

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

U.S.			IPC			U.S.			IPC			U.S.			IPC		
Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation
<b>U.S. CLASS 12--Con.</b>																	
146R	A 43 B	23/02		A 47 L	13/00	142	A 47 L	23/24	230.12-230.13	B 24 D	13/08		A 47 L	9/00			
	A 43 D	11/00	40-48.2	D 06 G	1/00		A 47 L	25/00	230.14	B 24 D	13/04		B 08 B	5/00			
	A 43 D		40	D 06 G		143.1-144.4	A 47 L	13/00	230.15	B 24 D	13/08		D 06 G	1/00			
146S	A 43 D	31/00	41.1-48.2	A 47 L	11/32		B 25 G	1/00	230.16	B 24 D	13/14	313-315	B 60 S	1/54			
146W	A 43 B	15/00	49.1-52	A 47 L	11/00	143.1-146	A 46 B	5/02	230.17	A 47 L	11/164		B 60 S	1/64			
147A	A 43 B	21/06	51-52.2	A 47 L	13/00	145-146	A 47 K		230.18	B 24 D	13/14	313-318.1	A 47 L	15/00			
147B	A 43 D	25/12	53.1-53.4	B 60 S	3/00		B 25 G		230.19	B 24 D	13/08		A 47 L	5/38			
147R	A 43 D	25/00	54-55	B 61 F	19/00	145	A 46 B	5/00	231	A 47 L	13/46	316.1-318.1	F 23 J	3/02			
	A 43 D	33/00		E 01 H	8/00	146	A 46 B	17/02	232-233	A 47 L	1/06	316.1	D 06 G	1/00			
148	A 43 D	25/00	56-76	B 08 B	9/20	147.1-154.2	A 47 L	13/20	234-235	A 47 L	13/38	318.1	D 06 G	1/00			
			56	A 47 L	15/00	154.2	A 47 L	13/502	235.3	E 04 G	21/20	319	A 47 L	5/00			
			57-58	B 08 B	9/46	159.1-161	A 46 B		235.4-235.8	E 01 C	19/12	320-322	A 47 L	7/00			
			59-77	A 47 L	15/00	159.1	A 46 B	5/00	235.4-241	B 05 C	17/10	323-339	A 47 L	9/00			
			77	A 47 L	25/00	160	A 46 B	9/02	236.01-241	A 47 L	13/02	323-340.4	A 47 L	5/00			
			78-87	E 01 H	1/02	161	A 47 L	23/22		A 47 L	17/06	339	A 47 L	7/00			
				E 01 H	1/04	164-165	A 46 B	5/00		A 47 L	23/22		B 08 B	5/00			
				A 47 L	15/00	164-166	A 46 B		244.1-244.3	A 47 L	13/46	340.1-340.4	E 01 H	1/08			
				A 47 L	25/00	166	A 46 B	17/08	244.1-244.4	A 47 K	7/02	341-343	A 47 L	5/02			
				A 47 L	11/36	167.1-167.2	A 46 B	9/04	244.4	A 47 L	21/00	344	A 47 L	5/08			
				A 01 K	31/04	167.3-205	A 46 B		245	A 47 L	13/16	344	A 47 L	5/24			
				B 08 B	9/38	167.3	A 45 D	29/17	245.1	B 05 C	17/10	345-346	A 47 L	5/14			
				B 23 D	79/02	168-170	A 46 B	9/08		B 05 C		347-353	A 47 L	9/10			
				C 10 B	43/04	171	A 46 B	3/08	246	A 47 L	1/00		A 47 L	9/20			
				A 47 L	13/502	172	A 46 B	5/00		B 05 C		354-361	A 47 L	5/34			
				A 47 L		173	A 46 B	3/08	246.2-246.4	B 60 S	1/00	362-382	A 47 L	5/00			
				B 08 B		174	A 46 B	3/10		A 47 L	5/00	363-382	A 47 L	9/04			
				F 28 G	7/00	175	A 46 B	3/08		A 47 L	7/00		A 47 L	9/06			
				B 08 B	9/20	176.1-176.2	A 46 B	7/04	246.5	F 22 B	37/48	383-392	A 47 L	5/10			
				A 47 L	1/02	176.3	A 46 B	15/00	247	A 46 B	17/04		A 47 L	5/26			
				B 67 C		176.4-176.6	A 46 B	7/04	248.1-248.2	A 47 L	13/44	393-403	A 47 L	9/06			
				G 03 D	5/06	177-178	A 46 B	3/08	249.1-249.3	A 46 B	17/00	393-408	F 23 J	5/00			
				G 11 B	23/50	179-183	A 46 B	13/00	250.001-250.003	F 23 J	3/00	406	B 08 B	9/02			
				A 47 L	23/02	184	A 46 B	7/02	250.001-250.003	B 08 B		407	B 02 C	18/34			
				B 60 S	3/06	185	A 46 B	5/00	250.001-250.19	A 47 L	1/00	408	F 04 F	5/46			
				A 47 L	11/162	186	A 46 B	7/00		B 60 S	1/02	409	A 47 L	5/16			
				A 47 L	11/29	187	A 46 B	1/00	250.001	B 60 S	1/04	410-411	A 47 L	9/00			
				G 03 D	15/00	188	A 46 B	9/04	250.002	B 60 S	1/60	412-413	A 47 L	11/00			
				A 47 L	15/00	189	A 46 B	3/18	250.003	B 60 R	1/06		A 47 L	13/00			
				H 01 L	21/00	190	A 46 B	3/16	250.201-250.34	A 47 L	1/00		A 63 B	47/04			
				E 01 C	23/20	191.1	A 46 D	3/00		B 60 S	1/02		A 63 D	5/10			
				A 47 L	13/00	192-194	A 46 B	15/00	250.351-250.352	A 47 L	1/00	412	A 47 L	9/22			
				A 46 B		195-196	A 46 B	3/16		B 60 S	1/02		A 47 L	9/28			
				A 47 L	25/00	197	A 46 B	9/06	250.361-250.41	A 47 L	1/00	414-422.2	A 47 L	9/02			
				F 23 J		198	A 46 B	13/00		B 60 S	1/02	423	B 43 K	13/00			
				H 01 T	21/04	199	A 46 B	3/16	250.43-250.48	A 47 L	1/00		B 43 K	5/00			
				F 02 B	77/04	200	A 46 B	7/10		B 60 S	1/02	424-426	B 43 L	19/00			
				F 23 J	3/00	201	A 46 B	7/06	256.5-256.6	A 46 B	15/00	427-432	B 43 K	29/02			
				F 28 G	1/00	202	A 46 B	15/00		B 21 B	45/02	433-434	B 43 L	19/00			
				B 08 B	9/00	203	A 46 B	7/02		B 60 S	1/28	435	B 43 K	3/00			
				B 08 B	1/00	204	A 46 B	3/12	257.01	A 46 B	17/00	436	B 43 K	3/04			
				B 08 B	7/00	205	A 46 B	3/18		A 47 G	29/08	437-444	B 43 K	3/00			
				F 16 L	45/00	205.2	A 46 B	11/00		A 47 L	23/14	445-446	B 43 K	1/00			
				F 16 L	55/00	206-207	A 46 B	3/18		A 47 L	25/00	447	B 43 K	1/02			
				B 08 B	9/04	206-207.2	A 46 B		257.05-257.06	B 05 C	21/00						
				F 23 J	3/00	207.2	A 46 D	1/00		A 47 L	13/56						
				B 08 B	1/00	208-219	A 47 K	7/02		B 43 L							
				B 08 B	7/00		A 47 L	1/06		B 44 D	3/12						
				B 08 B	9/00		A 47 L	13/10	257.07	B 43 L	25/00						
				F 16 L	45/00		A 47 L	23/04	257.072	B 43 L	25/04						
				F 16 L	55/00		A 47 L	25/00	257.073-257.076	B 43 L	25/00						
				B 28 G	3/00		B 43 L	21/00	257.1-257.9	A 47 L	13/52						
				B 08 B	1/00	208	A 47 L	17/08	258-259	A 47 L	23/28						
				B 08 B	7/00	210.5-219	A 47 L	17/08	260-263	A 47 L	13/14						
				B 08 B	9/02	220.1-220.2	A 47 L	1/00		A 47 L	13/58						
				F 16 L	45/00	220.3	A 47 L	1/15		A 47 J	47/18						
				F 16 L	55/00		A 47 L	4/00	264	A 47 L	13/50						
				B 08 B	1/00	220.4-228	A 47 L	25/00		A 47 L	17/00						
				B 08 B	7/00	220.4	F 01 M	11/12	265-267	A 47 L	23/16						
				B 08 B	9/02	221-228	A 47 L	13/10		A 47 L	23/18						
				A 45 D	24/44		A 47 L	17/08		A 46 B	17/02						
				A 46 B	17/08		A 47 L	23/04	268	A 47 L	13/54						
				A 47 L	13/42		B 43 L	21/00		A 47 L	21/06						
				B 08 B	9/08	221-229.1	A 47 K	7/02		B 08 B	9/20						
				B 08 B	9/20		A 47 L	1/06		B 08 B	9/46						
				B 08 B	1/00	229.1	A 47 L	13/20	300.1	A 47 L	5/00						
				F 16 L	45/00		A 47 L	17/00		A 47 L	9/00						
				E 04 F	21/165	229.11-229.13	A 47 L	13/10		B 08 B	5/00						
				B 25 F	1/00		A 47 L	17/08		D 06 G	1/00						
				B 43 L	19/00	229.14	A 45 D	33/34	301-305	A 47 L	15/00						
				B 26 B	11/00												

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Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation	Subclass	Subclass	Notation
<b>U.S. CLASS 16--Con.</b>																	
43-48	<b>A 47 B</b>	91 / 00	222-223	<b>E 05 D</b>	11 / 00	444	<b>H 01 M</b>	2 / 10	219	<b>D 01 G</b>	19 / 00				<b>C 10 G</b>	21 / 00	
	<b>B 60 B</b>	33 / 00	224	<b>E 05 D</b>	7 / 00	446	<b>A 47 J</b>	45 / 06	220-224	<b>D 01 G</b>	19 / 04	307			<b>B 01 D</b>	1 / 02	
48.5	<b>E 05 F</b>	15 / 20	225-227	<b>E 05 D</b>	1 / 00				225-228	<b>D 01 G</b>	19 / 16				<b>B 01 D</b>	1 / 22	
49	<b>E 05 F</b>	3 / 00	228	<b>G 02 C</b>	5 / 22				229-230	<b>D 01 G</b>	19 / 14	308R			<b>B 01 J</b>	6 / 00	
50	<b>E 05 F</b>	3 / 20	229	<b>E 05 D</b>	7 / 10				231-232	<b>D 01 G</b>	19 / 04				<b>C 01 F</b>	11 / 32	
	<b>E 05 F</b>	3 / 22	230-232	<b>E 05 D</b>	15 / 50					<b>D 01 G</b>	19 / 18	308S			<b>C 01 B</b>	17 / 02	
51	<b>E 05 F</b>	3 / 04	233-234	<b>E 05 D</b>	7 / 00				233-234	<b>D 01 G</b>	19 / 04				<b>C 01 B</b>	17 / 033	
52-53	<b>E 05 F</b>	3 / 10	235-238	<b>E 05 D</b>	7 / 04	.2-.22	<b>D 01 G</b>	31 / 00	235	<b>D 01 G</b>	19 / 16	313AS			<b>B 01 J</b>	2 / 16	
52-55	<b>E 05 F</b>	3 / 22	239-241	<b>E 05 D</b>	7 / 06	.23-.24	<b>D 01 G</b>	23 / 00	236	<b>D 01 H</b>	5 / 00				<b>C 01 B</b>	33 / 32	
54-55	<b>E 05 F</b>	3 / 20	242-249	<b>E 05 D</b>	7 / 04				237-241	<b>D 01 H</b>	5 / 32				<b>C 11 D</b>	3 / 08	
56	<b>E 05 F</b>	3 / 00	250-251	<b>E 05 D</b>	11 / 00	.25-.26	<b>D 01 G</b>	31 / 00	242-243	<b>D 01 H</b>	5 / 00	313FB			<b>B 01 J</b>	2 / 16	
57-58	<b>E 05 F</b>	3 / 14	252-253	<b>E 05 D</b>	5 / 02	.27	<b>D 01 B</b>	1 / 48	244	<b>D 01 H</b>	5 / 86				<b>C 05 C</b>	9 / 00	
	<b>E 05 F</b>	3 / 22	254-258	<b>E 05 D</b>	7 / 12		<b>D 06 F</b>	58 / 00	245	<b>D 01 H</b>	5 / 60				<b>F 26 B</b>	3 / 08	
59-67	<b>E 05 F</b>	3 / 00	254-267	<b>E 05 D</b>	7 / 10	.3-.64	<b>D 01 G</b>	1 / 00		<b>D 01 H</b>	5 / 86	313P			<b>B 01 J</b>	2 / 14	
66-67	<b>E 05 F</b>	3 / 02	268-269	<b>E 05 D</b>	1 / 06	1	<b>D 01 B</b>	1 / 00	246-256	<b>D 01 H</b>	5 / 86				<b>B 01 J</b>	2 / 28	
68	<b>E 05 F</b>	3 / 20	270-272	<b>E 05 D</b>	7 / 12	2	<b>D 01 B</b>	3 / 00	257	<b>D 01 H</b>	5 / 00				<b>B 01 J</b>	20 / 18	
	<b>E 05 F</b>	3 / 22	273	<b>E 05 D</b>	11 / 00	3	<b>D 01 B</b>	7 / 00	258-261	<b>D 01 H</b>	5 / 74	313R			<b>C 05 B</b>	19 / 00	
69-70	<b>E 05 F</b>	3 / 00	274	<b>E 05 D</b>	11 / 02	4	<b>D 01 B</b>	3 / 00	262-265	<b>D 01 H</b>	5 / 60				<b>C 22 B</b>	1 / 14	
71	<b>E 05 F</b>	1 / 00	275-276	<b>E 05 D</b>	11 / 04	5A	<b>D 01 B</b>	1 / 14	266-268	<b>D 01 H</b>	5 / 46	314			<b>C 01 B</b>	31 / 14	
72-80	<b>E 05 F</b>	1 / 08	277-279	<b>E 05 F</b>	1 / 08		<b>D 01 B</b>	1 / 32	269	<b>D 01 H</b>	5 / 48				<b>C 09 C</b>	1 / 58	
73-80	<b>E 05 F</b>	1 / 10	280-285	<b>E 05 F</b>	1 / 14	5R	<b>D 01 B</b>	9 / 00	270-271	<b>D 01 H</b>	5 / 46				<b>C 09 C</b>	1 / 60	
81	<b>E 05 F</b>	1 / 00	286-308	<b>E 05 F</b>	1 / 08		<b>D 01 B</b>	1 / 10	272	<b>D 01 H</b>	5 / 52						
82	<b>E 05 F</b>	5 / 02	309-318	<b>E 05 F</b>	1 / 02		<b>D 01 B</b>	1 / 14		<b>D 01 H</b>	5 / 54						
83	<b>E 05 F</b>	5 / 04	319-336	<b>E 05 D</b>	11 / 10		<b>D 01 B</b>	9 / 00	273-274	<b>D 01 H</b>	5 / 46						
84	<b>E 05 F</b>	3 / 00	337-342	<b>E 05 C</b>	17 / 64	6	<b>D 01 B</b>	1 / 10	275-276	<b>D 01 H</b>	5 / 48						
	<b>E 05 F</b>	5 / 10		<b>E 05 D</b>	11 / 08	7	<b>D 01 B</b>	1 / 10	277	<b>D 01 H</b>	5 / 50						
85	<b>E 05 F</b>	5 / 06	343-344	<b>E 05 D</b>	11 / 10		<b>D 01 B</b>	3 / 04	278	<b>D 01 H</b>	5 / 46						
86A-86R	<b>E 05 F</b>	5 / 02	345	<b>E 05 D</b>	15 / 30	8-32	<b>D 01 B</b>	1 / 10	279-282	<b>D 01 H</b>	5 / 50						
86C	<b>E 05 C</b>	17 / 22	346-353	<b>E 05 D</b>	11 / 10	33	<b>D 01 B</b>	1 / 28	283	<b>D 01 H</b>	5 / 48						
86R	<b>E 05 F</b>	5 / 00	354	<b>E 05 D</b>	7 / 00	34-38	<b>D 01 B</b>	1 / 10	284-285	<b>D 01 H</b>	5 / 46						
	<b>E 05 F</b>	5 / 06	355-356	<b>E 05 D</b>	1 / 04	39	<b>D 01 B</b>	1 / 04	286-292	<b>D 01 H</b>	5 / 72						
86.1	<b>E 05 D</b>	13 / 00	357-360	<b>E 05 D</b>	11 / 06		<b>D 01 B</b>	1 / 10		<b>D 01 H</b>	5 / 74						
	<b>E 05 D</b>	15 / 00	361	<b>E 05 D</b>	15 / 06	40-42	<b>D 01 B</b>	1 / 04	293	<b>D 01 H</b>	5 / 18						
86.2	<b>E 05 D</b>	15 / 58	362-363	<b>E 05 D</b>	15 / 00	43-47	<b>D 01 B</b>	1 / 06	294-295	<b>D 01 H</b>	5 / 56						
87B-87R	<b>E 05 D</b>	15 / 06	364	<b>E 05 D</b>	15 / 06	48A	<b>D 01 B</b>	1 / 04	296-308	<b>D 01 G</b>	25 / 00						
87R	<b>B 61 D</b>	19 / 00	365	<b>E 05 D</b>	7 / 00	48R	<b>D 01 B</b>	1 / 04		<b>D 01 G</b>	27 / 00						
	<b>E 05 D</b>	15 / 26	366	<b>E 05 D</b>	3 / 06		<b>D 01 B</b>	1 / 06									
87.2	<b>E 05 D</b>	15 / 00	367	<b>E 05 D</b>	3 / 10		<b>D 01 B</b>	1 / 08									
87.4R-93D	<b>A 47 H</b>	15 / 00	368-369	<b>E 05 D</b>	15 / 00	49-54	<b>D 01 B</b>	1 / 06									
87.4R	<b>A 47 H</b>	13 / 00	370	<b>E 05 D</b>	15 / 32			1 / 08									
	<b>E 05 D</b>	15 / 06	371	<b>E 05 D</b>	11 / 06	64.5	<b>D 01 B</b>	1 / 04									
	<b>E 05 D</b>	15 / 16	372	<b>E 05 D</b>	5 / 00		<b>D 01 B</b>	1 / 32	293A	<b>B 01 J</b>	35 / 10						
87.4W	<b>A 47 H</b>	1 / 04	373	<b>E 05 D</b>	7 / 00	65A	<b>D 01 G</b>	21 / 00		<b>C 01 F</b>	7 / 02						
87.6R	<b>A 47 H</b>	13 / 00	374-377	<b>E 05 D</b>	11 / 06	65CR	<b>D 01 B</b>	1 / 22		<b>C 04 B</b>	35 / 626						
	<b>E 05 D</b>	15 / 06	378-379	<b>E 05 D</b>	7 / 08		<b>D 01 G</b>	15 / 96	293R	<b>B 01 J</b>							
	<b>E 05 D</b>	15 / 16	380-381	<b>E 05 D</b>	5 / 12	65R	<b>B 68 G</b>	3 / 00		<b>C 01 B</b>	15 / 013						
87.6W	<b>A 47 H</b>	1 / 04	382-385	<b>E 05 D</b>	5 / 00		<b>D 01 G</b>	5 / 00		<b>C 01 B</b>	25 / 02						
87.8-92	<b>E 05 D</b>	15 / 00	385	<b>E 05 D</b>	9 / 00		<b>D 01 G</b>	9 / 00		<b>C 09 C</b>	1 / 56						
87.8	<b>A 47 H</b>	13 / 00	386	<b>E 05 D</b>	5 / 10	65T	<b>D 01 B</b>	1 / 24	293S	<b>B 01 J</b>	6 / 00						
93R	<b>B 60 J</b>	7 / 02	387-388	<b>E 05 D</b>	5 / 02	66CC	<b>D 01 B</b>	9 / 00		<b>C 01 B</b>	17 / 02						
	<b>E 05 D</b>	15 / 06	389-392	<b>E 05 D</b>	5 / 06	66R	<b>D 01 G</b>	29 / 00		<b>C 01 B</b>	17 / 027						
	<b>E 06 B</b>	3 / 46	400-401	<b>E 05 F</b>	3 / 00		<b>D 01 H</b>	13 / 30	294R	<b>B 01 D</b>	7 / 00						
94D-95DW	<b>E 05 D</b>	15 / 00	400	<b>E 05 F</b>	1 / 00	66T	<b>D 01 B</b>	1 / 24		<b>B 01 D</b>	7 / 02						
94D-96D	<b>A 47 H</b>	1 / 04	401	<b>E 05 F</b>	1 / 08	66.1	<b>D 02 G</b>	1 / 00	294S	<b>C 01 B</b>	17 / 02						
	<b>A 47 H</b>	15 / 00	402	<b>A 47 B</b>	95 / 04		<b>D 04 G</b>	1 / 06		<b>C 01 B</b>	17 / 027						
96L	<b>E 05 D</b>	15 / 00		<b>E 05 B</b>	17 / 00	66.2	<b>D 02 G</b>	1 / 14	295G	<b>B 01 J</b>	13 / 00						
		15 / 06	403	<b>B 43 M</b>	9 / 00	80A	<b>D 01 B</b>	1 / 00	295R	<b>B 01 D</b>	9 / 00						
96R	<b>B 61 D</b>	19 / 00	404-446	<b>E 05 B</b>	1 / 00	80R	<b>D 01 B</b>	1 / 00		<b>C 13 K</b>	1 / 10						
	<b>E 06 B</b>	3 / 46	404	<b>A 47 G</b>	1 / 10		<b>D 01 G</b>	7 / 00	295S	<b>B 01 D</b>	9 / 00						
97-107	<b>A 47 H</b>	15 / 00		<b>E 05 B</b>	5 / 00		<b>D 01 G</b>	9 / 00		<b>C 01 D</b>	3 / 06						
	<b>E 05 D</b>	15 / 16		<b>E 05 B</b>	7 / 00	81-97.5	<b>D 01 B</b>	1 / 00		<b>C 01 D</b>	5 / 00						
108-109	<b>F 16 L</b>	11 / 10		<b>E 05 D</b>	11 / 00	98	<b>D 01 G</b>	15 / 00	296-298	<b>B 01 D</b>	9 / 00						
	<b>F 16 L</b>	57 / 00		<b>E 05 D</b>	13 / 00	99-104	<b>D 01 G</b>	15 / 02	299	<b>B 01 D</b>	11 / 00						
110.1	<b>A 47 B</b>	95 / 02		<b>E 05 D</b>	9 / 00	105	<b>D 01 G</b>	15 / 40		<b>B 01 D</b>	9 / 00						
	<b>A 47 J</b>	45 / 00	405-446	<b>A 45 C</b>	13 / 22	106A	<b>D 01 G</b>	15 / 48	300	<b>B 01 D</b>	9 / 00						
	<b>B 65 D</b>	25 / 28		<b>A 45 C</b>	13 / 26	106R	<b>D 01 G</b>	15 / 36		<b>C 30 B</b>	17 / 00						
	<b>E 05 B</b>	1 / 00		<b>A 45 C</b>	3 / 00		<b>D 01 G</b>	15 / 46	301	<b>C 30 B</b>							
	<b>E 05 B</b>	7 / 00		<b>A 45 C</b>	7 / 00		<b>D 01 G</b>	31 / 00	302A	<b>B 01 D</b>	9 / 00						
111.1	<b>A 47 B</b>	95 / 02															