

TABLE S8-6

USPTO patents and patent families granted in audio-visual 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	13	24	10	32	22	90	20	82	31	69	41	209	48	400	54	514	79	696	86	854	125	1,700	169	2,639	199	2,804	236	3,266	407	3,712	493	3,235	514	2,873	585	4,075	858	4,875	1,153	6,583	1,322	8,302		
India	0	0	0	1	1	2	0	1	3	2	4	3	7	8	6	4	11	10	9	9	14	11	20	10	28	15	35	22	68	26	68	49	88	50	102	52	111	102	123	62				
Japan	3,292	8,922	3,136	8,319	3,055	6,552	3,200	6,076	3,411	5,960	3,697	5,992	3,952	6,536	3,303	6,301	4,428	6,816	3,909	8,448	3,985	8,624	4,257	9,903	5,026	10,331	5,258	10,770	5,909	10,442	5,162	9,315	4,884	7,839	4,257	4,761	3,811	5,232	3,703	4,822	3,441	4,466		
Malaysia	4	1	4	2	3	4	4	2	2	2	3	3	2	4	3	9	9	15	8	22	14	18	8	16	15	14	10	7	17	22	18	22	18	21	16	12	17	12	15	18	15	16		
Singapore	10	5	14	11	21	10	26	11	41	11	65	12	92	8	48	13	61	19	37	21	57	29	47	26	75	29	56	23	103	33	76	29	88	32	104	35	98	26	86	27	83	28		
South Korea	530	2,816	488	6,851	406	3,069	405	1,023	404	883	386	1,649	442	1,979	419	4,135	719	7,711	788	7,625	1,045	3,787	1,135	1,939	1,402	2,358	1,417	3,312	1,706	3,089	1,610	3,359	1,703	3,700	1,793	2,527	1,898	2,901	2,081	2,840	1,841	2,597		
Taiwan	145	181	138	194	180	263	239	368	298	507	318	676	392	774	368	986	543	1,285	586	1,164	625	814	662	798	923	1,133	1,014	1,301	1,364	954	1,127	2,155	954	1,901	942	1,572	922	1,599	823	1,223	827	763		
All others	3	1	0	1	2	3	2	1	6	6	2	3	3	1	1	5	2	4	5	3	4	6	4	6	5	15	10	13	6	18	8	15	11	27	11	24	16	13	9	9	7			
Middle East	27	15	24	13	25	16	45	19	38	17	30	16	42	18	25	16	44	13	34	13	42	14	45	14	73	13	82	22	110	32	116	39	113	39	121	46	125	36	149	50	133	36		
Israel	26	14	23	12	24	15	45	15	37	15	30	14	42	18	25	16	44	12	34	10	42	14	44	13	73	12	78	19	108	28	31	108	35	117	43	119	31	141	46	126	33			
All others	1	1	0	1	1	1	0	5	1	2	0	2	1	0	0	0	0	0	3	0	0	0	1	1	0	1	4	3	2	4	5	6	5	4	4	3	6	5	8	4	7	3		
Africa	2	5	2	10	1	13	2	14	1	21	2	15	3	12	2	8	2	5	3	4	4	3	8	2	10	6	5	10	4	5	3	5	4	2	4	2	4	3	5	3	3	1		
South Africa	2	2	1	2	1	4	1	5	2	4	2	5	3	5	1	3	2	3	1	3	4	3	3	8	2	6	1	2	0	3	1	3	2	1	2	1	2	3	0	3	0	3	1	
All others	0	3	1	7	1	9	0	9	0	17	0	10	0	7	1	3	0	2	0	0	0	1	0	0	0	4	0	5	5	8	1	4	2	5	2	1	2	2	1	2	2	2	2	
Australia and Oceania	13	19	14	15	10	21	34	25	33	35	31	32	39	51	32	41	56	41	55	41	50	30	58	44	57	45	63	48	39	52	51	44	51	60	46	69	47	69	59	36	69	33		
Australia	11	19	12	14	9	19	34	25	27	35	29	32	37	51	30	41	53	40	54	39	47	30	53	44	55	62	47	35	52	43	40	49	59	47	67	40	68	52	63	63	31			
New Zealand	1	0	2	1	2	2	0	0	6	0	2	1	2	1	2	0	3	1	2	3	1	3	1	5	1	2	1	5	1	8	4	2	1	9	1	7	1	7	1	6	2			
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	0	0	0
Unclassified	0	9	0	12	0	6	0	1	0	0	0	2	0	6	0	26	0	5	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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.