

**CONCORDANCE - United States to International Patent Classification**

U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation
<b>U.S. CLASS 327--Con.</b>														
1	H 03 K	5/00	194	H 03 K	3/36		H 03 K	17/96						
	H 03 K	9/00	195	H 03 K	3/315	518-523	G 05 F	1/00	347-353	H 03 D	1/00	136-142	H 03 G	3/20
2	G 01 R	29/00	196-198	H 03 K	3/02	524	H 03 H	11/40	354-355	H 03 D	9/00	143-145	H 03 F	1/30
	H 03 D	3/00	199-201	H 03 K	3/00		H 03 K		356-357	H 03 D	1/24	144-145	H 03 G	3/20
	H 03 D	9/00	202-204	H 03 K	3/289	525	H 01 H	37/76	358-363	H 03 D	1/00	146-148	H 03 F	3/00
3-12	G 01 R	25/00	203	H 03 K	3/356		H 01 H	85/00	364	H 03 D	1/18	146	H 03 F	3/26
	H 03 D	13/00	205-207	H 03 K	3/00	526	G 06 F	11/16	365-366	H 03 D	1/10	147-148	H 03 F	3/68
13	G 01 N	15/12	208-213	H 03 K	3/356	527-529	H 03 K	3/38	367	H 03 D	1/00		H 03 F	5/00
	H 03 D		214	H 03 K	3/286	530	G 11 C	5/14	368	H 03 D	1/16	149	H 03 F	1/26
	H 03 K	5/00	215-222	H 03 K	3/00		H 02 J		369	H 03 D	1/18		H 03 F	1/30
14-15	G 01 R	29/02	223-224	H 03 K	3/286	531-533	H 01 J	19/82	370	H 03 D	1/10	150	H 03 F	1/22
16-17	H 03 D		224	H 03 K	3/356		H 02 M	7/00	371	H 03 D	1/08		H 03 F	3/18
	H 03 K	5/00	225	H 03 K	3/037	534	H 03 K	3/01	372	H 03 D	1/22		H 03 F	1/00
16	G 05 B	13/02	226	H 03 K	3/12	535-546	G 05 F	1/10				151	H 03 F	1/22
17	B 60 T	8/00	227-260	H 03 K	3/00		G 05 F	3/02	<b>U.S. CLASS 330</b>					
18-21	H 03 K	5/19	231-260	H 03 H	11/16	547	H 02 M	1/10	<b>AMPLIFIERS</b>					
18	G 01 R	19/00		H 03 K	5/13	548-549	H 01 J	19/82	1A	G 05 B	7/02	152-154	H 03 F	1/00
22-27	H 03 K	5/22	241-242	H 03 K	23/00	550	H 01 J	19/16		G 05 B	9/03	155-158	H 03 F	1/00
28-30	G 01 R	19/00		H 03 K	25/00	551-559	H 03 B	1/00		G 05 B	9/05	158-159	H 03 F	3/52
31-38	G 01 R	29/02	261-290	H 03 H	11/26		H 03 K	5/00		H 03 F	1/00	159	H 03 F	3/34
	H 03 K	9/08	291-305	G 06 F	1/04	560-563	H 04 B	1/10		G 03 F	19/00	160-167	H 03 F	1/00
39	G 01 R	23/02	291	H 03 K	3/00		G 06 G	7/12	1R	G 01 R	19/00	161	H 03 F	3/34
	H 03 D	3/00	292	H 03 K	3/013	564-566	G 06 G	7/26	2	G 01 R	21/00	163	H 03 F	3/36
	H 03 K	9/06	293-305	H 03 K	3/00	567	H 01 L	25/00		G 01 R	23/00	168	H 03 F	3/52
40-43	H 03 D	13/00	306-333	H 03 L	5/00	568-571	H 01 L	49/02		H 03 F	5/00	169-171	H 03 F	1/00
44-49	G 01 R	23/02	309-330	H 03 K	5/08	568	H 03 K		3	H 01 S	1/00	172-173	H 03 F	3/52
	H 03 D	3/00	334	G 06 F		569	H 03 B	7/06	4	H 03 F	7/00	173	H 03 F	3/36
	H 03 K	9/06		G 06 G	7/28	570	H 03 K	17/72	4.5	H 03 F	7/06	174-180	H 03 F	1/00
50	H 03 D	1/00		G 06 G		571	H 03 K	17/58	4.6-4.7	H 03 F	7/00	174	H 03 F	13/00
	H 03 K	5/00	335-345	G 06 F	7/64	572-573	H 01 L	27/06	4.8-4.9	H 03 F	7/00	181-182	H 03 F	3/36
51-57	G 11 C	7/00		G 06 G	7/18	574-586	H 01 J	19/82	5-5.5	H 03 F	3/04	183-184	H 03 F	3/34
	H 03 F	3/45		G 06 G	7/19	575	H 03 F	3/14	6	H 01 S	1/00	185	H 03 F	1/00
51-62	G 01 R	19/00	346-349	G 06 G	7/20	576	H 03 F	17/615	7	H 03 F	11/00	186-187	H 03 F	3/52
58-62	H 03 K	5/153	346-353	G 06 F	7/556	577	H 03 K	17/615	8	H 03 F	9/00	187	H 03 F	3/36
63-90	H 03 K	5/22		G 06 G	7/24	578	G 04 G	19/00	9	H 03 F	1/02	188-190	H 03 F	1/00
72-90	H 03 K	5/153	354	G 06 G	7/25	579	G 05 F	3/22	10	H 03 F	3/38	191	H 03 F	3/36
91-97	G 11 C	27/02	355	G 06 G	7/12	580	H 01 L	27/06	11-41	H 03 F	3/00	192	H 03 F	1/00
	H 03 K	5/00	356-360	G 06 F	7/44	581	H 03 K	3/333	42	H 03 F	1/00	193-194	H 03 F	3/52
91-99	H 03 K	17/00		G 06 G	7/16	582	H 03 K	11/24	43	H 03 F	3/58	194	H 03 F	3/36
98-100	H 03 K		361	G 06 F	7/42	583-584	H 03 H	11/24	44	H 03 F	3/54	195-197	H 03 F	1/00
98	H 04 L	7/033		G 06 G	7/14	585	H 03 K	17/72	45	H 03 F	3/56	198	H 03 F	3/36
99	G 06 F	1/08	362-364	G 06 G	7/12	586	G 06 G	7/28	46-48	H 03 F	3/54	199-206	H 03 F	3/52
100	H 03 K	5/01	365	H 03 K	17/00	587-588	H 03 K	3/33	49	H 03 F	1/20	207A	H 03 F	1/00
101	H 03 C	3/00	366-373	H 03 K	17/92	589-590	H 01 L	29/93	50-51	H 03 F	3/60		H 03 F	1/04
102	H 03 D	3/00	374-377	H 03 K	17/04	589	H 02 M	7/162	52	H 03 F	1/14		H 03 F	1/34
103-104	H 03 D		378	H 03 K	17/14	590	H 03 K		53-57	H 03 F	3/66		H 03 F	3/217
103	H 02 M	11/00	379-382	H 03 K	17/16	591	H 02 M	3/07	58	H 03 F	3/60	207P	H 03 F	1/52
	H 03 F	3/45		H 03 K	17/30	592	H 04 B	1/16	55	H 03 F	3/26		H 03 F	3/30
104	G 01 R	19/22	383	H 03 K	17/06	593-595	H 01 J	19/82	58	H 03 F	13/00		H 03 G	3/20
105-107	H 03 B	21/00	384-391	H 03 K	17/16	594	H 03 B	1/04	59	H 03 F	17/00	207R	H 03 F	3/02
108-112	H 03 B	1/00	392-397	H 03 K	17/296	595	H 03 F	1/08	60	H 03 F	1/00		H 03 F	3/40
	H 03 K	3/00	392	H 03 K	17/28	596	H 03 F	1/50	61A-61R	H 03 F	3/12		H 04 B	7/165
113-114	H 03 B	19/00	398	H 03 K	17/28	597-600	H 03 F	1/40	61A	H 03 F	3/60	250	H 03 F	3/04
115	H 03 K	21/00	399	H 03 K	17/284		A 61 N	1/40	61R	H 03 B	3/18	251	H 03 F	3/217
	H 03 K	23/00	400-401	H 03 K	17/28		H 03 B	11/00		G 11 C	11/44	252-261	H 03 F	3/45
	H 03 K	25/00	402	H 03 K	17/292		H 01 J	19/82		H 03 F	19/00	262	H 03 F	3/26
116-117	H 03 B	19/00	403-418	H 03 K	17/00	601-602	H 01 J	21/00	62	H 03 F	15/00	263-264	H 03 F	3/18
118	H 03 B	19/06	419	H 03 K	17/56		H 01 J	15/04	63	H 03 F	9/00	265-276	H 03 F	3/26
119-122	H 03 B	19/00	420-422	H 03 K	17/74	603	H 01 J	17/00	64	H 03 F	1/08	277	H 03 F	3/16
123	H 03 B	19/08	423-426	H 03 K	17/56		G 01 R		65-68	H 03 F	1/00	278	H 03 G	3/00
124	H 03 K	17/00	427-437	H 03 K	17/687		G 05 F		69	H 03 F	3/45	279-281	H 03 G	3/10
125	H 03 K	4/04	432-433	H 03 K	17/60		G 06 F		70-74	H 03 F	1/00	282	H 03 G	3/00
126-128	H 03 K	4/02	438-446	H 03 K	17/72		G 06 G		75-79	H 03 F	1/36	283	H 03 G	3/12
129	H 03 B	28/00	447-450	H 03 K	17/725		G 11 C		76-78	H 03 F	1/16	284	H 03 G	3/00
	H 03 B		451-452	H 03 K	17/13		H 01 H		77	H 03 F	3/28	285	H 03 G	3/10
130	H 03 K	4/94	453-463	H 03 K	17/725		H 01 J		78	H 03 F	3/50	286-287	H 03 F	3/60
131-132	H 03 K	4/06	462-463	H 03 K	17/60		H 02 M		80	H 03 F	1/16	288-289	H 03 F	3/04
133	H 03 K	4/90	464	H 03 K	17/72		H 03 K	17/687	81-111	H 03 F	1/36	290	H 03 F	1/30
134-135	H 03 K	4/06	465-475	H 03 K	17/73		H 04 B		81-82	H 03 F	3/28	291	H 03 F	1/38
136	H 03 K	4/90	476	H 03 K	17/72				83	H 03 F	3/34	292	H 03 F	1/14
137-140	H 03 K	4/06	477	H 03 K	17/56				84-85	H 03 F	3/68	293-294	H 03 F	1/34
141-145	H 03 L	7/00	478-482	H 03 K	17/60				87-95	H 03 F	3/52	293	H 03 F	1/08
146-150	H 03 L	7/06	483	H 03 K	17/615				88-95	H 03 F	1/22	294	H 03 F	1/38
151-154	H 03 L	7/00	484-492	H 03 K	17/60	300-303	H 04 L	27/14	96	H 03 G	3/20	295	H 03 F	3/68
155-159	H 03 L	7/06	493-497	H 03 K	17/74	300-310	H 03 D	3/00	97	H 03 F	3/36	296-299	H 03 F	3/04
160-163	H 03 L	7/00	498	H 03 K	17/70	304-310	H 04 L	27/22	98-100	H 03 F	1/24	298	H 02 H	7/20
164	H 03 K	3/84	499	H 03 K	17/58	311	H 03 K	9/00		H 03 F	3/52	299	H 03 F	3/68
165-169	H 03 K	5/01	500-505	H 03 K	17/74	312	H 03 K	9/08	103-104	H 03 F	3/68	300	H 03 F	3/16
170	H 03 K	5/12	506	H 03 K	17/52	313	H 03 K	9/04	108-109	H 03 F	3/52	301-306	H 03 F	3/04
171-177	H 03 K	3/017												

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U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation	U.S. Subclass	IPC Subclass	IPC Notation
<b>U.S. CLASS 331--Con.</b>														
2	H 03 L	7/00		H 01 L	39/22	100-105	H 03 C	3/00		H 03 H	2/00	219.1	H 01 P	7/10
3	H 03 L	7/26		H 03 B	15/00	103-105	H 04 L	27/20	24.1	H 01 P	1/32	219.2	H 01 P	7/00
4-18	H 03 L	7/00	107SL	H 01 L	23/66	106-107	H 03 K	7/00	24.2	H 01 P	1/36	220-221	H 01 P	7/02
19	H 03 L	7/16	107T-107DP	H 03 B	7/14	108	H 03 K	7/10	24.3	H 01 P	1/175	222-226	H 01 P	7/04
20-35	H 03 L	7/00	107T	H 03 B	7/08	109-111	H 03 K	7/08		H 01 P	1/38	227-233	H 01 P	7/06
36C-36R	H 03 L	7/099		H 03 K	3/315	112-114	H 03 K	7/04	25-26	H 03 H	5/00	228	H 01 P	1/16
36C	H 03 B	5/12	108A	G 04 C	21/36		H 03 K	7/06	27	H 03 H	5/10	229	H 01 P	1/30
	H 03 C	3/09		H 03 B	5/36	115-116	H 03 K	7/02		H 03 H	7/00	234-235	H 01 P	7/00
36L	H 01 L	23/66		H 03 K	3/03	117-119	H 03 C	3/00	28R	H 01 P	9/00	236-237	H 01 P	3/00
	H 03 J	7/02	108B-108C	H 03 B	5/12	120-121	H 03 C	3/38		H 04 B	3/14	238	H 01 P	3/08
36R	H 03 J	7/04	108B	H 03 B	5/20	122	H 03 C	3/00		H 04 L	25/03	239-240	H 01 P	3/00
	H 03 K	3/03		H 03 B	5/24	123	H 03 C	3/02	28T	H 03 G	5/02	239	H 01 P	3/12
37	H 03 B	21/00	108C	H 03 B	5/04	124	H 03 C	3/08		H 03 G	5/06	241	H 01 P	3/14
38	H 03 B	21/02		H 03 L	1/02	125	H 03 C	3/04		H 03 G	9/06	242	H 01 P	3/00
39-43	H 03 B	21/00	108D	H 03 B	5/36	126-128	H 03 C	3/06	32-35	H 03 H	7/38	243-244	H 01 P	3/06
44	G 01 R	23/00		H 03 K	3/0231		H 03 C	3/09	81A-81R	H 01 P	1/22	245	H 01 P	1/00
45	H 03 B	27/00		H 03 K	3/354	129-130	H 03 C	3/00	81A	H 03 H	7/24	246	H 01 P	3/08
46-59	H 03 B		108R	H 03 B	5/12	129-134	H 03 C	7/00		H 03 H	7/25	247-248	H 01 P	1/00
46	H 03 K	3/03		H 03 B	5/24	131	H 03 C	3/30	81B	H 01 P	1/26	249	H 01 P	1/02
47	H 03 L	7/24	109	H 03 L	5/00	132	H 03 C	3/32		H 03 C	7/02	250	H 01 P	1/00
48-49	H 03 B	5/12	110	H 03 B	5/00	133-134	H 03 C	3/30	81R	H 03 H	7/24		H 01 P	5/00
50-51	H 03 B	19/12	111	H 03 K	3/26	135	H 03 C	3/00		H 03 H	7/25	251	H 01 P	1/16
52	H 03 K	3/30	112-113	H 03 K	3/30	136	H 03 C	3/22	99MP	H 01 J	25/76	252	H 01 P	1/08
53	H 03 B	5/34	113A	H 02 M	3/338	137-138	H 03 C	3/00		H 01 P	1/208	253	H 01 P	1/28
54	H 03 B	5/36		H 02 M	7/5383	139-140	H 03 C	3/42		H 01 P	1/30		H 01 P	3/00
55	H 03 L	7/24	113R	H 03 K	3/282	141-144	H 03 C	3/00	99PL	H 01 J	37/32		H 01 P	5/04
56	H 03 B	9/14		H 03 K	3/354	145	H 03 C	3/38		H 01 J	49/10	254	H 01 P	1/04
57	H 03 K	3/03		H 03 K	7/06	146-147	H 03 C	3/00		H 05 H	1/46	255	H 01 P	1/00
58	H 03 F	3/66	113S	H 02 M	7/51	148	H 03 C	3/26	99R	G 01 N	22/00		H 01 P	5/00
59	H 03 B	5/34		H 02 M	7/515	149-150	H 03 C	1/00		G 01 R	27/26	256-257	H 01 P	1/06
60	H 03 B	25/00		H 02 M	7/523	151-154	H 03 C	1/50		H 01 P	7/06	258-259	H 01 P	1/10
61	H 03 B		114	H 03 K	3/26	155-157	H 03 C	1/00	99S	H 01 P	1/04	259	H 01 P	1/12
	H 03 K	3/08		H 03 K	5/12	158	H 03 C	1/62		H 01 P	1/203	260	H 01 P	1/00
62-63	H 02 H	7/20	115	H 03 B	7/00	159	H 03 C	1/02		H 01 P	1/213		H 01 P	5/00
64	A 61 N	1/40		H 03 B	7/06	160	H 03 C	1/06	100-109	H 01 P	5/12	261	H 01 P	1/06
	G 08 B		116FE	G 04 F	5/06	161	H 03 C	1/04	101	H 01 P	1/10	262	H 01 P	1/10
	H 03 B	1/00		H 03 K	3/354	162	H 03 C	1/06	102	H 01 P	1/32	263	H 01 P	1/00
65-66	G 01 N	27/00	116M-116R	H 03 B	5/30	163-164	H 03 C	1/00	103-108	H 01 P	1/10			
	G 08 B	19/00	116M	G 04 C	3/06	163-166	H 03 C	7/00	109-116	H 01 P	5/18			
	G 08 B	21/00		G 04 C	3/10	165	H 03 C	1/28	110	H 03 H	7/46			
65	G 05 D		116R-116FE	H 03 B	5/36	166	H 03 C	1/30		H 03 H	7/48			
	G 08 B	23/00	117D-117FE	H 03 B	5/12	167-169	H 03 C	1/00	111-112	H 03 H	7/38	1-3	H 03 J	5/00
	G 08 C			H 03 B	5/18	170-171	H 03 C	1/60	111	H 01 P	5/12	4-6	H 03 J	1/18
	H 03 K	17/95	117D	H 03 L	1/02	172	H 03 C	1/54	113-117	H 01 P	5/12	4	H 03 J	1/22
66	G 01 J	5/00	117FE	H 03 K	3/354	173	H 03 C	1/48	116	H 01 P	3/08	5-6	H 03 J	3/04
	G 01 K	7/00	117R	H 03 K	3/282	174-175	H 03 C	1/08	117	H 01 P	5/22	7	H 03 J	5/00
	G 05 D	23/20	126	H 03 B	5/00	176-177	H 03 C	1/00	118-119	H 04 B	1/52	8	H 03 J	1/00
	G 08 B	13/18	127	H 03 B	11/02	178	H 03 C	1/36		H 04 B	1/58	9-10	H 03 J	1/06
	G 08 B	27/00		H 03 B	7/10	179-180	H 03 C	1/16	120-128	H 01 P	5/12		H 03 J	1/18
67-69	H 03 B	1/00	128	H 03 B	11/08	181	H 03 C	1/20	120	H 01 P	5/22	11	H 03 J	3/04
70-71	H 03 B		129-131	H 03 K	3/37	182	H 03 C	1/22	121-123	H 01 P	5/20		H 03 J	3/06
70	H 03 L	1/04	132-134	H 03 B	7/00		H 03 C	1/24	124	H 03 H	7/38	12-13	H 03 J	3/00
71	A 61 N	1/40	135-137	H 03 B	5/20	183-185	H 03 C	1/00	127-128	H 01 P	3/08	12	H 03 J	1/00
72	H 03 B	5/28	138	H 03 B	5/14				129-131	H 03 H	7/38	13-15	H 03 J	3/06
73	H 03 B	5/34		H 03 B	5/42				132	H 03 H	7/46	14-15	H 03 H	5/12
74-76	H 03 B	1/00	139	H 03 B	5/38					H 03 H	7/48		H 03 J	5/04
77	H 03 B	9/14	140-142	H 03 B	5/26				133	H 01 L	41/00	16	H 03 J	3/04
	H 03 B		143	H 03 K	3/02					H 03 H	9/00	17-29	H 03 J	3/00
78	H 03 B	29/00	144-145	H 03 K	3/06				134-137	H 01 P	5/12	29	H 03 J	5/02
79-80	H 03 B	9/01	146-149	H 03 K	3/16				138	H 03 H	7/18	30-31	H 03 J	1/02
80	H 03 B	13/00	150-152	H 03 K	3/02					H 03 H	7/30		H 03 J	3/12
81	H 03 B	9/02	153	H 03 K	7/00	1.1	H 01 P	1/32	139	H 03 H	7/20	32	H 03 J	1/04
82	H 03 B	9/08	154-156	H 03 B	5/30	2-5	H 01 P	5/00		H 03 H	7/38		H 03 J	3/14
83	H 03 B	9/04	157	H 03 B	5/40	12	H 04 B	3/28	140	H 03 H	7/18	33	H 03 J	1/02
84	H 03 B	9/01	158-164	H 03 B	5/32	13	H 01 P	1/04		H 03 H	7/30		H 03 J	3/12
	H 03 B	9/06	165	H 03 B	11/00		H 01 P	1/14	141-155	H 03 H	9/00	34-35	H 03 J	1/04
86-91	H 03 B	9/10	166	H 03 B	11/08	14	H 03 G	7/00		H 04 B	11/00	34-37	H 03 J	3/14
92-93	H 03 B	9/02		H 03 B	11/10		H 04 B	1/64	156-161	H 01 P	9/00	36-37	H 03 J	1/02
94.1	H 01 S	1/06	167-174	H 03 B	5/08	15-16	H 04 B	3/10	156-163	H 01 P	1/18	38	H 01 F	21/00
	H 03 B	17/00		H 03 B	5/18	17.1	H 03 G	11/04	158-160	H 01 P	3/00		H 03 J	
95	H 03 B	5/08	175-176	H 03 L	1/00		H 04 B	3/04	161	H 01 P	3/08	39-48	H 03 J	5/00
96-102	H 03 B	5/18				17.2	H 03 G	11/00	162-163	H 01 P	9/02	40-41	H 03 J	3/00
	H 03 B	7/12	177R	H 03 B	5/10	17.3	H 01 P	5/08	162-164	H 01 P	3/00	42-43	H 03 J	3/24
103	H 03 B	1/00		H 03 J	7/04		H 03 H	7/38	164	H 01 P	9/00	44-46	H 03 J	3/00
104	H 03 B	9/01		H 03 L	7/099	18	H 03 G	11/04	165-166	H 03 H	7/38	48	H 03 J	3/10
105	H 03 B	1/04	177V	H 03 B	5/12		H 04 B	3/04	165	G 11 C	19/28	49-54	H 03 J	5/02
106	H 03 L	5/00		H 03 B	5/18	19	H 04 B	3/00		H 03 H	7/30	55-58	H 03 J	3/20
107A	H 03 B	5/32		H 03 C	3/22	20	H 04 B	3/04	167-170	H 03 H	7/00	55-60	H 03 J	5/24
	H 03 B	9/12	178	H 03 B	23/00	21A	H 01 P	1/161	168-171	H 03 H	7/01	61-63	H 03 J	3/00
	H 03 H	9/02	179	H 03 B	5/12		H 01 P	1/165	172-177	H 03 H	7/00	64-65	H 03 J	3/02
107C-107P	H 03 B	9/14	180	H 03 J	7/04		H 01 P	1/17	175-180	H 03 H	7/01			