

# BIWEEKLY REPORT



Industry highlights  
Global perspective  
on mobile phone  
technology

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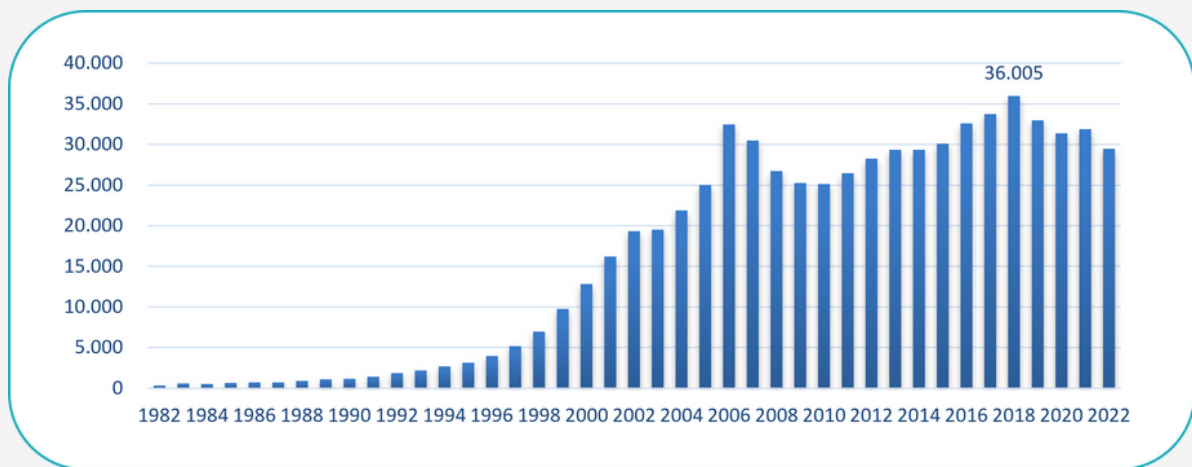
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# Introduction

In recent years, with the continuous development of semiconductor and communication technology, the technology in the mobile phone industry has also been constantly updated. Especially with the widespread application of 5G technology and AI technology, mobile phones will bring users a better experience. This report will analyze the development of mobile phone technology from the perspective of patents.

# Part 1: General information

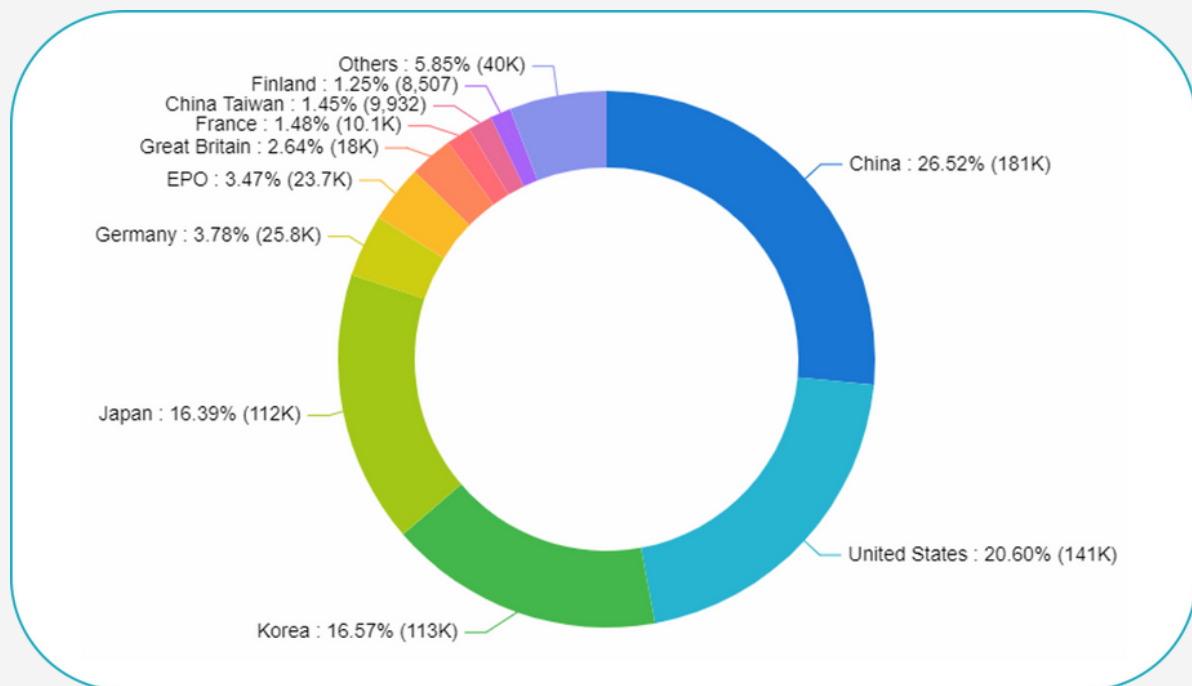
Patents related to mobile phones can be traced back to the late 19th century, but it was not until the 1980s that mobile phone technology developed rapidly. Especially after entering the 21st century, the volume of patented technologies related to mobile phones has rapidly increased. In 2018, the number of patents related to the core technology of mobile phones reached 36,005, and in the following years, the number of mobile phone patents slightly decreased (as shown in [Figure 1](#)).



**Figure 1** Patent publication trend of mobile phone patents

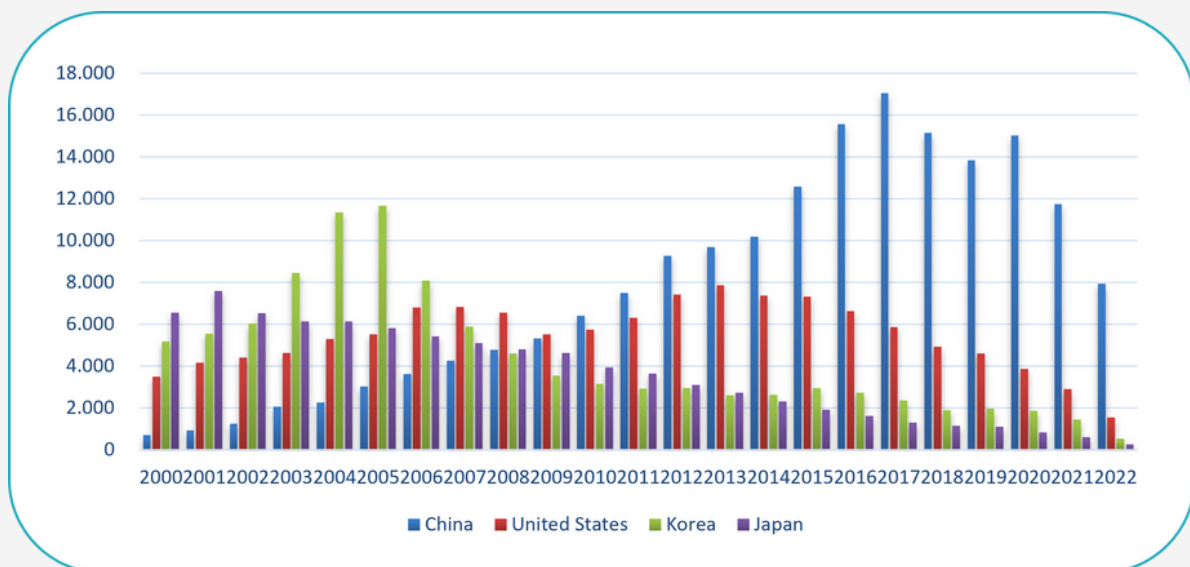
# Part 2: Geographic Territories

From the perspective of geographical distribution, China currently has the highest volume of mobile phone patents, followed by the United States, South Korea, and Japan. Moreover, these four countries account for 80% of the world's mobile phone patents (as shown in [Figure 2](#)).



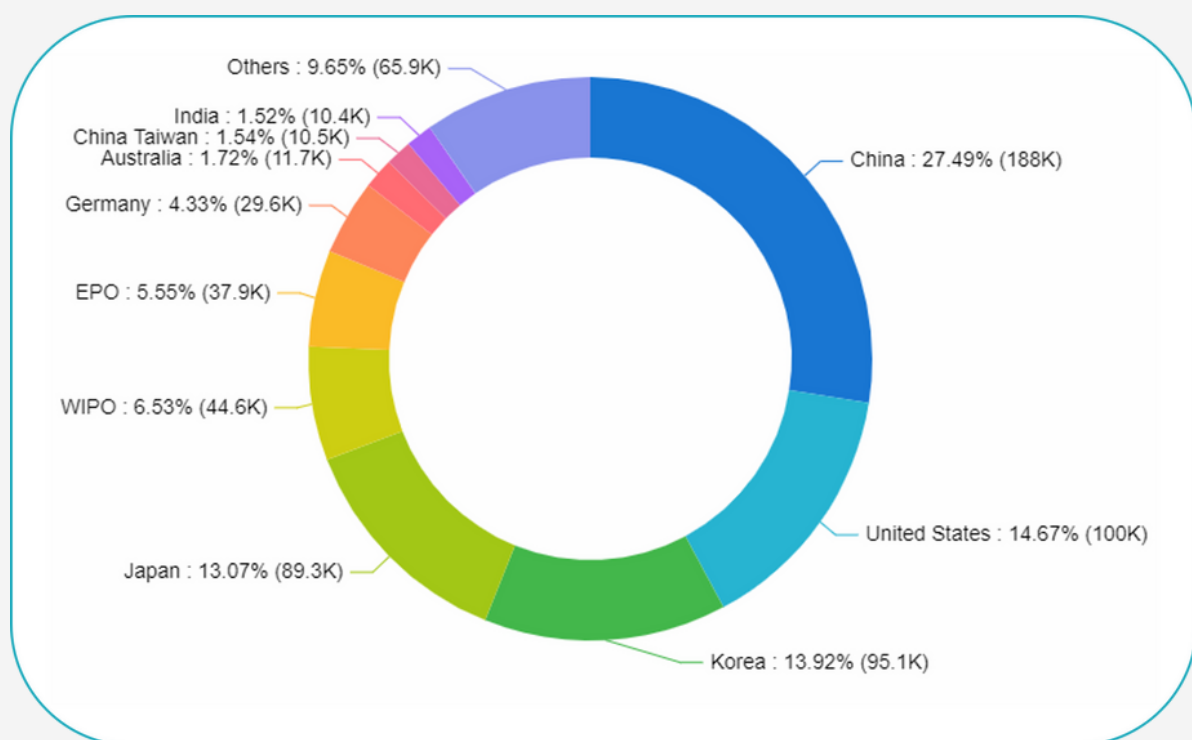
**Figure 2** Top countries of origin

Analyzing the volume of mobile phone patents in four major patent technology countries after 2000, it can be found that South Korea had a significant advantage in the volume of mobile phone patents before 2007. Over time, the volume of patent applications in China and the United States has been increasing. Especially in recent years, the volume of patents in China has increased significantly. Meanwhile, since 2014, the volume of patents applied in the mobile phone industry by the United States, South Korea, and Japan has shown a continuous downward trend (as shown in [Figure 3](#)).



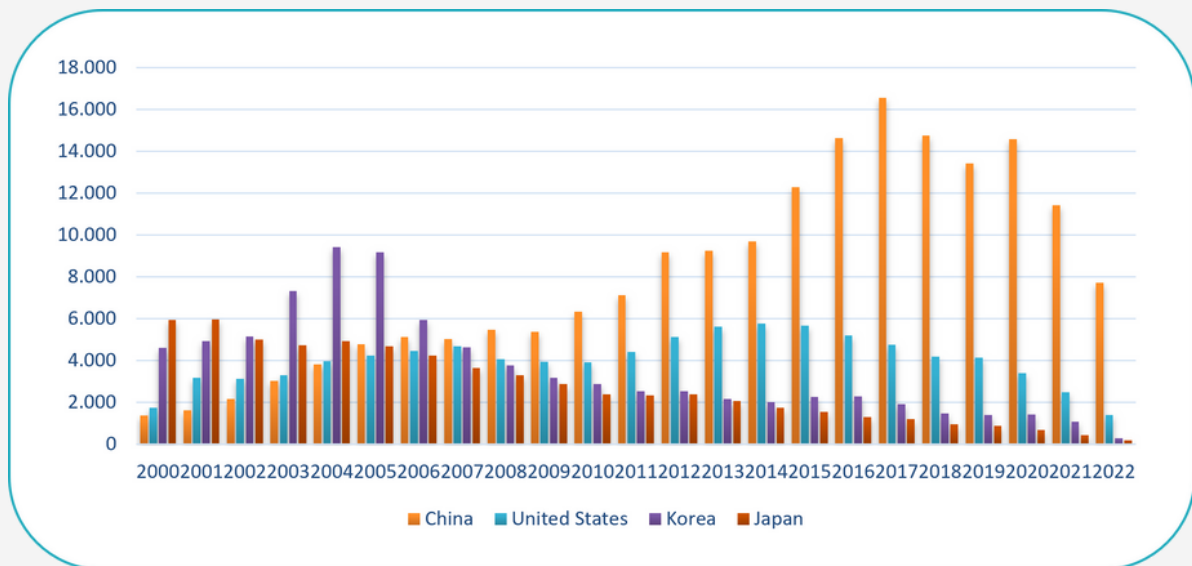
**Figure 3 Top countries of origin trend**

By analyzing the target countries of patents in the field of mobile phone, it can also be found that China is the main target country for mobile phone patent technology, accounting for 27.49% of the world's published mobile phone patents, followed by the United States, South Korea, and Japan. This indicates that the competition in China's mobile phone market is very fierce (as shown in [Figure 4](#)).



**Figure 4** Top countries of target

After entering the 21st century, the volume of mobile phone patents in China has maintained a continuous growth trend, and in recent years, the volume of mobile phone patents has even exceeded the sum of the United States, South Korea, and Japan (as shown in [Figure 5](#)).

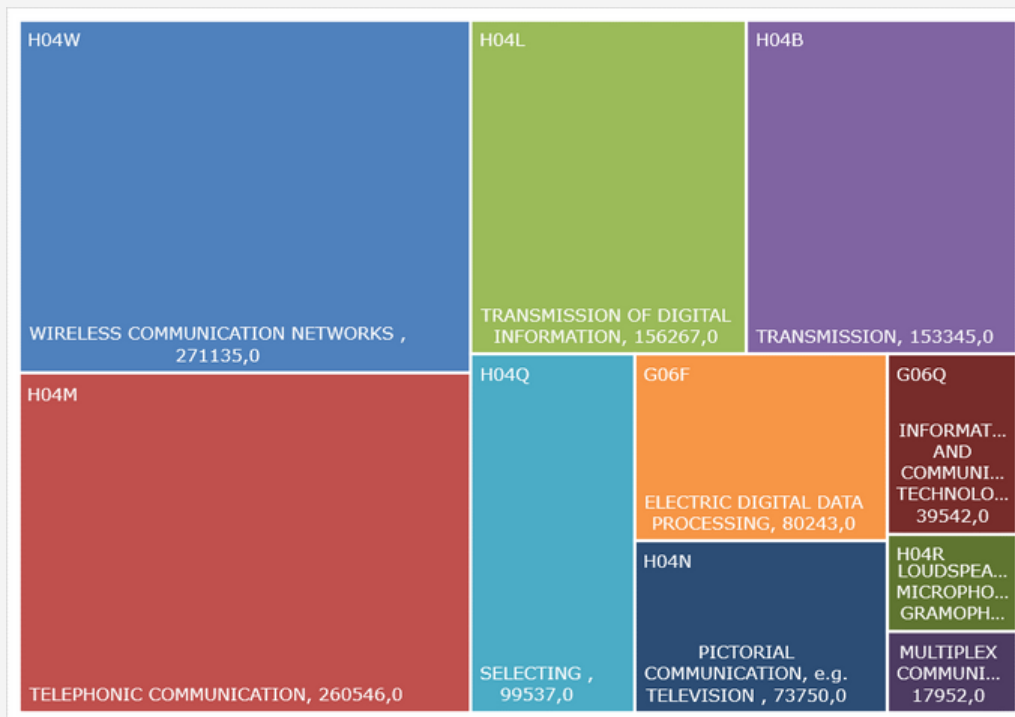


**Figure 5** Top countries of target trend



# Part 3: Key Technologies

According to the statistics of the top ten IPC in the current mobile phone field, it can be found that the number of patent applications corresponding to H04W (Wireless communication network) is the largest, followed by H04M (Telephone communication) (as shown in [Figure 6](#)).



**Figure 6** The top 10 IPC classification numbers

# Part 4: Standardized Current Assignees

Through the analysis of patent applicants in the mobile phone field, it can be found that SAMSUNG ELECTRONICS has the largest volume of patent applications in this field, followed by LG ELECTRONICS and NEC CORP (as shown in [Figure 7](#)). It can also be found that almost all of the top ten applicants are from China, the United States, South Korea, and Japan.



**Figure 7** The top 10 standardized current assignees

# Conclusion

The patent technology related to mobile phones has shown an explosive growth trend at the beginning of the 21st century, but in recent years, the annual number of mobile phone patents applied globally has stabilized. China, the United States, Japan, and South Korea are the main origin and target countries of mobile phone patent technology in the world, and their mobile phone patent technology is the most worthy of our attention.

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Tupolevlaan 81, 1119 PA Schiphol-Rijk  
The Netherlands  
Telephone +31 85 800 0024  
info@lighthouseip.com

[lighthouseip.com](https://lighthouseip.com)

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