

Table SINV-48

USPTO utility patents granted in digital communication, by region, country, or economy: 1998–2020

(Number)

Region, country, or economy	Economy by income status	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	na	3,120	3,651	4,262	4,461	4,856	5,322	6,464	6,343	9,855	9,039	10,386	12,047	16,262	17,726	21,158	23,989	28,424	27,985	28,906	30,258	29,218	33,085	33,500
North America	na	1,939	2,274	2,757	2,841	3,019	3,315	4,155	4,068	6,323	5,678	6,401	7,506	9,901	10,414	12,043	13,418	16,069	16,101	15,861	16,456	15,842	17,679	17,836
Canada	High	78	127	147	149	146	169	213	193	303	290	379	424	584	655	828	982	1,134	1,019	874	901	836	957	946
Mexico	Upper middle	0	1	1	2	3	3	2	3	2	0	1	0	1	1	2	1	1	1	5	7	8	11	9
United States	High	1,860	2,147	2,609	2,690	2,870	3,143	3,940	3,872	6,018	5,387	6,021	7,082	9,316	9,759	11,213	12,435	14,933	15,080	14,983	15,548	14,997	16,711	16,880
Central America and Caribbean	na	0	1	0	0	0	0	1	0	0	1	1	4	3	1	4	4	4	4	5	5	6	5	13
Puerto Rico	High	0	1	0	0	0	0	1	0	0	1	0	1	0	0	1	0	1	1	1	1	2	2	1
South America	na	0	0	1	0	2	0	2	2	4	4	4	4	6	7	13	22	27	27	28	36	40	39	48
Argentina	Upper middle	0	0	0	0	0	0	0	0	0	3	0	1	3	1	4	8	6	6	8	5	7	13	10
Brazil	Upper middle	0	0	0	0	2	0	1	1	1	1	3	3	2	6	7	12	17	21	18	28	31	22	33
Europe	na	441	528	594	634	744	853	971	938	1,362	1,223	1,406	1,478	2,040	2,294	2,777	3,257	4,000	3,760	4,040	4,118	3,823	4,408	4,379
EU-27 + UK ^a	na	426	506	579	612	720	822	937	901	1,311	1,172	1,340	1,406	1,940	2,183	2,649	3,127	3,821	3,558	3,804	3,853	3,577	4,099	4,085
United Kingdom	High	88	97	107	117	120	134	162	173	236	230	256	248	350	384	478	585	727	706	735	729	715	801	805
EU-27 ^b	na	338	409	471	494	600	689	774	727	1,075	943	1,084	1,158	1,590	1,800	2,172	2,542	3,093	2,852	3,070	3,124	2,862	3,298	3,280
Austria	High	0	2	3	3	7	7	7	6	13	6	10	18	23	23	29	32	38	35	41	43	44	60	61
Belgium	High	12	8	7	9	11	13	23	27	29	19	29	40	44	51	54	55	69	65	79	63	60	74	68
Denmark	High	1	3	2	2	5	12	8	15	26	21	16	22	26	33	37	44	37	57	37	41	36	35	53
Finland	High	65	97	86	98	133	159	220	152	258	255	270	261	334	286	326	372	431	387	411	384	299	327	304
France	High	77	83	95	99	109	121	135	129	195	186	237	194	303	341	384	441	504	435	437	464	401	458	452
Germany	High	72	78	107	114	132	178	170	195	313	260	293	351	463	503	523	615	750	692	691	677	660	813	852
Hungary	High	0	0	1	0	0	6	3	5	5	9	7	11	14	23	26	39	55	45	52	49	28	37	29
Ireland	High	1	1	4	11	11	12	24	11	15	12	18	14	33	40	40	45	67	72	101	106	130	125	149
Italy	High	4	6	8	5	11	14	15	11	32	27	39	49	63	103	120	136	121	110	105	117	99	129	128
Netherlands	High	23	29	29	25	29	27	35	46	59	38	54	63	79	98	107	131	160	137	159	155	155	149	143
Spain	High	5	2	2	4	5	3	8	6	9	18	17	18	22	27	60	82	82	76	69	76	64	56	59
Sweden	High	78	99	126	123	145	133	124	120	116	81	86	98	157	241	402	482	689	657	770	799	719	861	786
Other Europe	na	15	23	15	22	24	30	35	38	51	50	66	72	101	111	128	130	179	202	235	264	246	309	293
Other Europe-2020 ^b	na	103	120	123	139	144	164	197	211	287	280	322	320	450	494	606	715	906	908	970	994	961	1,110	1,099
Belarus	Upper middle	0	0	0	1	0	0	0	0	0	1	1	0	1	1	2	0	0	0	1	1	2	1	2
Moldova	Lower middle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2
Norway	High	3	1	1	5	6	7	6	7	5	9	10	13	15	9	13	9	23	27	36	22	36	41	45
Russia	Upper middle	1	2	2	2	2	1	4	2	6	7	16	14	22	31	41	35	45	56	58	70	58	85	89
Switzerland	High	10	16	9	8	12	20	21	23	38	30	37	44	59	66	67	75	96	99	121	142	128	140	119

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Ukraine	Lower middle	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	3	4	6	5	10	10	15	14
Asia	na	700	797	860	914	1,004	1,045	1,212	1,186	1,970	1,956	2,363	2,774	3,922	4,613	5,849	6,738	7,649	7,411	8,220	8,803	8,658	10,042	10,356
China	Upper middle	2	4	5	3	3	6	10	18	58	48	84	149	332	481	750	1,109	1,560	1,525	2,036	2,388	2,492	3,090	3,485
India	Lower middle	0	0	1	4	6	12	18	22	38	55	83	83	174	185	273	372	551	657	794	886	964	1,198	1,258
Japan	High	600	666	698	725	783	829	891	872	1,384	1,255	1,372	1,561	2,005	2,219	2,607	2,759	2,764	2,426	2,263	2,286	2,054	2,345	2,213
Malaysia	Upper middle	0	0	0	0	1	1	2	2	2	3	4	5	7	7	7	9	15	9	28	11	15	14	19
Singapore	High	2	3	5	3	15	10	10	6	15	19	13	35	35	37	41	31	42	41	46	49	44	57	85
South Korea	High	82	103	122	155	162	157	218	207	356	421	627	753	1,103	1,365	1,695	1,959	2,173	2,231	2,539	2,595	2,552	2,833	2,758
Taiwan	High	13	19	26	22	35	30	61	57	113	153	178	184	262	316	469	488	529	515	506	577	529	491	526
Middle East	na	32	44	38	59	76	95	103	117	147	126	142	215	305	296	362	430	532	558	596	675	698	761	713
Israel	High	32	43	38	59	75	93	102	116	146	125	141	212	299	287	345	406	508	529	566	639	663	705	671
Africa	na	2	1	2	1	1	1	3	3	2	2	3	1	6	4	7	9	11	12	31	33	25	31	25
South Africa	Upper middle	2	1	2	0	1	0	2	2	1	1	2	0	3	2	3	4	6	9	20	18	11	18	12
Australia and Oceania	na	7	6	9	12	9	15	17	29	47	50	66	63	79	96	104	112	131	108	123	127	123	121	129
Australia	High	5	6	9	11	8	13	17	26	44	48	64	59	72	88	95	105	122	98	116	116	112	112	119
New Zealand	High	2	0	0	1	1	2	1	3	3	1	2	4	6	8	9	7	9	10	6	11	10	9	9
Unclassified	na	0	0	1	0	0	0	0	0	0	0	1	1	1	0	1	1	1	4	2	6	3	1	3

na = not applicable, metric not calculated at this level.

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

^a The United Kingdom was a part of the EU for data purposes from 1973 to 2019.^b Beginning in 2020, the United Kingdom was no longer a member of the EU.**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. China includes Hong Kong.

Source(s):

National Center for Science and Engineering Statistics; Science-Metrix; PatentsView, USPTO, accessed June 2021.