the advertising operated, broken down by advertising media, whose Circulation, distribution period and distribution area, 35

d) the prime costs broken down according to the individual cost factors and of the profit generated, 36

where 37

- The defendant is obliged to inform the plaintiff, instead of the plaintiff, of the purchaser and the offeree to a sworn auditor domiciled in the Federal Republic of Germany who is to be designated by the plaintiff and who is bound to secrecy towards the plaintiff, provided that the defendant bears his costs and authorizes and obliges him to inform the plaintiff upon specific request whether a particular purchaser or offeree is included in the list; 38

4. that are in their direct or indirect possession or ownership to destroy the products listed under 1.a) at its own expense or, at its discretion, to hand them over to a bailiff to be appointed by the plaintiff for the purpose of destruction at its expense; 39

5. those referred to under 1.a) in the possession of commercial third parties since 11.02.2015, the Board of Appeal has decided to recall the products from the distribution channels by requesting those third parties who have been granted possession of the products by the defendant or with its consent to return the products to the defendant, with reference to the fact that the Board has found an infringement of the patent in suit in this judgment, and to promise the third parties a refund of any purchase price already paid and the assumption of the costs of the return in the event that the products are returned, and to take back the successfully recalled products. 40

II. It is noted, 41

that the defendant is obliged to compensate the plaintiff for all damage caused to her by the I.1.a) and b) committed since 11.02.2015 and will still arise. 42

III. The defendant is ordered to pay the costs. 43

IV. The judgment is provisionally enforceable against security in the amount of € 5 m. In addition, the claims for injunctive relief, recall and destruction (items I.1., I.4. and I.5. of the operative part) are together separately provisionally enforceable against security in the amount of € 3,750,000.00; furthermore, the claims for information and accounting (items I.2., I.3. of the operative part) are together separately provisionally enforceable against security in the amount of € 750,000.00. With regard to costs, the judgment is separately provisionally enforceable against security in the amount of 115% of the respective amount to be enforced. 44

Facts of the case 45

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The plaintiff is suing the defendant for infringement of the German part of the European patent EP A granted in the English language (Annex K1, German translation DE B as Annex K2, hereinafter: patent in suit) for injunctive relief, information, rendering of accounts, recall, destruction and a declaration of liability for damages.

The patent in suit, of which the plaintiff has been the registered proprietor since 11.02.2015, was on 10.04.2003, claiming the priorities of JP C of 23.04.2002 and JP D of 14.06.2002. The application for the patent in suit was published on 19.01.2005. The reference to the grant of the patent was published on 09.04.2008. 47

The German part of the patent-in-suit is in force. The defendant has filed a nullity action relating to the patent in suit with the Federal Patent Court, which has not yet been decided.

In the present proceedings, the plaintiff alleges infringement of claims 1 and 2 of the patent in suit. 48

Claim 1 of the patent in suit is in the English language of the proceedings for the grant of the patent: 49

"A motion vector decoding method for generating a predicted motion vector for a current block to be decoded and for decoding a coded motion vector of the current block using the predicted motion vector, the motion vector decoding method comprising: 50

assigning, when at least one block among a plurality of decoded blocks in the neighborhood of the current block has two motion vectors which refer to reference pictures in the same direction in display order, an identifier to respective motion vector of the plurality of decoded blocks on a block basis according to an order in which the motion vectors of the each block appear in a bitstream; and 51

deriving the predicted motion vector for each motion vector of the current block by using the motion vectors having the same identifier as assigned to the each motion vector of the current block among the motion vectors for the plurality of decoded blocks." 52

The German translation of claim 1 of the patent in suit reads as follows: 53

"Bewegungsvektordekodierverfahren zum Erzeugen eines vorausberechneten Bewegungsvektors für einen aktuellen Block, der zu dekodieren ist, und zum Dekodieren eines kodierten Bewegungsvektors des aktuellen Blocks unter Verwendung des vorausberechneten Bewegungsvektors, wobei das Bewegungsvektordekodierverfahren umfasst: 54

Zuweisen einer Kennung zu einem jeweiligen Bewegungsvektor der Mehrzahl von dekodierten Blocks auf einer Blockbasis gemäß einer Reihenfolge, in der die Bewegungsvektoren eines jeden Blocks in einem Bitstrom erscheinen, wenn wenigstens ein Block aus einer Mehrzahl von dekodierten Blocks in der Nachbarschaft des aktuellen Blocks zwei Bewegungsvektoren aufweist, die auf Referenzbilder in der gleichen Richtung in Anzeigereihenfolge verweisen, und 55

Ableiten des vorausberechneten Bewegungsvektors für jeden Bewegungsvektor des aktuellen Blocks unter Verwendung der Bewegungsvektoren mit der gleichen Kennung, wie sie zu jedem Bewegungsvektor des aktuellen Blocks aus den Bewegungsvektoren für die Mehrzahl von dekodierten Blocks zugewiesen ist." 56

Claim 2 of the patent in suit is in the English language of the proceedings for the grant of the patent: 57

"A motion vector decoding apparatus (711) for generating a predicted motion vector for a current block to be decoded and for decoding a coded motion vector of the current block using the predicted motion vector, the motion vectordecoding apparatus comprising: 58

an assigning unit for, when at least one block among a plurality of decoded blocks in the neighborhood of the current block has two motion vectors which refer to reference pictures in the same direction in display order, assigning an identifier to respective motion vector of the plurality of decoded blocks on a block basis according to an order in which the motion vectors of the each block appear in a bitstream; and 59

a deriving unit for deriving the predicted motion vector for each motion vector of the current block by using the motion vectors having the same identifier as assigned to the each motion vector of the current block among the motion vectors for the plurality of decoded blocks." 60

The German translation of claim 2 of the patent in suit reads as follows: 61

"Bewegungsvektordekodiervorrichtung (711) zum Erzeugen eines vorausberechneten Bewegungsvektors für einen aktuellen Block, der zu dekodieren ist, und zum Dekodieren eines kodierten Bewegungsvektors des aktuellen Blocks unter Verwendung des vorausberechneten Bewegungsvektors, wobei die Bewegungsvektordekodiervorrichtung umfasst: 62

eine Zuweisungseinheit zum Zuweisen einer Kennung zu einem jeweiligen Bewegungsvektor der Mehrzahl von dekodierten Blocks auf einer Blockbasis gemäß einer Reihenfolge, in der die Bewegungsvektoren eines jeden Blocks in einem Bitstrom erscheinen, wenn wenigstens ein Block aus einer Mehrzahl von dekodierten Blocks in der Nachbarschaft des aktuellen Blocks zwei Bewegungsvektoren aufweist, die auf Referenzbilder in der gleichen Richtung in Anzeigereihenfolge verweisen, und 63

eine Ableitungseinheit zum Ableiten des vorausberechneten Bewegungsvektors für jeden Bewegungsvektor des aktuellen Blocks unter Verwendung der Bewegungsvektoren mit der gleichen Kennung, wie sie zu jedem Bewegungsvektor des aktuellen Blocks aus den Bewegungsvektoren für die Mehrzahl von dekodierten Blocks zugewiesen ist." 64

The MPEG-4 Part 10 (Part 10) standard with the number ISO/IEC14496-10, also known as H.264 or MPEG-4 AVC (hereinafter referred to as "the Standard" or "the Standard"). 65

"AVC/H.264 standard"), is a standard for the compression of video data. Extracts of the standard have been submitted for the file in Annex K5 (translation: Annex K5a). For the sections relevant here, there have been no relevant changes since the first version of the standard dated 01.12.2003 compared to the 8th edition dated 01.09.2014, which is presented in Annex K5.

The defendant is a German company in the Chinese group E. It distributes in Germany cell phones, for example the models "P9", "P9 Plus", "P9 Lite", "GX8", "Mate S" and "Mate 8", which are capable of applying the AVC/H.264 standard (hereinafter: attacked embodiments). 66

The patent-in-suit, for which a FRAND declaration is available, is part of a patent portfolio that was granted in 2004, 67
in which patents relating to the use of the AVC/H.264 standard have been filed (hereinafter also referred to as the AVC/H.264 patent pool). In the

AVC/H.264 patent pool contains just over 5,000 patents. The pool contains standard-essential patents, although the parties are in dispute as to the extent. Not only the plaintiff, but also other patent owners contributed their patents to the patent pool. A list of the pool patent holders together with the associated pool patents is available as Annex K10 - Exhibit C (German translation: Annex K10 - Exhibit C - a). According to this list, the number of pool patent holders amounts to just under 40. MPEG LA, LLC (hereinafter: MPEG LA) acts as pool administrator.

On the website of MPEG LA at www.mpegla.com, the document attached as Annex K10 - Exhibit G (German translation: Anlage K10 - Exhibit G - a) as a standard license agreement (hereinafter also referred to as: standard license agreement or AVC/H.264 standard license agreement). There are approximately 1,400 licensees (see list of licensees, as of May 2017, available on the MPEG LA website, Annex K10 - Exhibit F; German translation: Annex K10 - Exhibit F - a), whereby it is disputed between the parties whether the standard license agreement referred to has been concluded with each of these licensees. A concordance list/cross reference chart with reference to relevant standard clauses to which the pool patents are assigned (Annex K10 - Exhibit E) and a list of licensors (see screenshot of Annex K10 - Exhibit D (German translation: Annex K10 - Exhibit D - a)) are also available on the website. 68

At the beginning of 2009, E, like the defendant, asked a subsidiary of the Chinese parent company E. (hereinafter also: parent company or parent group) asked MPEG LA to send information about the patent pool relating to the so-called MPEG-2 standard. MPEG LA then pointed out that any negotiations could only take place with the respective parent companies and that licensing could only be granted to all group companies. License negotiations subsequently took place, but did not lead to a successful outcome. One of the points of contention in these negotiations was that the parent company was seeking licensing with the exception of China, while the plaintiff wanted to include the Chinese market in the licensing. 69

Under 06.09.2011 (Annex K10 - Exhibit A; German translation: Annex K10 - Exhibit A - a) MPEG LA contacted the parent company of the defendant with regard to the AVC/H.264 standard at issue here. The e-mail states: 70

"We understand that E now also offers mobile handset and tablet products that are include MPEG-4-Visual, AVC/H.264 and VC-1 functionality. Therefore, these products must be licensed under patents that are essential to these technologies, and I would like to draw your attention to our licenses for the MPEG-4-Visual patent portfolio, the AVC patent portfolio and the VC-1 patent portfolio. 71

I am sending you copies of our MPEG-4-Visual license, AVC-License and VC-1 license." 72

Where reference is made to other standards ("MPEG-4-Visual" and "VC-1") in the e-mail, the are not at issue in the present case. 73

By e-mail dated 15.09.2011 (Annex B21; German translation: Annex B21a), Mr. F. asked for called "G", in response to the e-mail of 06.09.2011 for a telephone call to discuss the licensing issue. In the subsequent communication regarding the AVC/H.264 standard - as already in connection with the negotiations on the MPEG-2 74

standard - licensing excluding the Chinese market and licensing to individual Group companies.

At the beginning of February 2012, the parent company received the AVC/H.264 standard license agreement 75

according to Annex K10 - Exhibit G (German translation: Anlage K10 - Exhibit G - a) by mail. Section 2.1 of the Standard License Agreement, which is governed by New York State law pursuant to Section 8.16 thereof, states the scope of the license:

"AVC Product(s). Subject to the provisions of these agreements (including but not limited to Articles 3 and 7), the License Administrator hereby grants to a Codec Licensee a royalty-bearing, worldwide, non-exclusive and non-transferable sublicense under all AVC Essential Patents in the AVC Patent Portfolio to make, have made, sell or offer for sale an AVC Product and [...].", 76

where a "Codec Licensee" as defined in Section 1.17 of the Standard License Agreement is a person 77

or a legal entity that sells an AVC Product to (i) a Codec Licensee Customer (see Section 1.18 of the Agreement) or (ii) an End Customer. The scope of the license granted is further regulated in clauses 2.2 - 2.10, to which reference is made due to their exact content.

In Section 3.1.1, the standard license agreement provides for a volume-based graduated license rate in the form of a per-unit license and a maximum license rate as follows: 78

"Subject to the restriction in Article 3.1.0, in each calendar year for the paragraph 2.1 of this Agreement in the event of a sale after the December 31, 2004 of an AVC Encoder, AVC Decoder or AVC Codec (hereinafter referred to in this Article as a "Unit") and regardless of whether one or more Units are integrated into a single product: 79

<u>Sale of units in any calendar year after the December 31, 2004</u>	<u>Fees to be paid</u>	80
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	

The fee for the sublicense granted under paragraph 2.1 of this Agreement is shall not, however, exceed the amounts listed below for the combined sale of AVC products of a licensee and its subsidiaries: 81

<u>Calendar year</u>	<u>Fees payable per company per year</u>	82
Sales 2005 and 2006	3.500.000 \$	
Sales 2007 and 2008	4.250.000 \$	

Sales 2009 and 2010	5.000.000 \$
Sale between 2011 and 2015	6.500.000 \$
Sale 2016	8.125.000 \$
Sale between 2017 and 2020	9.750.000 \$."

Please refer to the standard license agreement for further details. 83

In an e-mail dated February 21, 2012 (Exhibit B23; German translation: Exhibit B23a), "G" stated, that further information on the licensing status of licensees "H" and "I." AVC/H.264 patent pool would be required. In November 2013, talks on the granting of an AVC/H.264 license initially ended without a license being granted, before a new meeting was held in July 2016 to negotiate the granting of a license for, among other things, the standard at issue here. 84

In the context of the present legal dispute, the defendant made the plaintiff an offer for a worldwide license to the plaintiff's entire portfolio (hereinafter also referred to as "counter offer") in its statement of defence dated 3 November 2017. The counteroffer is attached to the file as Annex B2 (German translation: Annex B2a). 85

The proposed agreement is to be concluded between the plaintiff on the one hand and "E", the "E." and the "E on the other and provides for a retroactive effect of the license as of "1 January 2017". 86

Regarding the scope of the license granted, Section 3 states (spelling errors will be taken over): 87

"3.1 [...] the Licensor [...] hereby grants E and its Affiliates a personal, non-transferable, worldwide, royalty-bearing and non-exclusive license under all Licensed Essential Patents: 88

3.1.1 to manufacture the Licensed Products, to have them manufactured, to use them for sale to offer, import, make available or otherwise dispose of them. 89

3.1.2 Manufacture machines, tools, materials and other instruments, to import and use the Licensed Products to the extent necessary for the development, manufacture, testing and repair of the Licensed Products." 90

The counter-offer in Section 4.1 provides for the following license fees: 91

X 92

whereby "China + Others", according to the "Definitions" under no. 1, refers to countries throughout the world that do not belong to the USA and Europe. 93

Point 4.2 of the proposal also provides for a discount regulation as follows: 94

95

"The parties hereby agree that the Licensor shall continue to grant a 20% discount on the annual royalties paid for annual sales made by E and its Affiliates in excess of 200 million since the year 207."

By letter dated March 1, 2018 (Exhibit B55; German translation: Exhibit B55a), the defendant invoiced the license fees incurred between January 2009 and December 2017 in accordance with its offer (Exhibit B2/B2a) and deposited an irrevocable bank guarantee from the Industrial and Commercial Bank of China for an amount of USD 324,870.00 by letter dated March 15, 2018 (Exhibit B56; German translation: Exhibit B56a). In a letter dated 12.09.2018 (Annex B67), the defendant provided a further bank guarantee to cover the license fees expected to be incurred (on the basis of its counter-offer) for the period from January 2018 to December 2020. This includes a guarantee amount of EUR 107,444.31. 96

In addition to the legal dispute at hand, further proceedings are pending between the parties with regard to another pool patent of the plaintiff (Ref.: 4a O 17/17) as well as further proceedings of other pool members against the defendant here (Ref.: 4c O 3/17 and 4b O 4/17 [plaintiff in each case: Godo Kaisha], Ref.: 4b O 38/17 [plaintiff: Panasonic], Ref.: 4c O 12/17 [plaintiff: Mitsubishi]). The defendant also declared its willingness to conclude individual portfolio license agreements in the proceedings against other pool members. In addition, proceedings by the plaintiff here against ZTE Deutschland GmbH (Ref.: 4a O 16/17) are also pending. 97

The plaintiff argues that the patent in suit is essential for the use of the AVC/H.264 standard. By distributing the standard-compatible attacked embodiments, the defendant indirectly infringes patent claim 1 (method claim) and directly infringes patent claim 2 (device claim). Contrary to the defendant's view, features 2.2, 2.3 and 2.4 of the following classification of features of claim 1 of the patent in suit as well as the corresponding features of claim 2 of the patent in suit (the following features without further classification are those of claim 1 of the patent in suit) are also realized by the standard. 98

According to the teaching of the patent in suit, the term "reference" in feature 2.2 is to be understood as meaning that the motion vectors refer to certain reference images. On the other hand, the motion vectors do not themselves have to be a reference to the reference images. The design of an identifier within the meaning of feature 2.3 is not specified in the patent in suit. 99

This merely had to fulfill the function of indicating a sequence of the movement vectors by enabling a distinction to be made between the first and second movement vectors. Feature 2.4 does not require the entire motion vector to appear in the bit stream. Rather, the patent in suit assumes that the bitstream contains a differential motion vector and that the motion vector is decoded by adding the differential motion vector stored in the bitstream and the predicted motion vector.

On this interpretation of the patent in suit, the AVC/H.264 standard also realizes features 2.2, 2.3 and 2.4. Thus, the identifier $X = 0,1$ constitutes an identifier within the meaning of feature 2.3. The identifier is used to differentiate between two different movement vectors of a current block or neighboring blocks. The identifier is also assigned in the sense of feature 2.4 in the order in which the motion vectors, in this case the differential motion vector information mvd_IX , appear in the bit stream. In the case of the frame sequence counter type 2, the 100

requirements of feature 2.2 are met.

The plaintiff is also of the opinion that it is entitled to the asserted claims even if the standard 101
essentiality of the patent in suit is taken into account. The defendant cannot successfully
invoke the compulsory license defense under antitrust law. It, the plaintiff, had acted in
accordance with the principles established by the case law in the judgment of 16 July 2015 in
the case E. v ZTE, file no. C-170/13 (hereinafter: the ECJ judgment), without the defendant
having submitted a counter-offer in line with these principles.

The letter dated 06.09.2011 (Annex K10 - Exhibit A/ Exhibit A - a) from MPEG LA to the 102
parent company is to be understood as sufficient notice of infringement.

In this respect, the defendant in the present case had to contend with MPEG LA's prior 103
correspondence with its (the defendant's) parent company.

In this context, the plaintiff claims - which the defendant denies with ignorance - that MPEG 104
LA received the mandate and the simple license to grant licenses to the AVC/H.264 patent
pool on behalf of the patent holders.

MPEG LA had also proceeded in the past with the other AVC/H.264 licensees in such a way 105
that it had negotiated separately either with the parent company or with each group company
in order to ensure that all companies belonging to a group of companies that distribute
patent-infringing products were covered by the license.

Finally, the letter from MPEG LA dated 6 September 2011 (Annex K10 - Exhibit A/ Exhibit A 106
- a) also contains the content required for a notice of infringement. The specific naming of
the infringing AVC patents is satisfied by the reference to the publicly accessible website of
MPEG LA in the letter of 14.06.2017 (Annex K10).

In all other respects, however, a notice of infringement would also be a mere forgery. 107

The defendant or the parent company had not expressed any willingness to conclude a 108
FRAND-compliant license agreement in response to MPEG LA's infringement notice. The
parent company's condition that a license for the AVC/H.264 standard would only be
concluded if the Chinese market was excluded was to be understood as meaning that the
defendant was not willing to take a license.

The plaintiff is of the opinion that it submitted a FRAND-compliant offer to the defendant by 109
sending the standard license agreement in February 2012.

Since the standard license agreement had been signed by almost 1,400 licensees, there 110
was no need to explain the method of calculation. Rather, proof of the FRAND conformity
of the standard agreement was provided by the fact that it had been accepted unchanged
by almost 1,400 licensees, as shown by the submission of the standard license
agreements.

The defendant's objections to the standard license agreements submitted would not reveal 111
any differences relevant under antitrust law.

Since the aforementioned number of licensees had always concluded the standard agreement without any exceptions, it was neither unreasonable nor discriminatory.

In particular, all licensees had accepted the standard license agreement including licenses for the Chinese market (Annex K10 - Exhibit G; German translation: Annex K10 - Exhibit G - a). A large part of the Chinese market is also licensed. In addition to the defendant, the companies based in China are - undisputed in this respect "Lenovo", "Oppo", "Xiaomi", "Vivo" and "ZTE" not licensed. 113

It is also not contrary to FRAND principles that the AVC license rates for the Chinese market are not adjusted in such a way that they are lower. In particular, the Chinese market is not low priced compared to the American and European markets. Furthermore, the uniform license rates would also be paid by all licensees. For reasons of equal treatment under antitrust law alone, the defendant's parent company could therefore not be granted a specific rate for the Chinese market. 114

The bundling of several profiles/profile features in the AVC/H.264 standard does not prove to be discriminatory either. It is not necessary for the licensee to use all profiles/profile features of the patents stored in the pool, rather it is decisive that he can use them and thus offer an AVC-capable product on the market. 115

The AVC/H.264 pool also does not bundle any essential patents with non-essential patents; rather, all pool patents contributed are standard-essential. This can also be seen from the "Essentiality Cross Reference Chart" available on the MPEG LA website (Annex K10 - Exhibit E). 116

The licensees had also accepted the maximum rates provided for in section 3.1.1 without exception. 117

Furthermore, no adjustment clause was required in the standard license agreement. The need for such a clause depends on the technology in question and the specific patent pool. It should also be taken into account in this respect that the agreement at issue was accepted by a large number of licensees in the present form. 118

The defendant's counteroffer (Annex B2; German translation: Annex B2a) to conclude an individual portfolio license contradicts FRAND principles and is also late because the defendant never made such an offer in the pre-litigation correspondence - which is undisputed in this respect. 119

The plaintiff was not obliged to submit an offer to the defendant to conclude an individual portfolio license. The conclusion of an individual portfolio license deviates from the plaintiff's practice, practiced with almost 1,400 licensees, of granting patents exclusively within the AVC/H.264 patent pool. To date, no interested party has requested a portfolio license from the plaintiff. 120

The different license rates listed in the counter-offer for different contractual territories (USA, Europe, China) are also not justified from a FRAND perspective. This applies in view of the almost 1,400 licensees with whom the AVC/H.264 standard license agreement exists without corresponding differentiation. 121

Furthermore, the average prices in China are also comparable with those in the USA and Europe. It is also not clear why the same license rates as in China should apply to all other regions (outside the USA and Europe).

Finally, a stay of the legal dispute was also not necessary, since the patent in suit would prove to be legally valid in the nullity proceedings. 122

The applicant claims that the Court should, 123

as recognized, in the alternative to allow her to avert enforcement of the costs against provision of security. 124

The defendant requests 125

that the action be 126

dismissed; alternatively, 127

to stay the legal dispute until a final decision on the nullity action pending before the Federal Patent Court in respect of the patent in suit; 128

further in the alternative, 129

to refrain from preventing enforcement against the provision of security. 130

The defendant is of the opinion that it is not making use of the teaching of the patent in suit by marketing the standard-compatible embodiments attacked. The AVC/H.264 standard does not realize the patent-in-suit claims 1 and 2, in particular features 2.2, 2.3 and 2.4 of patent-in-suit claim 1 and the corresponding features of patent-in-suit claim 2. 131

Feature 2.2 presupposes that the motion vectors themselves refer to the reference images, as can be seen, for example, from Figs. 4 and 5. The term "refer" as "reference to something" is to be considered technically more narrowly than a mere "reference". 132

An identifier within the meaning of feature 2.3 must be independent information which is assigned to a motion vector by being stored together with it. In paragraph [0104] of appendix K2, a clear distinction is made between two methods for storing and managing motion vectors, of which only the first is covered by the claims. The second method did not require any identifiers, so that it was not possible to regard the access to certain storage locations mentioned therein as being in accordance with the claims. 133

Feature 2.4 requires, according to its unambiguous wording, that the motion vectors themselves appear in the bitstream. In contrast, the coding of motion vectors as difference vectors is only discussed in the patent in suit in connection with the MPEG-4 standard, which it assumes to be prior art. Only for the encoding process does the patent in suit mention that the motion vector differences are embedded in the bitstream. A corresponding formulation for the decoding method is not only missing, but on the contrary, it expressly mentions that the motion vectors themselves appear in the bit stream. In addition, a distinction must be made between the motion vectors of the current block to be derived and the motion vectors of the neighboring blocks to be used for this purpose. If motion vectors of the current block are differentially coded 134

this does not necessarily mean that this also applies to the movement vectors of the neighboring blocks.

Based on this interpretation, the AVC/H.264 standard does not realize claims 1 and 2 of the patent in suit. The use of an identifier within the meaning of the feature 2.3 is not required in the standard, in particular the specification $X = 0.1$ does not represent such an identifier. Rather, the motion vectors are differentiated according to predetermined storage locations without assigning or storing their own identifiers or accessing them. Moreover, the motion vectors in the standard did not themselves represent a reference to the reference images (feature 2.2), nor did they appear in complete form in the bitstream (feature 2.4). 135

The defendant also raises the antitrust compulsory license objection (FRAND objection) and is of the opinion that the plaintiff has not acted in accordance with the requirements of the ECJ ruling. 136

The defendants are of the opinion that there is no sufficient statement of defense within the meaning of the ECJ decision E/ZTE. 137

Irrespective of the fact that the plaintiff did not contact the defendant at any time, there is also a lack of a list that would name at least some patents in a representative manner, as well as a comparison of the individual patent claims with the corresponding passages of the standard. A mere reference to the information available on the MPEG LA website in a letter dated 14.06.2017 (Annex K10/Annex K10a) is not sufficient in this respect. 138

There is also a lack of any explanation as to the specific act by which the patent in suit is alleged to have been infringed. 139

Its, the defendant's, willingness to license was sufficiently expressed in the e-mail of 15.09.2011 (Annex B21/Annex B21a). 140

Furthermore, in the opinion of the defendant, the plaintiff's offer is also not FRAND-compliant. 141

Notwithstanding the fact that MPEG LA's power of representation was not recognizable to the plaintiff, MPEG LA had not submitted an effective FRAND offer to conclude a license agreement by merely sending the standard license agreements. These standard contract terms could only be understood as a basis for further negotiations on a specific license to be agreed with the defendant. The form sent - which is undisputed - was also not signed. 142

The way in which the standard license fee is calculated is also not sufficiently clear from the contract because the circumstances that make the remuneration factors (turnover as a reference figure, graduated license rate) appear to be non-discriminatory and non-exploitative are not stated. 143

In this context, the plaintiff could not rely on the fact that the standard license agreement had been accepted by a large number of licensees (almost 1,400). After submission of 2,128 standard license agreements and a software-based examination of these using the forensic analysis tool "Relativity", there were indications that not all licensees had been granted 144

identical conditions in terms of content.

Even if the standard license agreement sent by MPEG LA were to suffice as an offer, this would be unfair/unreasonable and discriminatory. 145

This is already apparent from the fact that the model form makes the granting of a worldwide license dependent on the fact that sales in China subject to licensing are also included. In this context, the defendant claims that the plaintiff has not yet concluded a license agreement on AVC/H.264 technology with a Chinese manufacturer of mobile devices that also covers sales in China. 146

A further discrimination of the plaintiff's offer on the basis of the standard license agreement results from the fact that it does not take into account the different sales markets with very different sales prices and the resulting differences in the license level. Applying a uniform worldwide license rate also to sales of end devices in China would result in a higher license fee for sales there in relation to the sales price. This is because the sales achieved on the Chinese market would lag significantly behind those on other markets (USA, Germany) because higher sales prices could be achieved for a technically equivalent device on these other markets. There is therefore a consensus within the industry that China-specific license rates should be agreed. 147

A need for license rates for China that differ from the standard license rates also arises from the fact that MPEG LA does not hold the vast majority of the patents managed by the pool in China, but in high-priced markets. 148

The effect of unequal treatment is further reinforced by the fact that the AVC/H.264 standard has various profiles and the AVC/H.264 patent pool bundles these profiles/sub-standards and patents. However, the challenged embodiments would generally only implement a few selected profiles. This brings advantages for multi-product providers who offer other AVC-capable products (TV sets, HD set-top boxes, HD monitors, etc.) in addition to mobile devices, but disadvantages providers such as the defendant, which only sells mobile devices and tablet PCs. 149

The composition of the pool is also contrary to antitrust law due to the fact that it contains a significant number of non-essential patents for the standard. In this context, the defendant refers to an analysis and statement by the consulting firm J (Annex B37, Annex B38; German translations: Annex B37a, Annex B38a) and a corrected evaluation (Annex B50; German translation: Annex B50a). According to this, among other things, the patents contributed to the pool by the plaintiff were 100% non-essential. Other pool members with exclusively non-essential intellectual property rights are Ericsson, Nippon Telegraph and HP. The total share of non-essential patents in the pool is 50%. 150

The defendant sees a further connecting factor for the discriminatory nature of the offer in the fact that the standard license agreement provides for maximum rates ("royalty caps"), which cap the license fees annually. According to the defendant, this disproportionately favors high-volume licensees with high sales figures. This applies in particular to licensees who - unlike the defendant - do not exclusively use the mobile phone patents and profiles, but also the patents and profiles of the standard that relate to other applications (digital TV or digital cameras). 151

It is also contrary to FRAND principles that the plaintiff's offer, which is based on the standard license agreement, does not provide for an adjustment clause in the event that patents taken into account in the licensing are later legally destroyed.

Irrespective of the FRAND compliance of the pool license, the plaintiff should in any case have made an offer to conclude a license agreement solely on its patent portfolio in response to the defendant's request - as provided for in the defendant's counteroffer. 153

This also proves to be FRAND-compliant, in particular insofar as it differentiates between distribution activities in the USA, Europe and "China and other countries" with regard to the amount of the license fees. 154

In any case, the legal dispute should also be suspended pursuant to Section 148 ZPO until the decision on the nullity action. The patent in suit was inadmissibly extended compared to the original application. In addition, it lacked novelty and inventive step in relation to the prior art. 155

For further details of the facts and the dispute, reference is made to the written submissions exchanged between the parties, the documents submitted for the file and the minutes of the oral hearing of 30.05.2017 and 02.10.2018. 156

Reasons for the decision 157

The admissible action is well-founded. 158

The plaintiff has claims against the defendant for injunctive relief, information, accounting, recall, destruction and damages on the merits under Art. 64 EPC in conjunction with Sections 139 (1) and (2), 140a (1), (3), 140b PatG, Sections 242, 259 BGB. 159

The distribution of the challenged embodiments indirectly infringes patent claim 1 and directly infringes patent claim 2. The defendant's compulsory license objection under antitrust law (FRAND objection) does not apply. There is no reason to stay the proceedings with regard to the pending nullity action against the patent in suit.

I. 160

The patent in suit relates to a method and a device for motion vector coding and decoding. 161

According to the introductory remarks of the patent in suit, when encoding moving images, the amount of information is generally compressed by suppressing the spatial and temporal redundancies that exist within moving images. Inter-picture prediction coding is used as a method for suppressing temporal redundancies. In this process, the images that precede or follow the current image in time are used as reference images to encode the current image. The movement of the current image from the reference images is detected and the difference between the image obtained by motion compensation and the current image is calculated. Then, the spatial redundancies are eliminated from this difference to compress the amount of information of the moving images ([paragraph 0002] of Appendix K2). 162

The patent in suit further states that there are three types of pictures in the conventional moving picture coding process according to the MPEG-4 standard, namely I-pictures (intracoded) 163

images), P-images (predicted images) and B-images (bidirectionally predicted images). I-pictures are intra-coded, but no inter-picture prediction is used. P images are coded using inter-image prediction with reference to a previous image. B-scans are coded using inter-scan prediction with reference to a previous scan (I-scan or B-scan) and a subsequent scan (I-scan or P-scan).

This is explained in the patent in suit with reference to Fig. 15, which is shown below in reduced form:

164

FIG.15

165

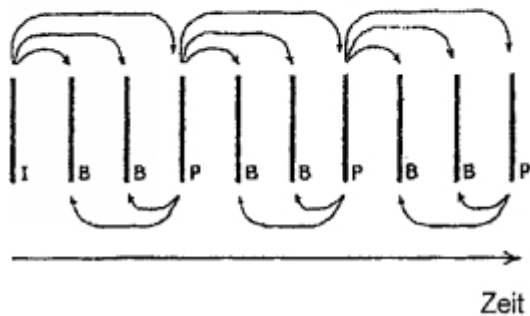


Fig. 15 shows predictable relationships between corresponding images in the above moving image coding method. In Fig. 15, vertical lines represent images. Image types (I, P and B) are indicated at the lower right side of each image. The pictures at the arrowheads are coded by inter-picture prediction coding with reference to the pictures at the other ends of the arrows. For example, the second B image is encoded by using the first I image and the fourth P image as reference images ([para. 0003] of Appendix K2).

166

According to the MPEG-4 standard, a difference between a motion vector of a current block and a predicted vector obtained from the motion vectors for the neighboring blocks is encoded to encode motion vectors. Because the motion vectors of the neighboring blocks usually have a similar size and direction of motion on the spatial coordinate to the motion vectors for the current block, the encoding amount of the motion vectors can be reduced by calculating the difference from the predicted vector obtained from the motion vectors of the neighboring blocks.

167

The coding of motion vectors according to MPEG-4 is explained in the patent in suit with reference to Figs. 16A to 16D, which are shown below in reduced form:

168

169

Fig. 16A

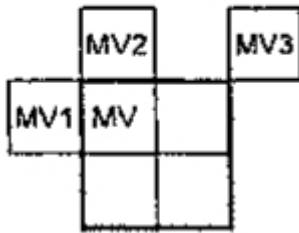


Fig. 16C

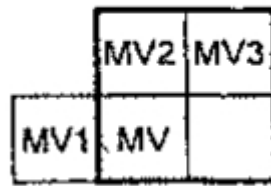


Fig. 16B

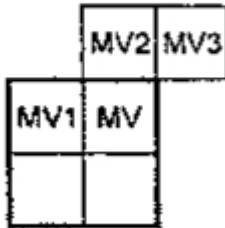
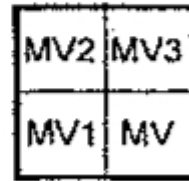


Fig. 16D



In these figures, blocks indicated in semi-bold are macroblocks of 16x16 pixels, with four blocks of 8x8 pixels in each macroblock. In Figs. 16A to 16D, the motion vector (MV) of each block is encoded based on the difference from the predicted vector obtained from the motion vectors (MV1, MV2 and MV3) of the three neighboring blocks. Like this predicted vector, mean values calculated from the horizontal and vertical components of these three motion vectors MV1, MV2 and MV3 are used. However, sometimes a neighboring block has no motion vector, for example if it is intra-coded or coded as a B-scan in direct mode. If one of the neighboring blocks is a block of this type, the motion vector for the block is considered to be zero. If two of the neighboring blocks are blocks of this type, the motion vector of the remaining one block is used as a predicted vector. If all of the neighboring blocks have no motion vector, then the motion vector of the current block is encoded assuming that the predicted vector is zero ([para. 0005] of Appendix K2).

170

Meanwhile, a new coding method of B pictures is proposed in the H.26L method developed for standardization. B images are usually encoded by using a previously encoded preceding image and a previously encoded succeeding image as reference images, but in the new encoding method, B images are encoded by using two previously encoded preceding images, two previously encoded succeeding images, or one previously encoded preceding image and one previously encoded succeeding image (paragraph [0005] of Appendix K2).

171

According to the patent-in-suit, even though the adjacent blocks in a B-scan each have two motion vectors in the direction of the preceding reference frames or two motion vectors in the direction of the following reference frames, in the conventional motion vector encoding method, there is no specific and unified method for determining which of these two vectors is to be used as a predicted vector, thus there is no efficient encoding method of the specific motion vector (para. [0006] of Appendix K2).

172

In the prior art, a motion compensation method with block-dividing prediction and use of two temporally differential reference images is disclosed. Here, the prediction motion vector is based either on a motion vector of a short-time frame or a long-time frame or on a combination of two motion vectors of the frames ([para. 0007] of Appendix K2). In addition, the prior art teaches the selective use of motion vectors of the neighboring block in the calculations of the predicted vector ([para. 0008] of Appendix K2).

The patent-in-suit sets itself the task of providing a motion vector encoding method and a motion vector decoding method which can standardize the method of determining a predicted vector for encoding a motion vector and improve predictability ([para. 0009] of Appendix K2). 174

To solve this problem, the patent in suit proposes a method with the features of claim 1 and a device with the features of claim 2, which are reproduced below in structured form: 175

Claim 1: 176

1. A motion vector decoding method for generating a precomputed motion vector for a current block to be decoded and decoding an encoded motion vector of the current block using the precomputed motion vector, 177

wherein the motion vector decoding method comprises: 178

2. Assign, 179

2.1 if at least one block from a plurality of decoded blocks in the neighborhood of the current block has two motion vectors, 180

2.2 which refer to reference images in the same direction in display sequence, 181

2.3 an identifier to a respective motion vector of the plurality of decoded blocks on a block basis 182

2.4 according to an order in which the motion vectors of each block appear in a bit stream; and 183

3. Derive the predicted motion vector for each motion vector of the current block using the motion vectors with the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks. 184

Claim 2: 185

1. A motion vector decoding apparatus for generating a precomputed motion vector for a current block to be decoded and decoding an encoded motion vector of the current block using the precomputed motion vector, 186

wherein the motion vector decoding device comprises: 187

188

2. an assignment unit
- 2.1 for assigning an identifier to a respective motion vector of the plurality of decoded blocks on a block basis 189
- 2.2 according to a sequence in which the motion vectors of each block appear in a bit stream, 190
- 2.3 if at least one block from a plurality of decoded blocks in the neighborhood of the current block has two motion vectors, 191
- 2.4 which refer to reference images in the same direction in display sequence; 192
3. a deriving unit for deriving the predicted motion vector for each motion vector of the current block using the motion vectors having the same identifier as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks. 193

II. 194

First of all, the features of feature group 2 of claim 1 of the patent in suit (method claim) require further explanation. 195

1. 196

If the situation described in features 2.1 and 2.2 exists, an identifier is assigned according to the patent in suit. However, the patent claim does not specify that an identifier may not be assigned in other cases. 197

Nothing else follows from the fact that the description of the situation in which the identifier is assigned (features 2.1, 2.2) precedes the more detailed description of the assignment itself (features 2.3, 2.4) using the term "if at least". The conjunction "wenn" ("when") specifies that an identifier is assigned when the situation exists. The term "at least" refers to the term "a block". It expresses that at least one block described in more detail must have two movement vectors, but this specification can also apply to several such blocks. 198

However, the wording does not imply that an identifier may only be assigned if characteristics 2.1 and 2.2 are present. 199

The patent claim also does not specify a "detection" of the situation described in features 2.1 and 2.2 as a separate process step. Rather, the patent in suit leaves open how it is ensured that an identifier is assigned when the situation described is present. 200

2. 201

According to feature 2.2, the two motion vectors described in feature 2.1 refer to reference images in the same direction in display order. 202

The patent in suit does not expressly define what is meant by "refer to" of motion vectors to reference images. However, the meaning

of the term from the function of motion vectors according to the teaching of the patent in suit, in particular in relation to the reference images.

According to the teaching of the patent in suit, a movement between the current image and the reference image is compensated for by shifting the pixel values according to a movement vector. The motion vector indicates the displacement of the pixels in both the horizontal (X) and vertical (Y) directions (see paragraphs [0004], [0050], [0084] of Appendix K2). The reference image of a motion vector is the image from which the pixel values of a block are shifted using the motion vector to generate a predictive image for a current block. The motion vector is therefore the shift vector for the motion compensation to be performed on this reference image. 204

In contrast, according to the teaching of the patent in suit, the motion vector does not have the function of pointing in the direction of the reference image and thereby characterizing the reference image referred to. Rather, both the horizontal and the vertical components of the motion vector are required for the representation of the pixel shift. Against this background, "referencing" in the sense of feature 2.2 can only be understood to mean that the motion vectors refer to specific reference images - namely those in the same direction in the display sequence. 205

This interpretation is consistent both with the wording of the relevant English language of the proceedings under Article 70(1) EPC and with the translation made. On the question of whether the relevant English verb "refer to" should be translated as "refer" could also have been translated as "refer to" is therefore irrelevant. 206

Nor does anything else follow from Figs. 4 and 5 of the patent in suit. There is no indication in Fig. 4 that the reference images mentioned in brackets are not the reference images referred to in the sense of the interpretation made. The arrows in Fig. 5 merely schematically represent the direction of the reference images. Apart from that, any possible meaning of the kind that the movement vectors themselves indicate the direction of the reference images would not have been reflected in the patent claim to be assessed, so that they are not capable of limiting it (see BGH, judgment of 13.04.1999 - X ZR 23/97, Extrusionskopf). 207

For the purposes of feature 2.2, motion vectors refer to reference images "in the same direction in display order" if both motion vectors are either forward or backward in display order (see Figs. 4A, 4B, 4C). This is the case if the reference images referred to are both previous or subsequent images in the display sequence (see paragraphs [0006], [0042] of Appendix K2). 208

3. 209

Feature 2.3 specifies that an "identifier" is assigned to a respective motion vector of the plurality of decoded blocks on a block-by-block basis. 210

The function of the identifier results from the patent claim itself. It serves to distinguish motion vectors with the same identifier from motion vectors with a different identifier in the method step of deriving a precalculated motion vector (feature 3). Since the patent claim deals with the occurrence of two 211

movement vectors (cf. feature 2.1), it is in particular a question of distinguishing between the first and second movement vectors. This function of the identifier is confirmed by paragraph [0104] of Annex K2 (paragraph [0080] of Annex K1), according to which the identifier codes indicate whether the first or second movement vectors are involved. An identifier within the meaning of feature 2.3 must therefore be suitable for distinguishing between a first and a second movement vector.

The patent in suit leaves open how the identifier is structured. The wording "identifier" does not specify any particular form. Any embodiment is therefore patentable as long as it is suitable for fulfilling the stated function. Insofar as identifier codes are described as variables ("0 and 1, 1 and 2, MV1 and MV2 or the like", paragraph [0068] of Annex K2) by way of example in the embodiment examples, this is not capable of limiting the patent claim, in which such an embodiment is not reflected. Moreover, it should be noted that the wording of the patent claim with the term "identifier" is broader than the term "identifier code" used throughout the embodiments. Even in the relevant English process language, the term "identifier" is only used in the patent claim, whereas the term "ID" was chosen in the embodiments. Even if the term "identification code" ("ID") is to be understood restrictively as meaning that it must be independent information, this does not apply to the wording used in the patent claim.

212

A restriction to identifiers stored together with the motion vector cannot be inferred from the embodiment example in paragraph [0104] of Appendix K2 (paragraph [0080] of Appendix K1) either. Paragraph [0104] describes two methods for storing and managing motion vectors, which distinguish the first and second motion vectors in different ways. According to the first method (paragraph 1), this distinction is ensured by storing together with the motion vectors their sequence in the form of identification codes. According to the second method (paragraph 2), the storage locations of the first and second motion vectors are predetermined so that they can be detected - and thus distinguished from each other - by accessing the storage locations. It cannot already be established that only the method described first is patentable. The memory address mentioned in the second method can also be an identifier within the meaning of feature 2.3. Functionally, it makes no difference whether information is added to the motion vector or whether this motion vector is stored at an address provided for this purpose. It is not necessary to restrict identifiers to independent information that is stored with the motion vectors in order to achieve the advantages sought by the patent.

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4.

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Assigning" (feature 2) links the movement vector of a block with the identifier defined in this way. The linking ensures that the motion vector and the identifier are linked in such a way that the first and second motion vectors appearing in the bit stream can be distinguished from one another. The way in which this linking takes place is left to the discretion of the person skilled in the art. For example, the storage of motion vectors at certain memory locations, which enables the access to certain memory locations just explained, can also be an assignment within the meaning of feature 2. An "assignment" also does not require a motion vector to be linked for the first time with the information that identifies it as the first or second motion vector.

215

<u>5.</u>	216
According to feature 2.4, the assignment of an identifier must be made "according to a sequence" in which the motion vectors of each block appear in a bit stream.	217
As already discussed, assigning an identifier serves to distinguish first and second motion vectors from one another. According to feature 2.4, the sequence of their appearance in the bit stream is important for this, i.e. for the classification as first or second motion vectors. The assignment of an identifier "according to a sequence" thus presupposes that the motion vector transmitted first in the bit stream can be distinguished from the motion vector transmitted subsequently in the bit stream by assigning an identifier. In contrast, the patent claim does not require that the sequence of the motion vectors in the bit stream is first detected in a separate method step and that an identifier is assigned on the basis of this result. Rather, the patent claim leaves open how it is ensured that the motion vector transmitted first in the bit stream is assigned an identifier which distinguishes it from the motion vector transmitted subsequently in the bit stream.	218
<u>6.</u>	219
The patent in suit also does not specify how the "motion vectors" must be designed, according to the sequence of which identifiers are assigned in the bit stream. Neither the wording nor the function of the motion vectors in the context of the feature 2.4, it can be deduced in particular that these must be uncoded motion vectors. In order to be able to refer to the sequence of their appearance in the bit stream, they can also be coded motion vectors. In fact, the patent in suit itself assumes that the motion vectors appear in the bit stream in coded form, namely in the form of motion vector differences. According to the teaching of the patent in suit, the motion vector difference is the difference between the actual motion vector and the predicted motion vector.	220
That encoded motion vectors appear in the bitstream according to the teaching of the patent in suit is apparent, for example, from paragraph [0054] of Appendix K2, according to which the bitstream generating unit, after receiving the encoded data, adds, inter alia, the encoded motion vectors input by the motion vector encoding unit in order to develop a bitstream for output. However, it is also clear at various other points in the embodiment examples that the bit stream contains coded data (cf. paragraphs [0045], [0051], [0066], [0082], [0085] of Annex K2). According to the teaching of the patent in suit, the motion vectors are encoded by forming the motion vector difference. This becomes clear, for example, from paragraph [0048] of Appendix K2, according to which the coding of the motion vector to be coded for the current block is carried out on the basis of the difference from the predicted vector obtained from the motion vectors of the three neighboring coded blocks. In paragraph [0136], the coding of the difference between the motion vector and the predicted vector and the inclusion of the coded difference in a bit stream representing a moving picture is mentioned as an application of the invention. Since encoding and decoding are regularly inverse to each other, the person skilled in the art recognizes that the motion vector differences appear in the bit stream described in feature 2.4.	221

Feature 1 also confirms that motion vector differences appear in the bit stream according to the teaching of the patent in suit. The feature distinguishes between the generation of a pre-calculated motion vector for a current block to be decoded and the decoding of an encoded motion vector of the current block using precisely this pre-calculated motion vector. The use of such a pre-calculated (predicted) motion vector is necessary precisely because the motion vector to be decoded is encoded in the bit stream, namely as a motion vector difference. The motion vector for the current block is calculated by adding the predicted vector and the coded motion vector (the motion vector difference) (cf. paragraph [0082] of Annex K2).

This understanding of the patent in suit also does not contradict the prior art discussed in the introductory description. There, as discussed under I., it is stated that the MPEG-4 standard for encoding motion vectors encodes a difference between a motion vector of a current block and a predicted vector obtained from the motion vectors for the neighboring blocks (paragraph [0004] of Annex K2). The patent in suit adopts this prior art by starting from a previously known construction, considering it to be quite advantageous and intending to retain it for the invention (see OLG Düsseldorf, judgment of 30.10.2014 - I-15 U 30/14). The patent in suit is clearly based on the coding of the MPEG-4 standard and aims to improve the method for determining a predicted vector for certain B-pictures. In contrast, the patent-in-suit leaves the aspect of encoding and transmission/storage of only the difference in dispute here unchanged. 223

It does not lead to a different consideration that in Fig. 8 of the patent in suit, which shows the image data corresponding to an image in the bit stream (paragraph [0066] of Appendix K2), the motion vectors of a block B are designated as "MV1", "MV2" ("MV" for "motion vector"). It cannot be deduced from this that they must be uncoded or "complete" motion vectors. Nor does this interpretation attribute a different meaning to the same terms in the patent claim without such an understanding being apparent from the patent claim as a whole (see BGH, GRUR 2017, 152 - Zungenbett). The term "motion vector" used in the patent claim covers both its uncoded and its coded form, without this being a different understanding of the same term. The patent claim deals precisely with both forms of the motion vector. 224

Finally, the fact that, according to the teaching of the patent in suit, motion vector differences are transmitted in the bit stream applies irrespective of whether it is the current block to be decoded (cf. feature 1) or the neighboring blocks (cf. feature 2.1). According to the teaching of the patent in suit, the motion vectors of the already decoded neighboring blocks have been decoded by adding the motion vector difference appearing in the bit stream to a respective pre-calculated (predicted) motion vector. The patent in suit does not provide a different decoding method for the neighboring blocks. Moreover, whether a particular block is a current block or a neighboring block depends only on which decoding is currently being considered. 225

III. 226

With regard to claim 2 of the patent in suit (device claim), reference can be made to the above explanations. The device according to claim 2 is designed in such a way that it can carry out the method according to claim 1. For this purpose, according to claim 2 227

corresponding units must be present, but the design of these is left to the skilled person by the patent in suit. The patent in suit does not impose any special spatial or physical requirements in this respect.

IV. 228

By selling the attacked embodiments, the defendant indirectly infringes the technical teaching of claim 1 of the patent in suit, Art. 64 EPC in conjunction with Sec. 10 (1) PatG. Pursuant to Sec. 10 (1) PatG, it is prohibited for third parties to offer or supply means relating to an essential element of the invention for use of the invention in the Federal Republic of Germany to persons other than those authorized to use the patented invention without the consent of the patent proprietor if the third party knows or if it is obvious from the circumstances that these means are suitable for use of the invention. These conditions are met. 229

1. 230

The attacked embodiments are objectively suitable for carrying out a method according to claim 1 of the patent in suit. The AVC decoder contained in the attacked embodiments indisputably works according to the AVC/H.264 standard. The application of the standard realizes all features of the patent-in-suit claim 1 and in particular those of feature group 2. The objective suitability for realizing the other features is rightly undisputed between the parties, which is why further explanations on this are superfluous. 231

a) 232

The AVC/H.264 standard is objectively suitable for realizing feature 2.2 of claim 1 of the patent in suit, namely in the case of the decoding processes for the frame sequence counter type 2 (section 8.2.1.3 of the AVC/H.264 standard, page 119 of Annex K5a). According to the "NOTE 3" of section 8.2.1.3, the frame sequence counter type 2 results in an output sequence that corresponds to the decoding sequence. If the output and decoding sequence are identical, only reference images that are past images in the output sequence can be used. Future images cannot be decoded. In cases where there are two motion vectors mvL0 and mvL1, both are therefore backwards and refer to reference images "in the same direction in the display sequence" in the sense of the above interpretation. 233

This is not contradicted by the fact that "NOTE 3" of section 8.2.1.3 is not an integral part of the standard (cf. section 0.7 of the AVC/H.264 standard, page xx of Annex K5a). It has neither been demonstrated nor is it otherwise apparent that the information contained therein is not correct. 234

Reference images are assigned to the first and second movement vectors in the standard system. The reference to the assigned reference images (refidxL0 or refidxL1) is transmitted in the bit stream. According to the above interpretation, the fact that the movement vectors do not themselves represent the reference to the reference images due to their direction does not result in a violation. 235

b) 236

237

When using the AVC/H.264 standard, an identifier in the sense of feature 2.3 is also assigned, namely in the form of the identifier $X = 0,1$.

The motion vector difference transmitted in the bit stream is assigned the identifier $X = 0,1$ in accordance with the AVC/H.264 standard, so that the differences are given the designations mvd_I0 or mvd_I1 . This assignment is suitable for distinguishing the first (mvd_I0) from the second (mvd_I1) motion vector. 238

The assignment of the identifier results from section 8.4.1.3.1 of the AVC/H.264 standard, which describes the median luma motion vector prediction. According to this, the inputs for the derivation process are, among others, the motion vectors $mvLXN$ (where N is replaced by A, B or C ; A, B and C identify one of three neighboring blocks) of the neighboring partitions. If X is 0 or 1 ($X = 0,1$), the neighboring partitions have two movement vectors. The output of this process is the motion vector prediction $mvpLX$. If there are two movement vectors, the identifier $X = 0,1$ is assigned. 239

According to the AVC/H.264 standard, the identifier $X = 0,1$ is always assigned in the presence of two motion vectors and thus also under the further conditions of features 2.1 and 2.2. According to the above interpretation, it does not lead out of the violation that the identifier $X = 0,1$ is thus also assigned in situations other than those described in features 2.1 and 2.2. The fact that the existence of a situation in accordance with features 2.1 and 2.2 is not recorded in a separate procedural step is also irrelevant for the realization of the feature. 240

Whether and in what form the identifier is retained when the program code defined in the AVC/H.264 standard is translated into the machine language (compilation) is irrelevant for the realization of feature 2.3. The applicant has comprehensibly explained that the compilation results in a machine code that represents the original program code, so that the semantic content of the program code is still contained in the machine code - albeit translated into another language. An identifier within the meaning of feature 2.3 is therefore still present when the standard is implemented because the identifier used in the standard, albeit in compiled form, still exists in the machine code. 241

c) 242

The identifier is also assigned in the sense of feature 2.4 "according to a sequence" in which the motion vectors appear in a bit stream. In the standard system, mvd_I0 is transmitted in the bit stream before mvd_I1 or - conversely - the motion vector transmitted first in the bit stream carries the identifier 0 and the motion vector transmitted afterwards carries the identifier 1. According to the above interpretation, it is not necessary for the order of the motion vectors in the bit stream to be recorded first in a separate process step. 243

The fact that, according to the AVC/H.264 standard, it is undisputed that it is not the motion vector $mvLX$ but the difference mvd_IX between the actual motion vector $mvLX$ and the motion vector prediction $mvpLX$ that is transmitted in the bitstream does not lead out of the infringement according to the above explanations. The motion vector difference mvd_IX is also a motion vector within the meaning of feature 2.4. 244

<u>d)</u>	
Finally, an "assignment" of an identifier in the sense of feature 2 takes place. According to the above interpretation, it is irrelevant that the motion vector differences are linked with the information as to whether it is the first or second motion vector for the first time when the bit stream is generated, i.e. during encoding. A corresponding link also takes place during decoding when the bit stream is read out and the motion vector difference transmitted at the corresponding point is stored in a memory location provided for this purpose.	246
<u>2.</u>	247
The attacked embodiments are means which relate to an essential element of the invention. This already follows from the fact that the attacked embodiments with the AVC decoder contained therein are capable of carrying out the process steps provided for in claim 1 of the patent in suit (see BGH, GRUR 2015, 467 - Audiosignalcodierung).	248
<u>3.</u>	249
The attacked embodiments are also distributed in Germany for use in Germany. The defendant's customers are also not entitled to use the protected process in the absence of the plaintiff's consent as patent proprietor.	250
<u>4.</u>	251
Based on the circumstances, it is obvious that the attacked embodiments are suitable and intended to be used for the use of the invention. The obviousness does not already follow from the fact that the attacked embodiments can only be used in a patent-infringing manner (see BGH, GRUR 2007, 679 - Haubenstretchautomat; GRUR 2005, 848 - Antriebsscheibenaufzug). However, the patent-infringing use by the customers is obvious because the AVC decoder is a permanently installed component of the attacked embodiments and is used, for example when playing videos, without the users being aware of this.	252
<u>V.</u>	253
The attacked embodiments also make direct use of the technical teaching of claim 2 of the patent in suit (device claim). With the AVC decoder, the attacked embodiments have a motion vector decoding device within the meaning of feature 1, which comprises an assignment unit within the meaning of feature group 2 and a derivation unit within the meaning of feature group 3. For the rest, reference can be made to the explanations under IV. can be referred to.	254
<u>VI.</u>	255
The defendant cannot successfully invoke the compulsory license defense under antitrust law.	256
It cannot be established that the plaintiff is abusing its dominant market position (see section 1.) (see section 2.).	257
<u>1.</u>	258

The plaintiff has a dominant market position within the meaning of Art. 102 AEUV. __	259
a)	260
"Market dominance" in this context means the economic power that allows a company to prevent effective competition on the (temporally, geographically and factually relevant) market and to behave to an appreciable extent independently of its competitors, customers and consumers (ECJ ECR 78, 207 para. 65 f. - United Brands; ECJ ECR 79, 461 para. 38 f. - Hoffmann-La Roche). The necessary precise definition of the market in product and geographic terms is carried out by means of the so-called demand market concept. The competitive forces to which the companies concerned are subject must be determined. Furthermore, those companies are determined which are actually in a position to set barriers to the behavior of the companies involved and prevent them from being deprived of competitive pressure. It is necessary to clarify which products or services are functionally interchangeable from the point of view of customers. The same product market is assigned to those products or services that cannot be substituted by other products or services from the customers' point of view due to their respective characteristics, prices and intended uses. A combination of several factors (e.g. market share, company structure, competitive situation, behavior on the market; but generally not the price) must be taken into account (OLG Düsseldorf, Urt. v. 30.03.2017, Ref.: I-15 U 66/15, para. 148 - Mobiles Kommunikationssystem, cited in juris).	261
In connection with the prohibition rights from a patent asserted here, the delimitation described above must be made in relation to the licensing market (OLG Düsseldorf, <i>ibid.</i> , para. 149; Kühnen, <i>ibid.</i> , chapter E., para. 217): The supplier is the patent proprietor, who alone is able to grant a license to the respective patent; the buyer is the user interested in the patent-protected technology. The mere ownership of patents does not constitute a dominant market position. However, if, due to additional circumstances, the patent holder is able to use its monopoly position to prevent effective competition on a downstream market, a dominant position exists (ECJ, GRUR Int 1995, 490 - Magill TVG Guide; ECJ, WuW 2013, 427 - Astra Zeneca; BGH, NJW-RR 2010, 392 ff. - Reisestellenkarte). Such a downstream product market exists for goods/services subject to licensing on the basis of the patent.	262
Not every standard-essential patent as such establishes market dominance (OLG Düsseldorf, <i>ibid.</i> , para. 150; Kühnen, <i>ibid.</i> , chapter E., para. 220). However, such dominance can be assumed without further ado if access to the use of the SEP in question is a genuine prerequisite for market entry (OLG Düsseldorf, <i>ibid.</i> ; Kühnen, <i>ibid.</i> , Chapter E, para. 221), which is the case if only products that implement the standard by using the SEP are offered and in demand on the relevant market (OLG Düsseldorf, <i>loc. cit.</i> ; Kühnen, <i>loc. cit.</i>). The same applies if products are also offered on the relevant market that do not have the product configuration of the SEP, but a competitive offer is not possible without access to the use of the SEP at issue (Kühnen, <i>loc. cit.</i>).	263
Conversely, it follows from the above that the lack of standard essentiality of a patent does not necessarily preclude the assumption of market dominance. Market dominance can also result from a technical or economic superiority of the patented invention without standard essentiality (OLG Düsseldorf, <i>loc. cit.</i>).	264

The defendant bears the burden of presentation and proof for market dominance according to the general principles (OLG Düsseldorf, *ibid.*, para. 151; Kühnen, *ibid.*, chapter E., para. 225). In this respect, the defendant is required to present very specific facts that allow a judicial review of whether or not a dominant position exists on the relevant geographic and product market (Kühnen, *ibid.*).

b) 266

On the basis of the above principles, there is no reasonable doubt that the plaintiff has a dominant market position due to its capacity as the proprietor of the patent in suit. 267

The defendant has argued that there is no economically viable ("realistic") alternative to the AVC/H.264 patent pool on the licensing market for the AVC/H.264 standard. In the relevant downstream market, almost all marketable mobile devices are equipped with the asserted AVC standard, so that the degree of market penetration of the standard at the level of the downstream product market amounts to almost 100%. 268

The defendant has additionally substantiated this submission, which the plaintiff has not countered, on the basis of random market analyses. The samples submitted (Exhibit B42) show that companies known to the court as major market participants (Samsung, Apple, Sony, LG, HTC, ZTE, OnePlus, BQ) advertise and sell their devices as AVC/H.264-capable. 269

The AVC standard is also not interchangeable with other common video coding standards (AVI, DivX, Flash Video, WMV). Since the video format used is determined by the content provider, not the manufacturer of the end device, the manufacturers equip their products with the option of supporting various standards, including the AVC/H.264 standard at issue here. 270

The above also applies to the technical function provided by the patent in suit. In its statement of claim, the plaintiff itself refers to the fact that the patent in suit is essential for the use of the AVC/H.264 standard (see Section III.). 271

2. 272

On the other hand, it cannot be established that the plaintiff is abusing its dominant position by not complying with the requirements set out in the ECJ judgment for the holder of an SEP for which a FRAND declaration exists. 273

a) 274

The ECJ has granted a license on fair, reasonable and non-discriminatory terms ("FRAND") to the owner of a standard-essential patent (hereinafter referred to as "SEP") who has undertaken vis-à-vis a standardization organization to grant a license to any third party. "fair, reasonable and non-discriminatory") in the case *E v ZTE*, ref. no. C-170/13, by judgment of 16 July 2015 in the version of the rectification order of 15 December 2015 (GRUR 2015, 764) interpreting Art. 102 TFEU, which - provided they are complied with by the latter - result in an action for injunctive relief or recall brought by the latter not being regarded as an abuse of its 275

dominant position (ECJ, GRUR 2015, 764, para. 55) (see lit. aa)). The case at hand must also be assessed in accordance with this provision (see lit. bb)).

aa) 276

The ECJ ruling referred to results in a regime of duties/obligations to be followed by the patent proprietor and patent user, the individual procedural steps of which build on each other, so that the patent infringer only has to react in the manner incumbent on him if the patent proprietor has previously fulfilled the obligations incumbent on him (OLG Düsseldorf, Urt. v. 30.03.2017, Ref.: I-15 U 66/15 - Mobile communication system, cited in juris). 277

This regime stipulates that the patent proprietor must notify the alleged infringer "before bringing the action" (or "before the judicial assertion"), stating the SEP in question and the nature and manner of the infringement (ECJ, GRUR 2015, 764, para. 62, 71). If the alleged patent infringer then expresses its willingness to conclude a license agreement under FRAND conditions, the patent proprietor must - in order to avoid being accused of abusing its dominant market position - submit a specific written license offer under FRAND conditions (ECJ, *ibid.*, para. 71). In particular, this must include the license fee and the way in which it is calculated (*ibid.*). It is then incumbent on the alleged infringer to respond to this offer with due diligence, in accordance with recognized commercial practice in the field and in good faith (ECJ, *ibid.*, para. 65, 71). If the alleged infringer does not accept the offer, he can only rely on the abusive assertion of an action for an injunction or recall if he makes the owner of the SEP in question a concrete counter-offer in writing within a short period of time that complies with the FRAND conditions (ECJ, *ibid.*, para. 66). Furthermore, the patent user must provide adequate security in accordance with recognized commercial practice in the relevant field from the time at which his counter-offer was rejected (ECJ, *ibid.*, para. 67). 278

The antitrust restrictions established by the ECJ for the assertion of claims for injunctive relief and recall also apply to claims for destruction (OLG Düsseldorf, decision of 13.01.2016, ref.: I-15 U 65/15, para. 16, cited in juris). 279

bb) 280

The ECJ case law described above is also applicable to the present case. 281

Insofar as the plaintiff is of the opinion that the factual constellation here, according to which - which is still to be shown - a routine licensing practice already exists, precludes application of the principles established in the ECJ judgment cited, and that recourse should rather be had to the so-called "Orange Book Standard" case law, which imposes on the patent user the requirement of an offer to conclude a license agreement (BGH, GRUR 2009, 694, para. 29), the Chamber does not agree with this. 282

As can be seen from the grounds of the judgment, the ECJ considered the facts of the case to be characterized by the fact that "*on the one hand*" the patent in suit is essential for a standard set by a standardization organization (ECJ, GRUR 2015, 764, para. 48) and "*on the other hand*" an irrevocable 283

commitment by the proprietor to grant licenses to third parties on FRAND terms (ECJ, *ibid.*, para. 51). It is precisely with these aspects that the ECJ links the special list of obligations established for the patent proprietor:

"In such a constellation, in order for an action for injunctive relief or recall not to be regarded as abusive, the SEP holder must satisfy conditions designed to ensure a fair balance between the interests concerned." (ECJ, *ibid.*, para. 55; emphasis added). 284

However, the (further) delimitation of the initial situation described in this way from cases in which an existing licensing practice exists cannot be inferred from the ECJ ruling. It is true that paragraph 64 of the ECJ judgment states: 285

"[...]. Moreover, if neither a standard license agreement nor license agreements already concluded with other competitors have been published, the SEP holder is in a better position than the alleged infringer to verify whether its offer complies with the conditions of equal treatment." (emphasis added), 286

However, the ECJ did not clearly intend to create a further demarcation criterion. This is already contradicted by the linguistic introduction with the word "moreover", which merely marks an additional argument for the view that the patent proprietor must take the initiative to conclude a license agreement. The systematic position of the passage in connection with the presentation of the patent proprietor's obligations, which results precisely from the special features described above (in paragraphs 48 and 51), also underlines the fact that only an additional argument for these obligations, but not a new distinguishing criterion, is to be presented. Finally, the fact that even in such a case, the expectation raised by the patent proprietor that he is prepared to conclude a license agreement on FRAND terms remains (ECJ, *ibid.*, para. 54) also speaks against a departure from the established program of obligations in the case of an existing licensing practice. This is even further fueled by the already "lived" licensing practice. Similarly, the possibility of a lack of information regarding the use of the teaching of a standard-essential patent on the part of the alleged infringer also remains in these cases - a circumstance that prompted the ECJ to impose the obligation to make an initial offer on the part of the patent proprietor (ECJ, *ibid.*, para. 62). The mere fact that a standard license agreement has been published does not necessarily mean that the patent user is aware of the use of the standard-essential patent(s). The search for a corresponding standard license agreement should rather presuppose such knowledge. 287

In addition, the view that an established license agreement practice leads beyond the principles set out in the ECJ ruling also leads to practical delimitation problems as to when such a constellation is to be assumed. 288

However, the above statements do not preclude any existing licensing practice of the patent proprietor from being given special significance in the context of the examination of the program of obligations to be performed by him - which is explained in detail below under d) with specific reference to the case at hand. 289

b) 290

291

The e-mail dated September 6, 2011 (Annex K10 - Exhibit A - a) is a sufficient notice of infringement.

Since the notice of infringement "must designate the SEP in question and state the manner in which it is alleged to have been infringed" (ECJ, *ibid.*, para. 61), it is at least necessary to state the publication number of the patent in suit, the accused embodiment and the alleged act of use (within the meaning of Sections 9 et seq. PatG) vis-à-vis the infringer (OLG Düsseldorf, *Urt. v. 30.03.2017, Ref.: I-15 U 66/15, para. 172 - Mobile communication system, cited in juris*). However, the infringement notification does not require detailed (technical and/or legal) explanations - the other party must only be put in a position - if necessary with expert assistance - to examine the infringement allegation (OLG Düsseldorf, *loc. cit.*; Kühnen, *ibid.*, chapter E., para. 328; furthermore LG Mannheim, judgment of 29.01.2016 - 7 O 66/15 - para. 57). The purpose of the infringement notification is to give the user, who may still be acting in good faith with regard to the infringement, the opportunity to inquire about the granting of a permission of use promised to any interested party on the basis of the FRAND declaration (Kühnen, *loc. cit.*). However, the obligation to self-disclose is not an end in itself. It is therefore dispensable where it appears to be a useless exercise, because it can be assumed with certainty on the basis of the overall circumstances that the infringing defendant is aware of the use of the patent in suit by the attacked embodiment and that his plea that the plaintiff did not notify him of this appears to be an abuse of rights (Kühnen, *ibid.*, ch. E., para. 33). However, high demands must be placed on the existence of such an offense (*loc. cit.*).

According to this provision, the letter from MPEG LA dated September 6, 2011 (Annex K10 - Exhibit A - a) proves to be sufficient evidence of infringement.

aa)

First of all, it is irrelevant that the letter in question was exchanged between MPEG LA and Mr. F, called "G".

(1)

If - on the part of the patent user - it is ensured that a notice of infringement sent to the parent company is forwarded within the group to the subsidiaries concerned, no formal notification to all subsidiaries is required (OLG Düsseldorf, *loc. cit.*, para. 175; Kühnen, *ibid.*, chapter E., para. 329). In the absence of any indications to the contrary, the fact that the company belongs to a group already justifies the justified assumption that the subsidiaries concerned will be informed (OLG Düsseldorf, *loc. cit.*).

Moreover, the prior correspondence between the parties in the present case also justifies the trust that information relating to licensing issues will be passed on within the defendant's group. Thus, the upstream licensing discussions about the MPEG-2 standard were already regularly conducted via "G", who is an employee of the subsidiary E USA, but who appeared on behalf of the E Group and gave the impression that the licensing issues concerning the Group came together with him. This is stated in an e-mail from "G" dated November 10, 2009 (Annex B10; German translation: Annex B10a):

"[...], but it took me some time to talk to the relevant regional offices and the head office and get their opinions to determine suitable subsidiaries, [...]. [...]."	300
In my conversations with the regional sales departments, [...].",	300
and in a further e-mail dated December 9, 2009 (Annex B16; German translation: Exhibit B16a):	301
"[...] although I have managed to convince other regional offices of E outside of China to acquire licenses, it Chinese office is simply not willing to enter into a license agreement at this point."	302
In accordance with this previous negotiation practice, the letter from MPEG LA dated September 6, 2011 in question here was also addressed to "G". It states:	303
"K suggested that I contact you because you are responsible for patent licensing matters at E."	304
In the subsequent reply e-mail dated September 15, 2011 (Exhibit B21/Exhibit B21a), this passage is not contested by "G", but rather commented:	305
"Do you have time for a phone call next Wednesday or Thursday so that we can discuss this matter in more detail?"	306
<u>(2)</u>	307
The letter written by MPEG LA can also be interpreted as a notice of infringement by the plaintiff.	308
It can be assumed that MPEG LA can perform legal acts in connection with the granting of licenses to the AVC/H.264 Patent Pool.	309
The standard license agreement for the Pool at issue here (Exhibit K10 - Exhibit G - a) comes after the introductory passage,	310
"This Agreement is entered into on XXX 20XXX between MPEG LA, LLC, a limited liability company organized under the laws of the State of Delaware with its principal place of business in Denver, Colorado, USA (hereinafter referred to as the "License Administrator"), and XXX (hereinafter referred to as the "Licensee").",	311
between the MPEG LA and the respective licensee. For this purpose, MPEG LA is granted sublicenses by the owners of the Pool Patents:	312
"Each Licensor grants to the License Administrator a worldwide, non-exclusive license and/or sublicense to all AVC Essential Patents licensable or sublicensable by Licensor to enable the License Administrator to grant worldwide non-exclusive sublicenses to all such AVC Essential Patents in accordance with the terms of this Agreement." (Standard License Agreement, Exhibit K10 - Exhibit G - a, p. 2, last paragraph).	313
Section 3.1 of the Standard License Agreement (Exhibit K10 - Exhibit G - a; emphasis added) also states:	314

"For the licenses granted in Article 2 of this Agreement under the AVC Essential Patents in the AVC Patent Portfolio, Licensee shall pay to the License Administrator, for the benefit of Licensors, the fees set forth below for the term of this Agreement:" 315

Although this contractual content does not directly regulate the contractual relationship between the MPEG LA and the respective Pool patent holders - the subject matter of the contract is rather the contractual relationship between the MPEG LA and the respective licensee - it does, however, provide an indication of the options available to the MPEG LA in connection with the licensing of the standard at issue here. 316

In addition, MPEG LA has actually concluded a large number of Standard License Agreements, i.e. the model described in the Standard License Agreement is also practiced. This is shown, inter alia, by the (completed) Standard License Agreements submitted with Exhibits K26 and K27, for example the agreements with "AHT Holding BV" (Exhibit B64 to Exhibit K26 and Exhibit K34 to Exhibit K27), "ZDF German Television" (Exhibit B65 to Exhibit K26) and "Sony Computer Entertainment Inc." (Exhibit K35 to Exhibit K27). 317

The parent company of the defendant itself was also in contact with MPEG LA for negotiation purposes for several years - the negotiations can be traced back to 2009 on the basis of the documents submitted. The defendant itself states that "E sought contact with representatives of the MPEG LA Patent Pool". In this respect, there is also an e-mail from Mr. L(E) dated February 13, 2009 confirming this (Exhibit B4; German translation: Exhibit B4a). Even if this contact initially concerned licensing with regard to the MPEG-2 Standard, the defendant's assumption that MPEG LA is legally in a position to grant a license in connection with the MPEG-Standard is supported by this. In the reply email from MPEG LA dated February 16, 2009 (Exhibit B5; German translation: Exhibit B5a), MPEG LA also indicated that the possibility of granting a license also covers the MPEG-4 Standard (emphasis added): 318

"As you may know, MPEG LA offers several patent portfolio licenses that provide coverage under patents essential to the use of various video compression standards, including MPEG-2, MPEG-4 Visual (part two) and AVC/H.264 (MPEG-4 part ten)." 319

The parent company of the defendant (or E) also conducted any negotiations with MPEG LA in the subsequent period. In this respect, reference is made in particular to the e-mail correspondence in 2009, which is expressed in Exhibit B4 - B8, Exhibits B9 and Exhibits B10 - B16 (the German translations of the Exhibits are each marked with the letter "a"). 320

Taking into account the facts cited, according to which MPEG has appeared many times in connection with the licensing of the standard at issue, it would also prove to be contrary to good faith if any patent proprietors were to invoke MPEG LA's lack of power to act in relation to licensees. In accordance with the licensing practice, the plaintiff as the Pool patent holder in the present proceedings also invokes the authority of the MPEG LA to act. 321

Irrespective of this, it can also be assumed that the defendant was fundamentally aware of the use of a License Administrator in the industry and the role of MPEG LA as such, which makes its denial of MPEG LA's ability to act with ignorance appear questionable in any case.

In particular, the e-mail correspondence between the parties shows that the defendant's group was considering cooperation with MPEG LA with regard to an "LTE Patent Pool": 323

"We hope that E will decide to submit an LTE patent for evaluation soon so that it can participate in the first funding meeting, which we will probably hold in September. 324

[...] 325

MPEG LA would very much like to work with E on the creation of an LTE Patent Pool, [...]. 326

[...] 327

In regards to our current Patent Pool licenses for MPEG 2, AVC, MPEG4 Visual and other technologies, I would like to introduce you to our Vice President of Licensing, Dean, who is cc'd in this e-mail. I know Dean and his team will be happy to answer any questions you may have about licenses that may be beneficial for future products. (Email Bill Geary dated July 01, 2009, Set of Exhibits B9; German translation: Set of Exhibits B9a)" 328

and: 329

"When we formed our opinion about the LTE Patent Pool, an important topic in our discussions with other LTE patent owners was who we should select as the Patent Pool Administrator[...]. Now we are considering adopting the certification process for essential patents established by MPEG LA." (e-mail Jason Ding dated July 1, 2009, Exhibit B9/B9a). 330

Finally, the cooperation between MPEG LA and the defendant's group is also described by "G" in an e-mail dated November 19, 2009 (Exhibit B14; German translation: Exhibit B14a) as "long-standing". 331

bb) 332

With regard to the content requirements for an infringement notice, the defendant must be conceded that the letter from MPEG LA dated September 6, 2011 (Exhibit K10 - Exhibit A - a) only contains general information on the infringing product - referred to there as "*mobile handset and tablet products*" - and on the infringed property right(s) - in the form of a reference to "*the AVC Patent Portfolio*" with "*more than 1000 essential AVC patents from 25 patent holders*". The publication numbers of specific patents from the extensive Pool are not mentioned, nor are the specific names of allegedly infringing products. 333

However, this content is exceptionally sufficient against the background of the prior correspondence between the parent company of the defendant and MPEG LA and the conduct of the parent company after the infringement notice. 334

In this respect, it must first be taken into account that the parent company (or initially E)MPEG-2 Standard were in contact. In this context, the MPEG LA already informed that not only the MPEG-2 Standard (requested by E USA) but also the AVC/H.264 Standard (MPEG-4 part ten) was known with regard to the compression of videos, which is why this Standard was also relevant in view of the products distributed by E (e-mail of February 16, 2009, Exhibits B5/B5a). In this context, the defendant's group also received the AVC/H.264 Standard License (cf. reply e-mail from Mr. L dated February 26, 2009, Exhibits B6/B6a), to which a patent list was also attached. In an e-mail dated March 18, 2009 (Exhibits B7/B7a), "G", who was responsible for the license negotiations on behalf of the defendant's group, replied and at least also referred to the MPEG-4 Standard, 335

"We are of the opinion that the same applies to MPEG-4 licensees such as "H" of the Haier Group. 336

According to our understanding, Futurewei (E) MPEG LA may sign license agreements (MPEG-2, MPEG-4, etc.) [...].", 337

although there is (still) no concrete intention to negotiate this standard (in addition to the MPEG-2 Standard). Subsequently, licensing of the MPEG-4 Standard was also mentioned in communications with the parent company: 338

"In addition, I have recently received feedback from E that although it has not sold any MPEG-2, MPEG-4 products in the US, it believes that acquiring relevant patent licenses will help develop the US market. As G expressed at our meeting in Tokyo, E wishes to acquire an MPEG-2, MPEG-4 license from MPEG LA, [...]" (e-mail Jason Ding dated July 1, 2009, Exhibits B8/B8a), 339

"In regards to our current Patent Pool licenses for MPEG-2, AVC, MPEG-4 Visual and other technologies, I would like to introduce you to our Vice President of Licensing, K, who is cc'd on this e-mail. I know Dean and his team will be happy to answer any questions you may have about licenses that may be beneficial to E's future products." (E-mail Bill Geary dated July 1, 2009, Exhibits B9/B9a), 340

"For your information, our MPEG-2 System Patent Portfolio License covers the use of the MPEG-2 System Standard for products without MPEG-2 video encoders or decoders. Our AVC Patent Portfolio License covers the use of the AVC standard (also referred to as H.264 or MPEG-4 Part 10). In this context, we understand that E offers handheld devices with T-DMB functions under the brand of E. Since the T-DMB Standard uses both the MPEG-2 Systems and AVC Standards, products with T-DMB functions would benefit from being covered by both our MPEG-2 System License and AVC License. 341

[...]. 342

I am sending you a package for review today (via FedEx) that will receive a current copy of the new MPEG-2 License along with copies of the MPEG-2 System License and the AVC License. [...]. In the meantime, if you have any questions or need additional information, please let me know." (e-mail K dated September 12, 2009, Exhibit B11/B11a), 343

344

and

"Regarding the MPEG-2 System License and AVC License, I will check them and contact you if I need further information." (e-mail "G" dated November 13, 2009, Exhibits B12/B12a). 345

Against the background of this correspondence, it could be assumed that the defendant did not require any further information other than the information contained in the letter dated September 6, 2011 (Exhibit K10 - Exhibit A - a) in order to make a decision with regard to its fundamental willingness to license. 346

In the letter referred to, MPEG LA made it clear that - in contrast to the negotiations on the MPEG-2 Standard - it was now also specifically seeking talks on the licensing of the AVC/H.264 Standard at issue here. It had already provided the parent company with documents in the form of the Standard License Agreement in 2009. As part of this communication, the parent company did not request any further information on the AVC/H.264 Standard despite expressions of interest, also with regard to a license to the AVC/H.264 Standard, and thus indicated that it was able to assess its willingness to license on the basis of existing knowledge. Following the letter of request dated September 6, 2011, the parent company also did not indicate a need for further information, but instead asked for a meeting to discuss the matter (e-mail "G" dated September 15, 2011, Exhibits B21/B21a). A request for the claim chart by the defendant can only be dated to 2016 (see minutes of the negotiation meeting with MPEG LA_20160720, No. II. 1. (9), Exhibit B26; German translation: Exhibit B26a). Furthermore, the parent company also indicated that it was already aware of MPEG LA as the License Administrator in 2009 (cf. e-mail Jason Ding dated July 1, 2009, Exhibits B9/B9a), which also indicates knowledge of MPEG LA's website, which provides an overview of the Pool patent holders and the associated Pool Patents (Exhibits K10 - Exhibit C) as well as a concordance list/Cross Reference Chart with reference to relevant Standard sections (Exhibit K10 - Exhibit E). 347

The described communication behavior of the parent company also supports the plaintiff's argument that it is obvious in the smartphone and tablet industry that the AVC/H.264 Standard is used in the use of the challenged devices and contradicts the defendant's submission that the E Group was still unaware of the AVC/H.264 Standard at the time of MPEG LA's letter of formal notice. 348

c) 349

As required by the ECJ, the parent company of the defendant also indicated its willingness to license in the pre-trial correspondence. 350

The request for licensing required in the infringement notice does not have to meet high requirements in terms of content. It can be general and informal, but the conduct of the patent user must show a clear intention to take a license (Düsseldorf Higher Regional Court, judgment of March 30, 2017, file no.: I-15 U 66/15, para. 183 - Mobiles Kommunikations-system, cited in juris; Kühnen, *ibid.*, Chapter E., para. 333). The declaration of willingness to license may not subsequently be deviated from, so that it is still valid even if the patent owner or has to submit its FRAND offer (Düsseldorf Higher Regional Court, *ibid.*, para. 195). 351

Substantive statements, which are not required, can prove to be harmful if the patent owner must assume on their basis that a willingness to take a license only exists under very specific, non-negotiable conditions which are not FRAND and which the proprietor therefore does not have to accept (Düsseldorf Higher Regional Court, *ibid.*, para. 197 a. E.; Kühnen, *ibid.*, chapter E., para. 333). However, high demands must be placed on the establishment of such facts. The indication of the desired license conditions only invalidates the assumption of a willingness to take a license if it allows the certain conclusion that the patent user does not in fact wish to take a license (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2016, file no.: I-15 U 66/15, para. 9, cited in *juris*).

Based on this standard, the fundamental willingness of the defendant's group to license was apparent to the plaintiff. After the parent company's chief negotiator had received the e-mail of September 6, 2011, he requested a telephone call by e-mail dated September 15, 2011 (Exhibit B21/Exhibit B21a) "so that the further details of this matter can be discussed". Viewed in isolation, the reply also leaves room in principle for the possibility that there is no interest in a legally binding agreement at the end of the conversation (after all), which would then not be worth sending contractual documents from the plaintiff's point of view. 352

However, the reply email of 15.09.2011 was not to be understood in this way when considering the overall context of the exchange that had already taken place between the parent company and MPEG LA in 2009 (on the fundamental consideration of the overall context also: Düsseldorf Higher Regional Court, *ibid.*, para. 198). 353

A reference by MPEG LA to the AVC/H.264 Licensing vis-à-vis the parent company can already be found in the e-mail from Mr. Zurat dated February 16, 2009 (Exhibits B5/B5a). The parent company also responded to this reference in an e-mail dated March 18, 2009 (Exhibits B7/B7a) by naming the Standard - in general terms as MPEG-4 (including other Standards not at issue here, such as MPEG-4 Visual (part two)) - and linked this to the group's efforts to agree on licensing only by subsidiaries (in particular E). In the subsequent period, this demand was consolidated, particularly with regard to the granting of a license for the MPEG-2 Standard, but also in connection with the "MPEG-4 Standard" (cf. e-mail Jason Ding dated July 1, 2009, Exhibits B8/B8a). MPEG LA continued the discussions with the parent company with knowledge of this demand, initially mainly with reference to the licensing of the MPEG-2 Standard, but always also with reference to the AVC/H.264 Standard (cf. e.g. e-mail Mr. K of September 12, 2009, Exhibits B11/B11a). It is clear from this that MPEG LA and the group company were already in negotiations prior to the e-mail of September 6, 2011, which was understood as a notice of infringement. Against this background, the letter of September 6, 2011 proves to be a concretization of the contract negotiations previously conducted with a focus on the MPEG-2 Standard to the AVC/H.264 Standard. When "G" then suggested further discussion of the matter, this was therefore to be understood as meaning that the negotiations that had already begun were to be continued. 354

The fact that MPEG LA did not understand the parent company's conduct, in particular its efforts to conclude only individual, company-related licenses or special conditions with regard to the Chinese market, to mean that the parent company was completely unwilling to license, is also expressed by the fact that MPEG LA also submitted a concrete contractual offer for the licensing of the AVC/H.264-Standards to the parent company - which will be explained 355

in more detail under d), aa) - and this was followed by licensing discussions into 2013 (cf. e.g. e-mail from "G" dated February 21, 2012, Exhibit B23/Exhibit B23a; e-mail from Mr. Rodriguez of November 7, 2013, Exhibit K16, German translation: Exhibit K16a).

d). 356

The sending of the Standard License Agreement to the parent company in February 2012 constitutes a FRAND-compliant offer attributable to the plaintiff, which meets both the (rather) "formal" requirements established by the ECJ (see aa)) and also proves to be fair, reasonable and non-discriminatory in terms of content (see bb)). 357

aa) 358

Sending the Standard License Agreement meets the (rather) "formal" requirements that the ECJ places on the patent owner's offer. 359

Accordingly, the offer must be made in writing and must also be specific in the sense that it must state the license fee and the relevant calculation parameters (relevant reference value, applicable license rate, graduation if applicable) as well as the method of calculation (Düsseldorf Higher Regional Court, judgment of March 30, 2017, file no.: I-15 U 66/15, para. 203 - Mobiles Kommunikationssystem, cited in juris; Kühnen, ibid., Chapter E. para. 325). The points that are usually the subject matter of License Agreements must be included in the offer in the form of meaningful provisions (Düsseldorf Higher Regional Court, loc. cit.). 360

These criteria are fulfilled with the sending of the Standard License Agreement document. 361

(1) 362

The sending of the Standard License Agreement is a sufficiently concrete offer in terms of its objective explanatory value, which in particular also reveals the calculation parameters. 363

The sending of the written Standard License Agreement makes it clear to the parent company that it can obtain a license to the property rights stored in the AVC/H.264 Pool and under what conditions. 364

Insofar as the defendant claims that the contractual documents were only sent for information purposes and were not recognizably to be understood as a declaration of intent aimed at the conclusion of the contract, this is not generally true. The contract document sent was clearly a contract that was not specifically tailored to the parent company but - in the sense of a standard contract - was intended to apply to a large number of licensees. This can be seen, for example, from the fact that the date of the conclusion of the contract and the name of the licensee are to be inserted in the contract document, which otherwise has a self-contained structure. The parent company therefore had no reason to doubt that MPEG LA would sign this document. Furthermore, the email from Mr. Rodriguez (MPEG LA) dated September 6, 2011 (Exhibit K10 - Exhibit A - a) to the declaration states (emphasis added): 365

366

"I am sending you copies of our MPEG-4 Visual License, AVC License and VC-1 License for your review. [...] I am also enclosing a .pdf version of all licenses for your convenience. Please note that the electronic copies are for informational purposes only and cannot be used as signing copies [the defendant's translation, Exhibit B19a, states, without any difference in content, "*cannot be used for execution*".]"

Conversely, it follows from the reference, limited solely to the digital version of the contract, 367 that the documents received in this way cannot act as the authoritative contractual document, that the documents sent by post could very well fulfill this function. The intention of MPEG LA to conclude the contract was therefore openly revealed in the sending of these documents.

The sending of the Standard License Agreement does not lack the character of an offer 368 because MPEG LA had already previously sent contract documents for the Standard in dispute to the parent company. In contrast to the previous actions, the sending of the contractual documents in February 2012 was preceded by the e-mail of September 6, 2011 (Exhibit K10 - Exhibit A - a), on the basis of which the parent company was able to recognize - as explained (see under b)) - that MPEG LA was now also interested in initiating concrete contractual negotiations on the MPEG-4 Standard.

Finally, the Standard Agreement also indicates the parameters required for the license 369 calculation, whereby the calculation factors for the unit license are derived in particular from Section 3.1.1.

(2) 370

It is also irrelevant that the Standard License Agreement was not addressed to the 371 defendant, but to the person ("G") entrusted with the license negotiations in the defendant's group. Since the conclusion of a group license was at issue and the negotiations had already been conducted with "G" before September 6, 2011, it is the correct addressee (see also in general: Kühnen, *ibid.*, Chapter E., para. 320).

(3) 372

As a result, the method of calculating the license fee is also sufficiently explained, although 373 neither the contractual document nor the documents sent in connection with it expressly refer to this.

The ECJ does not only require information on the amount of the license fee and its calculation 374 as information on the "method of calculation". Rather, the SEP holder must explain to the infringer specifically and comprehensibly why the proposed license fees are FRAND (Higher Regional Court Düsseldorf, *ibid.*, para. 203; Kühnen, *ibid.*, Chapter E. para. 309). The method of calculating the license fee does not require a strictly mathematical derivation. If this is possible in the specific case, it is sufficient to demonstrate the acceptance of the requested (standard) license rates on the market via license agreements already concluded (Düsseldorf District Court, judgment of July 13, 2017, file no.: 4a O 154/15, para. 311, cited in *juris*). However, the patent owner must then (depending on the circumstances of the individual case, more or less substantiated) in particular justify why the license fee it intends to pay is FRAND against this background (OLG Düsseldorf, *ibid.*, para. 203; Düsseldorf District Court, *ibid.*, para. 310; Kühnen, *ibid.*, para. 326). If there is a sufficient

number of License Agreements and acceptance on the market has been demonstrated in this way (e.g. via the market share of the products licensed at a certain royalty level), no further information on the reasonableness of the royalty level will generally be required (Düsseldorf District Court, *ibid.*, para. 311). However, the SEP holder must generally provide information on all relevant license agreements - otherwise there is a risk that only those agreements will be selectively submitted that support the claimed license fee amount (Düsseldorf District Court, *ibid.*, para. 313).

According to this provision, the manner of calculation in connection with the offer in question here has been sufficiently explained. 375

The Standard License Agreement, which was received by the parent company in February 2012, does not itself contain any information on the method of calculation in the sense described above. In this respect, however, the parent company's knowledge that the contractual document is a Standard License Agreement that has already been concluded by a large number of licensees can be taken into account. 376

Such knowledge on the part of the parent company can be assumed on the one hand due to the structure of the contractual document itself (cf. (1) above), but on the other hand, the defendant's group had already been in contact with MPEG LA for some time (cf. (b), aa), (2) above), and a list of licensees (Exhibit K10 - Exhibit F) was/is available on the MPEG LA website. The fact that the defendant's group was not unaware of any licensees is also clear from the submitted e-mail correspondence. In the course of this correspondence, the parent company, in order to emphasize its request for a license relating only to individual subsidiaries, repeatedly pointed out to MPEG LA that there were licensees - such as H - where only individual group companies were licensed (cf. e-mail "G" of March 18, 2009, Exhibits B7/B7a; e-mail "G" of February 21, 2012, Exhibits B23/ Exhibit B23a). 377

However, the submission of the individual License Agreements concluded is not required as part of the contract offer. It is neither stated nor recognizable that this is customary in the industry. 378

Finally, the fact that the parent company did not request further information in connection with the submission of the Standard License Agreement and nevertheless entered into contract negotiations also suggests that further information is not customary in the industry. 379

bb) 380

The offer under review here also complies with FRAND principles in terms of content. 381

(1) 382

"Fair and reasonable" contractual terms are to be understood as those that are not offered to the licensee by exploiting a dominant market position. The contractual terms must be reasonable and must not be exploitative (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2016, file no.: I-15 U 66/15, para. 15, cited in juris). A licensor's offer may prove to be unfair/unreasonable in particular if a license fee is demanded that significantly exceeds the hypothetical price that would have been formed in the event of effective competition on the dominated market, unless there is an economic justification 383

for the pricing (Düsseldorf District Court, partial ruling of March 31, 2016, file no.: 4a O 73/14, para. 225, cited in juris; Huttenlauch/ Lübbig, in: Loewenheim/ Meessen/ Riesen- kampff/Kerstin/ Meyer-Lindemann, Kartellrecht, Kommentar, 3rd edition, 2016, Art. 102 TFEU, para. 182; Kühnen, *ibid.*, chapter E., para. 245). In the case of a standard IP right, unreasonableness may also result from the fact that, in the event of a license claim, a cumulative total license burden would also result for the other standard IP rights, which is not economically viable (Kühnen, *ibid.*, Chapter E., para. 246). It should be noted in this context that a mathematically precise derivation of a FRAND-compliant license fee is not required; rather, an approximate decision based on valuations and estimates must be made (Kühnen, *ibid.*, Chapter E., para. 425). Comparable license agreements can be a weighty indication of the appropriateness of the license terms offered (Düsseldorf District Court, *loc. cit.*; Kühnen, *ibid.*, Chapter E., para. 245, para. 430). Furthermore, the contractual offer must also prove to be reasonable with regard to the other contractual conditions (intellectual property rights subject to licensing, license territory, etc.).

The prohibition of discrimination standardizes an obligation of equal treatment for the dominant company in that it must grant trading partners who are in the same situation the same prices and terms and conditions (Düsseldorf Higher Regional Court, judgment of March 30, 2017, file no.: I-15 U 66/15, para. 208 - *Mobiles Kommunikationssystem*, cited in juris). The principle of equal treatment only applies to situations that are comparable, while even dominant companies can react differently to different market conditions (*loc. cit.*). Unequal treatment is therefore permissible if it is objectively justified (*loc. cit.*). The broad scope for objective justification to which the owner of an industrial property right is generally entitled is limited if, in addition to the dominant market position, there are other circumstances which show that the unequal treatment jeopardizes the freedom of competition (Düsseldorf Higher Regional Court, *ibid.*, para. 209). These may consist in particular in the fact that access to a downstream product market is dependent on compliance with the patent teaching (BGH, GRUR 2004, 966 (968) - *Standard-Spundfass*) or the product - as here - is only competitive when the patent is used (Düsseldorf Higher Regional Court, *ibid.*).

384

The license seeker has the burden of presentation and proof for unequal treatment (Düsseldorf Higher Regional Court, *ibid.*, para. 212) or the existence of an exploitative circumstance (Düsseldorf District Court, judgment of November 30, 2006, file no.: 4b O 58/05, para. 140 - *Videosignal-Codierung I*, cited in juris; Kühnen, *ibid.*, Chapter E., para. 247, para. 308). However, account must be taken of the fact that the license seeker regularly has no detailed knowledge of the SEP holder's licensing practice, in particular of existing License Agreements with third parties and their regulatory content. This justifies imposing a secondary burden of proof on the SEP holder, who is naturally aware of the contractual relationships with other licensees and who can reasonably be expected to provide more detailed information in this respect (Düsseldorf Higher Regional Court, *ibid.*, para. 212; Kühnen, *ibid.*, chapter E., para. 311). In this context, the information on the licensees must be complete and must not be reduced to a few well-known companies in the industry (Kühnen, *ibid.*). The submission must also contain information on which - specifically named - companies with which significance on the relevant market have taken a license and under which specific conditions (Düsseldorf Higher Regional Court, *loc. cit.*). If unequal treatment is established, it is incumbent on the patent proprietor to explain and, if necessary, prove any circumstances justifying the different treatment (Düsseldorf Higher Regional Court, *loc. cit.*; Kühnen, *loc. cit.*).

385

<u>(2)</u>	386
Based on the standard set out in item (1), the defendant's objections to FRAND compliance are not valid.	387
<u>(a)</u>	388
The territorial extension of the License Agreement to the Chinese market does not constitute discrimination contrary to antitrust law from the perspective of selective enforcement of patent rights (see (aa) below), nor is the amount of the license fees unreasonable because it does not differentiate between individual regional markets, in particular with regard to a license for acts of use on the Chinese market (see (bb) below).	389
<u>(aa)</u>	390
Although it is undisputed between the parties that no Standard License Agreements have been concluded with certain smartphone providers, even though they offer cell phones equipped with the AVC/H.264 Standard, this does not result in unequal treatment in violation of antitrust law.	391
In the opinion of the defendant, the plaintiff's offer, which also provides for licensing of the Chinese market, is contrary to FRAND conditions because MPEG LA has not yet granted licenses for this market to any Chinese manufacturer of mobile devices operating on the Chinese market.	392
In this respect, it should first be noted that the defendant, in particular after the submission of the Standard License Agreements by the plaintiff, has not significantly objected to the plaintiff's submission that a significant proportion of the suppliers active on the Chinese market - the plaintiff mentions in particular "Apple" with further reference to Exhibit K18, "Archos", "Casio", "Doro", "Fujitsu", "Grundig", "Haier", "HTC", "Philips", "Kyocera", "LG Electronics", "Microsoft", "Panasonic", "Pantech", "Samsung", "Sharp" and "Sony Mobile" - have taken licenses. Insofar as the defendant names "Changhong Europe Electric s.r.o.", "Shenzhen Jiuzou Electric Co., Ltd." and "Shenyang Tongfang Multimedia Co., Limited" as companies that lack a license for the Chinese market, it is clear from the e-mail traffic referred to by the defendant itself (Exhibits B7/B7a) that these are matters relating to the MPEG-2 Standard.	393
Insofar as the companies "Lenovo", "Oppo", "Xiaomi", "Vivo" and "ZTE" remain, which have undisputedly not concluded a license agreement, this initially results in a connecting factor for unequal treatment under the aspect of selective prosecution, which the plaintiff nevertheless justifies objectively.	394
Unequal treatment exists not only if the dominant patent owner grants individual license seekers preferential contractual conditions that it denies to others, but equally if it selectively enforces its prohibition rights under the patent by taking action against individual competitors in order to force them into the License Agreement, while allowing other competitors to use the property right (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2016, file no.: I-15 U 66/15, para. 41, cited in juris; Regional Court Düsseldorf, judgment of	395

November 30, 2006, file no.: 4b O 508/05, para. 170 - Videosignal-Codierung I, cited in juris). In its de facto effect, such a strategy means nothing other than that one part of the competitors is granted licenses free of charge, while another part of the competitors is only granted licenses for a fee (Düsseldorf District Court, loc. cit.).

In connection with the aspect in dispute here, the plaintiff has argued that it is also trying to persuade companies that are not yet licensed to take a license. This submission is confirmed by the fact that it has initiated legal proceedings against ZTE Deutschland GmbH (see the proceedings pending before the court here with the file number 4a O 16/17). This statement rules out the assumption of discrimination. 396

This is also not the case because the plaintiff has not yet taken legal action against any of the unlicensed companies other than the ZTE Group. The plaintiff is entitled to a differentiated judicial assertion already because of the associated cost risk. In addition, the plaintiff has also comprehensibly justified its selection decision, for which it must be granted discretion anyway, by the fact that it wants to assert its rights in court against a major market participant first, because the damage to be expected due to the failure to license is most extensive here and in order to be able to achieve a deterrent effect against other companies in this way. 397

(bb) 398

There are no sufficient indications that the unit license pursuant to Section 3.1.1 of the Standard License Agreement is unreasonably high because it is set uniformly irrespective of the territory in which the licensed product is sold and, in particular, no lower unit license is provided for the Chinese market. 399

(aaa) 400

In this respect, the considerable indicative effect of the more than 2,000 License Agreements submitted by the plaintiff is relevant in the present case. 401

(i) 402

If License Agreements already exist for the IP rights in question, these can give rise to a factual presumption of the appropriateness of the license terms, with recourse to the so-called comparative market concept (Kühnen, *ibid.*, Chapter E., para. 430). In principle, this indicative effect also covers the scope of the license. If the patent owner has already granted licenses to the SEP portfolio offered for comparable products, there is prima facie evidence that the combination of property rights is in line with the interests of the parties (Düsseldorf District Court, partial ruling of March 31, 2016, file no.: 4a O 73/14, para. 226, cited in juris; Kühnen, *ibid.*, Chapter E., para. 423). 403

This is the case here. 404

The plaintiff has submitted that its licensees have accepted the Standard Agreement with a uniform worldwide license. In accordance with its secondary burden of proof, the plaintiff also has a USB stick with 2,128 License Agreements, of which approx. 1,400 are still valid, as well as a USB stick with further License Agreements, concluded after January 2018, 405

and in this context claimed that its content was identical to the contractual document sent to the parent company in February 2012 (Exhibit K10 - Exhibit G - a).

This submission by the plaintiff provides a strong indication that uniform license fees are customary in the industry worldwide and at the same time contradicts the defendant's submission that there is broad agreement within the industry that the special features of the Chinese market must be taken into account in the context of negotiations on worldwide FRAND licenses. 406

Even taking into account the dispute between the parties as to the extent to which the companies that are both licensees and Pool members can be used for comparison at all (cf. (c), (bb)), it is undisputed - which is sufficient to trigger the indicative effect for the facts at issue here - that other companies active on the mobile telecommunications market also belong to the group of licensees. This is also supported by the number of License Agreements concluded (over 2,000) in relation to the number of pool members (36 in number according to the list in Exhibit K10 - Exhibit F). Nor does the fact that the licensees also offer other AVC-capable products in addition to smartphones (see also (c) below) preclude the assumption of an indicative effect, at least for the objection under examination here (inappropriateness of the unit license in the absence of differentiation with regard to the Chinese market). In principle, inappropriately high licenses for the Chinese market would also have a detrimental effect on these products. 407

Finally, there are also no indications that the Standard License Agreements were concluded under abuse of market power (see Kühnen, *ibid.*, Chapter E., para. 312, para. 409 and footnote 10 with reference to Düsseldorf District Court, judgment of March 31, 2016, file no.: 4a O 73/14, and Kühnen, *ibid.*, para. 430). On the contrary, the plaintiff submits undisputedly that the patent pool was established without coercion. 408

(ii) 409

The defendant has also not pointed out any circumstances in its dispute with the submitted License Agreements that would contradict the indicative effect of the License Agreements already concluded. In particular, it has neither substantiated its submission - disputed by the plaintiff - that other licensees pay lower license fees for sales in China on the basis of the Standard License Agreements submitted, nor has it shown any other relevant differences in content between individual License Agreements concluded. 410

The defendant's objections in detail: 411

Incompleteness of the documents submitted 412

Insofar as the defendant - based on the USB stick submitted in proceedings 4c O 3/17 - objected to the incompleteness of the contractual documents, the plaintiff has rectified this. 413

The License Agreement with "AHT Holding B.V." is now available in full as Exhibit K34 to Exhibit K27, and the License Agreement with "Sony Computer Entertainment Inc." as Exhibit K35 to Annex K27. The Agreements with "Alba Broadcasting Corporated Limited", "Bush Australia Bty Limited", "Grundig Australia Pty Limited", "Grundig Consumer Electronic Limited", Harvard International (Hong Kong) Limited" and "Harvard Maritime Limited", of which initially only the cover sheet and signature page were available, are 414

now available as Exhibit K36 to Exhibit K27. With regard to the original incompleteness of its submission, the plaintiff has cited "scanning errors", which appears plausible to the Chamber in view of the large number of Standard License Agreements to be submitted.

The defendant did not repeat the objection of incompleteness in this respect either after submission of the standard license agreements in the present proceedings. 415

Missing contracts 416

With regard to the other contracts cited by the defendant as missing ("Lenovo", "Oppo", "Xiaomi", "Vivo" and "ZTE"), the plaintiff replied that there were none. Further submissions on these negative facts are - in the context at issue here - not possible. 417

Quantitative differences in the number of pages 418

The defendant's submission that there are quantitative differences with regard to the number of pages of the submitted contract documents does not reveal a substantive discussion, as would be necessary to invalidate the circumstantial effect. In particular, a compelling inference from the differing page numbers to significant changes in content is not indicated. This applies all the more as the plaintiff argues that the scope of the Standard Agreement document could already differ because the number of patent owners and Pool Patents listed in the Preamble of the Agreement and in the legal definition under Section 1.31 of the Standard Agreement has changed significantly, which at the same time entails a change to Annex 1 to the Standard License Agreement (cf. also reference to this in Section 1.8 of the Standard License Agreement). The definition of the AVC Standard in the AVC Standard itself had also been changed in such a way that it was now considerably longer. This has also increased the scope of the contractual text in Section 1.13 of the Standard License Agreement. 419

"ZDF contract" 420

The defendant further derives a significant deviation in content from a supplementary agreement (Exhibit K37 to Annex K27) existing in connection with the licensee "ZDF" (= Zweites Deutsches Fernsehen), since the Standard License Agreement signed by "ZDF" (Exhibit B65 to Exhibit K26) states: "*Applies only in connection with the ZDF order 4500165362*". In this respect, the defendant is entitled to the fact that the additional agreement states the point "Licenses": 421

"Right of use AVC/H.264 technology for HDTV program processing via satellite and cable using a professional AVC/H.264 broadcast encoder", 422

and furthermore a unit price per unit of EUR 1,903.53 and a total amount (net) of EUR 3,807.06. In this respect, however, it is not apparent to what extent the contract concluded with "ZDF" relates to the relevant mobile device market in this case at all, and therefore does not provide the relevant indicative effect. ZDF is not known to the Chamber as a provider of mobile devices, but rather as a television broadcaster and provider of telemedia services (Section 3 para. 1, section 11b para. 3, 4 and section 11d para. 1 Interstate Broadcasting Treaty). 423

Renewal notifications 424

The defendant also sees an indication of a deviating contractual practice in the fact that contracts concluded before 2010 with an expiration date of December 31, 2010 were subject to automatic renewal, whereby the renewal could be made dependent on compliance with *"reasonable contractual adjustments or changes to the contractual conditions in accordance with the renewal notice in detail"*. 425

The plaintiff has submitted the relevant renewal notifications with Exhibit K27 (Exhibit K38), the defendant has not explained any changes with reference to these. Insofar as the defendant now also requests the submission of e-mail traffic showing to whom the notification was sent and when, such a submission is not required. The plaintiff is not required to introduce further documents into the proceedings beyond the standard license agreements to substantiate its submission. Rather, it has sufficiently substantiated its submission by submitting the renewal notice by arguing that these notices were sent uniformly to all licensees by e-mail. The defendant can determine which licensees these are on the basis of its own knowledge. It argues that the changes were relevant for contracts concluded before 2010, which would have expired on December 31, 2010. It is also not necessary to submit the e-mail traffic in order to enable the defendant to argue whether there were other documents with changes in addition to the renewal notifications. The defendant itself quotes Clause 6.1. of the contracts concluded before 2010 to the effect that the changes to the contractual terms and conditions are made solely *"in accordance with the renewal notice"*. 426

Annex 1 to the Standard License Agreement 427

The submitted contracts also do not give reason to assume a different regulatory content because - with the exception of the contract with "Fujitsu" - they are not accompanied by Exhibit 1 (Exhibit 1 to the contract with Fujitsu, Exhibit B66 to Exhibit K26) referred to in Section 1.8 of the Standard License Agreement. 428

This is because Annex 1 does not serve the binding determination of the contractual property rights. The scope of the license granted is defined in Section 2.1 of the Standard License Agreement, according to which a *"sublicense under all AVC Essential Patents in the AVC Patent Portfolio"* (emphasis added) is granted. From the definition of the AVC Patent Portfolio contained in Section 1.8 of the Standard License Agreement (Exhibit K10 - Exhibit G - a) (emphasis on this side), 429

"AVC Patent Portfolio - means the portfolio of AVC Essential Patent(s) originally listed in Annex 1 to this Agreement, as such portfolio may be amended or reduced from time to time in accordance with the terms of this Agreement." 430

and from Section 8.2.1, 431

"[...]. Notwithstanding anything to the contrary in this Agreement, amendments to Annex 1 of this Agreement shall only become effective after the publication of a new Annex 1 on the License Administrator's website, [...].", 432

it is clear that Annex 1 is updated and that the current inventory of License Agreement protection rights, insofar as this is published on the MPEG LA website, forms the uniform subject matter of the contract for all Standard License Agreements. Against this background, no conclusions can be drawn from any differences in the Annex 1 provided to the licensee 433

in paper form as to a different subject matter of protection.

(bbb) 434

The defendant's submission does not reveal any other circumstances that would render the indicative effect for the appropriateness of the license fee in accordance with the statements under (aaa) inapplicable. 435

(i) 436

In particular, the defendant's submission offers no indication that the license fees can no longer be disputed while maintaining sufficient own profit on the part of the licensee. The unit license fees of \$0.20 per unit (for sales of 100,001 to 5,000,000 units per year) or \$0.10 per unit (for sales of more than 5,000,000 units per year) stipulated in Section 3.1.1 alone do not suggest this. 437

(ii) 438

Furthermore, a sales-related analysis, which looks at the ratio of the sales price per unit to the license fee collected by the pool, does not show that the share of value attributable to the pool is unreasonably greater for sales in China than for sales in other countries. 439

The sales prices of the cell phones offered by the defendant's group for the year 2016 as submitted by the plaintiff, 440

	Selling price China	Selling price USA	Selling price Europe	441
Premium Phone	: \$ 384	\$ 336	\$ 320	
Basic Phone	: \$ 151	\$ 166	\$ 141	
Utility Phone	: \$ 53	\$ 53	\$ 52,	

are contrary to the significant differences in the selling prices on the Chinese market, which the defendant claims in general terms. 442

Notwithstanding this, however, the defendant has not shown that, from such a perspective, the proportion of fees for Chinese distribution activities is so high that it could no longer be expected of an economically reasonable licensee. Insofar as the defendant refers to the fact that, if other owners of essential AVC Patents proceed in the same way, an excessive overall license burden would arise, its factual submission does not indicate that such a burden actually exists - which would be necessary to establish an abuse of a dominant market position (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2006, file no.: I-15 U 66/15, para. 50, cited in juris). In this respect, it should also be noted that the Pool at issue here already includes around 40 Pool patent owners for AVC/H.264 essential patents. The defendant's submission already leaves open which further licenses are required for the use of the Standard. 443

<u>(iii)</u>	444
The inappropriateness of the license fee set in the Standard License Agreement also does not result - contrary to the existing indicative effect - from the fact that - as the defendant asserts with reference to the overview in Exhibit B29 (German translation: Exhibit B29a) - there are fewer Pool Patents in force for the Chinese market.	445
Although the facts referred to may in principle provide an indication of inappropriate treatment, it is also decisive in this respect to what is customary in the industry (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2006, file no.: I-15 U 66/15, para. 42).	446
In this context, it should first be noted that the number of property rights in force in a country should not be overestimated, because even a single patent is capable of keeping an interested party away from the standard-defined market. Whether the license seeker also requires further licenses in order to use the standardized technology then plays a rather subordinate role (Düsseldorf, judgment of September 11, 2008, file no.: 4b O 78/07, para. 102, cited in juris). It is also noteworthy that - as the plaintiff rightly points out - the share of Pool Patents in China is also the fourth largest according to the defendant's list (Exhibit B29/Exhibit B29a) ("CN - 233").	447
The fact that it may be more difficult to enforce a patent does not in itself constitute a reason to demand lower license rates. A patent must be observed even if it exists.	448
<u>(b)</u>	449
Nor can it be established that the AVC/H.264 patent pool is composed in a way that violates antitrust law.	450
<u>(aa)</u>	451
The determination of a "fair and reasonable license offer" in connection with a Patent Pool, i.e. in the form of an association of several property right holders for the joint licensing of the patents held by them, first requires substantiated factual evidence on the use of the patents from the Pool (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2016, file no.: I-15 U 66/15, para. 26 et seq.; Kühnen, <i>ibid.</i> , Chapter E., para. 420). In this respect, however, no degree of conviction measured against Section 286 Code of Civil Procedure (ZPO), which requires a personal certainty that silences doubts without completely excluding them, is required (m. w. w. Nach. Greger, in: Zöller, ZPO, Commentary, 32nd ed. Edition, 2018, Section 286, para. 19), is required. Rather, Section 287 (2) ZPO is applicable, which - in reduction of the standard of proof of Section 286 ZPO - allows a preponderance of probability to be sufficient (Düsseldorf Higher Regional Court, <i>ibid.</i> , para. 26; Kühnen, <i>loc. cit.</i>).	452
A corresponding factual submission is generally made by submitting so-called claim charts for selected portfolio patents, which assign the specifically relevant passages of the relevant standard to the respective SEPs (OLG Düsseldorf, <i>ibid.</i> , para. 27; Kühnen, <i>loc. cit.</i>).	453
Such a reference list - relating to all Pool Patents - is available as Exhibit K10 - Exhibit E.	454
<u>(bb)</u>	455
	456

Offering a license in a Patent Pool does not in itself justify the accusation of abusive inappropriateness. As a rule, it serves the well-understood interest of any license seekers that they are offered a license to use the entire standard from a single source at uniform conditions, because they are thus relieved of the necessity of having to apply to each individual property right holder for a license for their patents (Düsseldorf District Court, 4b O 508/05, para. 119 - Videosignal-Codierung I, cited in juris). In this respect, the "Guidelines on the application of Article 101 of the Treaty on the Functioning of the European Union to technology transfer agreements of March 28, 2014 (Official Journal C 89/3) (hereinafter in short: "the Guidelines") provide guidance (see generally Kühnen, *ibid.*, Chapter E., para. 299). They provide the following for the handling of the prohibition of cartels under Art. 101 TFEU in paragraph 245:

"[...] Technology pools can have a pro-competitive effect, especially as they reduce transaction costs and set limits on the accumulation of license fees, thus avoiding double profit maximization. They enable centralized licensing of the technologies held by the Pool. This is particularly important in industries where intellectual property rights are of central importance and where it is necessary to obtain licenses from a significant number of licensors in order to maintain a market presence. [...]" 457

A restrictive effect on competition can only be assumed if further-reaching circumstances emerge, which is also expressed in point 246 of the guidelines: 458

"Technology pools may also restrict competition because their creation necessarily implies joint selling of the pooled technologies, which may lead to a price fixing cartel in the case of Pools consisting exclusively or predominantly of substitutable technologies. In addition, technology pools may not only reduce competition between the parties to the agreement, especially if they support or de facto establish an industry standard, but may also reduce innovation competition by excluding alternative technologies. An existing standard and a corresponding technology pool can make market access for new and improved technologies more difficult." 459

Based on this standard, the offer of a license to a Patent Pool only proves to be inappropriate or discriminatory, and thus in breach of antitrust law, if special circumstances exist. 460

As will be shown below, such circumstances cannot be established here. 461

(aaa) 462

In particular, such circumstances do not arise from the fact that - as the defendant claims - mobile providers typically only use one of the essentially four profiles provided by the standard and only certain features of these. 463

(i) 464

The defendant argues that the fact that the AVC/H.264 Standard consists of different Profiles (essentially four: "Baseline (CBP/BP)", "Extended (XP)", "Main (MP)" and "High (HiP)"), with each Profile having certain characteristics ("features"), but manufacturers of 465

mobile devices generally only use some selected Profiles, in particular "Baseline", and even then only use certain features of these Profiles (features such as "flexible macroblock ordering (FMO)", "arbitrary slice ordering (ASO)", "redundant slices (RS)", "data partitioning" and "SI/SP slices", for example, are not used.), mobile network providers are burdened with an excessive license.

This objection may in principle be suitable to demonstrate that the license fees are unreasonable. It is comparable to cases in which not all patents in a pool are used (cf. Kühnen, *ibid.*, para. 412). However, as in the present case, objective reasons can be cited against an unreasonable impediment in this sense (Kühnen, *ibid.*). 466

(ii) 467

The establishment of a Patent Pool for the use of a standard is always accompanied by a certain generalization - which the defendant does not deny at the outset (Düsseldorf District Court, judgment of September 11, 2008, file no.: 4b O 78/07, para. 101, quoted from juris), whereby such a lump sum seems unavoidable, especially with a Patent Pool of more than 5,000 patents. 468

The Chamber does not fail to recognize that the lump sum as such is not yet associated with any statement about the scope of the lump sum, from which the inappropriateness can arise. In this respect, however, it must be taken into account in the case at hand that the starting point for the granting of the license is the granting of the legal possibility of offering and distributing "AVC-capable" products, which are able to comply with the Standard in its entirety. Section 2.1 therefore also links the scope of the license to acts of use in connection with an "AVC Product", which according to Section 1.10 of the License Agreement is defined as a 469

"product or any item, in whatever form, which contains or constitutes at least one fully functional AVC decoder, AVC encoder or AVC codec. [...]" 470

According to Section 1.4, an AVC code is 471

"a single product or item that contains the complete functions of an AVC decoder or an AVC encoder. [...]" 472

The video unit produced using AVC is therefore decisive, irrespective of the product with which the production process was implemented. 473

The contractual provisions described above reflect the market's expectations of an AVC-capable product. This is particularly due to the fact that the technical usage options of the Standard are not primarily the choice of the smartphone manufacturer, but are determined by the creator of the videos. 474

In the present case, the need to provide the technical bandwidth of the Standard is also supported by the fact that the plaintiff, referring to the test report submitted as Exhibit K8, has submitted that the challenged embodiments (devices examined: P9, P9 Plus, P9 Lite, GX8, Mate S, Mate 8) are capable of more than just one Profile, namely "Baseline", "Main" and "High". Only older smartphones are not capable of playing Profiles other than "Baseline". It is also not apparent from the defendant's submission that the (current) mobile devices are not technically capable of implementing these Profiles. 475

It follows that the relationship between performance and consideration is balanced in principle. Finally, a close link between the different profiles from a market perspective is also supported by the fact that the distinction between different product types is becoming less and less clear-cut anyway because, for example, the challenged smartphones can take on more and more functions of digital TVs or video cameras and have computer functionalities.

(iii) 476

The fact that the fee structure of the successor Standard to the Standard at issue here (H.265/HEVC Standard) provides for a differentiation according to profile usage cannot lead to a different assessment compared to the factual justifications cited. The fact of a differentiation according to profile usage does not automatically support the assumption that a contractual construct that lacks such a differentiation is FRAND-incompatible. A differentiation according to profile usage may - which is not under review here - be necessary when taking into account the overall context of the license system relating to the successor Standard. However, a comparability with the standard under review here, which also requires a differentiation in the present case, does not follow from this. 477

(bbb) 478

The AVC/H.264 Patent Pool is also not composed in violation of antitrust law because it contains standard-essential and non-standard-essential patents. 479

Such a composition of the Patent Pool of standard-essential and non-standard-essential patents may in principle result in inappropriate treatment of the license seeker (Düsseldorf District Court, judgment of November 30, 2006, file no.: 4b O 508/05, para. 132 - Video-signal-Codierung I; Kühnen, *ibid.*, Chapter E., para. 255, para. 412 et seq.). Exploitation will regularly be deemed to have occurred if intellectual property rights that are not necessary for compliance with the standard are systematically included in a Pool in the License Agreement, so that the purpose of unjustifiably increasing the license fees by including as many patents as possible becomes apparent (Düsseldorf District Court, judgement of November 30, 2006, file no.: 4b O 508/05, Rn. 130, 132 - Videosignal-Codierung I, quoted from juris). 480

It is not sufficiently clear from the defendant's submission that this is the case here. 481

(i) 482

On the basis of the cross reference chart available on the MPEG LA website with reference to relevant Standard sections to which the Pool Patents are to be assigned (Exhibit K10 - Exhibit E), it is clear from which the Standard Essentiality of the Pool Patents is to result. In contrast, the submission of the defendants, who are burdened with the burden of proof, does not support the assumption that the composition of the Pool violates antitrust law in fact alone. 483

With reference to a so-called essentiality analysis by the consulting firm J (Exhibit B37; German translation: Exhibit B37a, together with the associated statement Exhibit B38; German translation: Exhibit B38a), the defendant asserts that the Pool Patents introduced by the plaintiff, Ericsson, Nippon Telegraph and HP are not standard-essential. 484

From the documents referred to by the defendant, only the result of a random examination can be inferred, the purpose of which was to read some selected pool patents on the standard (cf. Exhibit B38a, p. 5 f., item IV., paras. 10. - 14.). According to this, out of 5,047 patents applied for (Exhibit B37a, p. 1, upper table, 2nd column "Total patents applied for": 2,173 + 2874), 1,227 patents were analyzed (Exhibit B37a, P. 1, top table, 2nd and 3rd lines "Four entitled persons"/ "Other applicants", 4th column. "Analyzed patents (issued in English)" 439 + 788). These include 20 patents of the plaintiff (Exhibit B37a, p. 1, 2nd table from top, 4th line, "Tagivan", 4th column). Of the "Four Claimants" - referring to ongoing court proceedings - "Godo Kaisha IP Bridge", "Mitsubishi Electric", "Panasonic" and the plaintiff - 139 patent families were not analyzed (Exhibit B37a, p. 1, upper table, 2nd line, 6th column "Families not analyzed"). Of the analyzed 1,227 patents of the "four claimants", 132 patents are said to be essential (Exhibit B37a, p. 2, table, 3rd line "Four claimants", 2nd column "Analyzed patents essential"). A total of 622 of the 1,227 patents analyzed are said to be standard-essential (Exhibit B37a, p. 2, Table, 5th line "Total", 2nd column "Essential patents analyzed"), while 605 patents are said to qualify as non-essential (Exhibit B37a, p. 2, table, 5th line "Total", 2nd column "Analyzed patents essential").

The documents do not contain a justification of this result from which the course of the investigation becomes clear. Neither the defendant's submission nor the documents submitted for the essentiality analysis (Exhibit B37/B37a and Exhibit B38/B238a) indicate which Pool Patents (with publication number) were considered essential and which were considered non-essential, and which parts of the Standard - contrary to the Cross Reference Chart (Exhibit K10 - Exhibit E) - do not match in the respective patents. Insofar as the defendant, with regard to the plaintiff, considers all of the patents included in the Pool to be non-essential to the Standard, the overview (Exhibit B37/B37a) does not reveal this. It shows that 139 patent families of the "four claimants" were not analyzed (Exhibit B37a, p. 1, 1st table, 1st line, last column "Families not analyzed"). The list does not disclose the distribution of the 139 excluded patent families among the "four entitled persons" (Exhibit B37a, p.1, 2nd table from above, whereby a column "Not analyzed families" - unlike in the 1st table - is missing). This is all the more serious as it has been established that the patent in suit here is a standard-essential patent (see Section III.).

Nothing else follows from the overview in Exhibit B50 (German translation: Exhibit B50a). Although it is said to contain "a slightly downwardly corrected evaluation", it does not reveal any deviating figures with regard to the results considered here.

The fact that the ISO/ITU/IEC rules applicable to the present case - unlike those of the European Telecommunications Standards Institute ("ETSI" for short) - do not provide for any precautions to prevent the "inflation" of the SEP portfolio on the basis of actually non-essential patents does not justify the assumption that the pool at issue contains non-essential patents. Irrespective of the fact that this submission does not even reveal a discussion of the specific pool, the plaintiff points out in this context that, irrespective of the regulations of the respective organization, an examination by independent experts is also carried out, which, according to paragraph 248 of the Guidelines, must be taken into account when classifying a Pool as restrictive or pro-competitive (cf. on the Procedure of the ISO in connection with

the MPEG-2 Standard also Düsseldorf District Court, judgement of November 30, 2006, file no.: 4b O 508/05, para. 127 - Videosignal-Codierung I, cited in juris).

Furthermore, the defendant as the infringer can only benefit from the cautioned antitrust infringement if it does not make use of those license protection rights that are not supported by the Standard (Düsseldorf District Court, judgement of November 30, 2006, file no.: 4b O 508/05, para. 136 - Videosignal-Codierung I, cited in juris). A legally relevant defense therefore includes not only the assertion that certain (specifically designated) license agreement protection rights are outside the standard, but also that none of these rights are used (loc. cit.). The defendant does not comment on this either in the present case. 489

(ii) 490

Notwithstanding the statements under (i), the defendant's submission also does not provide sufficient evidence that the pool owners, even if the pool contains non-standard-essential patents which the defendant does not use, have repeatedly and systematically included patents ineligible for protection in the pool. 491

The defendant argues that the proportion of non-essential patents in the pool is actually around 50%. This is not comprehensible from the examination material submitted, because it is clear from the material itself that the defendant did not have all pool patents examined. Rather, only 1,227 patents were the subject of the commissioned analysis (Exhibit B37a, p. 2, table, 4th item, 5th column), which corresponds to approximately 25% of the total number of patents in the pool. Of the patents analyzed, 605 are said to be non-essential (Exhibit B37a, p. 2, Table, 4th line "Total", 3rd and 4th column "Non-essential"/"informative": 584 + 21). In relation to the patent volume of the entire pool, this represents a share of approx. 12%. With these ratios, it cannot be readily assumed that non-standard essential patents are stored as planned. 492

The Chamber also considers that it is not sufficient to establish a systematic approach by the pool patent holders that the plaintiff previously received its pool patents from another pool member ("Panasonic") and that the transferred patents are divisional applications from one and the same "Panasonic patent family". The Defendant argues that the transfers were only made in order to increase the number of standard-essential pool patents - and thus the license fees to be paid. 493

The defendant describes a similar situation in the relationship between "Panasonic" and a third company, Optis Wireless Technology, LLC, with regard to US patent 7769238B2, which has not been deposited in the pool at issue. The defendant deduces from this that there are non-essential patents in the pool, while the patents held outside the pool are predominantly essential. 494

Irrespective of the fact that the plaintiff disputes the standard essentiality of US patent 7769238B2 with regard to the "Optis facts" and that the essentiality analysis submitted by the defendant in this respect as Annex B54 (German translation: Exhibit B54a) is subject to the same concerns as the essentiality analyses on the pool patents (cf. under (i)), the facts of life described by the defendant are "neutral" transactions at the outset. The defendant does not put forward any other circumstances that would make this appear to be part of an abusive 495

systematic approach, nor do they emerge from an overall view of the defendant's submissions. In this context, the fact that the license fee did not increase with the increase in the pool patents and that MPEG LA is not able to increase it due to the expansion of the patent pool in accordance with Section 4.9 of the Standard License Agreement also stands in the way of an assessment of the constellations presented as a systematic approach (cf. in total under lit. (e)).

(ccc) 496

Finally, the composition of the pool does not violate antitrust law because the total license fee for AVC-capable products is unreasonably high, as licenses must be obtained from other patent holders outside the pool in addition to the intellectual property rights included in the pool at issue. 497

The fact that there are also other patents - possibly essential for the standard at issue - outside the pool does not lead to the mandatory assumption of exploitation. Even a pool license that does not cover all standard-essential patents has the advantage that the license seeker does not have to conclude an individual agreement with every single patent holder. The limit to the restriction of competition is only reached when the product using the standard functions is actually so encumbered by the total fees to be paid that there is no longer a profitable marketing opportunity. A merely theoretical accumulation, on the other hand, does not yet lead to the inappropriateness of the license fee (Düsseldorf Higher Regional Court, (reference) decision of 17.11.2016, Ref.: I-15 U 66/15, para. 50). 498

(c) 499

The Standard License Agreement is also not discriminatory because - without objective justification - there are individual contractual agreements with third parties that deviate from it. 500

(aa)

As an individual agreement deviating from the pool license, the defendant first cites an existing agreement between companies of its group and NTT Docomo, Inc, a member of the AVC/H.264 Standard Pool, with regard to the 3GPP/3GPP2 patent portfolio (Exhibit B47; German translation in extracts: Exhibit B47a). 501
502

Mal acts as licensor with regard to its portfolio of 3GPP/3GPP2-essential patents. The AVC technology at issue here is not explicitly mentioned in the contractual agreement. However, the following procedure is provided for in Section 5.2.1: If M asserts the infringement of an unlicensed patent against the licensee with regard to the use of the licensed product, the licensee has the option of exercising a "pick right", whereby it receives from M a non-exclusive, non-transferable license to the unlicensed patent to an extent that enables it to use the licensed product. Furthermore, M then refrains from asserting claims for use in relation to the licensed products prior to the effective date of the license grant. 503

Please refer to the contractual document (Exhibits B47/B47a) for the precise content of this contractual construct. 504

505

The defendant has already not argued that M has asserted the infringement of an unlicensed patent against the group companies and that these have subsequently exercised the right of choice - the contractual agreement with M (Exhibits B47/B47a) states this in this respect:

"5.2.2 For the avoidance of doubt, the parties understand and agree that, at Licensee's option, a License shall only become effective upon a Licensor Enforcement Event [meaning the event described in Section 5.2.1]. 506

5.2.3 The license resulting from the exercise of the Licensee's right of choice shall be legally effective (retroactively) from the effective date until termination or expiry of the term. [...]." 507

Irrespective of this, the existing contractual relationship with M is also not suitable to constitute an abusive unequal treatment because it also gives rise to connecting factors for a special constellation that justify the unequal treatment. 508

The starting point for granting the "pick right" is the granting of a license to the 3GPP patent portfolio. If the option is exercised, licenses to other patents are granted in accordance with the wording of Section 5.2.1, 509

"[...] license to such unlicensed patent(s) of Licensor for use with respect to the Licensed Products." (emphasis on this side), 510

therefore only granted to the extent necessary for the use of the 3GPP-licensed products. The "pick right" is obviously not intended to grant comprehensive rights to patents essential to the AVC/H.264 Standard. 511

The fact that the agreement with M is also not suitable to adequately replace the conclusion of the Standard License Agreement and in this respect would have to be regarded as a deviating agreement is also to be assumed because it can only result in an authorization to use the patents of M that are essential for the AVC/H.264 Standard. In this respect, the defendant's submission itself also offers points of reference for the fact that this agreement could at best be taken into account when concluding the Standard License Agreement by offsetting license fees already paid to M (see (cc) below). 512

(bb) 513

Abusive unequal treatment cannot be inferred from the licensing of pool patent holders themselves either. 514

In this respect, the plaintiff has submitted - and substantiated by submitting the License Agreements - that the same Standard License Agreement is concluded with pool patent holders as with licensees who do not participate in the pool. If the defendant assumes in the internal regulations ("Membership Agreements") between the pool patent holders a connecting factor for the fact that any license payments to be made by the pool members would be compensated by an internal distribution of the license fees, it does not provide any factual evidence in this context to support the assumption. 515

The fact that the license fees are distributed does not in itself constitute unequal treatment contrary to antitrust law. Rather, the respective pool patent holders are in principle granted compensation (consideration) for the service they have provided by contributing the patents to the pool. The fact that the distribution of licenses is based on a key that reflects the different participation in the pool - and therefore does not result in overcompensation of the license fees paid - is supported by the fact that each patent holder participating in the patent pool has a considerable self-interest in a distribution in accordance with their participation in the pool. 516

The above statements suggest that the standard license agreement should be considered separately from the Membership Agreement. In any case, the fact that the licensor provides its pool patents is also a permissible differentiation criterion (see Kühnen, *ibid.*, Chapter E., para. 308, similar to the consideration of cross-licenses for existing royalties). 517

In light of the above, the plaintiff is also not required to submit "Membership Agreements" from MPEG LA. 518

(cc) 519

Finally, any installment payment and crediting agreements do not constitute unequal treatment that violates the prohibition of discrimination. 520

Agreements on payment by installments and crediting constitute provisions on payment modalities which, in principle, do not affect the fees to be paid in accordance with the standard contract. 521

Insofar as offsetting agreements are involved, abusive unequal treatment is already ruled out because it is merely a matter of compensation for any services already rendered by the licensee, meaning that there is in any case an objective justification. The defendant has also not shown that there is already a need for offsetting on its side. It is true that the minutes of the meeting between E and MPEG LA of 3 July 2017 (Exhibits B26/B26a) show that E stated during the meeting that License Agreements had been concluded with individual holders of pool patents (Exhibits B26a, p. 1, under No. II., 1. (1)). However, the defendant only specifies this with reference to the contract concluded with M (Annex B47/B47a), which, however, does not concern the licensing of the AVC/H.264 Standard. Insofar as group companies of the defendant have received a so-called "pick right" therein, it is not apparent that the conditions for granting the license have already been met (cf. lit. (aa)). 522

With regard to the possibility of installment payments, the plaintiff has stated that this possibility is granted to everyone. In this respect, however, the defendant has not presented any need for such an agreement on its part. 523

(dd) 524

Assuming that the defendant's submission that MPEG LA has concluded License Agreements with companies without granting licenses to their parent companies is correct, MPEG LA's discriminatory conduct can in principle be considered. 525

However, the defendant's submission lacks the substance to substantiate this objection in a substantial manner. It first refers to the companies "Changhong Europe Electric s.r.o.", "Shenzhen Jiuzhou Electric Co., Ltd." and "Shenyang Tongfang Multimedia Co. Ltd.", with which, however, it refers to the licensing of the MPEG-2 Standard (cf. e-mail Exhibits B7/ B7a). 526

With regard to the MPEG-4 Standard, the defendant cites "H". In this respect, however, the plaintiff has described the licensing practice of MPEG LA in concrete terms to the effect that separate licenses are only granted to individual group companies if the acts of use relevant under patent law can be restricted to these specific group companies. The defendant has not shown that this applies equally to the defendant's group. 527

(ee) 528

Insofar as the defendant wants to derive indications of a contractual arrangement deviating from the Standard License Agreement from the fact that different contract numbers are listed in the 3rd column "Associated Contract" in the list according to Exhibit K14, this is irrelevant for the present proceedings because - as the 1st column ("Patent Pool") of the table shows - it consistently refers to the MPEG-2 Standard - which is not under examination here. 529

(d) 530

The maximum rates for the payment of the annual license fee provided for in the Standard License Agreement do not discriminate against the FRAND compliance of the offer. 531

The defendant sees such a situation in the fact that the planned maximum rates, which do not result in license fees for further units sold when they are reached, would disproportionately benefit large-volume licensees, in particular those who also sell other AVC/H.264 Standard-capable products in addition to mobile devices. This would enable cross-subsidization in such a way that the license fees to be paid for the distribution of smartphones could be financed by the profit generated in connection with other AVC-capable products. This is to be seen as structural unequal treatment in violation of the prohibition of discrimination. 532

However, the Chamber is not able to follow this conclusion. 533

A general obligation to most-favored-nation treatment cannot be inferred from Art. 102 TFEU (Higher Regional Court Karlsruhe, judgment of March 23, 2011, Ref.: 6 U 66/09, para. 166 - FRAND principles, cited in juris). Accordingly, even a dominant company is not obliged to grant everyone the same - favorable - market conditions, in particular prices (loc. cit.). It cannot be denied the right to react differently to different market conditions (loc. cit.). Therefore, unlawful discrimination does not arise from the fact that contracts concluded with the other side of the market do not always lead to the same economic result (loc. cit.). Rather, the decisive factor for the question of discrimination is whether a difference in terms and conditions is based on arbitrariness or irrelevant considerations. The decisive factors are the type and extent of the different treatment, as well as whether a relative disadvantage of one company compared to another is a balance of interests in line with competition or is based on arbitrariness or irrelevant considerations (loc. cit.). 534

According to the above, the annual fees paid are generally suitable as an objective basis for granting a discount. Since the licensing system of the AVC/H.264 Pool provides for a unit license, reaching the maximum limit of the annual fee paid depends on the sales power of the respective company. This is primarily an expression of the competitive actions of the companies operating on the market and of entrepreneurial decisions. If a competitor then proves to be "stronger" (in terms of the number of units sold) because it has tapped into a wider market than its competitor, it does not appear inappropriate from the outset to link a discount to this. 535

In this respect, it should also be noted that the limitation of the (annual) license fees to be paid benefits every licensee according to the contractual concept, meaning that there is no unequal treatment "in law". Rather, the defendant's objection has its point of reference "in fact". However, the defendant does not argue that the maximum limit in the present case is calculated in such a way that it only applies to a specific company or a small number of companies - which would indicate irrelevant considerations. 536

Insofar as the defendant objects in this context that the maximum limit in particular unduly favors multi-product providers over "pure" smartphone/tablet PC providers, there is no objection to this generalization. This is because the starting point for the granting of licenses is precisely to enable the offering and distribution of an AVC-capable product (see also (b), (bb), (aaa)). 537

Nor can it be inferred from the defendant's submission that the contractually stipulated maximum limit cannot be applied to any provider whose sales activities are limited to mobile devices. This is also contradicted by the figures provided by the plaintiff in the following table: 538

X 539

which are based on data from the market research company IDC ("International Data Corporation") and which show that the defendant's group has reached the cap since 2014. The defendant counters this table in a different context by referring to the table on page 48 of the reply, which is largely identical and presented by the plaintiff in a different context. Here, in the second column under the heading "Global sales of units", figures with a "\$" sign are listed. This unit is indeed unsuitable for the indication of unit figures, but this unit is not listed in the table referred to here on page 55 of the replica. In this respect, the plaintiff has also clarified that it refers to the number of units with the values stated. Insofar as the defendant - again in a different context (with regard to its sales units on the Asian market) - asserts that the figures submitted by the plaintiff are incorrect and refers to the list in Exhibit B49 (German translation: Exhibit B49a), this shows a higher number of units sold for 2014 and 2016 (2014: 73.847,778 and 2016: 139,343,823) than according to the plaintiff's overview, so that the submission that the cap limits are reached remains correct even if the figures submitted by the defendant are taken into account. According to all of the above, there is no structural difference in the economic possibilities of a multi-product provider and those of an (exclusive) smartphone provider, which also reaches the capping limit. 540

The fact that there may also be suppliers who do not reach the cap is linked to the special business conditions of individual competitors, which must be disregarded in the present assessment. Rather, the typical production and contractual conditions on the respective market must be taken into account within the framework of an objective approach (in a different context: Düsseldorf District Court, judgement of September 11, 2008, file no.: 4b O 78/07, para. 141).

— (e) 542

The license amount offered in the Standard License Agreement also does not prove to be unreasonable because the agreement does not include an adjustment clause. 543

Such an adjustment clause is considered to be an adequate means of achieving FRAND compliance of an offer extending to a patent pool in order to compensate for a possible imbalance between the fixed license fee and the variable subject matter of protection in the event that the existence of the pool changes (Düsseldorf Higher Regional Court, (reference) decision of November 17, 2016, file no.: I-15 U 66/15, para. 32, cited in juris; Kühnen, *ibid*, Chapter E., para. 419), for example due to the expiry of the term of protection of pool patents or their legally binding destruction. However, it is also possible to compensate for an unreasonable level of license fees inherent in the variability of the property right portfolio by other mechanisms (Düsseldorf Higher Regional Court, Düsseldorf, *loc. cit.*). 544

This is the case here. 545

The contractual clause in Section 4.9, 546

"Licensee and the License Administrator acknowledge that the royalties payable will not increase or decrease because the number of AVC Patent Portfolio Patents licensed increases or decreases or because the prices of AVC Royalty Products increase or decrease.", 547

stipulates the license fees irrespective of the number of pool patents. Inherent in the clause is that the licensor assumes the risk of an increase in the pool patents and the licensee assumes the risk of a minimization of the same. According to the plaintiff, the clause takes into account the development of the patent pool over time, according to which a lower number of patents is to be expected at the beginning and end of the term in particular, while a larger number of patents is stored in the pool. 548

The fact that this is a compensation mechanism in line with the interests at stake is reflected, on the one hand, in the fact that the standard license agreement has been accepted in this form by the licensees (cf. (a), (bb), (aaa)) and, on the other hand, in the fact that the risk thus distributed has so far only materialized with regard to the licensor. This is because the license fees have not been increased since the pool was established in 2004, even though the number of patents has increased from an initial 41 to over 5,000 patents. 549

(f) 550

The objection that only a group-wide license is offered as part of the Standard License Agreement also does not lead to the inappropriateness of the license agreement offer. 551

552

Group-wide license agreements are common in the electronics and mobile communications sector (Kühnen, *ibid.*, Chapter E., para. 411), which is also confirmed here by the fact that, according to the plaintiff's submission, MPEG LA has already concluded group-wide license agreements for the AVC/H.264 Standard. The defendant did not sufficiently counter this submission even after the license agreements were submitted (cf. in this regard under lit. (a), (bb)).

e) 553

The defendant has not made use of the opportunity to submit a counter-offer in accordance with FRAND principles in the event of a FRAND-compliant offer by the patent owner. 554

The counter-offer submitted to the plaintiff in the statement of defense dated November 3, 2017 (Exhibits B2/B2a) proves not to be FRAND-compliant. It is therefore irrelevant whether this offer should be considered at all due to the late submission of the same. 555

aa) 556

Insofar as the defendant's counter-offer seeks the granting of a portfolio license, i.e. a license solely to the plaintiff's patents essential for the use of the AVC/H.264 Standard, this contradicts FRAND principles. 557

The plaintiff's request to conclude a pool license proves to be fair and reasonable (cf. lit. d), b), (2), (b)). The plaintiff has also argued that no licensee has requested a license limited to its pool patents since the pool was established. In contrast, the defendant argues that the pool members have refused an individual portfolio license, but does not combine this simple assertion with any factual submission that justifies this argument. 558

The Standard License Agreement (Exhibit K10 - Exhibit G - a) also does not oblige the pool members to grant licenses limited to their portfolio in deviation from this licensing practice. 559

Such an obligation does not follow from the following passage in the preamble: 560

"Each Licensor hereby agrees to grant to individuals, companies or other entities individual licenses or sublicenses under all AVC Essential Patents on moderate, reasonable and non-discriminatory terms and conditions in accordance with the terms and conditions agreed herein, which may be granted by the Licensor (without payment to third parties)." 561

This passage only reflects the respective declaration of the pool patent holder to grant a license on FRAND terms, without already stipulating a specific type of licensing - within what is FRAND-compliant. This is also reflected in the fact that the passage refers to the Standard License Agreement, which provides for the regulatory model of a pool patent license. 562

Nor does the fact that the Preamble to the Standard License Agreement states that the pool patent holder is obliged to grant portfolio licenses: 563

"Nothing contained in this Agreement shall prohibit each Licensor from license or sublicense the rights under each AVC Essential Patent to make, use, sell or offer to sell, including, 564

without limitation, the rights granted under the AVC Patent Portfolio License."

This passage makes it clear that the members of the pool retain the option of granting separate licenses to their portfolio, but it is not apparent under which aspects - when interpreted in accordance with the applicable law of the State of New York - this results in an obligation towards license seekers to actually grant these licenses. The defendant also does not elaborate on this. 565

Even from the point of view of reasonableness, it is not apparent why the defendant needs a license limited to the plaintiff's portfolio alone - for example, because only these are used in the challenged embodiments. This is contradicted by the fact that the defendant is also seeking to obtain portfolio licenses from other pool members in the parallel proceedings. 566

Against the background of the established licensing practice in the form of a pool patent license, it is ultimately also questionable for reasons of non-discrimination if the plaintiff occasionally - without any discernible objective reason- grants licenses solely to its portfolio (for this argumentation, however, in the relationship between portfolio license and individual license, see also Düsseldorf District Court, partial ruling of March 31, 2016, file no.: 4a O 73/14, para. 227, cited in juris). 567

bb) 568

The defendant's counter-offer also proves to be contrary to FRAND in that it (under item 4.1) differentiates the license amount according to different regions without this being sufficiently related to the actual market conditions. 569

Based on the fee regulations proposed in item 4.1, the unit licenses for products used under patent law outside the USA/EU fall short of the unit license for the USA/EU. Accordingly, the unit licenses for the EU amount to around 1.8 times the fees estimated for "China and other countries", while the unit licenses for the USA amount to around 7 times the unit licenses estimated for "China and other countries". 570

As the defendant itself states, when calculating these license fees, it took into account the fact that the Chinese market is a market in which the purchase price achievable with smartphones is lower than in the USA/EU. It also took into account the fact that patent enforcement is more difficult in China. 571

This proves to be inappropriate for two reasons. 572

Firstly, it has not been conclusively demonstrated that the Chinese market is a low-price mobile communications market (cf. d), bb), (2), (a), (bb), (bbb), (ii)), and moreover in a size ratio that justifies a "correction by 50%". Secondly, the defendant does not provide any reasons why, in addition to China, the application of a lower license rate is also justified in all other countries outside the USA and the EU. This proves to be all the more doubtful as the defendant itself "Japan" as a high-priced market alongside the USA. In any case, this approach can no longer be justified by a generalization of market conditions that is acceptable for pool patents. This is because the defendant itself uses the different market conditions as a criterion for differentiation in the license levels, but then - in contradiction 573

to this - combines what it claims is a low-price market with a high-price market.

<u>cc)</u>	574
There is no explanation as to why the license agreement should take effect retroactively - from January 1, 2017 - which is why FRAND compliance is not sufficiently demonstrated in this respect either.	575
<u>f)</u>	576
Since the defendant measured the security provided by it on the basis of the license fees set out in the counter-offer and these prove to be inappropriate (cf. e), bb)), the security provided also proves to be insufficient for this reason alone. However, in the absence of a FRAND-compliant counter-offer, this can be left aside in the present case, as can the fact that the amount of USD 324,870.00 provided for security purposes is not comprehensible from the statements submitted (Exhibit B55; German translation: Exhibit B55a).	577
<u>VII.</u>	578
Due to the established patent infringement by the distribution of the challenged embodiments, the legal consequences awarded result, whereby - as seen - no restrictions are to be made for antitrust reasons.	579
<u>1.</u>	580
The plaintiff is entitled to an injunction against the defendant pursuant to Art. 64 EPC in conjunction with Sec. 139 (1) PatG for the direct infringement of claim 2 and the indirect infringement of claim 1 of the patent in suit.	581
A per se prohibition must also be imposed with regard to the only indirect infringement of process claim 1 by the challenged embodiments. A prohibition for the worse is regularly to be issued if the means in dispute can only be used in a patent-infringing manner. In the case of a means that can be used both in a patent-infringing and patent-free manner, on the other hand, the precautionary measures to be taken by the provider or supplier of the means are determined after weighing up all the circumstances in the individual case. It must be taken into account that the measures must be suitable and sufficient to prevent patent infringements with sufficient certainty on the one hand, and on the other hand must not unreasonably hinder the distribution of the means for off-patent use (BGH, GRUR 2007, 679 - Haubenstretchautomat m. w. N.). As milder measures for the prevention of patent infringements compared to the prohibition in the first place, in particular warnings or - as a subsidiary measure, if a warning is not sufficient - the conclusion of cease-and-desist agreements (possibly with penalty) with customers are to be examined with priority (see BGH, GRUR 2007, 679 - Haubenstretchautomat).	582
It is true that the challenged embodiments can also be used in an economically meaningful way beyond the use of the protected teaching. Nevertheless, a prohibition in bad faith was to be imposed. Milder means than a prohibition in bad faith are not suitable here to prevent a patent-infringing use of the challenged embodiments; in particular, a warning or the obligation to conclude cease-and-desist agreements with customers of the challenged embodiments	583

subject to penalty appear to be unsuitable. The challenged embodiments are regularly used by end users for private purposes. These customers would not be prohibited from using the patent in suit in the private sphere for non-commercial purposes pursuant to Section 11 No. 1 PatG. Furthermore, it is practically impossible to check whether the protected teaching is used in mobile telephones such as the challenged embodiments.

In addition, in the case of a patent-free use, a prohibition of bad use may also be justified in particular if the attacked object can be easily modified in such a way that it no longer complies with the requirements of the patent, but nevertheless does not lose its suitability for patent-free use (OLG Düsseldorf, judgment of 29.03.2012 - Ref. I-2 U 137/10; LG Düsseldorf, InstGE 5, 173 - Wandverkleidung). In such cases, the patent-compliant design of the product is not required to ensure a public domain use outside the patent; the party offering or distributing the product can therefore have no interest worthy of protection. 584

The defendant has not significantly countered the plaintiff's submission on modifiability. It is also not apparent what technical difficulties could exist in preventing the use of the patent teaching. However, insofar as modifiability is made more difficult here by the fact that the use of the entire MPEG-4 Standard is made impossible due to the standard essentiality of the patent in suit, this does not preclude a prohibition in bad faith. The associated disadvantageous consequences for the patent infringer are compensated by the antitrust restrictions of the injunctive relief from the standard-essential patent. If the FRAND objection - as here - does not prevail, a patent infringer cannot claim that a patent-free modification of the challenged embodiment is not possible or inappropriate because this also prevents the use of the Standard. 585

2. 586

At the request of the plaintiff, the defendant's liability for damages must also be established. 587

The interest in a declaratory judgment required for the admissibility of the application for a declaratory judgment pursuant to Section 256 (1) ZPO arises from the fact that the plaintiff is currently not in a position to quantify the specific damage and without a legally binding declaratory judgment, there is a risk that claims for damages will become time-barred. 588

On the merits, the plaintiff has a claim to payment of damages under Art. 64 EPC in conjunction with Sec. 139 (1), (2) PatG. The defendant has culpably committed the patent infringement. As a specialist company, it could at least have recognized the patent infringement if it had exercised the care required in business dealings, Section 276 BGB. It is also not unlikely that the plaintiff has suffered damage as a result of the patent infringement. With regard to contributory patent infringement, the fact that the accused embodiments were offered is sufficient for the probability of damage occurring (see BGH, GRUR 2013, 713 - Fräsverfahren). 589

3. 590

The plaintiff is entitled to a claim for information and accounting against the defendant under Art. 64 EPC in conjunction with §§ 140b para. 1 PatG, §§ 242, 259 BGB, so that the plaintiff is able to quantify the claim for damages to which it is entitled. The plaintiff is dependent on 591

the tenor information, which it does not have through no fault of its own. The defendant is not unreasonably burdened by the information requested of it.

4. 592

Furthermore, the plaintiff has a claim against the defendant to the extent sought (direct infringement) for recall of the infringing products from the distribution channels pursuant to Art. 64 EPC in conjunction with Sec. 140a (3) PatG and for destruction of the products in dispute pursuant to Art. 64 EPC in conjunction with Sec. 140a (1) PatG. There are no indications that the claims are disproportionate. 593

VIII. 594

There is no reason to suspend the hearing pursuant to Section 148 ZPO until a decision has been reached in the nullity proceedings relating to the patent in suit. 595

Pursuant to Section 148 ZPO, the court may stay a legal dispute if another proceeding has precedence. However, the filing of an action for nullity does not automatically constitute grounds for suspending the infringement dispute. The grant of the patent is also binding for the (infringement) courts. Due to the statutory regulation, which for the claims according to Sections 139 et seq. PatG only requires a patent to be in force and only the nullity action, which falls within the exclusive jurisdiction of the Patent Court, is available for the removal of this legal position, the attack against the patent in suit cannot be raised as an objection in the infringement proceedings. However, this must not mean that this attack is denied any effect on the infringement proceedings. The suspension of the infringement dispute within the scope of the discretionary decision to be made pursuant to Section 148 ZPO is rather required in principle, but only if it is to be expected with sufficient probability that the patent in suit will not withstand the nullity action brought or the opposition filed (BGH, GRUR 2014, 1237 - Kurznachrichten; OLG Düsseldorf, GRUR-RS 2015, 18679). 596

1. 597

A stay is not required with regard to the objection of anticipation prejudicial to novelty by the standard draft JVT-G050 (Exhibit NK5, in German translation as Exhibit NK5 (translation); hereinafter: NK5). It can be left open whether the patent in suit effectively claims its priorities. Even if the filing date of the patent in suit on April 10, 2003 is taken as the basis, according to the standard to be applied in the present infringement proceedings, prior publication of NK5 is not to be taken as a basis. 598

The only relevant prior online publication of the NK5, a so-called issue document of the 7th Standardization Meeting, which took place between the 7th and the 8th Standardization Meeting, March 14, 2003 in Pattaya, Thailand, cannot be established with sufficient probability for a stay. 599

a) 600

The Internet can of course be a source of information on the state of the art. However, it is up to the citing party to convincingly demonstrate what could be found there at a certain point in time and to support this with further information (BPatG, decision of July 14, 2009 - 17 W (pat) 318/05). The question of the seniority of the Internet-Source is then subject to free 601

assessment of evidence in the nullity proceedings (BPatG, loc. cit.; BPatG, decision of May 11, 2010 - 17 W (pat) 70/09 - Netbook). The need to assess the evidence alone leads to difficulties in determining the sufficient probability of the destruction of the right to bring an action, which is necessary for a stay. This is because it is not the responsibility of the infringement court to anticipate the taking and assessment of evidence to be carried out by the nullity court as part of the nullity proceedings (judgment of the Chamber of September 3, 2013 - 4a O 56/12, Lichtemittierende Diode), which is why there is no suspension in the case of obvious prior use if the proof of prior use is dependent on witness statements (Kühnen, Handbuch der Patentverletzung, 10th edition 2018, Section E para. 658). In this respect, a stay is only justified if the citation in question is obviously part of the prior art of the right of action, which must be proven by the defendant with liquid evidence.

b) 602

According to this standard, it is not sufficiently probable that the NK5 was made publicly available before the filing date of the patent in suit. 603

It follows from the defendant's submission that, in principle, a document such as the NK5 was stored in a publicly accessible folder on the day it was created, at the latest on the following day. However, it does not follow from this that this actually happened in the case of the NK5 and that it was available in the JVT folder "2003_03_Pattaya" before the filing date. The defendant was unable to provide any concrete evidence of the publication date of NK5 in the said folder. 604

Nothing else results from the fact that in the European patent application EP 1 487 113 A2 (Exhibit NK6, hereinafter: NK6) reference is made to the document "Draft Text of Final Draft International Standard (FDIS) of Joint Video Specification (ITU-T Rec. H.264 I ISO/IEC 14496-10 AVC), JVT-G050, March 2003" by T. Wiegand, G. Sullivan as source reference under paragraph [0040]. The source reference does not indicate that the referenced document was actually published in March 2003 - or at all. Since Thomas Wiegand, as one of the inventors named in NK6, is also a co-author of NK5, public accessibility of NK5 would in any case not be a prerequisite for obtaining knowledge of this source. 605

Publication of NK5 in March 2003 is also not evident from the document "JVT- G048" (Exhibit B60/NK15), which can be downloaded from the same folder "2003_03_Pattaya" on the ITU website as NK5. For the same reasons as for NK6, the reference to NK5 under "Annex A" does not prove publication in March 2003. Both documents are those of the standardization group, so that a source reference would have been possible even without public accessibility of NK5. 606

Even if the circumstantial evidence presented by the defendant is considered in its entirety, prior publication cannot be established with sufficient probability. The necessary anticipation of the free assessment of evidence in nullity proceedings is, as explained, not possible for the Chamber. 607

c) 608

609

The plaintiff was allowed to withdraw to pointing out that the defendant's submission does not prove the publication of NK5 in March 2003. The fact that employees of its legal predecessor may have been members of the JVT Standardization Group for the AVC/H.264 Standard does not imply any imputable knowledge of the publication of NK5 prior to the filing date of the patent in suit. It can be left open whether knowledge of the general processes of the standardization procedure could be attributed to the plaintiff. This does not apply to the actual publication of a certain document at a certain point in time without further evidence, which is not available here.

2. 610

Also with regard to a novelty-destroying anticipation by the document JVT- B118r7, the 7th revision of the draft standard (Exhibit NK8, in German translation as Exhibit NK8 (translation); hereinafter: NK8), a suspension is not necessary. 611

Whether, according to the principles set out above, it should be assumed in the context of the suspension decision that NK8 was published in advance can be left open. In any case, it is not sufficiently probable that the patent in suit will be destroyed by NK8 from the point of view of anticipation prejudicial to novelty. 612

a) 613

Feature 2.2 of claims 1 and 2 of the patent in suit is not disclosed in NK8 in a manner prejudicial to novelty. 614

aa) 615

The NK8 does not immediately and clearly reveal that both movement vectors for a block refer to reference images pointing in the same direction (forwards or backwards). 616

According to the teachings of NK8, two sets of reference images are provided in the context of B prediction, to which the respective motion vectors point and which are designated as the forward reference image set and the backward reference image set (see section 8.2.12 of NK8). In B prediction, the forward motion vector points to reference images in the forward reference image set and the backward motion vector points to reference images in the backward reference image set. However, it is not possible to tell from NK8 that both movement vectors for a current block point to forward or backward reference images. 617

In particular, it is not disclosed that the terms forward prediction and backward prediction used are no longer linked to the temporal direction of the prediction. Rather, paragraph 11.2 of NK8 states that "forward prediction" means prediction from a preceding reference image and "backward prediction" means prediction from a temporally subsequent reference image. In this case, forward prediction is therefore performed from a preceding reference image in the display sequence and backward prediction from a subsequent reference image in the display sequence, so that both motion vectors do not refer to reference images in the same direction in the display sequence. 618

From the editor's note following paragraph 11.2: "This statement is not correct in this codec", does not indicate that forward and backward prediction no longer provide any indication of 619

the temporal arrangement of the reference image (before or after). A fortiori, the positive statement that a block can contain two motion vectors that refer to reference images in the same display sequence cannot be inferred from the note. In fact, the editor's note is limited to questioning the content of the previous statement. The note does not explain what should apply in its place. It also remains unclear what the relationship is between the author and the editor of NK8 and whose statement should ultimately take precedence from the reader's point of view.

It may be possible in the standard index sequence for B-pictures according to paragraph 8.2.12.2 of NK8 to provide a block with two motion vectors that refer to reference images in the same display direction. However, without corresponding explanations in the NK8, this is also not sufficient for a clear and direct disclosure. Nor is it sufficient for paragraph 3.20 to state with regard to the decoding order that this "does not necessarily" have to correspond to the display order ("This order is not necessarily the same as the display order"). Although the defendant can be agreed that, according to this formulation, the display order does not have to correspond to the decoding order, it can. However, this does not constitute a sufficiently clear disclosure of blocks with two motion vectors whose reference images point in the same direction in the display order. Furthermore, even taking into account the "editor's note", the question remains open as to how this possibility relates to paragraph 11.2, which excludes this possibility. 620

bb) 621

Even if feature 2.2 were to be regarded as directly and unambiguously disclosed, the technical teaching would in any case lack practicability in view of the contradictions pointed out. The skilled person may at best be able to understand that contradictions have been recognized in the NK8. However, he cannot resolve these and rework the teaching of NK8 in accordance with feature 2.2. Such an unfinished teaching that does not yet contain the claimed teaching as an executable instruction is not prejudicial to novelty (Melullis, in: Benkard, Patentgesetz, 11th edition 2015, Section 3 para. 181). 622

cc) 623

Nothing can be deduced from the defendant's general argument that it was already known during the H.26L standardization procedure that motion vectors can refer to reference images which are in the same direction in the display sequence with regard to the examination of novelty. 624

Nor does it take into account that, according to a reference in NK8 under the section "11 B-pictures", considerable work is still required to complete the installation of the "generalized ERPS". The content of said ERPS does not thereby become part of the content of NK8, which is why further comments on its disclosure content are superfluous. 625

b) 626

As a consequence of the above, feature 2.4 is also not directly and unambiguously disclosed, according to which the assignment of an identifier to a specific motion vector "according to a sequence in which the motion vectors of each block appear in a bit stream". For if one assumes that, according to the doctrine of NK8 forward prediction is only performed 627

with respect to reference images preceding in the display sequence and backward prediction is only performed with respect to reference images following in the display sequence, "MVDFW" and "MVCBW" do not simultaneously represent identifiers that make it possible to distinguish the motion vectors of a block that refer to reference images in the same direction in the display sequence.

c) 628

Feature 3 is therefore also not clearly and directly disclosed. In the absence of an identifier of the movement vectors enabling the distinction just explained, it is not possible to derive the pre-calculated movement vector using the movement vectors of precisely these identifiers. 629

3. 630

With regard to a novelty-destroying anticipation by the standard submission VCEG- N40 (Exhibit NK10, in German translation as Exhibit NK10 (translation); hereinafter: NK10) in conjunction with the draft standard TML-8 (Exhibit NK11, in German translation as Exhibit NK11 (translation); hereinafter: NK11), a suspension is also not warranted. 631

a) 632

An anticipation prejudicial to novelty by a combination of NK10 and NK11 is already ruled out because the skilled person does not regard both citations as a single source of disclosure. 633

Combinations with features outside the document are generally not disclosed, unless the document expressly refers to another prior publication for a certain design and thus makes it the content of the document itself or a person skilled in the art would exceptionally read both documents together (Moufang, in: Schulte, Patentgesetz mit EPÜ, 10th edition 2017, Section 3 para. 112 with further references). N.). There is no such exception. The NK10 does refer to the NK11 as prior art in the introduction and presents the "multi-hypothesis mode" under examination as a further development or modification of the "bidirectional mode" of NK11. However, this reference is not sufficient to read the entire content of NK11 into NK10. Reference is only made to the temporal arrangement of the reference images in relation to the motion vectors related to them. The rest of the content of NK11 is not addressed. 634

b) 635

However, even if one assumes that the skilled person "reads along" the disclosure in NK10 due to the reference to NK11, the teaching according to the patent in suit is not anticipated to the detriment of novelty. 636

According to the teaching of NK11, in the so-called "bidirectional mode", one motion vector is related to a reference image in the forward direction and the other motion vector is related to a reference image in the backward direction. If this is replaced by the "multi-hypothesis mode" of the NK10, additional combinations are possible, namely "forwards, forwards" and "backwards, backwards" (see section 3.2 of the NK10). However, neither the NK10 nor the NK11 provide answers to the questions that arise in the case of two motion vectors that refer to reference images in the same direction. As already mentioned in connection with 637

NK8, "MVDFW" and "MVCBW" in particular are not identifiers that enable the motion vectors of a block relating to reference images in the same direction in the display sequence to be distinguished. Thus, in any event, features 2.3 and 3 are not disclosed in either NK10 or NK11.

4. 638

For the above reasons, there is also no lack of inventive step with regard to a combination of NK10 and NK11. 639

5. 640

Finally, a stay is not required with regard to the objection of an inadmissible extension compared to the original application EP 1 499 133 A1 (Exhibit NK3c; hereinafter: NK3c). 641

a) 642

An impermissible extension exists if, as a result of an amendment, the subject-matter of the application or the patent goes beyond the content of the application as originally filed, Art. 123 (2) EPC. The subject matter of the application is that which a person skilled in the art would directly and unambiguously deduce from the overall content of the original application (claims, description and drawings) using general technical knowledge on the filing date (Moufang, in: Schulte, Patentgesetz mit EPÜ, 10th edition 2017, Section 38 PatG/Art. 123 EPC para. 18). The prohibition of an impermissible extension does not preclude the subsequent incorporation of features contained in the original disclosure into a patent claim (Dobrucki, in: Benkard, EPÜ, 2nd Edition 2012, Art. 123 para. 105). In particular, features from an embodiment example can be included in the claim for limitation as long as the subject matter claimed hereby is disclosed as belonging to the invention and is not an aliud (BPatG, decision of June 28, 2016 - 10 W (pat) 140/14). 643

b) 644

Measured against this, there is no impermissible extension. The subject matter of the patent in suit does not go beyond the content of the original application NK3c. This applies in particular to features 2.4 (see aa)) and 3 (see bb)). 645

aa) 646

Assigning an identifier "according to an order in which the motion vectors of each block appear in a bitstream" (feature 2.4) is directly and unambiguously disclosed in paragraph [0010] of NK3c for the encoding method. It is stated therein that in the assigning step, the IDs may also be assigned to the two motion vectors for each of the plurality of coded blocks according to an order in the bitstream in which each of the motion vectors is arranged as a coded difference. The skilled person will recognize that this disclosure of NK3c also claims validity for the decoding method. This follows from the explicit reference in paragraph [0018] of NK3c, from which the corresponding application of the description of the encoding method to the decoding method follows. Apart from this, encoding and decoding regularly run inversely to each other, so that for this reason it is also readily apparent to a person skilled in the art that, with regard to the decoding method, reference is made to the disclosure in 647

paragraph [0010] of NK3c.

bb) 648

649
Feature 3 is also disclosed in the NK3c. The motion vector decoding method explained in paragraph [0078] of the NK3c has an assigning step for assigning identifier codes and a generating step for generating the predicted vector. The predicted vector is then generated for each of the motion vectors for the current block based on the motion vectors with the same identifier code from the motion vectors for the plurality of decoded blocks. Thus, the derivation of the predicted motion vector for each motion vector of the current block using the motion vectors having the same identifier code as assigned to each motion vector of the current block from the motion vectors for the plurality of decoded blocks (feature 3) is disclosed.

IX. 650

651
The parties' written submissions, which were submitted after the conclusion of the oral hearing, were not taken into account in the decision. A reopening of the oral hearing is not required, sections 296a, 156 ZPO.

1. 652

653
Contrary to what the defendant argues in its statement of 16.10.2018, the Chamber did not issue any instructions at the oral hearing, but only discussed the factual and legal status. The case on which the judgment of the Federal Patent Court of December 13, 2016 (Ref. 3 Ni 5/16) is based is not directly comparable to the present constellation. In that case, the Federal Patent Court also assumes public accessibility within one month of the specified date, whereas in the present case, even according to the defendant's submission, there are only three weeks and five days between the "latest publication date" of the citation and the filing date of the patent in suit (April 10, 2003).

2. 654

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It should also be noted that the defendant's new license offer could not be held against the plaintiff's claim for injunctive relief because it does not have to be taken into account from a FRAND perspective due to the time of submission. Due to the submission after the oral hearing, the plaintiff does not have sufficient opportunity to react during the trial (see Chamber, judgment of July 13, 2018 - 4a O 154/15 - para. 283 et seq. cited in juris, on the irrelevance of an offer shortly before the oral hearing, which applies accordingly to late counter-offers). The ECJ explicitly requires a FRAND-compliant counter-offer "within a short period of time" (ECJ, GRUR 2015, 764, para. 66) and that "no delaying tactics are pursued" (ECJ, *ibid.*, para. 65). The defendant does not comply with these requirements. It is also not apparent why the counter-offer could not have been made beforehand. Its submission just shortly before the date set for the announcement in this case appears to be an expression of a delaying tactic and contradicts FRAND principles.

X. 656

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The decision on costs is based on Section 91 (1) sentence 1 ZPO. The decision on provisional enforceability follows from Section 709 sentence 1, sentence 2 ZPO. At the request of the plaintiff, partial securities were to be set for the individual titled claims, Sections 709, 108 ZPO.

The defendant was not to be granted protection against enforcement within the meaning of Section 712 ZPO, as it neither set out the requirements of Section 712 (1) ZPO nor made them credible in accordance with Section 714 (2) ZPO. 658

XI. 659

The amount in dispute is set at € 5 million. 660

Dr. Crummenerl	Judge Dr. Gräwe at the Regional Court is prevented from writing due to illness. Dr. Crummenerl	Dr. Schumacher
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