

**Supreme People's Court of the People's Republic of
China**

Civil Judgment

(2022) Supreme Court Zhimin Zhong No. 907, 910, 911, 916, 917, 918

Appellant (plaintiff in the first instance, and defendant in the counterclaim): Advanced Codec Technologies, LLC. Domicile: 2323 S.Shepherd, 14th Floor, Houston, Texas 77019, U.S.A

Representative: David Sewell, manager of the company.

Agents ad litem: Xu Chuanshu and Wang Xiaolin, lawyers at Beijing Longtao Zhisi Law Firm [Xu Chuanshu for (2022) Supreme Court Zhimin Zhong No. 907, 916, 917 and 918, and Wang Xiaolin for (2022) Supreme Court Zhimin Zhong No. 910 and 911].

Agent ad litem: Wu Bing, IP agent at Beijing Sitao Intellectual Property Agency Co., Ltd.

Appellant (defendant in the first instance, and plaintiff in the counterclaim): Guangdong OPPO Mobile Telecommunications Corp., Ltd. Domicile: No. 18, Wusha Haibin Road, Chang'an Town, Dongguan, Guangdong Province, the People's Republic of China.

Legal representative: Liu Bo, executive director and manager of the company.

Agent ad litem: Zhao Ye, lawyer at Beijing Jingtian & Gongcheng Law Firm.

Agent ad litem: Chen Guo, lawyer at Beijing Jingtian & Gongcheng Law Firm.

Defendant in the first instance: Nanjing Baixia Suning.com Trading Co., Ltd. Domicile: Room 101, No. 88, Huaihai Road, Qinhuai District, Nanjing City, Jiangsu Province, the People's Republic of China.

Legal representative: Rong Jinhui, executive director and general manager of the company.

Agent ad litem: Qiu Shengjie, male, employee of the company.

The appellant Advanced Codec Technologies, LLC. (hereinafter referred to as Advanced Codec), the appellant Guangdong OPPO Mobile Telecommunications Corp., Ltd. (hereinafter referred to as OPPO) and the defendant in the first instance Nanjing Baixia Suning.com Trading Co., Ltd. (hereinafter referred to as Nanjing Suning.com) appealed to this Court against the Civil Judgment (2018) Su 01 Min Chu No. 3350, 3354, 3355, 3356, 3358, and 3364 made by the Intermediate People's Court of Nanjing City, Jiangsu Province, the People's Republic of China (hereinafter referred to as Court of First Instance) on November 22, 2021 (hereinafter referred to as First-instance Judgment of the Six Cases) in the six cases involving the infringement of the invention patent rights and the dispute over the standard essential patent royalties. After the cases were filed and accepted on May 25, 2022, this Court formed a collegial panel in accordance with the law, inquired the parties on January 9, 2023, and held a public hearing on the six cases on September 20, 2023. The agents ad litem of the appellant Advanced Codec, namely Wu Bing, Xu Chuanshu and Wang Xiaolin, and those of the appellant OPPO, namely Zhao Ye and Chen Guo, appeared in court for the litigation. The defendant in the first instance Nanjing Suning.com, failed to appear in court for the litigation without good cause after being summoned by this Court. This Court conducted a trial by default in accordance with the law. The trial of these six cases has now been concluded.

On November 16, 2018, Advanced Codec filed a lawsuit with the Court of First Instance against OPPO for intentional delay in the license negotiation in connection with Invention Patent No. 99813601.8, 00815854.1,

99813602.6, 99813640.9, 01803954.5 and 99813641.7, which are respectively entitled "Method and Device for Adaptive Bandwidth Tone Search in Coded Broadband Signals", "Gain Smoothing in Broadband Audio and Audio Signal Decoders", "Perceptual Weighting Device and Method for Efficient Encoding of Broadband Audio Signals and Cellular Communication Systems Using Such Equipment", "Method and Device for Recovering High-frequency Components of Sampled and Synthetic Broadband Signals", "Method and Device for Indexing Pulse Positions and Symbols in Algebraic Codebook for Broadband Signal Encoding" and "Method and Device for Periodic Enhancement When Decoding Broadband Signals" [hereinafter collectively referred to as Six Patents Involved, which are the patents involved in Case No. (2018) Su 01 Min Chu 3350, 3354, 3355, 3356, 3358 and 3364] on the grounds of licensing negotiations. In these six cases, the following court order was requested: OPPO should pay Advanced Codec a compensation in the amount of RMB 57 million (the currency used below shall be RMB, unless otherwise specified); OPPO should bear the reasonable expenses of Advanced Codec in the amount of RMB 100,000 incurred to investigate into and stop the infringement. At the same time, Advanced Codec also requested the following court order in Case No. (2018) Su 01 Min Chu No. 3354 and 3358: OPPO should immediately stop manufacturing, selling, and offering for sale 44 allegedly infringing mobile phone models infringing on Invention Patent Right No. 00815854.1 and 01803954.5 of Advanced Codec; Nanjing Suning.com should immediately stop selling or offering for sale the mobile phones infringing on Invention Patent Right No. 00815854.1 and 01803954.5 of Advanced Codec (the corresponding mobile phone models are as follows: A1, A5, A7, A7x, K1, R15, R15x, R17, R17Pro and FindX). Advanced Codec claimed that all the Six Patents Involved were AMR-WB standard essential patents. The above-mentioned damages were calculated mainly on the following basis: The license agreement provided by Advanced Codec gave a realistic basis for calculating the royalty rate with the comparable agreement method in these six cases; upon analysis of the license agreement by the economists, the royalty rate was found to range from USD 0.07 to USD 0.39/unit and the royalty rate proposed by Advanced Codec to OPPO was USD 0.26/unit;

from the first quarter of 2015 to the third quarter of 2019, OPPO had manufactured and sold 292,102,741 allegedly infringing mobile phones of the 44 models mentioned above; the amount of damages caused by OPPO should be calculated at three times the patent royalty due to its obvious fault, which was USD 227,840,138 ($\text{USD } 0.26/\text{unit} \times 292,102,741 \text{ units} \times 3$). Advanced Codec claimed a total of USD 50 million in damages of these six cases, and the amount of compensation claimed in each case was RMB 57 million, as evenly divided.

OPPO argued in the first instance that: Advanced Codec was not a qualified litigation subject, the Six Patents Involved were not standard essential patents, and the technical solutions for the allegedly infringing mobile phones of OPPO fell out of the scope of protection of the Six Patent Involved; Advanced Codec violated the license negotiation obligations of "fairness, reasonableness and non-discrimination" (hereinafter referred to FRAND, as internationally recognized) during the negotiation with OPPO, whilst OPPO had always been sincere in the negotiation; the damages and reasonable expenses of Advanced Codec were calculated without a basis. Accordingly, OPPO requested that all the claims of Advanced Codec in these six cases be dismissed in accordance with the law.

Nanjing Suning.com argued in the first instance that: Nanjing Suning.com did not know and should not have known that the allegedly infringing mobile phones sold by Nanjing Suning.com were suspected of patent infringement. The allegedly infringing mobile phones sold by Nanjing Suning.com had a legal source, and Nanjing Suning.com had fulfilled its duty of reasonable care in selling the allegedly infringing mobile phones without a subjective fault.

During the trial of these six cases, OPPO filed a counterclaim with the Court of First Instance on December 6, 2019 on the grounds that Advanced Codec violated its license negotiation obligations of FRAND. In these six cases, OPPO requested the court to: 1. Confirm that Advanced Codec violated its obligations of FRAND in connection with the license negotiation; 2. Determine the royalty rate of the intelligent terminal products manufactured and sold by OPPO in China under the license of Advanced Codec in connection with the Six Patents Involved (within the

term of the Six Patents Involved) if the Six Patents Involved were determined to be standard essential patents and OPPO had implemented the Six Patents Involved; and 3. Order Advanced Codec to compensate OPPO for its economic losses in the amount of RMB 1 million.

In response to the counterclaim of OPPO, Advanced Codec argued in the first instance that the counterclaim of OPPO was inconsistent with the legal provisions on counterclaims, and Advanced Codec requested the Court not to accept the counterclaim of OPPO.

The Court of First Instance found that:

VoiceAge Corporation, a person not involved in the case, filed with the State Intellectual Property Office of the People's Republic of China (hereinafter referred to as State Intellectual Property Office) the applications for the invention patents entitled "Method and Device for Periodic Enhancement When Decoding Broadband Signals", "Method and Device for Recovering High-frequency Components of Sampled and Synthetic Broadband Signals", "Perceptual Weighting Device and Method for Efficient Encoding of Broadband Audio Signals and Cellular Communication Systems Using Such Equipment" and "Method and Device for Adaptive Bandwidth Tone Search in Coded Broadband Signals" on October 27, 1999; the application for the invention patent entitled "Gain Smoothing in Broadband Speech and Audio Signal Decoders" on November 17, 2000; and the application for the invention patent entitled "Method and Device for Indexing Pulse Positions and Symbols in Algebraic Codebook for Broadband Signal Encoding" on November 22, 2001. The above six patent applications were granted on September 8, 2004, September 8, 2004, November 5, 2003, October 20, 2004, November 30, 2005, and June 8, 2005 respectively, and the corresponding patent numbers were 99813641.7, 99813640.9, 99813602.6, 99813601.8, 00815854.1 and 01803954.5 respectively.

In January 2017, VoiceAge Corporation transferred the Six Patent Involved to Saint Lawrence Communications LLC, a person not involved in the case, in four times. Thereafter, Saint Lawrence Communications LLC licensed the Six Patents Involved to Advanced Codec for

implementation. The license was exclusive with a term continuing from April 12, 2018 to November 21, 2021 (when the term of license extends beyond the patent protection period, the expiration date of the patent right shall apply), and the effective date of license registration was April 24, 2018.

On October 20, 2020, VoiceAge Corporation signed a statement that for the Six Patents Involved, Saint Lawrence Communications LLC had the right to safeguard its rights at its sole discretion in connection with any infringement of the Six Patents Involved that occurred before January 17, 2017, namely the effective date of the change in the patent transfer bibliography, without the consent of VoiceAge Corporation.

On December 5, 2020, Saint Lawrence Communications LLC and Advanced Codec signed an appendix to the patent license contract in connection with the Six Patents Involved, in which Saint Lawrence Communications LLC granted Advanced Codec an exclusive right and license on the Six Patents Involved, and Advanced Codec had the right to sue and claim the past, present and future damages arising from the infringement of the Six Patents Involved and to seek for and obtain an injunctive or any other relief due to the infringement of the Six Patents Involved.

Advanced Codec claimed that the 44 allegedly infringing mobile phone models manufactured by OPPO fell within the scope of protection of the Six Patents Involved. On February 22, 2018, Advanced Codec sent an email to OPPO, stating that the Six Patents Involved were AMR-WB standard essential patents and that OPPO had used the Six Patents Involved and should pay the patent royalties. In the email, Advanced Codec also listed the contents of the Six Patents Involved and the global licensing status thereof, claimed a patent royalty of USD 0.2 to 0.4 for each allegedly infringing mobile phone, and expressed its willingness for negotiation in accordance with the FRAND principles and its preparation for litigation. On March 14, 2018, OPPO sent an email to Advanced Codec, stating that it had received the email sent by Advanced Codec on February 22 and that OPPO was willing to negotiate on the basis of the FRAND principles and process the same as soon as possible. As a result,

the two parties sent emails to each other from March 20, 2018 to November 12 of the same year (before the filing of these six cases) (a total of 39 emails exchanged between the two parties) to negotiate the signing of the confidentiality agreements, the clarification of the technical issues, the arrangement of meetings, reasonable quotations and other matters. During this period, Advanced Codec sent an email to OPPO on May 31, 2018, stating that the quotation for the royalty was USD 0.26/unit in the total amount of USD 189,055,000 with reference to the royalty rate of Company E (an English letter will be used to replace the name of the relevant company in order to not disclose the business information of relevant company); and was USD 0.39/unit in the total amount of USD 283,583,000 with reference to the royalty rate of Company G. The two parties, however, failed to reach an agreement, and during the negotiation, Advanced Codec repeatedly accused OPPO of delaying the negotiation process. After these six cases were filed, the two parties continued to send emails to each other from November 27, 2018 to March 16, 2020 to negotiate the quotation for the royalty of the Six Patents Involved. During this period, OPPO stated to Advanced Codec on October 19, 2019 that: Advanced Codec had not provided a calculation basis for the quotation, and OPPO was willing to propose a counter-offer of RMB 3.7 million based on the materials available at that time. Advanced Codec sent an altered license agreement to OPPO on November 1, 2019, stating that the quotation of OPPO was a far cry from the quotation in the prior license agreement. Advanced Codec requested OPPO on November 7, 2019 to pay USD 17 million as the global royalty within 60 days. OPPO stated to Advanced Codec on November 15, 2019 that the quotation of Advanced Codec was too high and was not consistent with the FRAND principles. Advanced Codec stated to OPPO on December 30, 2019 that: Based on the license agreement of USD 7 million between the largest original equipment manufacturer of China and Advanced Codec, Advanced Codec was willing to grant a license to OPPO for a royalty of USD 8 million. OPPO made a counter-offer of USD 1 million to Advanced Codec on January 22, 2020. Advanced Codec stated to OPPO on February 3, 2020 that the counter-offer of OPPO was unreasonable. OPPO pointed out to Advanced Codec on March 16, 2020 that: The scope of license in the "best comparable

agreement" mentioned by Advanced Codec was obviously inconsistent with its previous claim, and requested Advanced Codec for an explanation thereof.

In September 2019, Advanced Codec and its affiliates signed a patent license agreement with Company A, granting a worldwide (other than the United States) license to the global AMR-WB patents and the additionally licensed AMR-WB+ patents with a royalty of USD 7 million until the expiry of the term of the licensed patent. Among them, the AMR-WB patents include the Six Patents Involved; the AMR-WB+ patents include three Chinese patents with Patent No. 03812588.9, 03812652.4 and 200580011604.5. In March 2020, Advanced Codec and its affiliates signed a patent license agreement with Company B, granting a license to the global AMR-WB patents and the additionally licensed AMR-WB+ patents in China with a royalty of USD 6 million until the expiry of the term of the licensed patent. Among them, the AMR-WB patents are the Six Patents Involved; the AMR-WB+ patents include three Chinese patents with Patent No. 03812588.9, 03812652.4 and 200580011604.5. On June 21, 2017, Saint Lawrence Communications LLC signed a patent license agreement with Company C, granting a license to the Chinese AMR-WB patents in China with a royalty of USD 4,881,297 until the expiry of the term of the licensed patent. Among them, the AMR-WB patents include the Six Patents Involved. Advanced Codec argued in its expert report that the above royalties were the prices based on discounts in connection with early licensee, patent expiry, settlement, patent invalidity risk and trade war. In the above-mentioned agreement with Company A, the royalty of USD 7 million is applicable to 676,499,193 devices; in the above-mentioned agreement with Company B, the royalty of USD 6 million is applicable to 760,416,171 devices; in the above-mentioned agreement with Company C, the royalty of USD 4,881,297 is applicable to 37,315,005 devices. In these six cases, Advanced Codec also provided the patent license agreements signed by itself and its affiliates with the mobile phone brand manufacturers such as Company D, Company E, Company F and Company G in connection with the Six Patents Involved and other patents.

Notarial Certificate No. (2019) Jing Fang Yuan Nei Jing Zheng Zi No.

32745 provided by Advanced Codec shows that the sales of the 44 allegedly infringing mobile phone models of OPPO from the first quarter of 2015 to the third quarter of 2019 totals 292,102,741 units as found at www.idc.com. Advanced Codec claimed in its expert report that the sales of the 44 allegedly infringing mobile phone models of OPPO in China from the first quarter of 2015 to the third quarter of 2019 totaled 254,545,344 units. Statistics from the strategy analytics agency provided by OPPO show that the global smartphone sales of OPPO is: 87.1 million units in 2016, 118 million units in 2017 and 116.6 million units in 2018. The economic report provided by OPPO claims that the mobile phone sales of OPPO from 2019 to 2021 remain the same as in 2018.

Among the Six Patents Involved, the four patents with Patent No. 99813601.8, 99813602.6, 99813640.9 and 99813641.7 expired on October 26, 2019, the patent with Patent No. 00815854.1 expired on November 16, 2020, and patent with Patent No. 01803954.5 expired on November 21, 2021.

After trial, the Court of First Instance holds that:

Based on the licensing of the Six Patents Involved, Advanced Codec has the right to file the litigations in connection with these six cases. The Six Patents Involved are standard essential patents, and all the 44 allegedly infringing mobile phone models manufactured and sold by OPPO fall within the scope of protection of the Six Patents Involved. The two parties are responsible for the failure to resolve the royalty issue through negotiation. Considering that the Six Patents Involved are all Chinese patents, it is only determined in this case that OPPO should pay the royalty for the allegedly infringing mobile phones sold in China. It is therefore reasonable to take the license agreements signed by Advanced Codec with Company A and Company B respectively as the comparable agreement in consideration of manufacturing by a Chinese enterprise, manufacturing in China, audience of the mobile phone, price, mobile phone sales and other aspects.

Advanced Codec claimed in its expert report that the sales of the 44 allegedly infringing mobile phone models totaled 254,545,344 units in

China from the first quarter of 2015 to the third quarter of 2019, which was 57 months. The sales of the mobile phones was approximately 263,476,760 units (254,545,344 units \div 57 months \times 59 months) from January 2017 in which the YD/T 3178-2016 standard was implemented to November 2021 in which the last of the Six Patents Involved expired, and this data could be used as the basis for calculating the royalty in these six cases. The license agreement signed by Company B stipulates a royalty of USD 6 million, which involves the Six Patents Involved with the AMR-WB function and three other patents with the AMR-WB+ function. Advanced Codec claimed in its expert report that the royalty of USD 6 million set out in the agreement of Company B was applicable to 760,416,171 devices, and in that license agreement, the unit royalty rate for the Six Patents Involved with the AMR-WB function should be USD 0.005260277/unit (USD 6 million \div 760,416,171 units \div 9 \times 6). Advanced Codec claimed that the royalty of USD 7 million agreed in the agreement of Company A was applicable to 676,499,193 devices, and in that license agreement, the unit royalty rate for the Six Patents Involved with the AMR-WB function should be USD 0.006898259/unit (USD 7 million \div 676,499,193 units \div 9 \times 6). After Advanced Codec filed a litigation, the quotation of OPPO was still too low (which was only USD 1 million) even though Advanced Codec had disclosed to it a part of a similar settlement agreement with Company A and the Court of First Instance decided to increase the royalty by 20%. The specific calculation is: to average the unit royalty rate in the license agreement between Company B and Company A, multiplied by the sales of the allegedly infringing mobile phones and then multiplied by 120%, and the resulting royalty is USD 1,922,095 {263,476,760 units \times 120% \times [(USD 0.005260277/unit + USD 0.006898259/unit) \div 2]}.

The above fees are the total royalties applicable to the Six Patents Involved. From January 2017 in which the YD/T 3178-2016 standard was implemented to October 2019 in which the four patents including Patent No. 99813601.8, 99813602.6, 99813640.9 and 99813641.7 expired, it totals 34 months; from January 2017 to November 2020 in which Patent No. 00815854.1 expired, it totals 47 months; from January 2017 to November 2021 in which Patent No. 01803954.5 expired, it totals 59

months. Therefore, the royalty for the four patents that expired in October 2019 is USD 270,046.4 [$\text{USD } 1,922,095 \times 34 \text{ months} \div (34 \text{ months} \times 4 + 47 \text{ months} + 59 \text{ months})$], which is equivalent to RMB 1,755,301.6 ($\text{USD } 270,046.4 \times \text{RMB } 6.5/\text{USD}$). The reasonable expenses incurred by Advanced Codec for these four patents will be included in the royalty. OPPO shall pay Advanced Codec a royalty of RMB 1.85 million for these four patents respectively. The royalty for Patent No. 00815854.1 is USD 373,299.4 [$\text{USD } 1,922,095 \times 47 \text{ months} \div (34 \text{ months} \times 4 + 47 \text{ months} + 59 \text{ months})$], which is equivalent to RMB 2,426,446.1 ($\text{USD } 373,299.4 \times \text{RMB } 6.5/\text{USD}$). The reasonable expenses incurred by Advanced Codec for this patent will be included into the royalty. OPPO shall pay Advanced Codec a royalty of RMB 2.52 million for this patent. The royalty for Patent No. 01803954.5 is USD 468,609.9 [$\text{USD } 1,922,095 \times 59 \text{ months} \div (34 \text{ months} \times 4 + 47 \text{ months} + 59 \text{ months})$], which is equivalent to RMB 3,045,964.4 ($\text{USD } 468,609.9 \times \text{RMB } 6.5/\text{USD}$). The reasonable expenses incurred by Advanced Codec for this patent will be included into the royalty. OPPO shall pay Advanced Codec a royalty of RMB 3.14 million for this patent. For the above reasons, other claims of Advanced Codec and the counterclaims of OPPO will not be supported after the court has decided that OPPO should pay the royalty to Advanced Codec and Invention Patent No. 00815854.1 and 01803954.5 have expired.

To sum up, in accordance with Articles 6 and 7 of the Civil Code of the People's Republic of China and Paragraph 1 of Article 11, Articles 12, 13 and 52 and Paragraph 1 of Article 64 of the Patent Law of the People's Republic of China, Article 24 of the Interpretation (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases, Paragraph 1 of Article 64 and Article 144 of the Civil Procedure Law of the People's Republic of China (as amended in 2017), and Article 221 of the Interpretation of the Supreme People's Court on the Application of the Civil Procedure Law of the People's Republic of China (as amended in 2020), the Court of First Instance made Civil Judgments No. (2018) Su 01 Min Chu No. 3350, 3354, 3355, 3356, 3358 and 3364 on November 22, 2021: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. should pay Advanced

Codec Technologies, LLC RMB 1.85 million, RMB 2.52 million, RMB 1.85 million, RMB 1.85 million, RMB 3.14 million and RMB 1.85 million respectively (totaling RMB 13.06 million) in connection with the allegedly infringing mobile phones sold in China within fifteen days from the date of entry into force of the judgment; 2. Other claims of Advanced Codec Technologies, LLC were rejected; 3. Other claims of Guangdong OPPO Mobile Telecommunications Corp., Ltd. were rejected. The total acceptance cost of the principal actions in the six cases is RMB 1,963,800, of which RMB 763,800 will be borne by Advanced Codec Technologies, LLC and RMB 1.2 million will be borne by Guangdong OPPO Mobile Telecommunications Corp., Ltd.; the total acceptance cost of the counterclaim cases in the six cases will be RMB 41,400, of which RMB 20,700 will be borne by Advanced Codec Technologies, LLC and RMB 20,700 will be borne by Guangdong OPPO Mobile Telecommunications Corp., Ltd..

Advanced Codec appealed against the First-instance Judgment of the Six Cases, requesting the court: 1. To revoke the first and second items of the First-instance Judgment of the Six Cases; 2. To change the judgment and order OPPO to give a compensation to Advanced Codec in the amount of RMB 57 million in each case. The facts and reasons are as follows: (1) The Court of First Instance erroneously determined the sales of the allegedly infringing mobile phones in China, including incorrect determination of the start and end dates of the infringement and unreasonable estimation of the sales of the mobile phones in the last three years. (2) The Court of First Instance miscalculated the royalty for a single mobile phone of OPPO, and failed to follow the economic analysis method used in the standard essential patent licensing industry practice and to consider any economic discount coefficient. It only adopted the simple multiplication and division to calculate the royalty for a single mobile phone of OPPO. The calculation method was too simple, resulting in determination of a low royalty for a single mobile phone of OPPO. (3) The Court of First Instance erroneously determined that it was only necessary to increase the royalty rate for a single mobile phone by 20% and that OPPO maliciously delayed the negotiation and quoted too low a price during the licensing negotiation of

the Six Patents Involved. The amount of damages in these six cases should be 3 times the royalty fee determined on the basis of the royalty rate for a single mobile phone.

In response to the appeal of Advanced Codec, OPPO argued that: (1) In the absence of other data support, the estimate of the Court of First Instance over the sales of the allegedly infringing mobile phones was reasonable, and there was no "incorrect determination of the infringement period and unreasonable estimation of the sales in the last three years" as claimed by Advanced Codec. (2) Although the royalty for a single mobile phone determined by the Court of First Instance was slightly high, it was still reasonable on the whole. (3) The negotiation and quotation of OPPO were in full compliance with the FRAND principles; Advanced Codec completely ignored the request of OPPO, and the negotiation and quotation of Advanced Codec were inconsistent with the FRAND principles. It is neither fair nor reasonable for the Court of First Instance to increase the royalty by 20%. The appeal of Advanced Codec cannot be established and shall be dismissed in accordance with the law.

OPPO appealed against the First-instance Judgment of the Six Cases, requesting the court: 1. To revoke the First-instance Judgment of the Six Cases; 2. To change the judgment to reject all the claims of Advanced Codec in these six cases or to re-determine the royalty; 3. To order Advanced Codec to bear the acceptance cost of the first-instance and second-instance trial of these six cases. The facts and reasons are as follows: (1) Many of the negotiation behaviors of Advanced Codec were in material breach of the FRAND principles, and the Court of First Instance made an error in determining that OPPO should bear the fault liability for the failure to reach a license agreement. (2) There was an obvious error in the calculation of the royalty determined by the Court of First Instance. The Court of First Instance erroneously determined that OPPO was primarily at fault in the negotiation, and then erroneously increased the royalty rate by 20% based on the royalty rate determined in the comparable agreement submitted by Advanced Codec. The Court of First Instance overestimated the royalty in these six cases. The Court of First Instance also made many other inappropriate mistakes in connection with the

calculation of the royalty, such as basing the calculation on the number of patents instead of the number of patent families, failing to consider the impact of the remaining period of patent protection on the royalty, and incorporating the reasonable expenses of Advanced Codec when determining the royalty.

In response to the appeal of OPPO, Advanced Codec argued that: (1) The licensing negotiation process for the Six Patents Involved fully demonstrates that the negotiation of Advanced Codec is in full compliance with the FRAND principles and that OPPO has the intention to delay the negotiation. Therefore, the amount of damages shall be calculated as 3 times the royalty rate for a single mobile phone in these six cases. (2) The amount and calculation method of infringement compensation in these six cases shall be determined at the request of Advanced Codec, and the royalty payable by OPPO shall be determined in accordance with the comparable agreement provided by Advanced Codec and relevant economic analysis methods. The appeal of OPPO cannot be established and shall be dismissed in accordance with the law.

In response to the appeal of Advanced Codec and OPPO, Nanjing Suning.com submitted a written statement: the facts are clearly ascertained and the law is correctly applied in the First-instance Judgment of the Six Cases. The allegedly infringing mobile phones sold by Nanjing Suning.com had legal sources. Nanjing Suning.com had no subjective fault.

During the second-instance trial of these six cases, Advanced Codec presented the following 9 additional pieces of evidence: 1. Comparison between the latest 17.0.0 version of the 3GPP TS 26.190 standard and its previous 10.0.0 version; 2. Comparison between the latest 17.0.0 version of the 3GPP TS 26.193 standard and its previous 10.0.0 version; 3. Test information of some allegedly infringing mobile phones before January 1, 2017; 4. Product information of 7 allegedly infringing mobile phones newly launched by OPPO during the first-instance trial of these six cases; 5. Test information of some allegedly infringing mobile phone models newly launched by OPPO during the first-instance trial of these six cases; 6. Updated sales of the 44 allegedly infringing mobile phone models

subject to the First-instance Judgment of the Six Cases published by International Data Corporation (hereinafter referred to as IDC) as at the second quarter of 2021; 7. Updated sales of the 7 allegedly infringing mobile phone models newly launched during the first-instance trial of the six cases published by IDC as at the second quarter of 2021; 8. The sales of the 51 allegedly infringing mobile phone models in China; 9. Original sales data of the allegedly infringing mobile phones of OPPO published by IDC. Among them, Evidence 1 is intended to prove that the latest version 17.0.0 of the standard 3GPP TS 26.190 involved in the case has no changes compared with the content of version 10.0.0 adopted for the Six Patents Involved; Evidence 2 is intended to prove that the latest version 17.0.0 of the standard 3GPP TS 26.193 referenced by the YD/T 3178-2016 standard has no changes compared with the content of the 10.0.0 version; Evidence 3 is intended to prove that the allegedly infringing mobile phone manufactured by OPPO before the implementation of the YD/T 3178-2016 standard supports the AMR-WB function of the Six Patents Involved and falls within the scope of protection of the Six Patents Involved; Evidence 4 and 5 are intended to jointly prove that all the 7 allegedly infringing mobile phone models newly launched by OPPO during the first-instance trial of these six cases support the AMR-WB function and also fall within the scope of protection of the Six Patents Involved; Evidence 6 is intended to prove that the sales of the 44 allegedly infringing mobile phone models subject to the First-instance Judgment of the Six Cases is 270 million units as at the second quarter of 2021; Evidence 7 is intended to prove that the sales of the 7 allegedly infringing mobile phone models newly launched by OPPO during the first-instance trial of these six cases is 34 million units as at the second quarter of 2021; Evidence 8 is intended to prove that the sales of all the allegedly infringing mobile phones of OPPO is 370 million units as at the second quarter of 2021; the purpose of Evidence 9 is the same as that of Evidence 6-8.

OPPO provided an additional evidence, namely a confidential email sent by OPPO to Advanced Codec on February 28, 2022, which was intended to prove that Advanced Codec had not communicated with OPPO since 2020.

After cross-examination, neither OPPO nor Advanced Codec recognized the probative force of the evidence provided by the other party, and Nanjing Suning.com did not issue any cross-examination opinions. After review, this Court confirms the probative force of Evidence 1, 2, and 6, but does not confirm the probative force of the remaining 6 pieces of evidence in connection with the above 9 pieces of evidence supplemented by Advanced Codec. The specific reasons for the determination of this Court are as follows: the comparative contents in Evidence 1 and 2 can be confirmed by relevant comparative versions; Evidence 6 is the data released by a third party outside the case and OPPO has not provided contrary evidence for this, in which case this evidence can be used as the reference basis to determine the sales of the allegedly infringing mobile phones; Evidence 3 cannot prove that the allegedly infringing mobile phone used for testing is a mobile phone manufactured by OPPO before January 1, 2017; the claim of Advanced Codec based on Evidence 4, 5 and 7 that the 7 allegedly infringing mobile phone models newly launched by OPPO fall within the scope of protection of the Six Patents Involved is not covered by the second-instance trial of these six cases; the statistics stated in Evidence 8 include the sales data of the 7 allegedly infringing mobile phone models newly launched by OPPO but not claimed by Advanced Codec before the conclusion of the first-instance trial debate of these six cases; Evidence 9 is only a timestamp authentication certificate without the corresponding website information or any specific sales data. This Court does not confirm the probative force of the above-mentioned evidence provided by OPPO. The specific reason for its determination is as follows: the evidence is an email sent by OPPO to Advanced Codec inviting Advanced Codec to continue the licensing negotiation after the First-instance Judgment of the Six Cases was rendered, but this email alone is not enough to prove that Advanced Codec has not communicated with OPPO since 2020.

OPPO and Nanjing Suning.com have no objections to the facts found by the Court of First Instance in these six cases. Advanced Codec has no objections to the facts other than the description of the 3 Chinese patents relating to the AMR-WB+ standard as "additionally licensed patents" in

the patent license agreement signed between Advanced Codec and Company A. After examination by this Court, relevant contents of the patent license agreement signed by Advanced Codec and Company A as stated in the First-instance Judgment of the Six Cases are basically consistent with the original text of the agreement. The essence of the objection from Advanced Codec lies in that the royalty of USD 7 million stipulated in the license agreement does not involve the license of the AMR-WB+ patent, but only the license of the AMR-WB patent. Since the objection from Advanced Codec relates to the interpretation of relevant terms of the license agreement, this Court will elaborate such terms in the following "reasons for judgment" section of this Judgment. After trial, this Court confirms that the facts found by the Court of First Instance in these six cases are supported by evidence.

This Court also found the following facts:

On October 22, 2016, the Ministry of Industry and Information Technology of the People's Republic of China released a communications industry standard titled "Technical Requirements for Mobile Terminals Supporting Voice over LTE Solutions (VoLTE)", i.e. the YD/T 3178-2016 standard, which was implemented as of January 1, 2017.

On March 19, 2020, the licensor Advanced Codec and its affiliates [Evs Codec Technologies, LLC (hereinafter referred to as ECT), Saint Lawrence Communications LLC and Saint Lawrence Communications GmbH] and the licensee Company B and its affiliates jointly signed a patent license agreement (hereinafter referred to as Company B Agreement 1), stipulating that: the licensor permits the licensee to use the AMR broadband standard patent, limited to the AMR-WB standard (as defined in the Saint Lawrence Communications License), and limited to China; the licensee shall pay a non-refundable royalty of USD 6 million to ECT, and the royalty will be the full compensation paid by the licensee in accordance with the terms and conditions of the agreement; the agreement shall be binding upon signature by both parties and, subject to Section 6 of the agreement, the licenses and waivers granted shall be effective as of the effective date and shall remain in full force and effect until the expiration of the last surviving licensed patent and AMR-WB+ patent.

On March 9, 2015, the licensor Saint Lawrence Communications LLC signed two patent license agreements with the licensee Company B and its affiliates (hereinafter referred to as Company B Agreement 2 and Company B Agreement 3 respectively). The two agreements first state the background of the agreement reached by the two parties as follows: Saint Lawrence Communications GmbH, a subsidiary of the licensor, has filed a patent infringement lawsuit against the customer of the licensee in a German court, and the licensee and its affiliates hope to obtain the license to implement the essential patents for the AMR-WB standard. Company B Agreement 2 stipulates that: the license is a worldwide (other than China and Germany) and non-exclusive license to the global AMR-WB patent (other than Chinese and German patents) with a royalty of USD 1 million, which shall be paid no later than June 10, 2015. The rate is USD 0.23 per licensed product, and the royalty is paid on a quarterly basis. No further payment will be made if the accrued payment has reached USD 20.7 million. Company B Agreement 3 stipulates that: the license is a non-exclusive license to the German AMR-WB patent in Germany with a royalty of USD 200,000, which shall be paid no later than June 10, 2015. The rate is USD 0.23 per licensed product, and the royalty is paid on a quarterly basis. No further payment will be made if the accrued payment has reached USD 2.3 million.

On June 21, 2017, the licensors Saint Lawrence Communications LLC and Saint Lawrence Communications GmbH signed three patent license agreements with the licensee Company C (hereinafter referred to as Company C Agreement 1, Company C Agreement 2, and Company C Agreement 3, among which the licensor in Company C Agreement 1 and Company C Agreement 2 is Saint Lawrence Communications LLC and the licensor in Company C Agreement 3 is Saint Lawrence Communications GmbH). Company C Agreement 2 and Company C Agreement 3 first respectively state the background of the agreement signed by the two parties as follows: the licensor has filed several patent infringement lawsuits against the licensee and its subsidiaries in the United States and Germany in the courts of the United States and Germany. Company C Agreement 1 stipulates that: the licensed product means any product that

contains an implementation device and complies with the AMR-WB standard for end-user use (including but not limited to handheld devices); the licensed territory only means the territory of China; the licensee shall pay the licensor Saint Lawrence Communications LLC a non-refundable settlement fee of USD 4,881,297, which is equal to the total amount payable under the agreement; the agreement shall be binding on both parties upon signature by both parties, and subject to compliance with Sections 6.1 and 6.2 of the agreement, the licenses and covenants granted under the agreement shall be effective as of the effective date and shall remain in full force and effect until the expiration of the last surviving licensed patent. Company C Agreement 2 stipulates that: the license is a worldwide (other than China and Germany) and non-exclusive license to the global AMR-WB patent (other than Chinese and German patents) with a royalty of USD 8,920,171. Company C Agreement 3 stipulates that: the license is a non-exclusive license to the German AMR-WB patent in Germany with a royalty of USD 198,532.

On September 26, 2019, the licensor Advanced Codec and its affiliates (the licensor) signed a patent license agreement with the licensee Company A. The agreement first states the background of the agreement reached by the two parties as follows: Advanced Codec has filed a patent infringement lawsuit against Company A and Nanjing Suning.com in the Court of First Instance on November 16, 2018. The agreement stipulates that: "Licensed Patents" mean all the patents and patent applications other than the AMR-WB+ patents which the licensor now or in the future owns, controls, has the right to license or has the right to claim damages for in all the jurisdictions around the world; "Licensed Products" mean any product, product series, service, equipment, system, component, hardware, software, any combination of the foregoing or other product for end-user use that meets the conditions set out in the agreement; "Licensed Territory" means any country in the world, other than the United States, in which any of the licensed patents or AMR-WB+ patents is in effect or will become effective once granted, or in which the licensor may assert rights in the licensed patents or the AMR-WB+ patents; within 5 working days from the effective date of the agreement, both parties will mutually withdraw their

lawsuits against the other party and its affiliates; both parties will continue to negotiate in good faith the license to exercise the licensed patents and/or AMR-WB+ patents in the United States during the term of the agreement. The licensee or its affiliates shall pay ECT a fee of USD 5.5 million; the agreement shall be binding upon signature by all the parties and, except as otherwise provided in Section 6 of the agreement, the licenses and waivers granted under the agreement shall be effective as of the effective date and shall remain in full force and effect until the expiration of the licensed patents and the AMR-WB+ patents (October 29, 2027).

On April 14, 2014, the licensor Saint Lawrence Communications LLC and the licensee Company D signed two patent license agreements. Both agreements stipulate that: the license is a worldwide and non-exclusive license to the global AMR-WB patents and the global AMR-WB+ patents (only for WCDMA products and 4G dual-mode products running in WCDMA). One of the agreements stipulates that: the royalty is USD 9,697,000; the rate for a single mobile phone suitable for the VoLTE function is USD 0.27; the rate for a single mobile phone manufactured from 2016 to 2019 and suitable for the WCDMA function is USD 0.16. Another agreement stipulates that: the royalty is USD 19,303,000; the rate for a single mobile phone manufactured from 2013 to 2015 and suitable for the WCDMA function is USD 0.2.

On March 31, 2015, the licensor Saint Lawrence Communications LLC signed a patent license agreement with the licensee Company E, stipulating that: the license is a worldwide (other than Germany) and non-exclusive license to the global AMR-WB patents (other than Germany) with a royalty of USD 18,800,000. On the same day, the licensor Saint Lawrence Communications GmbH signed a patent license agreement with the licensee Company E. The agreement first states the background of the agreement reached by the two parties that the licensor has filed a patent infringement lawsuit against the customer of the licensee in a German court, and has further stipulated that: the license is a non-exclusive license to the German AMR-WB patent in Germany with a royalty of USD 1 million.

In these six cases, Advanced Codec claimed that the 44 allegedly infringing mobile phone models manufactured and sold by OPPO were:

A1, A3, A5, A7, A7x, A9, A9x, A11, A11x, A37, A53, A57, A59, A59s, A73, A77, A79, A83, FindX Standard Edition, FindX Super Flash Charge Edition, FindX Lamborghini Edition, K1, K3, K5, R7Plus, R9, R9Plus, R9s, R9sk, R9st, R9sPlus, R11, R11s, R11sPlus, R15, R15x, R17, R17Pro, Reno Standard Edition, Reno10xZoom, RenoZ, Reno2, Reno2Z and RenoAce. According to the statistics released by IDC and submitted by Advanced Codec, the quarterly sales of the above 44 allegedly infringing mobile phone models were: 1,440,114 units (the third quarter of 2015), 2,804,209 units (the fourth quarter of 2015), 2,739,263 units (the first quarter of 2016), 11,084,155 units (the second quarter of 2016), 14,693,651 units (the third quarter of 2016), 19,414,890 units (the fourth quarter of 2016), 17,773,529 units (the first quarter of 2017), 19,515,658 units (the second quarter of 2017), 19,515,771 units (the third quarter of 2017), 18,687,426 units (the fourth quarter of 2017), 16,244,082 units (the first quarter of 2018), 21,120,654 units (the second quarter of 2018), 20,978,000 units (the third quarter of 2018), 20,261,890 units (the fourth quarter of 2018), 14,076,009 units (the first quarter of 2019), 17,925,140 units (the second quarter of 2019), 16,270,903 units (the third quarter of 2019), 11,289,231 units (the fourth quarter of 2019), 4,528,922 units (the first quarter of 2020), 1,426,512 units (the second quarter of 2020), 308,117 units (the third quarter of 2020), and 11,680 units (the fourth quarter of 2020). The total sales of the 44 allegedly infringing mobile phone models of OPPO in the above 22 quarters is 272,109,806 units. Advanced Codec admitted that it had not obtained the sales data of the allegedly infringing mobile phones of OPPO for 2021 released by IDC in these six cases.

After the second-instance inquiry of these six cases, OPPO submitted an "Explanation on Whether the Mobile Phones Involved in the Six Cases Sold by OPPO Before 2017 Have VoLTE Functions" to this Court, stating that: 12 of the 44 mobile phone models claimed by Advanced Codec to be infringing were launched by OPPO before 2017, and they include: A53, R7Plus, R9, R9Plus, A59, R9s, R9sk, R9st, A57, R9sPlus, A37 and A59s. The chips of all the 44 mobile phone models were purchased from Company H and Company I and equipped with the VoLTE function.

However, at that time, domestic operators did not require mobile phones to support this function, nor did the network of the operator support this function, and OPPO did not install a software system supporting the operation of this function before the above mobile phones left the factory. Therefore, the above-mentioned mobile phone models sold by OPPO before 2017 did not support the VoLTE function at that time.

OPPO made it clear during the second-instance trial of the six cases that it no longer insisted on applying the "top-down method" to determine the royalty rate for the Six Patents Involved. The one-year loan primary rate (LPR) announced by the National Interbank Funding Center of the People's Republic of China on August 20, 2019 was 4.25%. The central parity rate of RMB against USD announced by the State Administration of Foreign Exchange of the People's Republic of China on September 20, 2019 was RMB 707.3 per USD 100.

This Court believes that: these six cases deal with the disputes over the infringement of the invention patent rights and the royalty for the standard invention patent rights. Since one party, Advanced Codec, is an American company, these six cases have foreign-related elements. During the trial of foreign-related civil disputes, the people's court first needs to determine the nature of the foreign-related civil relation in dispute, and then determine the law governing the trial of the dispute directly (without regard to the rules of conflict in the law of the place of the court) or indirectly (with regard to the rules of conflict in the law of the place of the court) according to the nature determined. Article 8 of the Law of the People's Republic of China on the Application of Laws in Foreign-Related Civil Relations stipulates that: "The nature of the foreign-related civil relation shall be governed by the law of the place of the court." The dispute over the royalty for the standard essential patents in these six cases is a dispute between Advanced Codec and OPPO over which royalty rate standard shall be adopted in the event that the two parties intend and should have to conclude a contract but fail to conclude. Based on the nature determined in accordance with the law of the place of the court, i.e. the law of the People's Republic of China, this type of dispute is in nature a dispute in the liability for contractual negligence. Although the liability for contractual

negligence is conditioned on the actor's violation of the statutory pre-contractual obligations (incidental obligations arising in good faith) and is a supplementary civil liability that is different from the general contractual liability and liability for tort, the Civil Code of the People's Republic of China incorporates the liability for contractual negligence in Article 500 of Chapter 2 (Conclusion of Contract) of Part III (Contract). As a result, the dispute over the liability for contractual negligence is legally characterized as a contract dispute in the current legal system of the People's Republic of China. The license implementation place under the standard essential patent implementation license contract to be reached by the two parties is mainly within the territory of the People's Republic of China. The license implementation place that best reflects the characteristics of the contract, therefore, is the domicile of the licensee, i.e. the patent implementer OPPO. The laws of the People's Republic of China are the laws applicable in the domicile of OPPO and also the laws most closely related to the contract. The disputes over the infringement of the invention patent rights in these six cases mainly involve the liability for the infringement of the intellectual property rights and its prerequisites, i.e. the ownership and content of the intellectual property rights, and protection is requested in the People's Republic of China; in accordance with Articles 48 and 50 of the Law of the People's Republic of China on the Application of Laws in Foreign-Related Civil Relations in connection with the ownership and content of the intellectual property rights and the application of the laws of the place where protection is requested for the liability for the infringement of the intellectual property rights and Articles 49 and 41 of such Law in connection with the application of the laws of the habitual residence of the party whose performance obligations best reflect the characteristics of the contract or other laws closely related to the contract if the parties involved fail to choose the laws applicable to the license and use of the intellectual property rights, the trial of the disputes over the infringement of the invention patent rights and the royalty for the standard essential patents shall be governed by the laws of the People's Republic of China. In view that the alleged infringement occurred after the implementation date of the Patent Law of the People's Republic of China as amended in 2008 (October 1, 2009) and before the implementation date of the Patent Law of the

People's Republic of China as amended in 2020 (June 1, 2021), the trial of the liability for tort shall be governed by the Patent Law of the People's Republic of China as amended in 2008 and relevant judicial interpretations thereof; and in view that the use behavior related to the dispute over the royalty for the standard essential patents occurred during the above period and continued until the implementation date of the Civil Code of the People's Republic of China (January 1, 2021), the trial of such dispute shall be governed by relevant provisions of the Civil Code of the People's Republic of China. In the second-instance trial of these six cases, all the parties had no objection to the determination of the Court of First Instance that the Six Patents Involved were standard essential patents and that the technical solutions of the allegedly infringing products fell within the scope of protection of the Six Patents Involved. According to the pleadings of the parties in the second-instance trial, the dispute in the second-instance trial of these six cases focuses on the determination of the amount of royalty and the amount of compensation for the Six Patents Involved, which specifically relates to determination of the sales of the allegedly infringing mobile phones, the unit royalty rate, the degree of contracting fault of the parties and the amount of compensation in these six cases.

(1) Determination of the sales of the allegedly infringing mobile phones

Statistics from IDC submitted by Advanced Codec show that the earliest sales data of the 44 allegedly infringing mobile phone models of OPPO appear in the third quarter of 2015, and the latest sales data is counted as at the fourth quarter of 2020. Among the Six Patents Involved, the last patent right expired on November 2021 (for Patent No. 01803954.5); at the same time, IDC releases the statistics on the mobile phone sales of relevant brands on a quarterly basis, and Advanced Codec has admitted that it did not have obtained the sales data of the allegedly infringing mobile phones of OPPO in 2021 released by IDC. The total sales of the 44 allegedly infringing mobile phone models of OPPO from the third quarter of 2015 to the fourth quarter of 2020, therefore, is 272,109,806 units, based on the documentary evidence.

In these six cases, OPPO submitted relevant written explanations to this Court, claiming that 12 of the 44 allegedly infringing mobile phone models

were launched before 2017, and the built-in chips of all these 12 mobile phone models were equipped with the module supporting the VoLTE function. With the release and implementation of the YD/T 3178-2016 standard in China since 2017, it can be reasonably inferred that the built-in chips of all the 44 allegedly infringing mobile phone models of OPPO are equipped with the module that supports the VoLTE function. Mobile phones are the most common mobile communication terminal equipment. Mobile terminals that support the VoLTE function must be equipped with the technical solutions of the Six Patents Involved. Since all the 44 allegedly infringing mobile phone models of OPPO have built-in chips that support the VoLTE function, the technical solutions used in the chips of all the 44 allegedly infringing mobile phones fall within the scope of protection of the Six Patents Involved. Although the existence of the claims of OPPO are not ruled out in these six cases that: the domestic operators did not require the mobile phones to support the VoLTE function before the implementation date of the YD/T 3178-2016 standard (January 1, 2017); the network of the operator did not support the VoLTE function; and the allegedly infringing mobile phones were not equipped with a software system that supported the VoLTE function before leaving the factory, a patented technical solution has objectively been implemented in the product as long as the product contains the patented technical solution, even if the patented technical solution is "prepared for but not used by" the end user based on various subjective and objective reasons, and the product shall not be prevented from being recognized as a product that uses the "implemented patent". The fact that OPPO uses the chips supporting the VoLTE function as the components to assemble related models of the allegedly infringing mobile phones shall be deemed to constitute an infringement according to the law. The Court of First Instance uses the implementation date of the YD/T 3178-2016 standard (January 1, 2017) as the time line to determine whether the allegedly infringing mobile phone manufactured and sold by OPPO is a product that infringed on the Six Patents Involved, mainly on the basis of the comparison between the technical solution supporting the VoLTE function installed on the allegedly infringing mobile phone and the YD/T 3178-2016 standard. Since the key to determining the patent infringement is to examine whether the VoLTE

function-enabled technical solution of the allegedly infringing mobile phone falls within the scope of protection of the Six Patents Involved, rather than whether it corresponds to the YD/T 3178-2016 standard, this Court corrects, according to the law, the improper practice of the Court of First Instance to count only the 44 allegedly infringing mobile phone models manufactured and sold by OPPO after January 1, 2017 as the sales of the infringing mobile phones.

(2) Determination of the unit royalty rate

The determination of the royalty rate is a core issue in the license conditions for the implementation of the standard essential patents. Paragraph 3 of Article 24 of the Interpretation (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases (as amended in 2020) stipulates that: "The license conditions for implementation for the purpose of the second paragraph of this article shall be determined by the patentee and the alleged infringer through consultation. If no agreement can be reached after full consultation, the people's court may be requested to make a determination. When determining the above-mentioned license conditions for implementation, the people's court shall, based on the principles of fairness, reasonableness and non-discrimination, take into full consideration the degree of innovation of the patent and its role in the standard, the technical field to which the standard belongs, the nature of the standard, the scope of implementation of the standard, relevant license conditions and other factors." This provision sets out the factors that can be considered in determining the license conditions for implementation of the standard essential patents. In practice, the methods for determining the royalty rate for the standard essential patents include the "comparable agreement", "analysis of the market value of the standard essential patent involved (top-down method)", "reference to the license information in the comparable patent pools" and other methods. These methods have their own advantages and disadvantages, among which the "comparable agreement" and the "top-down method" are commonly used. Which method to choose in a specific case depends more on the evidence provided by the parties involved.

In these six cases, Advanced Codec submitted several patent license agreements signed earlier with different parties outside the case in connection with the Six Patents Involved under its possession, and explicitly requested the application of the "comparable agreement method" to determine the royalty rate; OPPO initially proposed the use of the "top-down method" for calculation, but made it clear during the second-instance trial that it no longer adhered to this method. The evidence provided by the parties in these six cases for the determination of the royalty rate is mainly composed of similar standard essential patent license agreements, but no evidence is provided for the use of other methods such as the "top-down method", hence there are no required conditions of such evidence for the adoption of the methods other than "comparable agreement method" in these six cases. After a comprehensive evaluation of the documentary evidence submitted by Advanced Codec and OPPO, the admissibility of the evidence and the statement of opinions of both parties, it is feasible to use the "comparable agreement method" in these six cases to determine the royalty rate for the Six Patents Involved. The outstanding advantage of the "comparable agreement method" is that it can reflect the market pricing. In a market with fair competition, the final royalty rate of a patent license agreement is usually the result of the commercial negotiation reached by both parties through real negotiation and voluntary consultation. The royalty rate determined through consultation can basically reflect the market value of the licensed patented technology at the time of signing the contract in a relatively objective, fair and reasonable manner. When selecting a comparable license agreement, key attention should be paid to the following factors: 1. The context for license negotiation, specifically the transaction background and transaction conditions of both parties, which is directly related to whether the agreement is the result of voluntary negotiation between the licensor and the licensee without any psychological compulsion (such as litigation or threat of litigation and court ruling to stop the infringement or threat of application to the court for a ruling to stop the infringement); 2. Similarity of the licensing entities, including similarity of the licensor and the licensee, which can be judged from many aspects such as business model, business scope and relationship between the licensor and the licensee; 3. Similarity of the licensed patents,

such as whether the patent that is the subject of the license in the comparable agreement is consistent with the patent in the disputed case or at least covers the latter, and whether it is of the same or similar quantity and quality as the patent in the disputed case; 4. Similarity of the terms of license, including calculation of the royalty rate, scope of license, period of license, method of license, and method for payment of the royalty.

In view of the above analysis, in combination with the facts and documentary evidence of these six cases, in consideration that the licensor in almost all the registered license agreements submitted by Advanced Codec is Advanced Codec or its affiliates and that the agreed methods and periods of license are basically the same, key attention may be paid to the following factors when deciding which agreement to select as the comparable agreement in these six cases: the subject of the license (for example, whether it only includes the Six Patents Involved); the situation of the licensee (for example, whether it is a famous enterprise in the communications industry of China like OPPO); the licensed territory (for example, whether it is limited to China or worldwide); the context of license negotiation (for example, whether there are relevant lawsuits between the two parties during the license negotiation process); and the implementation scale of the patents. Accordingly, among the documentary license agreements provided by Advanced Codec, Company B Agreement 1 is the most comparable agreement. The specific analysis of this Court is as follows: 1. From the perspective of the subject of license, the subject of license of Company B Agreement 1 is exactly the Six Patents Involved; 2. From the perspective of the licensee, Company B is also a well-known enterprise in the communications industry of China; 3. From the perspective of the licensed territory, the licensed territory of Company B Agreement 1 only involves China; 4. From the perspective of the scale of patent implementation, the number of mobile phones of Company B and OPPO using the Six Patents Involved has exceeded 100 million units; 5. From the perspective of the context of license negotiation, although relevant ongoing lawsuits of the two parties or their respective stakeholders in the extraterritorial court have been disclosed in Company B Agreement 2 and Company B Agreement 3, the impact of relevant lawsuits disclosed

in Company B Agreement 2 and Company B Agreement 3 on the negotiation and conclusion process of Company B Agreement 1 may be ignored in consideration that no overlap exists among the three agreements of Company B, in particular that the signing time of Company B Agreement 1 (March 19, 2020) is five years behind the signing time of Company B Agreement 2 and Company B Agreement 3 (March 9, 2015). In other words, Company B Agreement 1 can be considered to be the result reached under a normal license negotiation atmosphere and can objectively and reasonably reflect the market value of the Six Patents Involved in the license agreement. Although Company C Agreement 1 and Company B Agreement 1 are highly similar in terms of subject of license, situation of the licensee and licensed territory, the number of mobile phone devices corresponding to the royalty paid by Company C in Company C Agreement 1 is only 37,315,005 units according to the content recorded in the expert report submitted by Advanced Codec. It can be seen that the scale of implementation is obviously not at the same quantitative level as the scale of implementation of the Six Patents Involved by Company B and OPPO. In particular, Company C Agreement 1 was signed at the same time as Company C Agreement 2 and Company C Agreement 3, and when Company C Agreement 2 and Company C Agreement 3 were signed, the licensors of the two agreements filed several patent infringement lawsuits against Company C and its subsidiaries in the United States and Germany in the courts of the United States and Germany. That is to say, Company C Agreement 1 was reached in a context where there were also patent infringement lawsuits filed outside the territory against Company C and its subsidiaries. In view of that, Company C Agreement 1 is completely different from Company B Agreement 1 in terms of the context of license negotiation, and Company C Agreement 1 cannot be used as a suitable comparable agreement in these six cases. In respect of the license agreement signed by Advanced Codec and its affiliates with Company A and selected by the Court of First Instance, on the one hand, the license set out in the agreement is a worldwide (other than the United States) license to the AMR-WB patents held by Advanced Codec around the world; on the other hand, the agreement was signed in the background that Advanced Codec filed a patent infringement lawsuit against Company A in the Court

of First Instance, which means that the license negotiation for the agreement was the result reached with the intervention of the Chinese judicial litigation. In consideration of the three factors above (subject of license, licensed territory and context of license negotiation), the patent license agreement reached between Advanced Codec and Company A is far more different than similar to Company B Agreement 1. When selecting comparable license agreement in these six cases, the Court of First Instance ignored the above-mentioned differentiating factors between the agreement of Company A and Company B Agreement 1, and it was inappropriate to regard the agreement of Company A as a comparable agreement in these six cases.

After determining that only Company B Agreement 1 is used as the comparable agreement in these six cases, it is also necessary to analyze the agreement to further obtain the unit royalty rate considering that the agreement only states the total royalty. The license for the royalty of USD 6 million set out in Company B Agreement 1 is a license to the Six Patents Involved, instead of a paid license to the three Chinese standard essential patents of the AMR-WB+ standard. When the Court of First Instance were determining the unit royalty rate for Company B Agreement 1, it included three Chinese standard essential patents involving the AMR-WB+ standard as the subject of a paid license of USD 6 million, ignoring or misunderstanding relevant terms of license of Company B Agreement 1. Therefore, the unit royalty rate for Company B Agreement 1 should be USD 0.007890416 per unit (USD 6 million \div 760,416,171 units). With reference to the unit royalty rate determined for Company B Agreement 1, this Court determines the unit royalty rate for the implementation of the Six Patents Involved by OPPO to be USD 0.008/unit. The unit royalty rate determined by the Court of First Instance was inappropriate, and this Court will correct it in accordance with the law.

(3) Determination of the degree of contracting fault of the parties

According to Paragraph 1 of Article 65 of the Patent Law of the People's Republic of China (as amended in 2008), Article 15 of the Several Provisions of the Supreme People's Court on Application of Law in the Trial of Patent Dispute Cases (as amended in 2020), Article 32 of the

Several Provisions of the Supreme People's Court on Evidence in Intellectual Property Civil Litigation, and Paragraph 2 of Article 24 of the Interpretation (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases (as amended in 2020), the performance of the standard essential patent owner and the alleged infringer during the negotiation of the license conditions, and whether there is a fault and how serious the fault is are not the factors that should be considered in determining the reasonable multiples of the patent royalty when the people's court applies the calculation method involving the reasonable multiples of the patent royalty to determine the amount of the compensation for patent infringement during the trial of the standard essential patent infringement dispute cases; provided, however, that after the amount of loss is determined, it is necessary to reasonably determine the loss allocation between the two parties on the basis of the degree of fault of the two parties and its impact (causation), regardless of whether it is a dispute in the liability for tort or contractual liability. On that account, the degree of fault of the two parties in the negotiation process of the royalty for the Six Patents Involved is an important factor affecting the determination of the liability for compensation.

The standard essential patents are distinctive from the non-standard essential patents in that: 1. These are patents that must be implemented during the implementation of relevant standards. 2. The patentee needs to make a commitment to relevant standardization organization to grant a license to a unspecified person to implement its patents according to the FRAND conditions in connection with the inclusion of its patents into the technical solution for a proposed standard (FRAND Commitment). Although the FRAND Commitment is not made to a specific patent implementer, the commitment is a common practice adopted by the mainstream international standardization organizations to allow the patents to be included in technical solution for a proposed standard, resulting in reasonable reliance of implementers or potential implementers in relevant industries on the FRAND Commitment. In the legal system of the People's Republic of China, the right holder of a standard essential patent needs to

abide by the provisions of Article 7 in connection with the principle of good faith, the provisions of Article 132 in connection with the non-abuse of civil rights and the provisions of Article 500 in connection with the liability for contractual negligence of the Civil Code of the People's Republic of China. Once the implementer requests a license from the right holder of a standard essential patent to implement the patent, the right holder cannot, in principle, withhold the license without good cause. The issue faced by the implementer in the negotiation is not whether it is willing to grant the license, but under what condition the license will be granted, and the license condition, especially royalty, is the core issue for the right holder (licensor) and the implementer (licensee) to conclude a license contract for the implementation of the standard essential patent through negotiation. According to the above provisions of the Civil Code of the People's Republic of China, both contracting parties shall conclude a contract in good faith through negotiation. The principle of good faith stipulated in the law is mainly reflected in the FRAND principle generally recognized and followed by the industry in the license negotiation for standard essential patents.

According to the industry practice of license negotiation for standard essential patents, the follow steps must be taken to conclude the license contract for a standard essential patent: 1. The right holder gives a written notice of infringement to the implementer, informing the implementer of relevant information about the standard essential patent subject to suspected infringement, such as patent number and standard corresponding to the patent, and asks the implementer whether it is willing to negotiate the license conditions with the right holder; 2. After the implementer receives the written notice from the right holder, the implementer shall promptly reply to the right holder if it is willing to obtain a license, and inform the right holder that it is willing to negotiate the specific license conditions with right holder; 3. After receiving the reply from the implementer, the right holder may make an offer of the license conditions to the implementer, including royalty rate, method of license, licensed territory and period of license; 4. After receiving the offer from the right holder, if the implementer believes that the license conditions are fair and

reasonable, the two parties can reach a license agreement; if the implementer believes that the license conditions proposed by the right holder are unreasonable, the implementer shall send a prompt notice to the licensee within a reasonable period of time, explaining the reason for its disapproval, and the implementer may make a counter-offer to the right holder; 5. After the right holder receives the reason for disapproval of the offer from the implementer, the right holder may further explain to the implementer to clarify the query made by the implementer; if a counter-offer is received from the implementer and the right holder considers it fair and reasonable, the two parties can reach a license agreement; 6. If the right holder believes that the counter-offer conditions proposed by the implementer are unreasonable, the right holder shall also send prompt feedbacks to the implementer within a reasonable period of time, explaining to the implementer the reasons for disapproval of the counter-offer, and make a new offer if appropriate; 7. If the right holder believes that the counter-offer of the implementer is unfair and unreasonable, the implementer can promptly draw its royalty in the counter-offer.

Standard essential patent licensing negotiation generally involves technical negotiation and commercial negotiation. Matters involved in technical negotiation usually include whether the patent claimed by the patentee is essential to the standard, the validity and stability of the patent the patentee intends to license, the degree of technical contribution of the patent to be licensed to the standard, and whether the technical solution of the allegedly infringing product falls within the protection scope of the patent rights to be licensed, etc. Matters involved in business negotiation usually include the calculation method and calculation standard of the license rate claimed by the patentee, the disclosure of relevant comparable agreements, the scope of the patents to be licensed, the licensing implementation method, the time range and the geographical scope of license, and the sales quantity of the allegedly infringing product in the past years, etc.

Summarizing the above industry practices regarding standard essential patent licensing negotiations, although many details are involved, when analyzing whether any party made a fault during the negotiation process, the core is to determine whether both parties have and have shown a

sincere willingness to reach a license. Generally speaking, to determine whether the patentee made a fault in the licensing negotiation, the following factors can be considered comprehensively: 1. Whether a judicial lawsuit was directly filed to determine the license royalties without issuing a written notice of infringement to the implementer; 2. Whether the license request submitted by the implementer was explicitly rejected; 3. During the negotiation process, whether the patentee repeatedly threatened or directly took actual action to the implementer by filing an infringement lawsuit or applying to the court for a ruling to stop the infringement; 4. Whether the patentee stopped the negotiation without justifiable reason during the negotiation process; 5. Whether the patentee refused to disclose necessary patent information to the implementer (such as a certain number of standard essential patents, an exemplary claim comparison table); 6. Whether the patentee refused to disclose to the implementer the calculation basis or method for the publicly claimed license royalties or royalty rate; 7. Whether the price quoted in the license conditions proposed to the implementer is significantly higher or unreasonably higher than the price quoted to other competitors under the same conditions in the same industry, and the patentee refused to explain the reasons; 8. Whether feedback was given to the implementer within a reasonable period after receiving the implementer's counter-offer; 9. Whether the implementer's request for clarification of relevant technical issues was rejected without justifiable reasons, etc. To determine whether the implementer made a fault in the licensing negotiation, the following factors can be considered comprehensively: 1. Whether the implementer responded within a reasonable time after receiving the written notice of infringement from the patentee, or informed the patentee that it did not agree to negotiate the license; 2. Whether a positive response of acceptance or rejection was made within a reasonable time after receiving the offer put forward by the patentee; 3. Whether the implementer timely submitted a counter-offer or gave suggestions that it considered fair and reasonable to the patentee if the implementer considered the offer issued by the patentee was unreasonable, or whether the license royalties based on the counter-offer were timely deposited in escrow; 4. Whether negotiations were delayed or interrupted without justifiable reasons; 5. Whether obviously unreasonable licensing

conditions were proposed to the patentee, etc. However, if the implementer expresses its willingness to reach a licensing agreement with the patentee during the licensing negotiation process while declaring that it reserves the right to question whether the patent is an essential patent or question the validity of the patent right, it is generally not considered to have a subjective fault.

Based on the licensing negotiation and communication between the two parties before and during the litigation ascertained by this Court, it should be considered that both parties have basically shown their willingness to reach a licensing agreement. For example, Advanced Codec notified OPPO in writing of suspected patent infringement and offered to negotiate a license; Advanced Codec disclosed relevant patent information (such as patent authorization text, exemplary claim comparison table) to OPPO; OPPO has never expressly refused to negotiate a license; OPPO has repeatedly expressed its willingness to seek a license consistent with FRAND principles; both Advanced Codec and OPPO agreed to sign and finally signed a confidentiality agreement; Advanced Codec repeatedly answered the technical questions raised by OPPO that needed to be clarified; both parties proposed to the other party a licensing quotation that they considered reasonable; and neither party objected to meeting, and held video conferences and audio conferences. At the same time, there are indeed certain differences in the understanding between the two parties regarding the behavior of some negotiation details. Advanced Codec holds that: OPPO did not deal with the claim comparison table in a timely manner; OPPO took too long to seek external technical experts for research; none of the technical issues proposed by OPPO were substantive key issues; OPPO has made repeated changes to the scope of licensed patent under negotiation; and the counter-offer price proposed by OPPO was too low. OPPO holds that: Advanced Codec didn't make substantive clarifications on technical issues; Advanced Codec has not provided authorization documents as a licensor; Advanced Codec failed to provide an explanation for the calculation standard of the claimed license royalties; Advanced Codec repeatedly threatened to file a lawsuit; Advanced Codec repeatedly and significantly changed the amount of the license royalties

without giving any reasonable explanation; Advanced Codec refused to communicate in person on technical issues; and the price offered by Advanced Codec was too high. Based on the above performance of both parties during the licensing negotiation process, it was found that both parties had certain faults, and these faults had an important impact on the final failure to reach a licensing agreement.

The main faults of Advanced Codec are as follows: 1. During its licensing negotiation with OPPO, it never responded to OPPO's request and explained to OPPO in detail the calculation basis or method for the amount of license royalties it claimed three times (USD 189,055,000/USD 283,583,000, USD 17 million, and USD 8 million) or the royalty rate during the negotiation process. As mentioned before, "whether the patentee refused to disclose to the implementer the calculation basis or method for the publicly claimed amount of royalties or the royalty rate" is one of the factors to consider in determining whether the patentee is at fault in the licensing negotiation. It is true that Advanced Codec disclosed to OPPO during the negotiation and the first-instance litigation the royalty rates stipulated in the license agreements signed by Advanced Codec with Company E and Company G respectively, as well as the amount of license royalties reached in the license agreements signed by Advanced Codec with Company B and Company A respectively, but the evidence on record cannot prove the calculation basis or method Advanced Codec used to negotiate and determine the royalty rate or the amount of the license royalties reached with the relevant outsiders. 2. During the licensing negotiation with OPPO, Advanced Codec repeatedly threatened to file patent infringement lawsuits against OPPO (see Advanced Codec's emails sent to OPPO respectively on February 22, 2018, March 20, 2018, and April 3, 2018, May 11, 2018, November 13, 2018, November 17, 2018, and November 22, 2018), at least seven times in less than one year. Moreover, after filing these six cases, Advanced Codec requested the Court of First Instance to order OPPO to immediately stop infringement in two of the cases (commonly known in the industry as requesting the court to issue a "permanent injunction"). To a certain extent, the above-mentioned action of Advanced Codec caused psychological deterrent and suppression to

OPPO as the implementer, with no help in creating a normal and harmonious business negotiation atmosphere.

The main faults of OPPO are as follows: 1. OPPO failed to truthfully disclose the sales data of the allegedly infringing mobile phone models to Advanced Codec at the request of Advanced Codec (when both parties have signed a confidentiality agreement, promptly disclosing the sales data of the allegedly infringing mobile phone models can help determine a more accurate and reasonable royalty rate and royalty amount). OPPO's inaction is obviously not in line with the integrity that an implementer should abide by in standard essential patent licensing negotiation. 2. After Advanced Codec had further disclosed Company A's licensing agreement, OPPO made a second counter-offer of USD 1 million based on the first counter-offer of RMB 3.7 million previously proposed. It is much lower than the amount of royalties paid by Company A, a competitor with comparable strength to OPPO. Moreover, OPPO did not provide a detailed explanation to Advanced Codec on the calculation basis or method for the counter-offer of USD 1 million either, only stating in the email that it referred to the preliminary analysis results of economists. This overly general explanation cannot help Advanced Codec to accurately understand the rationale for OPPO's quotation, and would only further deepen Advanced Codec's doubts about OPPO's sincere willingness to negotiate a license. At the same time, OPPO did not timely deposit USD 1 million in escrow upon its last counter-offer.

Based on the above analysis, both parties were equally at fault for failing to conclude license contracts for the Six Patents Involved. Therefore, each party should bear 50% responsibility for the losses caused.

(IV) Determination of the amount of compensation in the Six Cases

According to the Paragraph 1, Article 65 of the Patent Law of the People's Republic of China (as amended in 2008): "The amount of compensation for a patent infringement shall be determined on the basis of the actual losses incurred to the patentee as a result of the infringement. If it is difficult to determine the actual losses, the actual losses may be determined on the basis of the gains which the infringer has obtained from the

infringement. If it is difficult to determine the losses incurred to the patentee or the gains obtained by the infringer, the amount shall be reasonably determined by reference to the multiple of the royalties for this patent. In addition, the compensation shall include the reasonable expenses that the patentee has paid for stopping the infringement." The key difference between the implementation license of standard essential patents and the implementation license of non-standard essential patents is that: When the patent implementer expresses its willingness to sign an implementation licensing contract in accordance with FRAND principle, the patentee of the standard essential patent cannot refuse to license by principle. Generally, both parties can only negotiate to resolve the issue of implementation licensing in good faith. If an implementation licensing contract fails to be reached due to the fault of both parties in contracting, causing the infringement of the implementer by implementing the patent without the permission of the patentee of the standard essential patent, it is also different from patent infringement caused by the implementer's implementation without the permission of the patentee of the non-standard essential patent. The difference is that: The former infringement is caused by contracting negligence of the patent implementer or both parties, while the latter is generally due to the unilateral cause of the patent implementer. In other words, in the Six Cases, it is precisely because of the failure to conclude a contract due to the fault of both the patentee of the standard essential patent and the implementer of the patent that the implementer committed patent infringement. Therefore, the liability for patent infringement, especially the liability for compensation, shall be determined mainly based on the degree of both parties' fault in the contracting, which is different from the unilateral liability of the implementer in the infringement of non-standard essential patents.

In the Six Cases, the losses suffered by Advanced Codec were mainly caused by the failure to reach a licensing contract with OPPO for the Six Patents Involved. Strictly speaking, the losses are the differences between the existing benefits of Advanced Codec and the benefits that Advanced Codec should obtain if both parties have reached an implementation licensing contract in a timely manner and in accordance with FRAND

principle. Assuming that the two parties timely reach an implementation licensing contract for the Six Patents Involved in accordance with FRAND principle, by referring to the blanket license commonly used in the field of standard essential patent licensing and the comparable agreements provided by the parties in the Six Cases, the licensee usually pays the total royalty for the entire period of the patent license in one lump sum immediately upon contracting. Therefore, it is determined through judicial proceedings that the royalties for the Six Patents Involved should also follow the same calculation method. Specifically, Advanced Codec initially sent an email to OPPO on February 22, 2018, informing that OPPO had used the Six Patents Involved and expressed its willingness to conduct licensing negotiations in accordance with FRAND principles. OPPO responded to Advanced Codec on March 14, 2018, expressing its willingness to negotiate based on FRAND principles. Therefore, if both parties can negotiate and perform in good faith, a licensing agreement can generally be reached within a reasonable period of 12 to 18 months according to common industry practices. Accordingly, Advanced Codec can obtain all the license royalties for the Six Patents Involved at one time during the same period. The time for obtaining all the license royalties at one time can be reasonably determined to be before September 20, 2019 (taking the maximum negotiation period of 18 months after March 14, 2018 as the normal contracting time, plus the payment time of 5 days after contracting). Regardless of whether Advanced Codec obtains the license royalties in time under the above-mentioned ideal negotiation and transaction conditions, or whether it actually obtains the delayed license royalties in accordance with the effective judgment of the Six Cases, the principal amount of the license royalties it obtains should be the same, and the additional losses suffered by Advanced Codec due to the failure of the two parties to conclude the contract is basically the losses of interests during the period when it should have obtained all the license royalties, that is, the losses of interest that can be reasonably foreseen under normal circumstances. As mentioned above, the interest losses should be shared according to the degree of fault of both parties for the failure to conclude the contract (50% each), and OPPO should compensate for 50% of the interest losses. Therefore, the amount of compensation that the patentee of

a standard essential patent finally receives from the patent implementer shall consist of: 1. the principal of the license royalties that it should receive; 2. the interest losses, which is calculated based on the interest on the overdue principal of the royalties of the patentee of the standard essential patent due to its delay in obtaining the royalties, multiplying the contracting fault ratio of the implementer. Accordingly, the amount of compensation that OPPO should pay to Advanced Codec is the total license royalties of the Six Patents Involved and 50% of the interest losses [interest will be calculated based on the one-year loan prime rate (LPR) market quotation (annual) published by the National Interbank Funding Center of the People's Republic of China, from September 20, 2019 until the date of actual payment by OPPO].

Based on the calculation logic of the standard essential patent license royalties mentioned above, with reference to the royalty rate determined in Agreement 1 with Company B, the license royalties that OPPO should pay in the Six Cases can be calculated based on the sales volume of the allegedly infringing mobile phones multiplying the unit royalty rate corresponding to the Six Patents Involved in the case, and there is no need to further identify the expiration date of the Six Patents Involved in the case. Therefore, the patent license royalties that OPPO should pay in the Six Cases are USD 2,176,878 ($\text{USD } 0.008/\text{unit} \times 272,109,806 \text{ units}$). According to the central parity rate of RMB against USD announced by the State Administration of Foreign Exchange of the People's Republic of China on September 20, 2019, the amount is equivalent to RMB 15,390,527 ($\text{USD } 2,176,878 \times \text{RMB } 7.07/\text{USD}$). Since the interest accrual period of Advanced Codec's interest losses has exceeded 5 years, for the convenience of calculation, this Court accrues the interest rate of 4.25% based on the one-year loan prime rate (LPR) market quotation (annual), published by the National Interbank Funding Center of the People's Republic of China on August 20, 2019. Since OPPO should bear 50% of the interest losses, the amount of compensation that OPPO should pay to Advanced Codec in the Six Cases can be determined as: the total license royalties of RMB 15,390,527 for the Six Patents Involved plus the interest calculated at an annual interest rate of 2.125% ($4.25\% \times 50\%$) from

September 20, 2019 to the date of actual payment by OPPO.

As mentioned above, the actual losses of Advanced Codec in the Six Cases can be determined. Whether viewed from the perspective of compensation for patent infringement claims or from the perspective of liability for contracting negligence of the parties, the actual losses of Advanced Codec are the amounts determined according to the above calculation method. Therefore, in the Six Cases, there is no need or prerequisite to reasonably determine the amount of compensation by referring to a multiple of the patent license royalties. The judgments made by the Court of First Instance that the final license royalties that OPPO shall pay should be based on 120% of the calculated license royalties according to the degree of fault of both parties in contracting, were not rigorous in the applicable laws, whether it was determined based solely on the license royalties or the amount of compensation for patent infringement, which also deviated from the actual negotiation conditions of standard essential patent implementation license. In view of the fact that the six lawsuits filed by Advanced Codec were patent infringement disputes, the Court of First Instance decided after intense deliberation that OPPO should compensate Advanced Codec for a total of RMB 600,000 in reasonable expenses incurred in investigating and stopping the infringement in the Six Cases was not inappropriate and shall be upheld by this Court.

Regarding OPPO's counterclaims in the Six Cases, the first claim was to request the Court to rule that Advanced Codec violated FRAND principles during licensing negotiation. Since it was not a claim to require the other party to bear civil liability, it generally cannot be filed as a lawsuit, but can only be raised as a reason to support a certain litigation claim. The second claim was to determine the royalty rate of the Six Patents Involved. The unit royalty rate was necessary to be and had been clarified in this judgment on the Six Cases when determining the license royalties. There was no need to make a separate judgment. The third claim was to rule Advanced Codec to compensate for economic losses of RMB 1 million in each case based on Advanced Codec's violation of FRAND principles, but OPPO had not made a reasonable explanation for this and provided evidence to prove it. The dismissal of OPPO's counterclaims by the Court

of First Instance is not inappropriate. OPPO did not further appeal for its third counterclaim in the second instance. Therefore, it is dismissed and the judgment of the Court of First Instance is upheld by this Court.

To sum up, Advanced Codec's appeal request is partially tenable, and is upheld by this Court; OPPO's appeal requests are untenable, and are dismissed by this Court; the assertions in the first-instance judgment are basically clear, with partially deficient application of laws, and are subject to correction by this Court. In accordance with Articles 8, 41, 48, 49, and 50 of the Law of the People's Republic of China on the Application of Laws in Foreign-Related Civil Relations, Articles 7, 132 and Paragraph 3 of Article 500 of the Civil Code of the People's Republic of China, Paragraph 1 of Article 11 and Paragraph 1 of Article 65 of the Patent Law of the People's Republic of China (as amended in 2008), Articles 13 and 15 of the Several Provisions of the Supreme People's Court on Application of Law in the Trial of Patent Dispute Cases (as amended in 2020), Article 7, Paragraph 1 of Article 12 of the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases and Article 24 of the Interpretation (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases (as amended in 2020), Article 32 of the Several Provisions of the Supreme People's Court on Evidence in Intellectual Property Civil Litigation, Article 147 and Paragraph 1, Item 2 of Article 177 of the Civil Procedure Law of the People's Republic of China (as amended in 2021), this Court made the following judgments:

1. Uphold the third item of the Civil Judgment (2018) Su 01 Minchu No. 3350, 3354, 3355, 3356, 3358 and 3364 made by the Intermediate People's Court of Nanjing City, Jiangsu Province, the People's Republic of China;
2. Revoke the first and the second item of Civil Judgment (2018) Su 01 Minchu No. 3350, 3354, 3355, 3356, 3358 and 3364 made by the Intermediate People's Court of Nanjing City, Jiangsu Province, the People's Republic of China;
3. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay for

the patent (the patent numbers are: 99813641.7, 99813640.9, 99813602.6, 99813601.8, 00815854.1, and 01803954.5) license royalties of RMB 15,390,527 and its interest (the interest is calculated based on the principal of RMB 15,390,527 at an annual interest rate of 2.125% from September 20, 2019 to the date of actual payment by Guangdong OPPO Mobile Telecommunications Corp., Ltd.) and reasonable expenses of RMB 600,000 to Advanced Codec Technologies, LLC within ten days from the date of entry into force of this judgment;

4. Dismiss other litigation claims of Advanced Codec Technologies, LLC;
5. Dismiss the appeal requests of Guangdong OPPO Mobile Telecommunications Corp., Ltd.

If the monetary payment obligation is not performed within the period specified in this judgment, the debt interest for the period of delayed performance shall be doubled in accordance with the provisions of Article 260 of the Civil Procedure Law of the People's Republic of China (as amended in 2021).

The total acceptance cost of the principal actions in the first-instance of the Six Cases is RMB 1,963,800, of which RMB 163,800 shall be borne by Advanced Codec Technologies, LLC and RMB 1.8 million shall be borne by Guangdong OPPO Mobile Telecommunications Corp., Ltd.; the total acceptance cost of the counterclaim cases in the Six Cases is RMB 41,400, which shall be borne by Guangdong OPPO Mobile Telecommunications Corp., Ltd. The total case acceptance cost of the actions in the second-instance of the Six Cases is RMB 2,040,180, of which RMB 95,500 shall be borne by Advanced Codec Technologies, LLC and RMB 1,944,680 shall be borne by OPPO Mobile Telecommunications Corp., Ltd.

This judgment is final.

Presiding Judge Yu Xiaohan

Judge Ou Hongwei

Judge He Jun

Supreme People's Court of the People's Republic of China



December 12, 2023

This document is verified as identical with the original

Assistant Judge Bin Yuecheng

Assistant Judge Jiang Linhao

Court Reporter Wu Dinan

Court Reporter Ai Xiaoyan

Judgment Summary

Case No.	(2022) Supreme Court Zhimin Zhong No. 907, 910, 911, 916, 917, 918	
Cause of Action	Infringement on patent rights and the dispute over standard essential patents (SEPs) license royalties	
Collegiate Panel	Presiding Judge: Yu Xiaohan Judges: Ou Hongwei, He Jun	
	Assistant Judges: Bin Yuecheng, Jiang Linhao	Court Reporters: Wu Dinan, Ai Xiaoyan
Date of Judgment	December 12, 2023	
Keywords	Standard essential patents; patent infringement; licensing negotiations; comparable agreements; royalty rate	
Six Patents Involved	<p>Case No. 907: Invention patent on "Method and Device for Periodic Enhancement in Decoding Broadband Signals" (99813641.7);</p> <p>Case No. 910: Invention patent on "Method and Device for High-frequency Component Recovery of Oversampled Synthesized Broadband Signals" (99813640.9);</p> <p>Case No. 911: Invention patent on "Perceptual Weighting Device and Method for Efficient Encoding of Broadband Audio Signals and Cellular Communication Systems Using Such Equipment" (99813602.6);</p> <p>Case No. 916: Invention patent on "Method and Device for Adaptive Bandwidth Tone Search in Coded Broadband Signals" (99813601.8);</p> <p>Case No. 917: Invention patent on "Gain Smoothing in Broadband Audio and Audio Signal Decoders" (00815854.1);</p> <p>Case No. 918: Invention patent on "Method and Device for</p>	

	Indexing Pulse Positions and Symbols in Algebraic Codebook for Broadband Signal Encoding" (01803954.5).
The Parties	<p>Appellant (plaintiff in the first instance, and defendant in the counterclaim): Advanced Codec Technologies, LLC;</p> <p>Appellant (defendant in the first instance, and plaintiff in the counterclaim): Guangdong OPPO Mobile Telecommunications Corp., Ltd.</p> <p>Defendant in the first instance: Nanjing Baixia Suning.com Trading Co., Ltd.</p>
Results of Judgment	<ol style="list-style-type: none"> 1. Uphold the third item of the Civil Judgment (2018) Su 01 Minchu No. 3350, 3354, 3355, 3356, 3358 and 3364 made by the Intermediate People's Court of Nanjing City, Jiangsu Province, the People's Republic of China; 2. Revoke the first and the second item of Civil Judgment (2018) Su 01 Minchu No. 3350, 3354, 3355, 3356, 3358 and 3364 made by the Intermediate People's Court of Nanjing City, Jiangsu Province, the People's Republic of China; 3. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay for the patent (the patent numbers are: 99813641.7, 99813640.9, 99813602.6, 99813601.8, 00815854.1, and 01803954.5) license royalties of RMB 15,390,527 and its interest (the interest is calculated based on the principal of RMB 15,390,527 at an annual interest rate of 2.125% from September 20, 2019 to the date of actual payment by Guangdong OPPO Mobile Telecommunications Corp., Ltd.) and reasonable expenses of RMB 600,000; 4. Dismiss other litigation claims of Advanced Codec Technologies, LLC; 5. Dismiss the appeal requests of Guangdong OPPO Mobile Telecommunications Corp., Ltd. <p>The main text of the original judgment:</p> <p>Case No. 3350: 1. Guangdong OPPO Mobile</p>

Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 1.85 million to use patent No. ZL99813601.8 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Case No. 3354: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 2.52 million to use patent No. ZL00815854.1 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Case No. 3355: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 1.85 million to use patent No. ZL99813602.6 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff Guangdong OPPO Mobile Telecommunications Corp., Ltd.

Case No. 3356: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 1.85 million to use patent No. ZL99813640.9 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff

	<p>Guangdong OPPO Mobile Telecommunications Corp., Ltd.</p> <p>Case No. 3358: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 2.52 million to use patent No. ZL01803954.5 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff Guangdong OPPO Mobile Telecommunications Corp., Ltd.</p> <p>Case No. 3364: 1. Guangdong OPPO Mobile Telecommunications Corp., Ltd. shall pay to Advanced Codec Technologies, LLC for the license royalties of RMB 1.85 million to use patent No. ZL99813641.7 for the allegedly infringing mobile phone models sold in China within 15 days from the effective date of the judgment; 2. Dismiss the other claims of the plaintiff Advanced Codec Technologies, LLC; 3. Dismiss the other claims of the counterclaim plaintiff Guangdong OPPO Mobile Telecommunications Corp., Ltd.</p>
Referred Laws	<p>Articles 8, 41, 48, 49, and 50 of the Law of the People's Republic of China on the Application of Laws in Foreign-Related Civil Relations;</p> <p>Articles 7, 132, Paragraph 3 of Article 500 of the Civil Code of the People's Republic of China;</p> <p>Paragraph 1 of Article 11 and Paragraph 1 of Article 65 of the Patent Law of the People's Republic of China (as amended in 2008);</p> <p>Articles 13 and 15 of the Several Provisions of the Supreme People's Court on Application of Law in the Trial of Patent Dispute Cases (as amended in 2020);</p> <p>Article 7, Paragraph 1 of Article 12 of the Interpretation of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement</p>

	<p>Dispute Cases;</p> <p>Article 24 of the Interpretation (II) of the Supreme People's Court on Several Issues Concerning the Application of Law in the Trial of Patent Infringement Dispute Cases (as amended in 2020);</p> <p>Article 32 of the Several Provisions of the Supreme People's Court on Evidence in Intellectual Property Civil Litigation.</p>
<p>Legal Issues</p>	<ol style="list-style-type: none"> 1. When the "Comparable Agreements Method" is applied to determine the royalty rate in disputes on standard essential patents, factors to be considered in selecting a comparable license agreement; 2. Factors to be considered to determine whether the parties are at fault during standard essential patent licensing negotiation; 3. The essence of the standard essential patent license royalties paid by the implementer to the patentee of the standard essential patent.
<p>Judgment Viewpoints</p>	<ol style="list-style-type: none"> 1. When selecting a comparable license agreement, attention should be paid to the following factors: (1) The context for license negotiations, specifically the transaction background and transaction conditions of both parties, which is directly related to whether the agreement is made between the licensor and the licensee based on voluntary negotiation without any psychological compulsion (such as litigation or threat of litigation and court ruling to stop the infringement or threat of application to the Court for a ruling to stop the infringement); (2) Similarity of the licensing entities, including similarity of the licensor and the licensee, which can be judged from many aspects such as business model, business scope and relationship between the licensor and the licensee; (3) Similarity of the licensed patents, such as whether the patent that is the

subject of the license in the comparable agreement is consistent with the patent in the disputed case or at least covers the latter, and whether it is of the same or similar quantity and quality as the patent in the disputed case; (4) Similarity of the terms of license, including calculation of the royalty rate, scope of license, period of license, method of license, and method for payment of the royalty.

2. When analyzing whether any party made a fault during the standard essential patent licensing negotiation process, the core is to determine whether both parties have and have shown a sincere willingness to reach a license. Generally speaking, to determine whether the patentee made a fault in the licensing negotiation, the following factors can be considered comprehensively: (1) Whether a judicial lawsuit was directly filed to determine the license royalties without issuing a written notice of infringement to the implementer; (2) Whether the license request submitted by the implementer was explicitly rejected; (3) During the negotiation process, whether the patentee repeatedly threatened or directly took actual action to the implementer by filing an infringement lawsuit or applying to the Court for a ruling to stop the infringement; (4) Whether the patentee stopped the negotiation without justifiable during the negotiation process; (5) Whether the patentee refused to disclose necessary patent information to the implementer (such as a certain number of standard essential patents, an exemplary claim comparison table); (6) Whether the patentee refused to disclose to the implementer the calculation basis or method for the publicly claimed license royalties or royalty rate; (7) Whether the price quoted in the license conditions proposed to the implementer is significantly higher or unreasonably higher than the price quoted to other competitors in the same industry, and the patentee refused

to explain the reasons; (8) Whether feedback was given to the implementer within a reasonable period after receiving the implementer's counter-offer; (9) Whether the implementer's request for clarification of relevant technical issues was rejected without justifiable reasons, etc.

To determine whether the implementer made a fault in the licensing negotiation, the following factors can be considered comprehensively: (1) Whether it responded within a reasonable time after receiving the written notice of infringement from the patentee, or informed the patentee that it did not agree to negotiate the license; (2) Whether a positive response of acceptance or rejection was made within a reasonable time after receiving the offer put forward by the patentee; (3) Whether the implementer timely submitted a counter-offer or gave suggestions that it considered fair and reasonable to the patentee when it considered the offer issued by the patentee is unreasonable, or whether the license royalties based on the counter-offer were timely deposited in escrow; (4) Whether negotiations were delayed or interrupted without justifiable reasons; 5. Whether obviously unreasonable licensing conditions were proposed to the patentee, etc. However, if the implementer expresses its willingness to reach a licensing agreement with the patentee during the licensing negotiation process while declaring that it reserves the right to question whether the patent is an essential patent or question the validity of the patent right, it is generally not considered to have a subjective fault.

3. The standard essential patents are distinctive from the non-standard essential patents in that: 1. These are patents that must be implemented during the implementation of relevant standards. 2. The patentee needs to make a commitment to relevant standardization organization to grant a license to an unspecified person to implement its

patents according to the FRAND conditions in connection with the inclusion of its patents into the technical solution for a proposed standard (FRAND Commitment). Although the FRAND Commitment is not made to a specific patent implementer, the commitment is a common practice adopted by the mainstream international standardization organizations to allow the patents to be included in technical solution for a proposed standard, resulting in reasonable reliance of implementers or potential implementers in relevant industries on the FRAND Commitment. In the legal system of the People's Republic of China, the right holder of a standard essential patent needs to abide by the provisions of Article 7 in connection with the principle of good faith, the provisions of Article 132 in connection with the non-abuse of civil rights and the provisions of Article 500 in connection with the liability for contractual negligence of the Civil Code of the People's Republic of China. Once the implementer requests a license from the right holder of a standard essential patent to implement the patent, the right holder cannot, in principle, withhold the license without good cause. The issue faced by the implementer in the negotiation is not whether it is willing to grant the license, but under what condition the license will be granted, and the license condition, especially royalty, is the core issue for the right holder (licensor) and the implementer (licensee) to conclude a license contract for the implementation of the standard essential patent through negotiation. According to the above provisions of the Civil Code of the People's Republic of China, both contracting parties shall conclude a contract in good faith through negotiation. The principle of good faith stipulated in the law is mainly reflected in the FRAND principle generally recognized and followed by the industry in the

license negotiation for standard essential patents. The key difference between the implementation license of standard essential patents and the implementation license of non-standard essential patents is that: When the patent implementer expresses its willingness to sign an implementation licensing contract in accordance with FRAND principle, the patentee of the standard essential patent cannot refuse to license by principle. Generally, both parties can only negotiate to resolve the issue of implementation licensing in good faith. If an implementation licensing contract fails to be reached due to the fault of both parties in contracting, causing the infringement of the implementer by implementing the patent without the permission of the patentee of the standard essential patent, it is also different from patent infringement caused by the implementer's implementation without the permission of the patentee of the non-standard essential patent. The difference is that: The former infringement is caused by contracting negligence of the patent implementer or both parties, while the latter is generally due to the unilateral cause of the patent implementer. In other words, in the Six Cases, it is precisely because of the failure to conclude a contract due to the fault of both the patentee of the standard essential patent and the implementer of the patent that the implementer committed patent infringement. Therefore, the liability for patent infringement, especially the liability for compensation, shall be determined mainly based on the degree of both parties' fault in the contracting, which is different from the unilateral liability of the implementer in the infringement of non-standard essential patents. The losses suffered by the patentee of standard essential patents were mainly caused by its failure to reach an implementation licensing contract with

the implementer of these patents for a long time. The losses are the differences between the existing benefits of Advanced Codec and the benefits that Advanced Codec should obtain if both parties have reached an implementation licensing contract in a timely manner and in accordance with FRAND principle. Assuming that the two parties timely reach an implementation licensing contract in accordance with FRAND principle, by referring to the blanket license commonly used in the field of standard essential patent licensing and the practice that the licensee usually pays the total royalty for the entire period of the patent license in one lump sum immediately upon contracting, it is determined through judicial proceedings that the license royalties should also follow the same calculation method. Regardless of whether the patentee of standard essential patents obtains the license royalties in time under the above-mentioned ideal negotiation and transaction conditions, or whether it actually obtains the delayed license royalties in accordance with the effective judgment, the principal amount of the license royalties it obtains should be the same, and the additional losses suffered by the patentee of standard essential patents due to the failure of the two parties to conclude the contract is basically the losses of interests during the period when it should have obtained all the license royalties, that is, the losses of interest that can be reasonably foreseen under normal circumstances. The interest losses shall be shared by both parties according to the degree of fault of both parties for the failure to conclude the contract. Therefore, the amount of compensation that the patentee of a standard essential patent finally receives from the patent implementer shall consist of: 1. the principal of the license royalties that it should receive; 2. the interest losses, which is calculated

	based on the interest on the overdue principal of the royalties of the patentee of the standard essential patent due to its delay in obtaining the royalties, multiplying the contracting fault ratio of the implementer.
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Note: This summary is not an integral part of the ruling and has no legal effect.