

## Annex A1 to the DVD-R Recorder and DVD-RW Recorder Patent License Agreement

### Essential Pioneer Patents relevant to DVD-RW/-R Recorder / DVD-R Data part

COUNTRY	REFERENCE	FILING NR	FILING DATE	PUBLICATION NR	GRANT NR	EXPIRY DATE	TITLE	
BR	513047BR01	PI9701610-1	02-apr-1997		PI9701610-1	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CA	513047CA01	2201454	01-apr-1997		2201454	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CN	504102CN01	96114320.7	05-dec-1996	CN1156930A	ZL96114320.7	05-dec-2016	Digital data transmitting	
CN	504102CN02	200610093817.3	20-jun-2006		ZL200610093817.3	05-dec-2016	Digital data transmitting	
CN	504102CN03	200610093831.3	20-jun-2006		ZL200610093831.3	05-dec-2016	Digital data transmitting	
CN	504102CN04	200610093830.9	20-jun-2006		ZL200610093830.9	05-dec-2016	Digital data transmitting	
CN	513047CN01	97104993.9	02-apr-1997		ZL97104993.9	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CN	513047CN02	200510128892.4	30-nov-2005		ZL200510128892.4	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CN	560242CN01	02817505.0	10-sep-2002	1552063	ZL02817505.0	10-sep-2022	Write Strategy for recording	
CN	580637CN01	200410075796.3	29-nov-2004		ZL200410075796.3	29-nov-2024	Recording speed and read compatibility	
CN	580364CN01	200480032586.4	29-sep-2004		ZL200480032586.4	29-sep-2024	Recording power shift	
CN	580365CN01	200480035666.5	01-okt-2004		ZL200480035666.5	01-okt-2024	Structure of Disc Testing Area	
CN	580404CN01	200480031608.5	29-sep-2004		ZL200480031608.5	29-sep-2024	Write Strategy code	
CN	580451CN01	200480039995.7	24-dec-2004		ZL200480039995.7	24-dec-2024	Dummy data in Middle area	
CN	580534CN01	200580002795.9	18-jan-2005		ZL200580002795.9	18-jan-2025	Layer Jump Recording	
CN	580536CN01	200580004137.3	28-jan-2005		ZL200580004137.3	28-jan-2025	Layer Jump Recording	
CN	580556CN01	200580030427.5	07-sep-2005		ZL200580030427.5	07-sep-2025	Structure of Disc Testing Area	
CN	580561CN01	200580000200.6	28-feb-2005		ZL200580000200.6	28-feb-2025	Reduced Border-out	
CN	580586CN01	200580019031.0	10-jun-2005		ZL200580019031.0	10-jun-2025	The edge of the recordable area on Layer 1	
CN	580588CN01	200580006230.8	18-feb-2005		ZL200580006230.8	18-feb-2025	Reduced Border-out	
CN	580606CN01	200580010470.5	29-mrt-2005		ZL200580010470.5	29-mrt-2025	Pre-recorded Lead-out area	
CN	590278CN01	200580001755.2	30-jun-2005		ZL200580001755.2	30-jun-2025	Structure of Disc Testing Area	
CN	590412CN01	200580026126.5	01-aug-2005		ZL200580026126.5	01-aug-2025	Pre-recorded information code	
CN	590451CN01	200580002778.5	26-aug-2005		ZL200580002778.5	26-aug-2025	Characteristics of recorded signal	
CN	590501CN01	200580002781.7	14-sep-2005		ZL200580002781.7	14-sep-2025	Anchor Point	
CN	590502CN01	200580031267.6	14-sep-2005		ZL200580031267.6	14-sep-2025	Layer Jump interval	
CN	590588CN01	200580034890.7	12-okt-2005		ZL200580034890.7	12-okt-2025	Layer Jump Recording	
CN	590600CN01	200580033856.8	03-okt-2005		ZL200580033856.8	03-okt-2025	Border Recording in Information area	
CN	590913CN01	200580032122.8	26-dec-2005		ZL200580032122.8	26-dec-2025	Pre-recorded Middle area	
CN	590916CN01	200680000480.5	13-jan-2006		ZL200680000480.5	13-jan-2026	Clearance to keep the Recording order	
CN	590918CN01	200680001912.4	13-jan-2006		ZL200680001912.4	13-jan-2026	Characteristics of recorded signal	

Essential Pioneer Patents relevant to DVD-RW/-R Recorder / DVD-R Data part

<i>COUNTRY</i>	<i>REFERENCE</i>	<i>FILING NR</i>	<i>FILING DATE</i>	<i>PUBLICATION NR</i>	<i>GRANT NR</i>	<i>EXPIRY DATE</i>	<i>TITLE</i>	
CN	590921CN01	200680000382.1	13-jan-2006		ZL200680000382.1	13-jan-2026	Structure of Disc Testing Area	
DE	503032DE01	19625662.3	26-jun-1996	19625662	19625662	26-jun-2016	Border Zone	
DE-EP	503028EP01	96110320.7	26-jun-1996	0751506	69615291	26-jun-2016	Layout of Land Pre-Pit	
DE-EP	503111EP01	97300118.3	09-jan-1997		69715265	09-jan-2017	Layout of Land Pre-Pit	
DE-EP	503141EP01	97105420.0	01-apr-1997	0800172	69718839.6	01-apr-2017	Linking scheme	
DE-EP	503141EP02	02018115.2	13-aug-2002	1280152	69739772	01-apr-2017	Linking scheme	
DE-EP	504030EP01	95305172.9	25-jul-1995	0694915	69525571.1	25-jul-2015	Multi layer disc	
DE-EP	504102EP02	03025667.1	07-nov-2003	1403869	69636916.8	05-dec-2016	Digital data transmitting	
DE-EP	504102EP04	06115016.5	06-jun-2006		69638178.8	05-dec-2016	Digital data transmitting	
DE-EP	504102EP05	06115021.5	06-jun-2006		69638200.8	05-dec-2016	Digital data transmitting	
DE-EP	504188EP01	97301337.8	27-feb-1997		69739836.6	27-feb-2017	Minimum readout rate	
DE-EP	513047EP01	97105470.5	02-apr-1997	0800165	69737272.3	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
DE-EP	550338EP01	01308706.9	12-okt-2001	1197957	60116842.9	12-okt-2021	OPC Marker	
DE-EP	560134EP01	02256026.2	30-aug-2002		60227621.7	30-aug-2022	Write Strategy for recording	
DE-EP	560242EP01	02767935.6	10-sep-2002	WO03/023769	60215826.5	10-sep-2022	Write Strategy for recording	
DE-EP	580637EP01	04027804.6	23-nov-2004		602004021336.5	23-nov-2024	Recording speed and read compatibility	
DE-EP	580364EP01	04788295.6	29-sep-2004		602004029919.7	29-sep-2024	Recording power shift	
DE-EP	580365EP01	04791953.5	01-okt-2004		602004024806.1	01-okt-2024	Structure of Disc Testing Area	
DE-EP	580534EP01	05703767.3	18-jan-2005		602005039677.2	18-jan-2025	Layer Jump Recording	
DE-EP	580536EP01	05709467.4	28-jan-2005		602005037073.0	28-jan-2025	Layer Jump Recording	
DE-EP	580606EP01	05727366.6	29-mrt-2005		602005031096	29-mrt-2025	Pre-recorded Lead-out area	
DE-EP	590278EP01	05765282.8	30-jun-2005		602005038456.1	30-jun-2025	Structure of Disc Testing Area	
DE-EP	590412EP01	05767066.3	01-aug-2005		602005017911.9	01-aug-2025	Pre-recorded information code	
DE-EP	590412EP02	07102247.9	13-feb-2007		602005017288.2	01-aug-2025	Pre-recorded information code	
DE-EP	590502EP01	05783200.8	14-sep-2005		01796091	14-sep-2025	Layer Jump interval	
DE-EP	590588EP01	05793673.4	12-okt-2005		602005026961.4	12-okt-2025	Layer Jump Recording	
DE-EP	590600EP01	05788060.1	03-okt-2005		602005020675.2	03-okt-2025	Border Recording in Information area	
DE-EP	590913EP01	05819880.5	26-dec-2005		602005037340.3	26-dec-2025	Pre-recorded Middle area	
DE-EP	590916EP01	06711651.7	13-jan-2006		602006028027.0	13-jan-2026	Clearance to keep the Recording order	
DE-EP	590921EP01	06711656.6	13-jan-2006		602006010659.9	13-jan-2026	Structure of Disc Testing Area	
EP	513047EP02	06125628.5	07-dec-2006				Layout of Land Pre-Pit	*grant for Pioneer's share
ES-EP	550338EP01	01308706.9	12-okt-2001	1197957	01197957	12-okt-2021	OPC Marker	

Essential Pioneer Patents relevant to DVD-RW/-R Recorder / DVD-R Data part

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FR-EP	503028EP01	96110320.7	26-jun-1996	0751506	00751506	26-jun-2016	Layout of Land Pre-Pit	
FR-EP	503111EP01	97300118.3	09-jan-1997		00784313	09-jan-2017	Layout of Land Pre-Pit	
FR-EP	503141EP01	97105420.0	01-apr-1997	0800172	00800172	01-apr-2017	Linking scheme	
FR-EP	503141EP02	02018115.2	13-aug-2002	1280152	01280152	01-apr-2017	Linking scheme	
FR-EP	504030EP01	95305172.9	25-jul-1995	0694915	00694915	25-jul-2015	Multi layer disc	
FR-EP	504102EP02	03025667.1	07-nov-2003	1403869	01403869	05-dec-2016	Digital data transmitting	
FR-EP	504102EP04	06115016.5	06-jun-2006		01715485	05-dec-2016	Digital data transmitting	
FR-EP	504102EP05	06115021.5	06-jun-2006		01715486	05-dec-2016	Digital data transmitting	
FR-EP	504188EP01	97301337.8	27-feb-1997		00793233	27-feb-2017	Minimum readout rate	
FR-EP	513047EP01	97105470.5	02-apr-1997	0800165	00800165	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
FR-EP	550338EP01	01308706.9	12-okt-2001	1197957	01197957	12-okt-2021	OPC Marker	
FR-EP	560134EP01	02256026.2	30-aug-2002		01288923	30-aug-2022	Write Strategy for recording	
FR-EP	560242EP01	02767935.6	10-sep-2002	WO03/023769	01425740	10-sep-2022	Write Strategy for recording	
FR-EP	580637EP01	04027804.6	23-nov-2004		01536416	23-nov-2024	Recording speed and read compatibility	
FR-EP	580364EP01	04788295.6	29-sep-2004		01679698	29-sep-2024	Recording power shift	
FR-EP	580365EP01	04791953.5	01-okt-2004		01672621	01-okt-2024	Structure of Disc Testing Area	
FR-EP	580534EP01	05703767.3	18-jan-2005		01708179	18-jan-2025	Layer Jump Recording	
FR-EP	580536EP01	05709467.4	28-jan-2005		01722365	28-jan-2025	Layer Jump Recording	
FR-EP	580606EP01	05727366.6	29-mrt-2005		01732069	29-mrt-2025	Pre-recorded Lead-out area	
FR-EP	590278EP01	05765282.8	30-jun-2005		01764783	30-jun-2025	Structure of Disc Testing Area	
FR-EP	590412EP01	05767066.3	01-aug-2005		01783770	01-aug-2025	Pre-recorded information code	
FR-EP	590412EP02	07102247.9	13-feb-2007		01783773	01-aug-2025	Pre-recorded information code	
FR-EP	590502EP01	05783200.8	14-sep-2005		01796091	14-sep-2025	Layer Jump interval	
FR-EP	590588EP01	05793673.4	12-okt-2005		01801795	12-okt-2025	Layer Jump Recording	
FR-EP	590600EP01	05788060.1	03-okt-2005		01814110	03-okt-2025	Border Recording in Information area	
FR-EP	590913EP01	05819880.5	26-dec-2005		01852857	26-dec-2025	Pre-recorded Middle area	
FR-EP	590916EP01	06711651.7	13-jan-2006		01837872	13-jan-2026	Clearance to keep the Recording order	
FR-EP	590921EP01	06711656.6	13-jan-2006		01837866	13-jan-2026	Structure of Disc Testing Area	
GB-EP	503028EP01	96110320.7	26-jun-1996	0751506	00751506	26-jun-2016	Layout of Land Pre-Pit	
GB-EP	503111EP01	97300118.3	09-jan-1997		00784313	09-jan-2017	Layout of Land Pre-Pit	
GB-EP	503141EP01	97105420.0	01-apr-1997	0800172	00800172	01-apr-2017	Linking scheme	
GB-EP	503141EP02	02018115.2	13-aug-2002	1280152	01280152	01-apr-2017	Linking scheme	

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GB-EP	504030EP01	95305172.9	25-jul-1995	0694915	00694915	25-jul-2015	Multi layer disc	
GB-EP	504102EP02	03025667.1	07-nov-2003	1403869	01403869	05-dec-2016	Digital data transmitting	
GB-EP	504102EP04	06115016.5	06-jun-2006		01715485	05-dec-2016	Digital data transmitting	
GB-EP	504102EP05	06115021.5	06-jun-2006		01715486	05-dec-2016	Digital data transmitting	
GB-EP	504188EP01	97301337.8	27-feb-1997		00793233	27-feb-2017	Minimum readout rate	
GB-EP	513047EP01	97105470.5	02-apr-1997	0800165	00800165	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
GB-EP	550338EP01	01308706.9	12-okt-2001	1197957	01197957	12-okt-2021	OPC Marker	
GB-EP	560134EP01	02256026.2	30-aug-2002		01288923	30-aug-2022	Write Strategy for recording	
GB-EP	560242EP01	02767935.6	10-sep-2002	WO03/023769	01425740	10-sep-2022	Write Strategy for recording	
GB-EP	580637EP01	04027804.6	23-nov-2004		01536416	23-nov-2024	Recording speed and read compatibility	
GB-EP	580364EP01	04788295.6	29-sep-2004		01679698	29-sep-2024	Recording power shift	
GB-EP	580365EP01	04791953.5	01-okt-2004		01672621	01-okt-2024	Structure of Disc Testing Area	
GB-EP	580534EP01	05703767.3	18-jan-2005		01708179	18-jan-2025	Layer Jump Recording	
GB-EP	580536EP01	05709467.4	28-jan-2005		01722365	28-jan-2025	Layer Jump Recording	
GB-EP	580606EP01	05727366.6	29-mrt-2005		01732069	29-mrt-2025	Pre-recorded Lead-out area	
GB-EP	590278EP01	05765282.8	30-jun-2005		01764783	30-jun-2025	Structure of Disc Testing Area	
GB-EP	590412EP01	05767066.3	01-aug-2005		01783770	01-aug-2025	Pre-recorded information code	
GB-EP	590412EP02	07102247.9	13-feb-2007		01783773	01-aug-2025	Pre-recorded information code	
GB-EP	590502EP01	05783200.8	14-sep-2005		01796091	14-sep-2025	Layer Jump interval	
GB-EP	590588EP01	05793673.4	12-okt-2005		01801795	12-okt-2025	Layer Jump Recording	
GB-EP	590600EP01	05788060.1	03-okt-2005		01814110	03-okt-2025	Border Recording in Information area	
GB-EP	590913EP01	05819880.5	26-dec-2005		01852857	26-dec-2025	Pre-recorded Middle area	
GB-EP	590916EP01	06711651.7	13-jan-2006		01837872	13-jan-2026	Clearance to keep the Recording order	
GB-EP	590921EP01	06711656.6	13-jan-2006		01837866	13-jan-2026	Structure of Disc Testing Area	
HK	503141HK01	03102149.3	25-mrt-2003		1050072	01-apr-2017	Linking scheme	
HK	504102HK02	04106418.7	26-aug-2004		1063685	05-dec-2016	Digital data transmitting	
HK	550338HK01	02104197.1	03-jun-2002		1044065	12-okt-2021	OPC Marker	
HK	560242HK01	05103831.2	10-sep-2002		1071226	10-sep-2022	Write Strategy for recording	
HK	580364HK01	06111529.1	19-okt-2006		1090740	29-sep-2024	Recording power shift	
HK	580365HK01	06111530.8	19-okt-2006		1090741	01-okt-2024	Structure of Disc Testing Area	
ID	504102ID01	P-963596	05-dec-1996		0005541	05-dec-2016	Digital data transmitting	
ID	513047ID01	P-971080	31-mrt-1997		0012134	31-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share

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ID	513047ID02	P-00200300522	09-okt-2003		0015319	31-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
IN	504102IN01	2183/MAS/1996	04-dec-1996		194873	04-dec-2016	Digital data transmitting	
IN	513047IN01	845/DEL/1997	01-apr-1997		216124	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
IN	513047IN02	2457/DEL/2004	10-dec-2004				Layout of Land Pre-Pit	*grant for Pioneer's share
IN	513047IN03	1858/DEL/2005	18-jul-2005		225392	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
IT-EP	550338EP01	01308706.9	12-okt-2001	1197957	01197957	12-okt-2021	OPC Marker	
JP	503028JP02	2000339670	07-nov-2000	2001167447	03440071	26-jun-2015	Layout of Land Pre-Pit	
JP	503031JP03	2003084394	26-mrt-2003	2003288723	03847266	26-jun-2015	Optimum Power Control	
JP	503032JP03	2000378043	12-dec-2000	2001202718	03466565	26-jun-2015	Border Zone	
JP	503111JP01	1996004421	12-jan-1996	1997198657	03917207	12-jan-2016	Layout of Land Pre-Pit	
JP	503111JP04	2003043893	21-feb-2003	2003263744	03917535	12-jan-2016	Layout of Land Pre-Pit	
JP	503141JP01	1996079252	01-apr-1996	1997270171	03824701	01-apr-2016	Linking scheme	
JP	503141JP02	2003380360	10-nov-2003	2004047116	04012873	01-apr-2016	Linking scheme	
JP	503141JP03	2006262567	27-sep-2006	2007026667	04012929	01-apr-2016	Linking scheme	
JP	504030JP01	1995148907	15-jun-1995	1996096406	03558306	15-jun-2015	Multi layer disc	
JP	504102JP01	1995316420	05-dec-1995	1997162857	03394127	05-dec-2015	Digital data transmitting	
JP	504188JP02	2001400061	28-dec-2001	2002237150	04112857	28-feb-2016	Minimum readout rate	
JP	513047JP04	2003187488	30-jun-2003	2003338045	04130785	01-jul-2016	Layout of Land Pre-Pit	*grant for Pioneer's share
JP	513047JP05	2003187489	30-jun-2003	2003338042	03836448	01-jul-2016	Layout of Land Pre-Pit	*grant for Pioneer's share
JP	513047JP06	2004182933	21-jun-2004	2004303415	04051357	01-jul-2016	Layout of Land Pre-Pit	*grant for Pioneer's share
JP	523180JP02	2005037293	15-feb-2005	2005174549	03720350	20-aug-2018	Recording clock signal	
JP	550338JP01	2000313588	13-okt-2000	2002123940	04114767	13-okt-2020	OPC Marker	
JP	550338JP02	2007220869	28-aug-2007	2007305303	04294709	13-okt-2020	OPC Marker	
JP	580637JP02	2009254389	05-nov-2009	2010055742	04955048	28-nov-2023	Recording speed and read compatibility	
JP	580365JP02	2005514463	01-okt-2004		04395477	01-okt-2024	Structure of Disc Testing Area	
JP	580451JP02	2005516839	24-dec-2004		04415943	24-dec-2024	Dummy data in Middle area	
JP	580534JP02	2005517101	18-jan-2005		04422107	18-jan-2025	Layer Jump Recording	
JP	580536JP02	2005517660	28-jan-2005		04406404	28-jan-2025	Layer Jump Recording	
JP	580561JP02	2006500607	28-feb-2005		03873080	28-feb-2025	Reduced Border-out	
JP	580586JP02	2006514584	10-jun-2005		04475428	10-jun-2025	The edge of the recordable area on Layer 1	
JP	580588JP02	2006510406	18-feb-2005		04442830	18-feb-2025	Reduced Border-out	
JP	580606JP02	2006511581	29-mrt-2005		04395509	29-mrt-2025	Pre-recorded Lead-out area	

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JP	590278JP02	2006528793	30-jun-2005		04502138	30-jun-2025	Structure of Disc Testing Area
JP	590412JP02	2006531464	01-aug-2005		04375677	01-aug-2025	Pre-recorded information code
JP	590451JP02	2006532638	26-aug-2005		04502139	26-aug-2025	Characteristics of recorded signal
JP	590501JP02	2006535168	14-sep-2005		04507205	14-sep-2025	Anchor Point
JP	590502JP02	2006535169	14-sep-2005		04488316	14-sep-2025	Layer Jump interval
JP	590588JP02	2006540946	12-okt-2005		04411640	12-okt-2025	Layer Jump Recording
JP	590600JP02	2006539284	03-okt-2005		04043504	03-okt-2025	Border Recording in Information area
JP	590913JP02	2006550748	26-dec-2005		04042865	26-dec-2025	Pre-recorded Middle area
JP	590916JP02	2006552978	13-jan-2006		04627762	13-jan-2026	Clearance to keep the Recording order
JP	590918JP02	2006552980	13-jan-2006		04749343	13-jan-2026	Characteristics of recorded signal
JP	590921JP02	2006552983	13-jan-2006		04390217	13-jan-2026	Structure of Disc Testing Area
KR	504102KR01	62001/96	05-dec-1996	97-56160	00329456	05-dec-2016	Digital data transmitting
KR	513047KR01	12187/97	02-apr-1997	97-71533	00478863	02-apr-2017	Layout of Land Pre-Pit
KR	560242KR01	20047002941	10-sep-2002	2004002902	00566033	10-sep-2022	Write Strategy for recording
KR	580637KR01	20040098105	26-nov-2004	2005-0052395	01094102	26-nov-2024	Recording speed and read compatibility
KR	580364KR01	20067008524	29-sep-2004		00703148	29-sep-2024	Recording power shift
KR	580365KR01	20067008640	01-okt-2004		00750979	01-okt-2024	Structure of Disc Testing Area
KR	580365KR02	20067008817	04-mei-2006		00717706	01-okt-2024	Structure of Disc Testing Area
KR	580404KR01	20067008523	29-sep-2004		00769534	29-sep-2024	Write Strategy code
KR	580451KR01	20067015592	24-dec-2004		01087563	24-dec-2024	Dummy data in Middle area
KR	580536KR01	20067017996	28-jan-2005		01041063	28-jan-2025	Layer Jump Recording
KR	580556KR01	20077005817	07-sep-2005		00869270	07-sep-2025	Structure of Disc Testing Area
KR	580561KR01	20057020660	28-feb-2005		00755421	28-feb-2025	Reduced Border-out
KR	580606KR01	20067022597	29-mrt-2005		00832413	29-mrt-2025	Pre-recorded Lead-out area
KR	590278KR01	20067010447	30-jun-2005		00755422	30-jun-2025	Structure of Disc Testing Area
KR	590412KR01	20077005112	01-aug-2005		00872473	01-aug-2025	Pre-recorded information code
KR	590412KR02	20077005211	05-mrt-2007		00874489	01-aug-2025	Pre-recorded information code
KR	590451KR01	20067013241	26-aug-2005		00765981	26-aug-2025	Characteristics of recorded signal
KR	590501KR01	20067014220	14-sep-2005		00769626	14-sep-2025	Anchor Point
KR	590502KR01	20077008128	14-sep-2005		00871334	14-sep-2025	Layer Jump interval
KR	590588KR01	20077010798	12-okt-2005		01084501	12-okt-2025	Layer Jump Recording
KR	590600KR01	20077010277	03-okt-2005		00895633	03-okt-2025	Border Recording in Information area

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KR	590913KR01	20067026781	26-dec-2005		00852227	26-dec-2025	Pre-recorded Middle area	
KR	590916KR01	20067027246	13-jan-2006		00836701	13-jan-2026	Clearance to keep the Recording order	
KR	590918KR01	20077018562	13-jan-2006		00918266	13-jan-2026	Characteristics of recorded signal	
KR	590921KR01	20067026046	13-jan-2006		00836700	13-jan-2026	Structure of Disc Testing Area	
MX	504102MX01	966099	05-dec-1996		195994	05-dec-2016	Digital data transmitting	
MX	513047MX01	972413	02-apr-1997		223525	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
MX	513047MX02	PA/a/2003/004277	15-mei-2003		247757	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
MY	504102MY01	PI9605068	03-dec-1996		MY-112856-A	03-dec-2016	Digital data transmitting	
MY	513047MY01	PI97001419	02-apr-1997		127657	29-dec-2021	Layout of Land Pre-Pit	*grant for Pioneer's share
NL-EP	504102EP02	03025667.1	07-nov-2003	1403869	01403869	05-dec-2016	Digital data transmitting	
NL-EP	504102EP04	06115016.5	06-jun-2006		01715485	05-dec-2016	Digital data transmitting	
NL-EP	504102EP05	06115021.5	06-jun-2006		01715486	05-dec-2016	Digital data transmitting	
NL-EP	550338EP01	01308706.9	12-okt-2001	1197957	01197957	12-okt-2021	OPC Marker	
RU	513047RU01	97105090	01-apr-1997		2219595	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
SG	504102SG01	9611511-8	04-dec-1996		79210	04-dec-2016	Digital data transmitting	
SG	513047SG01	9701008-6	29-mrt-1997		47218	29-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TH	504102TH01	9601004164	02-dec-1996		9825	02-dec-2016	Digital data transmitting	
TH	513047TH01	036591	31-mrt-1997	30098	33048	31-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TW	504102TW01	85114966	04-dec-1996		88955	03-dec-2016	Digital data transmitting	
TW	513047TW01	86103929	01-apr-1997		158436	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TW	560242TW01	91120426	09-sep-2002		234772	08-sep-2022	Write Strategy for recording	
TW	580637TW01	93136462	26-nov-2004		340968	25-nov-2024	Recording speed and read compatibility	
TW	580561TW01	94106410	03-mrt-2005		304578	02-mrt-2025	Reduced Border-out	
TW	580586TW01	94119277	10-jun-2005		368218	09-jun-2025	The edge of the recordable area on Layer 1	
TW	580606TW01	94109535	28-mrt-2005		355654	27-mrt-2025	Pre-recorded Lead-out area	
TW	590278TW01	94122668	05-jul-2005		338298	04-jul-2025	Structure of Disc Testing Area	
TW	590412TW01	94126334	03-aug-2005		358060	02-aug-2025	Pre-recorded information code	
TW	590451TW01	94129597	30-aug-2005		267077	29-aug-2025	Characteristics of recorded signal	
TW	590501TW01	94132038	16-sep-2005		328220	15-sep-2025	Anchor Point	
TW	590502TW01	94132041	16-sep-2005		354283	15-sep-2025	Layer Jump interval	
TW	590588TW01	94135459	12-okt-2005		355658	11-okt-2025	Layer Jump Recording	
TW	590600TW01	94134597	04-okt-2005		348157	03-okt-2025	Border Recording in Information area	

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TW	590913TW01	95100408	05-jan-2006		345775	04-jan-2026	Pre-recorded Middle area	
TW	590916TW01	95101337	13-jan-2006		350538	12-jan-2026	Clearance to keep the Recording order	
TW	590918TW01	95101336	13-jan-2006		351691	12-jan-2026	Characteristics of recorded signal	
US	503028US01	08/668334	25-jun-1996		06181657	25-jun-2016	Layout of Land Pre-Pit	
US	503031US02	09/846557	27-apr-2001		RE38602	24-jun-2016	Optimum Power Control	
US	503032US01	08/672035	26-jun-1996		05808992	26-jun-2016	Border Zone	
US	503111US01	08/780288	08-jan-1997		05901123	08-jan-2017	Layout of Land Pre-Pit	
US	503111US03	10/178649	24-jun-2002	2002-0154586	06731575	08-jan-2017	Layout of Land Pre-Pit	
US	503141US02	09/876509	07-jun-2001		06735155	01-apr-2017	Linking scheme	
US	503141US03	10/693306	24-okt-2003		07126898	01-apr-2017	Linking scheme	
US	503141US04	10/772512	05-feb-2004	2004-0156283	07123576	01-apr-2017	Linking scheme	
US	504030US01	08/504793	20-jul-1995		05608715	20-jul-2015	Multi layer disc	
US	504102US02	10/785864	25-feb-2004		RE40312	03-dec-2016	Digital data transmitting	
US	504188US01	08/806458	26-feb-1997		06236804	26-feb-2017	Minimum readout rate	
US	513047US01	08/825890	02-apr-1997		06075761	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
US	513047US03	10/238760	10-sep-2002		06646963	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
US	513047US06	10/238761	10-sep-2002		06606289	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
US	523082US05	10/117184	08-apr-2002	2002-0110060	06487150	20-feb-2018	Recording clock signal	
US	550338US03	12/073162	29-feb-2008		RE42023	16-apr-2022	OPC Marker	
US	560242US01	10/237598	10-sep-2002		07139230	27-nov-2023	Write Strategy for recording	
US	580364US01	10/573762	29-sep-2004		07636282	29-jan-2027	Recording power shift	
US	580365US03	12/751640	31-mrt-2010		08194516	01-okt-2024	Structure of Disc Testing Area	
US	580451US01	10/585254	24-dec-2004		07529159	10-jan-2026	Dummy data in Middle area	
US	580534US01	10/586647	18-jan-2005		07529163	11-dec-2025	Layer Jump Recording	
US	580536US01	10/588303	28-jan-2005		07701831	17-dec-2026	Layer Jump Recording	
US	580561US01	10/551965	28-feb-2005		07440375	25-aug-2025	Reduced Border-out	
US	580586US01	11/628757	10-jun-2005		07706241	27-apr-2027	The edge of the recordable area on Layer 1	
US	580588US01	10/590738	18-feb-2005		08094526	27-okt-2027	Reduced Border-out	
US	580606US01	10/594502	29-mrt-2005		07539104	04-apr-2026	Pre-recorded Lead-out area	
US	590278US01	10/577227	30-jun-2005		07800999	26-jul-2028	Structure of Disc Testing Area	
US	590412US01	11/659081	01-aug-2005		07768899	22-nov-2027	Pre-recorded information code	
US	590451US01	10/577226	26-aug-2005		07539113	04-jul-2026	Characteristics of recorded signal	

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US	590501US01	10/577225	14-sep-2005		08149655	22-apr-2027	Anchor Point
US	590502US01	11/662939	14-sep-2005		07515519	12-jan-2026	Layer Jump interval
US	590588US01	11/665067	12-okt-2005		07948843	10-jul-2028	Layer Jump Recording
US	590600US01	11/664504	03-okt-2005		08077577	16-jun-2027	Border Recording in Information area
US	590913US01	11/597715	26-dec-2005		08023383	13-sep-2028	Pre-recorded Middle area
US	590916US01	11/597899	13-jan-2006		07697390	29-sep-2027	Clearance to keep the Recording order
US	590918US01	11/795199	13-jan-2006		07885162	28-jan-2028	Characteristics of recorded signal
US	590921US01	11/597187	13-jan-2006		07940626	03-mrt-2029	Structure of Disc Testing Area
VN	504102VN01	1-1996-90429	04-dec-1996		1-0001518	04-dec-2016	Digital data transmitting
VN	513047VN01	1-1997-00249	02-apr-1997		1-0002045	02-apr-2017	Layout of Land Pre-Pit

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