



## IV. Patent Application and Examination

### **1** Patent Application and Granting

In 2017, the number of patent applications in China was 3,698,000, up by 15.6% compared with the previous year. Patent filings maintained steady growth and the enterprises' dominant position in IP creation and utilization was further consolidated. The number of valid invention patents divided by every 10,000 population reached 9.8.

#### (1) Patent Application

Latest statistics showed that the number of invention patent applications filed with SIPO in 2017 for which relevant fees were paid was 1,382,000, up by 14.2% year-on-year. The number of domestic applications for invention patents was 1,246,000, accounting for 90.2% of the total and up by 15.4% year-on-year. The number of application from overseas was 136,000, accounting for 9.8% of the total, representing a 4.2% increase compared with the previous year.



Deputy Commissioner Zhang Maoyu at the Patent Quality Improvement Meeting of SIPO.

Among the domestic invention patent applications, 1,044,000 were service applications, accounting for 83.8% and representing a year-on-year growth of 16.9%. The number of non-service applications was 202,000, accounting for 16.2% and showing a year-on-year growth of 8.3%. The weight of application filed by businesses in the total domestic filings was 63.3%.

In 2017, there were 1,687,000 utility model applications filed with SIPO, up by 22.7% year-on-year, and there were 629,000 industrial design applications filed with SIPO, up by 2.4% year-on-year.

## (2) Patent Granting

In 2017, SIPO granted 420,000 invention patents, up by 3.9% year-on-year, of which 327,000 were granted to domestic applicants, accounting for 77.9% of

the total, and 93,000 were granted to foreign applicants, accounting for 22.1% of the total. Among the domestic invention patents granted by SIPO, 304,000 were service inventions, accounting for 93.0% of the total, 23,000 or 7% were non-service inventions.

In 2017, SIPO granted 973,000 utility models, up by 7.7% year-on-year, and 443,000 industrial designs, representing a decrease of 0.7% year-on-year.

### (3) Number of Valid Patents

By the end of 2017, a total of 2,085,000 granted invention patents had remained valid, representing a year-on-year growth of 17.7%. Among the total number of valid patents, 1,414,000 were held by domestic patentees, accounting for 67.8% of the total and representing a year-on-year growth of 22.1%; 671,000 were held by foreign patentees, accounting for 32.2% of the total and representing a year-on-year growth of 9.4%. By the end of 2017, the valid invention patents divided by every 10 thousand Chinese population (excluding the population of the HKSAR, the Macau SAR and Taiwan Province) had reached 9.8 (based on preliminary population statistics in 2017).

No.	Patentee	Number of Granted Patents
1	State Grid Corporation of China	3622
2	Huawei Technologies Co., Ltd.	3293
3	China Petroleum & Chemical Corporation	2567
4	BOE Technology Group Co., Ltd.	1845
5	ZTE Corporation	1699
6	Lenovo (Beijing) Limited	1454
7	Gree Electric Appliances Inc. of Zhuhai	1273
8	Guangdong OPPO Mobile Telecommunications corp., Ltd	1222
9	PetroChina Company Limited	1008
10	Semiconductor Manufacturing International Corporation	862

No.	Country of Incorporation	Patentee	Number of Granted Patents
1	USA	Qualcomm Incorporated	1255
2	Japan	Toyota Motor Corporation	1203
3	Germany	Robert Bosch GmbH	1201
4	Japan	Mitsubishi Electric Corporation	1172
5	Republic of Korea	Samsung Electronics Corporation	1168
6	Germany	Siemens AG	938
7	USA	Intel Corporation	928
8	USA	International Business Machines Corporation	918
9	Japan	Canon Inc.	914
10	USA	GM Global Technology Operations Inc	912

No.	Patentee	Number of Granted Patents
1	Zhejiang University	1951
2	Harbin Institute of Technology	1576
3	Tsinghua University	1506
4	Southeast University	1452
5	University of Electronic Science and Technology	1186
6	Beijing University of Aeronautics and Astronautics	1148
7	South China University of Technology	1146
8	Xidian University	1110
9	Shanghai Jiao Tong University	1087
10	Jilin University	1045

No.	Province/Autonomous Region//Municipality	Number of Granted Patents
1	Beijing	46091
2	Guangdong	45740
3	Jiangsu	41518
4	Zhejiang	28742
5	Shanghai	20681
6	Shandong	19090
7	Anhui	12440
8	Sichuan	11367
9	Hubei	10880
10	Shaanxi	8774

## **2** Patent Examination

### (1) Number of Examined and Concluded Applications

In 2017, the number of examined and concluded patent applications for invention patents, utility models and industrial designs was 2.56 million, representing a year-on-year growth of 11%, of which 744,000 were invention patent applications. SIPO received 18,855 requests for prioritized examination of invention patent applications, showing an increase of 43% year-on-year.

### (2) Examination Quality

SIPO deepened the implementation of the Patent Quality Improvement Campaign and established a dual check and dual evaluation system for the quality of patents. The social satisfaction rate for patent examination continued to improve. In 2017, the rating was 83.9, 1.2 higher than that of the previous year, maintaining within the range of “satisfied” for 8 consecutive years.

In 2017, SIPO implemented *the Examination Quality Guarantee Manual*, continuously improved and further improved the examination quality guarantee system and the examination affairs guidance system. The Office continued to

enhance the quality assurance work and promoted the sharing of exemplary cases in examination quality assurance, strengthened communication in the same technical field and ensured consistent application of examination standard.

### (3) Pendency Period

Against the background of growing patent applications, the examination pendency periods for the applications for invention patents maintained stability. The average pendency period for the granting of invention patent applications was approximately 22 months.

### (4) Examination Capacity

In 2017, there were 2,600 patent examiners in the departments under the headquarters of SIPO. By the end of 2017, as direct affiliates of the Patent Office of SIPO, the seven Patent Examination Centers in Beijing, Jiangsu, Guangdong, Henan, Hubei, Tianjin and Sichuan employed a combined total of 8,900 patent examiners.



The 2017 Operating and Management Meeting for the Patent Examination Cooperation Centers outside Beijing.

### **3** PCT Applications

In 2017, SIPO received a total of 50,674 PCT applications, representing a year-on-year growth of 12.5%. The accumulated total of PCT applications filed with SIPO since 1994 reached 258,180.

As an International Search Authority, SIPO delivered 44,651 international search reports in 2017, representing a 19.6 year-on-year growth. Since 1994, SIPO had delivered an accumulative total of 228,279 PCT international search reports.

As an International Preliminary Examination Authority, SIPO delivered 330 international preliminary examination reports in 2017. Since 1994, SIPO had delivered an accumulative total of 8,213 PCT international preliminary examination reports.

In 2017, 86,753 international applications entered into national phase in China, up by 4.8% as compared to 2016, of which 85,607 were invention patent applications and 1,146 were utility model applications. Since 1994, SIPO had received an accumulative total of 1,017,935 international applications entering into national phase in China.

### **4** Applications for Layout Designs of Integrated Circuits

In 2017, SIPO received 3,228 applications for layout designs of integrated circuits, with 2,670 registrations being published and certificated. Since the promulgation of *the Regulations for the Protection of Layout Design of Integrated Circuits* on 1 October, 2001, SIPO had received a total of 18,763 applications for layout designs of integrated circuits, with 16,713 registrations being published and certificated.

## **5** Patent Reexamination and Invalidation

### **(1) Requests for Reexamination Received and Cases Concluded**

In 2017, the Patent Reexamination Board (PRB) of SIPO received a total of 34,123 reexamination requests, representing a year-on-year growth of 160%. Among the reexamination requests received in 2017, 28,472 were related to invention patent applications, accounting for 83.4% of the total; 5,236 were related to utility models, accounting for 15.3% of the total; 415 were related to industrial designs, accounting for 1.2%.

In 2017, 18,284 requests were resolved, including 15,484 cases involving invention patent applications, 2,525 cases involving utility models and 275 cases involving industrial designs.

Since 1985, the PRB had received a total of 177,412 reexamination requests. By the end of 2017, an accumulative total of 152,518 reexamination requests were resolved.

### **(2) Patent Invalidation Requests Received and Cases Concluded**

In 2017, the PRB received 4,565 patent invalidation requests, representing a year-on-year growth of 15%. Among the patent invalidation requests received in 2017, 1,126 were related to invention patents, accounting for 24.7% of the total; 1,948 were related to utility models, accounting for 42.7% of the total; 1,491 were related to industrial designs, accounting for 32.7% of the total.

In 2017, 4,216 invalidation requests were resolved, including 943 cases related to invention patents, 1,961 cases related to utility models and 1,312 cases related industrial designs.



Since 1985, the PRB had received an accumulative total of 50,045 patent invalidation requests. By the end of 2017, the accumulative total of concluded patent invalidation cases was 45,853.

### (3) Patent Administrative Litigation

In 2017, the Beijing Intellectual Property Court, the No.1 Intermediary People's Court of Beijing and the High People's Court of Beijing received a total of 1,705 cases of administrative litigation on first instance and appeal, of which 437 were first instance and appeal cases filed against reexamination decisions, and 1,268 were first instance and appeal cases against patent invalidation decisions.

In 2017, the Beijing Intellectual Property Court and the No.1 Intermediary People's Court of Beijing tried and concluded 760 cases in relation to the decisions of the PRB, of which 178 were filed against reexamination decisions and 582 were filed against patent invalidation decisions.

In 2017, the High People's Court of Beijing tried and concluded 444 cases in relation to the decisions of the PRB, of which 125 were filed against reexamination decisions and 319 were filed against patent invalidation decisions.

In 2017, the Supreme People's Court of the People's Republic of China accepted 64 appeal cases. The Supreme People's Court determined on 51 cases filed against the decisions of the PRB, of which 2 were brought up for trial by the Supreme Court.

### (4) Revocation of Layout Designs of Integrated Circuits Registration

Since the promulgation of *the Regulations on the Protection of Layout Designs of Integrated Circuits* on 1 October, 2001, the PRB had accepted 13 requests for revocation of layout designs of integrated circuits registration and had examined and resolved 6 requests by the end of 2017.

### (5) Establishment and Operation of Circuit Tribunals

By the end of 2017, the PRB had established 11 circuit tribunals in 10 provinces and autonomous regions and municipalities, including Guangdong, Jiangsu, Sichuan, Shandong, and Liaoning. In 2017, the PRB's online management platform was expanded to cover the circuit tribunal in Sichuan.

### (6) Ratio of Electronic Reexamination and Invalidation Requests

The ratio of reexamination and invalidation requests filed through the PRB's electronic system continued to increase. According to statistics, 86% of the reexamination requests and 32.98% of invalidation requests filed in 2017 were by electronic means. The system provided convenience to the parties involved and effectively reduced average acceptance period of cases.