



TABLE S8-10

## USPTO patents and patent families granted in computer technology, by region, country, or economy: 1998–2018

(Number)

Region, country, or economy	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018	
	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families		
China	9	33	11	68	13	141	26	196	33	263	34	634	49	1,019	55	1,067	119	1,448	158	2,096	250	3,220	348	4,211	444	4,092	521	5,530	836	8,130	1,103	7,530	1,123	7,033	1,304	10,817	1,765	17,988	2,097	26,687	2,261	30,154
India	3	3	6	5	10	4	18	13	15	12	40	28	35	57	49	101	87	121	107	172	141	215	155	368	277	443	361	565	450	854	696	1,097	838	1,270	818	1,291	1,418	793	1,386	783		
Japan	2,860	6,545	2,741	6,674	2,525	5,369	2,625	5,139	2,696	4,677	2,801	4,523	2,831	5,048	2,589	4,819	3,518	5,208	3,207	6,486	3,415	7,097	3,379	7,991	4,166	8,857	4,482	11,089	5,416	11,409	5,776	10,914	5,821	10,364	5,405	7,251	4,973	8,269	4,864	7,562	4,343	6,979
Malaysia	1	1	1	0	2	0	1	1	2	1	4	5	3	14	10	23	12	22	20	26	22	18	28	31	33	21	30	36	50	34	60	35	74	36	57	46	65	73	45	73	46	70
Singapore	12	11	21	15	15	7	18	14	29	14	28	11	31	10	22	8	43	19	27	12	44	20	45	28	49	53	26	80	30	81	35	97	43	103	46	120	61	110	56	120	63	
South Korea	373	1,026	436	2,878	474	1,596	445	884	379	904	352	1,715	392	1,985	441	3,270	644	5,122	721	4,841	828	3,583	1,005	2,661	1,423	2,708	1,475	3,792	1,703	3,806	1,878	4,340	2,193	5,191	2,475	4,390	2,942	4,623	2,902	4,703	2,790	4,541
Taiwan	186	323	233	351	255	418	291	667	350	764	377	936	507	1,127	461	1,137	631	1,493	640	1,383	764	988	791	1,077	912	1,188	1,015	1,192	1,471	1,601	1,630	2,347	1,676	2,987	1,778	3,219	1,625	2,799	1,488	2,271	1,372	1,574
All others	2	1	1	2	2	1	0	0	1	1	1	0	1	0	1	2	1	1	2	2	4	1	7	4	5	6	15	10	12	14	16	17	17	17	17	15	24	20	29	24	43	19
Middle East	99	70	102	73	110	79	120	66	129	85	174	112	177	116	160	97	220	128	197	114	239	131	255	159	337	190	443	226	656	363	826	436	1,022	531	1,149	575	1,170	583	1,234	618	1,190	588
Israel	98	70	101	71	109	78	118	66	126	81	173	110	175	115	159	97	214	126	194	112	236	126	251	153	329	180	436	217	630	337	791	399	990	500	1,113	546	1,109	584	1,172	584	1,135	563
All others	1	0	1	2	1	1	2	0	3	4	1	2	1	1	0	6	2	3	1	3	5	4	6	9	10	7	9	26	26	35	38	32	31	36	30	61	38	62	33	55	25	
Africa	0	8	2	10	3	9	4	7	6	11	3	15	5	17	7	20	6	23	6	16	6	18	6	9	9	7	10	11	18	19	20	13	33	20	33	20	39	27	36	25	33	20
South Africa	0	8	1	8	3	6	3	6	4	6	2	11	3	13	7	20	4	21	3	11	4	17	3	7	5	4	1	5	7	6	4	12	7	15	9	22	17	24	15	15	5	
All others	0	0	1	2	0	3	1	1	2	5	0	4	2	5	0	1	3	3	3	4	2	1	3	1	3	2	6	10	13	12	15	10	21	13	18	11	17	10	12	10	18	15
Australia and Oceania	22	13	26	16	36	29	51	62	47	64	64	43	76	60	73	52	147	67	148	77	133	92	138	90	184	143	223	139	194	163	190	189	205	212	211	206	245	203	233	122	209	144
Australia	20	12	23	14	32	25	48	61	46	63	57	40	71	60	69	50	138	59	139	72	122	88	126	86	168	137	210	133	172	152	187	177	200	190	200	221	200	241	119	193	136	
New Zealand	2	1	3	3	4	4	3	1	1	0	7	3	4	1	4	2	9	8	9	5	11	4	12	4	16	6	13	6	22	10	19	12	17	11	20	6	24	9	18	2	16	7
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Unclassified	1	8	1	17	2	18	0	2	0	0	1	0	0	8	0	25	0	9	1	0	2	0	1	0	1	0	3	2	1	2	1	3	2	4	2	5	2	4	2	4	2	

EU = European Union; USPTO = U.S. Patent and Trademark Office.

## Note(s)

USPTO patents are allocated according to patent inventorship information. USPTO patents are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. Patents are classified under the World Intellectual Property Organization (WIPO) classification of patents, which classifies International Patent Classification (IPC) codes under 35 technical fields. IPC reformed codes take into account changes that were made to the WIPO classification in 2006 under the eighth version of the classification and were used to prepare these data. However, because PatentsView only provides the original IPC codes as they appeared on patents and not the IPC reformed codes, current Cooperative Patent Classification codes on patents were converted back to the most recent IPC classification to prepare these statistics. Fractional counts of patents were assigned to each technological field on patents to assign the proper weight of a patent to the corresponding technological fields under the classification. International Patent Documentation (INPADOC) patent families across all patent offices covered in the Worldwide Patent Statistical Database (PATSTAT) are counted according to the year of the first granted patent in the patent family. Patent families are allocated according to patent inventorship information found on the priority patent of the INPADOC patent families. To account for missing ownership information in PATSTAT for some offices, a method designed by de Rassenfosse et al. (2012) is used to fill in missing information on priority patents using information in successive filings within the patent families (see technical documentation for details). Patent families are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. Because of data coverage issues for some patent offices in PATSTAT, statistics for some countries may be underestimated partially for some years or across the whole trend. Countries with identified issues include India (missing data) and South Africa (no data for 2018). For Italy, because of data gaps regarding information on granted patents, patent applications are used instead, which slightly overestimates Italy's output and creates a small shift in the year for which its output is accounted. The EU includes 28 member countries. China includes Hong Kong.

## Source(s)

Science-Metrix; PATSTAT, accessed April 2019; PatentsView, USPTO, accessed June 2019.