
Understanding and Application of “Necessary Measures” in the “Notice and Necessary Measures” Rule Under Cloud Service Platform Model

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Abstract: With the rapid development of cloud service industry in recent years, infringement disputes between right holders and cloud service platforms have become increasingly frequent, some of which cannot be solved by existing laws and regulations. Although Regulation for the Protection of the Right of Communication to the Public through Information Networks stipulates the “Notice and Takedown” rule, it is not entirely applicable to infringement disputes involving cloud service platforms. At present, the “Notice and Necessary Measures” rule in Tort Liability of the Civil Code of the People’s Republic of China is more applicable, in which “necessary measures” should be more broadly interpreted in order to counter the dilemma caused by legislative lags. In consideration of the characteristics and for the development of the cloud service industry, legislation should be more responsive and better balance the rights and obligations between right holders and cloud service platforms. In light of the above, this paper first reviews a few classic cases of disputes over cloud service platforms, and then analyzes the application of the “Notice and Necessary Measures” rule in current judicial practices, identifies problems that need to be improved on, and finally proposes the “Notice and Notice” measure to become a “necessary measure”. Upon receiving a qualified notice from the right holder, the cloud service platform should treat the notice of the right holder with prudence and reasonableness, and take corresponding “necessary measures” appropriate to its capacity to prevent the expansion of loss.

Keywords: Cloud Service Platform, The “Notice and Takedown” Rule, Necessary Measures, Notice and Notice

1. Introduction

In recent years, cloud technology has developed rapidly, and the emergence of new technology means the birth of new industries. [1] At present, the cloud service provider with the largest market share in China is Alibaba Cloud, followed by Huawei Cloud, Tencent Cloud and Baidu AI Cloud. During the COVID-19 pandemic, companies make extensive use of cloud service platforms to telecommute and maintain company operations, while numerous students are able to take school lessons without leaving home through cloud service platforms. At the same time, the government has increased investment in infrastructure, and economic stimulus measures such as “New Infrastructure” have encouraged Internet giants to increase their investment in cloud service platforms. The above-mentioned giants all plan to invest hundreds of billions of yuan in their respective cloud service platform in the next

few years, among which Tencent Cloud has declared that it plans to invest 500 billion yuan in cloud computing and cloud storage in the next five years. As it develops rapidly, a new industry may also face the problem that newly emerged disputes cannot be accurately dealt with due to outdated laws and regulations, such as the Beijing Locojoy Games Co., Ltd. v. Alibaba Cloud Computing Co., Ltd. case, disputes over the infringement of the right of communication through information networks (the first cloud server case in China, hereinafter referred to as the “Alibaba Cloud Case”¹), Weihai Jiayikao Household Appliance Co., Ltd. v. Yongkang Jinshide Industry and Trade Co., Ltd., Zhejiang Tmall Network Co.,

¹ Civil Judgment No. 1194 [2017], Final, Civil, 73, Beijing Intellectual Property Court.

Ltd. being sued for infringing patent rights for inventions (the “Tmall Case”)², Youku Network Technology (Beijing) Co., Ltd. v. Beijing Baidu Netcom Science and Technology Co., Ltd. (listed as fifty model intellectual property cases tried by Chinese courts in 2020, hereinafter referred to as the “Youku v. Baidu Cloud Case”)³. The rapid, healthy, and sustainable development of a new industry is inseparable from the correct guidance of policies and regulations. Existing regulations governing the conduct of network service providers are as follows: Articles 1195 to 1197 of the Civil Code of the People’s Republic of China (hereinafter referred to as the Civil Code), Regulation for the Protection of the Right of Communication to the Public through Information Networks (hereinafter referred to as the “Regulation”), and Provisions of the Supreme People’s Court on Several Issues Concerning the Application of Law in the Trial of Cases Involving Civil Disputes over Infringements upon Personal Rights and Interests through Information Networks (hereinafter referred to as the “Judicial Interpretations”). Whether and how to apply laws, regulations, and judicial interpretations to cloud computing and cloud storage have aroused heated discussions in academic and practical circles. The core issue of the discussions is that, given the uniqueness of cloud service platforms, should the “Notice and Necessary Measures” rule under the Civil Code, a higher-level law, or the “Notice and Takedown” rule under the “Regulation”, a special law, be applicable to disputes arising from this new model?⁴ Can this new model be included in the scope regulated by existing laws and regulations, or does it constitute an exception to them? [2] As to the application of the “Notice and Takedown” rule, there exist more controversies, including whether the “immediate deletion and disconnection of links” provision is still reasonable under the new model, what kind of measures should qualify as “necessary measures” under Article 1195 of the Civil Code, and whether the “Notice and Notice” rule can be regarded as independent measures, etc. Even in the Alibaba Cloud Case, the court of first instance and the court of second instance held completely different opinions on whether the notice sent by the Beijing Locojoy Games Company was a qualified notice in the legal sense. If the notice sent by the right holder can hardly be held qualified, then it is meaningless to discuss the subsequent deletion act of the alleged infringer. [3]

In view of this, this paper attempts to explore why the “Notice and Necessary Measures” rule applies in cases involving disputes over cloud service platforms, and proposes that the “Notice and Notice” rule should become a reasonable “necessary measure”. This paper argues that after receiving a qualified notice from the right holder, the cloud service platform should handle the right holder’s notice in a timely manner with a prudent and reasonable attitude, and take necessary measures appropriate to its capabilities to prevent

the expansion of damages caused by the infringement.

2. Application of the “Notice and Necessary Measures” Rule

2.1. Relationship Between the “Notice and Takedown” Rule and the “Notice and Necessary Measures” Rule

The “Notice and Takedown” rule originated from the Digital Millennium Copyright Act (“DMCA”) promulgated by the United States in 1998. [4] The “Notice and Takedown” rule in China’s Tort Law was borrowed from the DMCA, and the current Tort Liability from the Civil Code mostly follows the Tort Law. [5] According to Paragraph 1, Article 1195 of the Civil Code, after receiving a notice from the right holder, the network service provider shall take such necessary measures as deletion, block, or disconnection. Some scholars believe that the “Notice and Takedown” rule in the Civil Code should be more accurately interpreted as the “Notice and Necessary Measures” rule. [6] After receiving the right holder’s notice, the network service provider may take measures not limited to deleting the links, but also other reasonable and necessary measures. Article 23 of the “Regulation” stipulates that where the network service provider disconnects the link to the infringing works, it shall not be liable for damages. According to the literal explanation, the premise that the network service provider is not liable for damages requires that the link to the infringing works is deleted. As long as the link to the infringing works is not deleted, the network service provider may be liable for compensation. Compared with the provisions of the Civil Code, the “Regulation” embodies the “Notice and Takedown” rule in a truly strict sense. In fact, the provisions of the Civil Code and the “Regulation” on the “Notice and Takedown” rule constitute the relationship between the superior law and the special law. The Civil Code sets up general principles and do not provide detailed provisions. As a special law, the “Regulation” should be applied preferentially within the scope of the right of communication through information networks. However, when the “Regulation” does not have provisions, its provisions are unclear, or new circumstances arise, the superior law should be applied preferentially. This is the embodiment of prioritizing effectiveness.

2.2. Overview of Cloud Service Platforms

Server is a concept in the traditional computer field, which is a device that provides data access, storage, and output for computers. Server is basically a “large” computer with a similar structure, both composed of hardware such as processor, hard disk, and memory. It is characterized by strong processing capability, large data storage, fast operation, and high security and stability. At the beginning of the 21st century, the server was a data processing center built by large enterprises to support their extensive data processing business. Cooling and heat dissipation equipment was generally required to maintain constant temperature and humidity in the

2 Civil Judgment No. 186 [2015], Final, IP, High People’s Court of Zhejiang Province.

3 Civil Judgment No. 155 [2020], Final, Civil, 73, Beijing Intellectual Property Court.

4 Refer to note 1.

room, as well as a 24-hour power supply system to ensure continuous operation so that even if the city power is suddenly cut off, the several supporting diesel generators would immediately restart the power supply to maintain the normal operation of the server. All these imposed expensive costs on initial construction, medium-term operation, and long-term maintenance. Only large Internet companies would invest in such facilities to meet their business needs. With the rapid development of science and technology, cloud server services came into being to solve the above problems. Elastic Compute Service (ECS) is a new type of server, characterized by advantages that traditional physical servers cannot deliver such as simplicity and reliability, low cost for users, and a flexibility leasing mode. [7] Users do not need to invest in the construction of a large number of physical servers, the construction and operation of which will be dealt with by a specialized Internet company. Users only need to rent the servers when the need arises. Current cloud servers, incorporated with the 5G technology, can significantly reduce the cost for users and improve the reliability of data.

2.3. Application of the “Notice and Takedown” Rule and the “Notice and Necessary Measures” Rule in Judicial Practice in the Field of Cloud Servers

In the “Alibaba Cloud Case”, the right holder of the work *I Am MT* found that the alleged infringing game *I Am MT (Free Version)* was stored in Alibaba Cloud Company’s Alibaba Cloud Server, thus the right holder sent a notice to Alibaba Cloud Company, requesting it to delete the infringing work. In the first instance, the court held that the service that the Alibaba Cloud server provided fell into the scope of network service defined by Article 1195 of the Civil Code, and the “Notice and Necessary Measures” rule shall apply. After receiving the notice from the right holder, the network service provider shall bear the obligations to take necessary, reasonable, and appropriate measures to assist the right holder to protect their rights, and in this case, shall delete and disconnect the links suspected of infringement, actively contact the infringer, and forward relevant complaints. In the second instance, although the court agreed with the conclusion of the court of first instance that Alibaba Cloud Company is a network service provider under the provisions of the Civil Code, and therefore the “Notice and Necessary Measures” rule shall apply, the court also explicitly pointed out that the “Notice and Takedown” rule in the “Regulation” shall not apply, on the ground that the cloud service provided by Alibaba Cloud Company is not one of the four specific types of network service defined by Articles 20 to 23 of the “Regulation”.⁵ According to the characteristics of cloud servers, the measure of “deleting and disconnecting links” means that the cloud service platform shuts down the server or delete the data on the server, which will have a serious impact on the security of other users’ data, not in conformity to the principle of prudence and reasonableness. The reasonable

action for the cloud server operator to take is to make a general reasonable judgment based on the notice and take measures appropriate to its technical capabilities, which are the “necessary measures”, and can be the grounds for exemption. Based on this, the court ruled that Alibaba Cloud Company should not be liable for infringement. Meanwhile, the court of second instance also explored and concluded that “Notice and Notice” could be the necessary measure that Alibaba Cloud Company takes under the current background. [8]

In the *Youku v. Baidu Cloud* case, the focus of both parties was how to define “necessary measures”. Youku has the exclusive right to disseminate the work *Eternal Love* (in Chinese: 三生三世十里桃花, a.k.a. *Ten Miles of Peach Blossoms*) through an information network. Youku notified Baidu Cloud Company by email one week before the premiere of the drama series, hoping that Baidu Cloud Company could take corresponding measures to prevent the occurrence of relevant infringement acts. Baidu Wangpan (or Baidu Network Disk, Baidu Cloud, a cloud storage service) is a business of Baidu Cloud Company. Through the “Baidu Wangpan Service Agreement”, Baidu Wangpan forms a contractual relationship with users to provide network information storage space for users. Users can upload personal data to Baidu Wangpan, and Baidu Wangpan does not edit the contents uploaded by users. After discovering the infringement acts, Youku sent the “Notice of Request for Removal of Infringing Works” to the complaint handling center designated by Baidu Cloud Company, with a total of more than 10,000 infringing links attached. After receiving the notice, Baidu Cloud Company did not disconnect all the aforesaid links, but disconnected 60% of the links within one day and about 90% of the links within three days. About this, the court of first instance held that, after the receipt of the notice, Baidu Cloud Company shall take necessary measures in a “timely” manner to stop the infringement, and the assessment of “timeliness” shall not be limited by the requirement of “within 24 hours”⁶ specified in the Notice of the National Copyright Administration on Regulating the Copyright Order of Network Disk Services (hereinafter referred to as the “Notice”), but shall take into account the capacity of the network service provider and the measures actually taken. In this case, the number of the involved links and times of dissemination of the disputed works by the involved links and the actual information management capability of Baidu Cloud Company shall be taken into consideration. It was unrealistic to disconnect all the involved links that the company had received in such a short period of time within 24 hours. The court of first instance held that

5 They refer to automatic access, automatic cache, information storage space, and automatic search service respectively.

6 Article 4 of the Notice of the National Copyright Administration on Regulating the Copyright Order of Network Disk Services stipulates that: “Network disk service providers shall, in conspicuous positions on the home pages of their network disks, indicate the ways of informing and complaining for right owners in detail, accept the notices and complaints of right owners in a timely manner, remove relevant infringing works within 24 hours after receiving the notices or complaints of right owners, and delete and disconnect the interlinkages of relevant infringing works; and shall concurrently comply with the relevant provisions of the Regulation on Protection of the Right to Network Dissemination on “notice”.

Baidu Cloud Company failed to disconnect all links in a timely manner after the receipt of the notice so it shall be held jointly and severally liable with the Internet users for the increased losses of Youku. However, since Baidu Cloud Company had taken corresponding measures to restrict some of the involved links, all the litigation claims of Youku were not supported by the court of first instance and the court of second instance. In respect of the litigation claim of Youku requesting the court to order Baidu Cloud Company to delete the involved video stored in its online disk server, the court of first instance and the court of second instance held that the infringement act of Baidu Cloud Company was generating links for users to share the involved work, and thus rejected this litigation claim.

In the Tmall case⁷, the court held in its effective judgment that whether Tmall's act constituted the alleged infringement should be considered comprehensively in light of the volume of Tmall's business, whether the notice issued by the right holder was a qualified notice and whether Tmall took necessary measures in a timely manner upon receiving the right holder's notice. Tmall is a network service provider as stipulated in Article 36.2 of the former Tort Law of the People's Republic of China (Article 1195 of the Civil Code now), so the "Notice and Necessary Measures" rule should apply. After receiving a lawful and valid notice from the right holder, Tmall should deal with the infringement under the principles of prudence and reasonableness. Given the business scale and realistic conditions of Tmall, it should not be required to immediately delete or disconnect the product links. Instead, Tmall should forward the qualified notice to the infringer and inform the infringer of the right of defense. [9] In this case, the court seems to have confirmed the independent value of the "Notice and Notice" rule and considered the "Notice and Notice" rule as a form of "necessary measures".

In the Alibaba Cloud case, for the first time, the court confirmed that the "Notice and Necessary Measures" rule in the Civil Code shall be applied to infringement disputes over cloud service platforms, while in the following Youku v. Baidu Cloud case and Tmall case, both parties had intense debates on the definition of "necessary measures". The understanding of "necessary measures" should not be limited to the regulations and provisions, but should be determined case by case based on an objective and comprehensive understanding of the right holder and the cloud service provider. Specifically, the cloud service provider should treat the qualified notice of the right holder with prudence and reasonableness, and take corresponding "necessary measures" appropriate to its capacity to minimize the right holder's loss; otherwise, it should be held jointly and severally liable for the increased part of the right holder's loss. This also complies with the basic principles of "fairness"⁸ and "good faith"⁹ in the

civil law.

3. Improved Understanding of the "Notice-Necessary Measures" Rule

3.1. *Censorship Obligation of Cloud Service Platforms*

In the Youku v. Baidu Cloud case, the scope of infringement liability of Baidu Cloud Company should be defined first, i.e. Baidu Cloud Company clearly knew that its users had committed infringement but failed to take necessary measures and caused expanded damage, therefore Baidu Cloud Company and its users bear joint and several liability. [10] In this case, users uploaded video files to the Baidu Cloud server and generated links to share to other platforms, so that the unspecific public could obtain the video work at the time and place they chose. This series of acts were all conducted by the users alone, and Baidu Cloud should not bear the liability of joint infringement with the users. Secondly, what Baidu Wangpan (i.e., Baidu Cloud server) provides users with is a virtual memory space, which is similar to a storage service. Baidu Cloud Company does not process the data uploaded by users, and does not make direct profit from the video works involved. This is like finding prohibited items in a public locker in a mall. Should the mall operator be held responsible? Moreover, because the contents uploaded by users are within the scope of personal privacy, for the healthy and orderly development of the whole industry, Baidu Cloud Company does not take the initiative to review the contents uploaded by users to Baidu Wangpan, unless such contents involve political, pornographic, terrorist, or other definitively illegal criminal contents¹⁰. Finally, in this case, Youku argued that Baidu Cloud Company could adopt measures to block keywords to prevent further losses. Baidu Cloud Company argued that although the company could block keywords from the technical level, they will not take such a measure unless otherwise specified, because it would lead to over extension of the rights of the right holder and harm the public interest. [11]

Indeed, no measures should have been taken to block the keywords "Ten Miles of Peach Blossoms" (in Chinese: 三生三世十里桃花), "Eternal Love" (三生三世), and other words in this case. These words are common in daily life, and the titles and contents of some songs and literary works may contain the phrase "Eternal Love" (三生三世). However, for words that are rarely used in life, the cloud server platform can take the blocking measure to have them completely blocked, such as the drama series *Legend of Mi Yue* (in Chinese: 芈月传). This passive duty of care is embodied by the "red flag standard". As a company operating network services, network

7 Although Tmall Company is not a cloud service platform, it possesses characteristics similar to a cloud service platform, and thus could provide reference for investigating the independent value of the "Notice and Notice" rule.

8 Article 6 of Civil Code of the People's Republic of China stipulates: "When conducting a civil activity, a person of the civil law shall, in compliance with the principle of fairness, reasonably clarify the rights and obligations of each party."

9 Article 7 of Civil Code of the People's Republic of China stipulates: "When conducting a civil activity, a person of the civil law shall, in compliance with the principle of good faith, uphold honesty and honor commitments."

10 According to the judgment, Baidu Cloud Company is capable of using a computing platform based on Baidu Audio/Video AI and trans-coding technology to censor the contents of videos and live broadcasts for users.

service provider should be subjectively aware of the popularity of a film or TV show. Objectively, the copyright owner cannot possibly upload their work online for free. [12]

3.2. *Necessary Measures That Cloud Service Platform Shall Take After Receiving a Qualified Notice*

Upon receipt of the notice, Baidu Cloud Company should take necessary measures in a timely manner to prevent the expansion of damages. There is no answer to the standard of “timely” under the law. Currently there is only ministerial regulation that can be applied *mutatis mutandis*, i.e. the “Notice” of the National Copyright Administration. However, in judicial practice, if the online-storage service provider is excessively demanded to fulfill its obligation to deal with complaints, it will be forced into a desperate and exhausted state. [13] As an enterprise with a large share in the market, Baidu Cloud Company has a business volume that speaks for itself. At the same time, Baidu Cloud Company may also face malicious complaints and reports from peers. Specifically, in the *Youku v. Baidu Cloud* case, the court ascertained that there were more than 11,000 links involved, making it difficult to fulfill the obligation to deal with the notice of the right holder even with the use of smart censoring as the main censoring method and human censoring as the supplementary method. The online-storage service provider shall comprehensively consider the matter according to its internal status (including but not limited to, the capability to manage and control data, the operation model of online-storage service, and the nature of online-storage users) and treat the notice with a prudent and reasonable attitude, so as to minimize the loss caused to the right holder due to failure to disconnect the links in a timely manner, i.e. to prevent further expansion of the scope and scale of infringement, and to bear joint and several liability with online-storage users for the expanded damages arising therefrom. [14]

3.3. *New Mission of the “Notice and Notice” Rule*

In light of the characteristics of the cloud service industry, new approaches should be explored to solve the problem that it is difficult for a cloud service platform to take necessary measures such as deleting, disconnecting links after receiving a qualified notice. Perhaps “Notice and Notice” could become a necessary measure with independent value. Although the “Notice and Takedown” rule only applies to the scope stipulated by the “Regulation”, “Notice and Notice” is only one step in the current “Notice and Takedown” system¹¹, and it has no independent value. However, as this rule has the tendency to expand to other areas, it is necessary to establish

¹¹ Article 15 of the Regulation for the Protection of the Right of Communication to the Public through Information Networks provides that: The network service provider shall, upon receipt of the notification from a right owner, promptly removes, or disconnects the link to, the work, performance, sound recording or video recording suspected of infringement, and at the same time communicates the notification to the subscriber who provides the work, performance, sound recording or video recording; where the notification is impossible to be communicated due to the unclear network address, the network service provider shall also make known the content of the notification on the information network.

its independent value in the cloud service industry, and to make it an exemption condition for cloud service platforms. After large cloud service platforms receive a qualified notice from the right holder, the network service provider will forward the notice to the potential actual infringer, which should be deemed as having taken necessary measures. Unlike the time when the Internet first became popular, the 5G era has already arrived and everyone now is a participant of network services. Therefore, network service platforms of today should pay more attention to their independent value to build a bridge between consumers and businesses and a platform for communication and information transmission between right holders and alleged infringers. After receiving an infringement notice from a right holder, the network service provider concerned should timely forward the notice to the alleged infringer so that the alleged infringer can judge whether its own behavior constitutes infringement of the intellectual property right, so as to limit the expansion of losses.

4. Conclusion

As a type of intangible property right, intellectual property right has the characteristics of legality. The legal nature of intellectual property right is embodied in that there are clear legal provisions in respect of the types of rights, the contents of the rights, the term of protection, etc. Although the boundaries of some rights are not very clear due to the limitation of legislative techniques and the time, law is an art of balancing, and in the field of intellectual property right, legislators intend to balance social interests and individual interests. [15] With the rapid development of cloud service industry, the number of infringement disputes is rising. The most important is to clearly define the legal nature of cloud service platform, which falls within the governing scope of the Civil Code and the “Notice and Necessary Measures” rule applies. Secondly, what measures qualify as “necessary measures” in the legal sense should be discussed, and finally the transition of “Notice and Notice” to become a “necessary measure” should be explored.

References

- [1] Yao Zhen. Study on Cloud Service Providers Exemption from Notice-and-Takedown Rule — Proposition on the Notice Forwarding Responsibility [J]. *Journal of Nantong University (Social Sciences Edition)*. 2020, 36 (05): 61-70.
- [2] Kong Xiang-jun. Application of “Internet Article” to New Types of Network Service—From “Notice-and-Takedown” Rule to “Notice and Taking Necessary Measures” [J]. *Journal of Political Science and Law*, 2020 (01): 52-66.
- [3] Liu Xiao, Ye Yu-hao. The Application Dilemma and Solution of “Safe Harbor Principle” in China under the Background of Civil Code [J]. *Electronics Intellectual Property*. 2022 (05): 28-38.
- [4] Wang Qian. Boundaries of the “Notice and Takedown” Rule [J]. *China Copyright*. 2019 (04): 28.

- [5] Liu Wen-jie. Notice and Take-down Rules, Necessary Measures and Safe Harbour for ISP [J]. *Electronics Intellectual Property*, 2019 (04): 4-13.
- [6] Li Yang, Chen Shuo. Re-review of the "Notice and Takedown" Rule [J]. *Intellectual Property*, 2020 (01): 25-38.
- [7] Bi Wen-xuan. Qualitative and Liability Construction of New Network Service Providers — Also commented on the case of Alibaba Cloud Server [J]. *Electronics Intellectual Property*. 2020 (02): 79-94.
- [8] Lan Hao. The Dilemma and Solution of the "Notice-Take down" Rule of Intellectual Property in E-commerce [J]. *Intellectual Property*. 2020 (04): 53-65.
- [9] Wu Shan-xue. Legal Elements of a Valid Notice in Copyright Infringement over E-commerce Platforms: A Review on the Supreme Court's No. 83 Guiding Case [J]. *Intellectual Property*. 2018 (01): 59-66.
- [10] Wu Han-dong. On the Copyright Tort Liability of Internet Service Providers [J]. *China Legal Science*. 2011 (02): 38-47.
- [11] Yu Ting-ting. The Subjective Elements of Liability for Compensation After Issuing a Wrongful Notice During the "Notice and Takedown" Process [J]. *Journal of Dalian Maritime University (Social Science Edition)*. 2020, 19 (06): 38-45.
- [12] Wang Jie. New Interpretation of the Duty of Care of Hosting ISPs [J]. *Science of Law (Journal of Northwest University of Political Science and Law)*, 2020, 38 (03): 100-113.
- [13] Liang Zhi-wen. Regulatory Model of Copyright Law for Internet Service Providers [J]. *Science of Law (Journal of Northwest University of Political Science and Law)*. 2017, 35 (02): 100-108.
- [14] Ni Zhu-liang, Xu Li-juan. The limitation and Solution of the Rule of Notice and Taking Down — From the Perspective of Two Cases [J]. *Electronics Intellectual Property*. 2020 (04): 17-27.
- [15] Yu Jun-yuan. The Evolution of Necessary Measures: Worries and Countermeasures [J]. *Electronics Intellectual Property*. 2021 (03): 63-73.