

IV. Patent Application and Examination

1. Patent Application and Granting

In 2014, the number of patent applications in China was 2,361,000, remained at similar level as last year. In the environment that the overall economic development was stable, around the goal of building China with strong intellectual property competence, China's IP creation made new achievements, the number of invention patent applications experienced a stable growth rate and the composition of domestic patent applications and granted patents was obviously optimized. The enterprises' dominant position in IP creation was further consolidated. The number of invention patents owned by per 10,000 Chinese people reached 4.9.

(1) Patent Application

According to the resent survey, SIPO received 928,000 invention patent applications in 2014, up by 12.5% year on year, among which the number of domestic invention patent applications was 801,000, accounting for 86.3% of the total, up by 13.6% year on year; the number of applications from overseas reached 127,000, accounting for 13.7%, up by 5.7% year on year.



Among the domestic invention patent applications, 648,000 were service applications, accounting for 80.9%, up by 13.5% year on year; while 153,000 were non-service applications, accounting for 19.1%, up by 14.4% year on year. Among the domestic service patent applications, 485,000 were from enterprises, accounting for 74.8%, up by 13.6% year on year; 112,000 were from universities and colleges, accounting for 17.3%, up by 13.7% year on year; 39,000 from scientific research institutions, accounting for 6.0%, up by 8.3% year on year; 12,000 from other institutions and organizations, accounting for 1.9%, up by 23.5% year on year.

In 2014, SIPO received 868,000 utility model applications, decreasing by 2.7% year on year; and 565,000 applications for industrial designs, decreasing by 14.4% year on year.

Table 1 Top 10 Domestic Enterprises Filing the Invention Patent Applications in 2014

No.	Name of Enterprise	Number
1	State Grid Corporation of China	10091
2	Huawei Technologies Co., Ltd.	4119
3	China Petroleum & Chemical Corporation	4073
4	ZTE Corporation	3270
5	Lenovo (Beijing) Limited	2260
6	Boe Technology Group Co., Ltd.	2183
7	Tencent Technology Shenzhen Co., Ltd.	1770
8	Semiconductor Manufacturing International (Shanghai) Corporation	1524
9	China Nation Petroleum Corporation	1390
10	Beijing Qihoo Technology Co., Ltd.	1358

Table 2 Top 10 Foreign Enterprises Filing the Invention Patent Applications in 2014

No.	Country	Name of Enterprise	Number
1	Germany	Robert Bosch GmbH	1726
2	USA	Qualcomm Incorporated	1665
3	USA	Intel	1627
4	Republic of Korea	Samsung Electronics Corporation	1553
5	Japan	Sony Corporation	1498
6	Japan	Toyota Motor Corporation	1389
7	Cayman Is.	Alibaba Group Holding Ltd.	1299
8	USA	International Business Machines Corporation	1260
9	Japan	Mitsubishi Electric Corporation	1194
10	Japan	Canon Inc	1158

Table 3 Top 10 Domestic Colleges and Universities Filing the Invention Patent Applications in 2014

No.	Name of University/College	Number
1	Zhejiang University	2667
2	Southeast University	2201
3	Harbin Institute of Technology	2091
4	Tsinghua University	1856
5	South China University of Technology	1695
6	Shanghai Jiao Tong University	1691
7	Guangxi University	1654
8	Beijing University of Technology	1650
9	Tianjin University	1517
10	Jiangnan University	1496

Table 4 Top 10 Domestic Scientific Research Institutes Filing the Invention Patent Applications in 2014

No.	Name of Scientific Research Institute	Number
1	Dalian Institute of Chemical Physics, CAS	824
2	Changchun Institute of Optics, Fine Mechanics and Physics, CAS	495
3	Institute of Microelectronics, CAS	414
4	Institute of Semiconductors, CAS	373
5	Industrial Technology Research Institute	329
6	Hefei Institute of Material Science, CAS	326
7	Ningbo Institute of Material technology and engineering, CAS	325
8	Institute of Process Engineering, CAS	305
	Shenzhen Institutes of Advanced Technology, CAS	305
10	Institute of Chemistry, CAS	292

(2) Distribution of Origins of Invention Patent Applications with Regard to Domestic Areas and Foreign Countries

In 2014, the top ten provinces, autonomous regions and municipalities in terms of quantity of invention patent applications were in order Jiangsu, Beijing, Shandong, Guangdong, Zhejiang, Anhui, Shanghai, Sichuan, Shaanxi and Tianjin.

Table 5 Top 10 Provinces, Autonomous Regions and Municipalities Filing the Invention Patent Applications in 2014

No.	Provinces/Autonomous Regions/Municipalities	Number
1	Jiangsu	146660
2	Beijing	78129
3	Shandong	77298
4	Guangdong	75147
5	Zhejiang	52406
6	Anhui	49960
7	Shanghai	39133
8	Sichuan	29926
9	Shaanxi	24399
10	Tianjin	23391

In 2014, the top ten foreign countries in terms of the quantity of the invention patent applications in China were in order Japan, the United States of America, Germany, Republic of Korea, France, Switzerland, the Netherlands, United Kingdom, Sweden and Italy.

(3) Patent Granting

In 2014, SIPO granted 233,000 invention patents, up by 12.3% year on year, among which 163,000 were granted to domestic applicants, accounting for 70.0% of the total, and 70,000 were granted to foreign applicants, accounting for 30.0%. Among SIPO-granted domestic invention patents, 146,000 were service patents, accounting for 89.6% of the total, 17,000 were non-service patents, accounting for 10.4%.

Among the domestic service patents for inventions, 92,000 were granted to enterprises, accounting for 63.0%, 38,000 to universities and colleges, accounting for 26.0%, 14,000 to scientific research institutions, accounting for 9.6%, 2,000 to other institutions and organizations, accounting for 1.4%.

In 2014, SIPO granted 708,000 utility model patents, up by 2.2% year on year, and 362,000 industrial design patents, down by 12.3% year on year.

Table 6 Top 10 Foreign Countries Filing the Invention Patent Applications in China in 2014

No.	Country	Number
1	Japan	40460
2	The United States of America	33963
3	Germany	13597
4	Republic of Korea	11528
5	France	4575
6	Switzerland	3338
7	The Netherlands	2924
8	United Kingdom	2050
9	Sweden	2020
10	Italy	1361

Table 7 Top 10 Domestic Enterprises in Terms of the Number of Invention Patents Granted in 2014

No.	Name of Enterprise	Number
1	Huawei Technologies Co., Ltd.	2409
2	ZTE Corporation	2218
3	China Petroleum & Chemical Corporation	1913
4	Hongfujin Precision Industry (Shenzhen) Co., Ltd.	524
5	Ocean's King Lighting Technologies Co., Ltd.	516
6	Boe Technology Group Co., Ltd.	484
7	China Nation Petroleum Corporation	476
8	State Grid Corporation of China	408
9	CSOT Co., Ltd.	362
10	AU Optronics Co.	343

Table 8 Top 10 Foreign Enterprises in Terms of the Number of Invention Patents Granted in 2014

No.	Country/Region	Name of Enterprise	Number
1	Japan	Panasonic Corporation	1192
2	USA	Qualcomm Incorporated	1044
3	Japan	Toyota Motor Corporation	996
4	Japan	Canon Inc.	927
5	Japan	Mitsubishi Electric Corporation	745
6	Japan	Sharp Corporation	737
7	The Netherlands	Koninklijkes Philips Electronics N.V.	731
8	Republic of Korea	LG Electronics Inc.	684
9	Republic of Korea	Samsung Electronics Inc.	652
10	USA	General Motors Corporation	599

Table 9 Top 10 Domestic Universities and Colleges in terms of the Number of Invention Patents Granted in 2014

No.	Name of University/College	Number
1	Zhejiang University	1413
2	Tsinghua University	1008
3	Harbin Institute of Technology	835
4	Shanghai Jiao Tong University	825
5	Beijing University of Aeronautics and Astronautics	738
6	Southeast University	732
7	South China University of Technology	648
8	Xi'an Jiaotong University	584
9	Tianjin University	577
10	Shandong University	516

No.	Name of Scientific Research Institute	Number
1	Datang Telecom Technology & Industry Group	474
2	China Electric Power Research Institute	394
3	Industrial Technology Research Institute	272
4	Institute of Microelectronics, CAS	247
5	Institute of Process Engineering, CAS	234
6	Dalian Institute of Chemical Physics, CAS	202
7	Institute of Chemistry, CAS	190
8	Changchun Institute of Optics, Fine Mechanics and Physics, CAS	164
9	Institute of Metal Research, CAS	160
10	Ningbo Institute of Material technology and engineering, CAS	158

No.	Provinces/Autonomous Regions/Municipalities	Number
1	Beijing	23237
2	Guangdong	22276
3	Jiangsu	19671
4	Zhejiang	13372
5	Shanghai	11614
6	Shandong	10538
7	Sichuan	5682
8	Anhui	5184
9	Shaanxi	4885
10	Hubei	4855

(4) The Number of Valid Patents

By the end of 2014, a total of 1,196,000 invention patents granted by SIPO have remained valid, up by 15.7% year on year. Among which, 708,000 were domestic ones, accounting for 59.2%, up by 20.8%, 488,000 were from abroad, accounting for 40.8%, up by 9.0%. The number of invention patents owned by per 10,000 persons in China (excluding Hong Kong SAR, Macao SAR and Taiwan, China) reached 4.9 by the end of 2014.

2. Patent Examination

In 2014, the number of concluded applications kept growing, the examination quality was further promoted, the examination was concluded with higher efficiency, the examination pendency kept steady and the examination capacity was further enhanced.



Basic research briefing of the Thirteen-Five planning of patent examination work.

(1) Number of Examined and Concluded Applications

In 2014, the number of examined and concluded invention patent applications, utility model applications and industrial design applications kept growing. SIPO concluded 1,890,000 applications, increasing by 16% year on year, among which, 431,000 were invention patent applications. And SIPO delivered 535,000 First Office Actions.

(2) Examination Quality

In 2014, the social satisfaction rate of patent examination was 81.9, keeping on staying in the satisfactory range for five years. In 2014, SIPO totally settled nearly 900 complaints from the public.

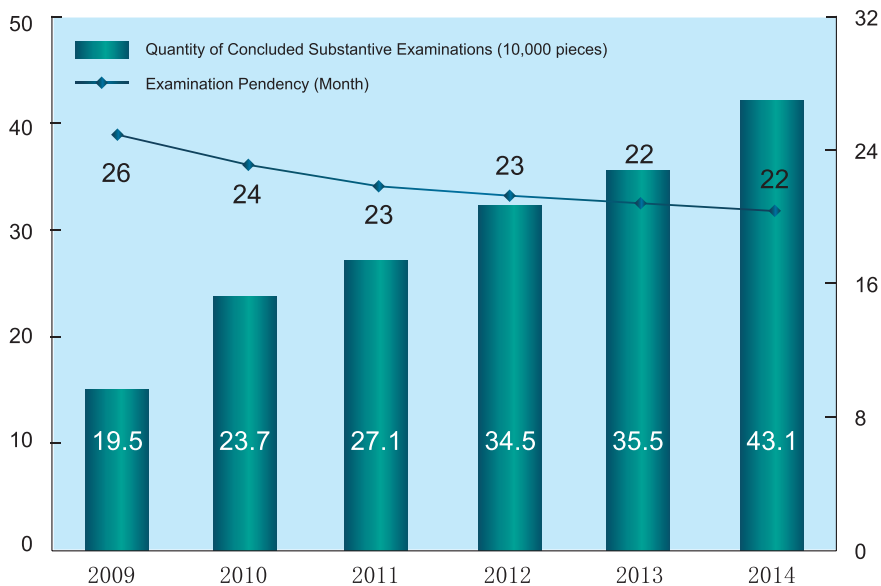
To ensure the quality of patent cases concluded, in 2014, SIPO continued to improve the examination quality guarantee system and the professional guidance system, made best use of these systems, strengthened the capacity building of the three supports, "morality, law, skills", ensured the high quality and efficiency of patent examination, and promoted the coordinated development of the quantity and quality of patents.

SIPO also strengthened the quality guarantee of the utility model and industrial design applications, and ensured the quality of filing and granting patents in accordance to related laws.

SIPO improved the building of the professional guidance system. A professional guidance team, which included senior examiners from Patent Office, the Patent Reexamination Board and Examination Cooperation Centers, was built to strengthen the professional guidance at the Office level through solving difficult problems, preaching cases and other methods.

(3) Examination Pendency

Against the background of growing patent applications, the examination pendency for invention patent applications, utility model applications and industrial design applications maintained steady and even decreased slightly. The pendency for invention patent applications was 21.8 months, further shortened than the previous year, the pendency for utility model applications was 3.5 months, and the pendency for industrial design applications was 3.7 months.



Changes in the Quantity of Concluded Substantive Examinations and Examination Pendency from 2009 to 2014

(4) The Examination Capacity

By the end of 2014, SIPO had 1,855 patent substantive examiners, 244 utility model and industrial design patent examiners and 279 preliminary and flow management office workers. The seven Patent Examination Cooperation Centers in Beijing, Jiangsu, Guangdong, Henan, Hubei, Tianjin and Sichuan totally had 6,602 patent examiners. And the Patent Reexamination Board had 254 examiners.

3. PCT International Applications

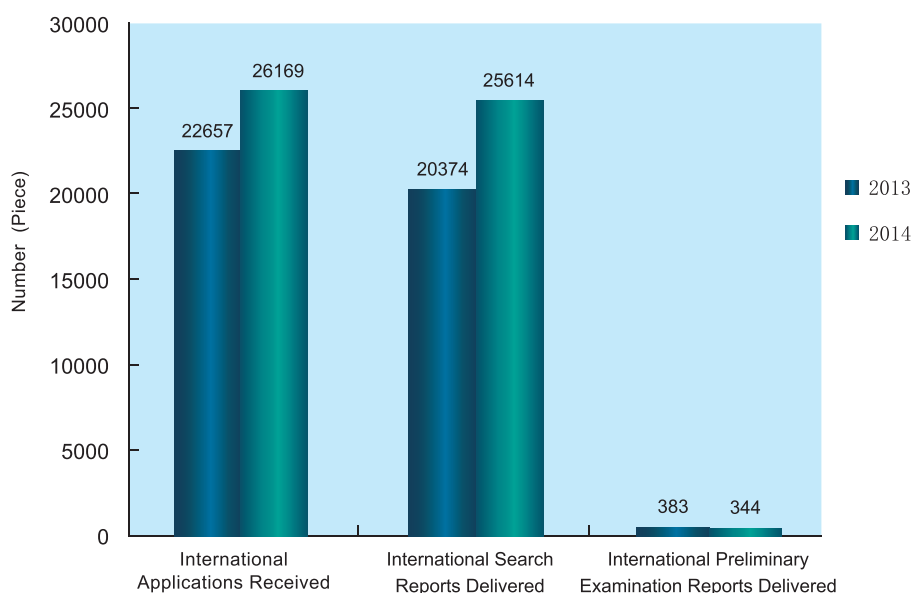
As a receiving office of *the Patent Cooperation Treaty (PCT)*, SIPO received a total of 26,169 PCT applications in 2014, up by 14.2% year on year. Since 1994, SIPO had received a total of 132,565 PCT applications.

As an international searching authority, SIPO delivered 25,600 international search reports in 2014, growing by 26% year on year. Since 1994, SIPO had delivered 118,000 PCT international search reports.

As an international preliminary examination authority, SIPO delivered 344 international preliminary examination reports in 2014. Since 1994, SIPO had delivered 7,037 international preliminary examination reports.

In 2014, SIPO received 80,601 PCT applications which entered into China's national phase, up by 9.5% year on year, among which 79,612 were invention

patent applications and 989 were utility model applications. Since 1994, SIPO had received a total of 765,414 PCT applications which entered into China's national phase.



The Amount of PCT International Applications, International Searching and International Preliminary Examinations from 2013 to 2014

4. Applications for Layout Designs of Integrated Circuits

In 2014, SIPO received 1,838 applications for layout designs of integrated circuits, with 1,533 registrations published and certificated. Since the Regulations for the Protection of Layout-design of Integrated Circuits came into force on October 1, 2001, SIPO had received in total 11,117 applications for layout designs of integrated circuits, with 10,089 registrations published and certificated.

5. Reexamination and Patent Invalidation

(1) Requests for Reexamination Received and Cases Concluded

In 2014, the Patent Reexamination Board received 24,452 requests for reexamination, growing by 5,623 or 29.9% than the previous year. Of all the requests, 21,564 cases were related to invention patent applications, accounting for 88.2% of the total, 2,491 were related to utility models, accounting for 10.2%, and 397 were related to industrial designs, accounting for 1.6% .

In 2014, 20,393 requests were resolved, including 18,853 patent applications for inventions, 1,240 for utility models and 300 for industrial designs.

The Patent Reexamination Board had received in total 117,504 reexamination requests since 1985 and concluded 90,855 reexamination cases by the end of 2014.

(2) Patent Invalidation Requests Received and Cases Concluded

In 2014, the Patent Reexamination Board received 3,422 invalidation requests, 492 more than 2013, growing by 16.8% year on year. Of all requests received in 2014, 747 were related to invalidation of invention patents, accounting for 21.8% of the total; 1,525 were related to utility models, accounting for 44.6%, and 1,150 were related to industrial designs, accounting for 33.6%.

In 2014, 2,742 invalidation requests were resolved, involving 652 patent applications for inventions, 1,192 for utility models and 898 for industrial designs.

The Patent Reexamination Board had accepted in total 37,787 invalidation requests since 1985, with 33,885 cases concluded by the end of 2014.

(3) Patent Administrative Litigation

In 2014, concerned parties submitted a total of 985 cases to Beijing No.1 Intermediate People's Court and Beijing High People's Court, of which 207 cases were against the reexamination decisions and 778 were against the decisions on requests for invalidation.

In 2014, Beijing No.1 Intermediate People's Court tried and concluded 609 cases, of which 123 cases were against reexamination decisions and 486 cases were against decisions on requests for invalidation.

In 2014, Beijing High People's Court tried and concluded 448 cases, of which 82 cases were against reexamination decisions and 366 cases were against decisions on requests for invalidation.

By the end of 2014, the Supreme People's Court had received 61 cases and tried and concluded 46 cases.

(4) Revocation of Layout Designs of Integrated Circuits Registration

Since the promulgation of *the Regulation on Protection of Layout Designs of Integrated Circuits* on October 1, 2001, the Patent Reexamination Board has accepted 13 requests for revocation of layout designs of integrated circuits. 5 requests had been examined and resolved by the end of 2014.

(5) Establishment and Use of Circuit Trial Court

By the end of 2013, the Patent Reexamination Board has established 10 Circuit Trial Court in 9 Provinces and Autonomous Regions, including Guangdong, Henan, Shandong, Xinjiang, Sichuan and etc. In 2014, a whole network management platform was built in the 8th Circuit Trial Court in Fujian Province, successfully achieved the capacity of supporting all the Circuit Trial Courts to share resources and communicate.

(6) Ratio of Electronic Reexamination and Invalidation Requests

The ratio of the reexamination and invalidation requests from concerned parties through the electronic system was continuously enhanced. Statistically, the ratio of electronic reexamination requests was 46.98% in 2014, while the ratio of the electronic invalidation requests was 17.08%. The system facilitated the concerned parties and shortened the filing period efficiently.