

## Annex A to the DVD-R Disc Patent License Agreement

### Essential Pioneer Patents relevant to DVD-R Discs

<i>COUNTRY 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>	
AU	570061AU01	2003242424		2003242424	23-mei-2023	Compatibility Version information	
BR	513047BR01	PI9701610-1		PI9701610-1	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CA	513047CA01	2201454		2201454	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CA	570061CA01	2487326		2487326	23-mei-2023	Compatibility Version information	
CN	504102CN02	200610093817.3		ZL200610093817.3	05-dec-2016	Digital data transmitting	
CN	513047CN01	97104993.9		ZL97104993.9	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CN	513047CN02	200510128892.4		ZL200510128892.4	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
CN	533164CN01	00108941.2	1274924	ZL00108941.2	19-mei-2020	Contorol data zone	
DE-EP	503028EP02	01106060.5	1118983	69637764	26-jun-2016	Layout of Land Pre-Pit	
DE-EP	503111EP01	97300118.3		69715265	09-jan-2017	Layout of Land Pre-Pit	
DE-EP	504030EP01	95305172.9	0694915	69525571.1	25-jul-2015	Multi layer disc	
DE-EP	504102EP02	03025667.1	1403869	69636916.8	05-dec-2016	Digital data transmitting	
DE-EP	504188EP01	97301337.8		69739836.6	27-feb-2017	Minimum readout rate	
DE-EP	513047EP01	97105470.5	0800165	69737272.3	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
DE-EP	580365EP01	04791953.5		602004024806.1	01-okt-2024	Structure of Disc Testing Area	
DE-EP	580605EP01	05727640.4		602005034416.0	29-mrt-2025	Pre-recorded Middle area	
DE-EP	580606EP01	05727366.6		602005031096	29-mrt-2025	Pre-recorded Lead-out area	
DE-EP	590412EP01	05767066.3		602005017911.9	01-aug-2025	Pre-recorded information code	
DE-EP	590412EP02	07102247.9		602005017288.2	01-aug-2025	Pre-recorded information code	
DE-EP	590502EP01	05783200.8		01796091	14-sep-2025	Layer Jump interval	
DE-EP	590588EP01	05793673.4		602005026961.4	12-okt-2025	Layer Jump Recording	
DE-EP	590916EP01	06711651.7		602006028027.0	13-jan-2026	Clearance to keep the Recording order	
EP	513047EP02	06125628.5				Layout of Land Pre-Pit	*grant for Pioneer's share
FR-EP	503028EP02	01106060.5	1118983	01118983	26-jun-2016	Layout of Land Pre-Pit	
FR-EP	503111EP01	97300118.3		00784313	09-jan-2017	Layout of Land Pre-Pit	
FR-EP	504030EP01	95305172.9	0694915	00694915	25-jul-2015	Multi layer disc	
FR-EP	504102EP02	03025667.1	1403869	01403869	05-dec-2016	Digital data transmitting	
FR-EP	504188EP01	97301337.8		00793233	27-feb-2017	Minimum readout rate	

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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	580365EP01	04791953.5	01-okt-2004		01672621	01-okt-2024	Structure of Disc Testing Area	
FR-EP	580605EP01	05727640.4	29-mrt-2005		01732070	29-mrt-2025	Pre-recorded Middle area	
FR-EP	580606EP01	05727366.6	29-mrt-2005		01732069	29-mrt-2025	Pre-recorded Lead-out 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	590916EP01	06711651.7	13-jan-2006		01837872	13-jan-2026	Clearance to keep the Recording order	
GB-EP	503028EP02	01106060.5	12-mrt-2001	1118983	01118983	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	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	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	580365EP01	04791953.5	01-okt-2004		01672621	01-okt-2024	Structure of Disc Testing Area	
GB-EP	580605EP01	05727640.4	29-mrt-2005		01732070	29-mrt-2025	Pre-recorded Middle area	
GB-EP	580606EP01	05727366.6	29-mrt-2005		01732069	29-mrt-2025	Pre-recorded Lead-out 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	590916EP01	06711651.7	13-jan-2006		01837872	13-jan-2026	Clearance to keep the Recording order	
HK	503028HK01	01109013.3	22-dec-2001	1039204	1039204	26-jun-2016	Layout of Land Pre-Pit	
HK	504102HK02	04106418.7	26-aug-2004		1063685	05-dec-2016	Digital data transmitting	
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
IN	504102IN01	2183/MAS/1996	04-dec-1996		194873	04-dec-2016	Digital data transmitting	

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IN	513047IN01	845/DEL/1997		216124	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
IN	513047IN02	2457/DEL/2004				Layout of Land Pre-Pit	*grant for Pioneer's share
JP	503028JP02	2000339670	2001167447	03440071	26-jun-2015	Layout of Land Pre-Pit	
JP	503031JP03	2003084394	2003288723	03847266	26-jun-2015	Optimum Power Control	
JP	503111JP01	1996004421	1997198657	03917207	12-jan-2016	Layout of Land Pre-Pit	
JP	504030JP01	1995148907	1996096406	03558306	15-jun-2015	Multi layer disc	
JP	504102JP01	1995316420	1997162857	03394127	05-dec-2015	Digital data transmitting	
JP	504188JP02	2001400061	2002237150	04112857	28-feb-2016	Minimum readout rate	
JP	513047JP01	1996171528	1997326138	03703569	01-jul-2016	Layout of Land Pre-Pit	*grant for Pioneer's share
JP	513047JP02	2003187486	2003338087	03739763	01-jul-2016	Layout of Land Pre-Pit	*grant for Pioneer's share
JP	580365JP02	2005514463		04395477	01-okt-2024	Structure of Disc Testing Area	
JP	580605JP02	2006511580		04398458	29-mrt-2025	Pre-recorded Middle area	
JP	581253JP02	2006513874		04603535	23-mei-2025	Physical sector layout	
JP	590412JP02	2006531464		04375677	01-aug-2025	Pre-recorded information code	
JP	590501JP02	2006535168		04507205	14-sep-2025	Anchor Point	
JP	590502JP02	2006535169		04488316	14-sep-2025	Layer Jump interval	
JP	590588JP02	2006540946		04411640	12-okt-2025	Layer Jump Recording	
JP	590916JP02	2006552978		04627762	13-jan-2026	Clearance to keep the Recording order	
KR	504102KR01	62001/96	97-56160	00329456	05-dec-2016	Digital data transmitting	
KR	513047KR01	12187/97	97-71533	00478863	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
KR	533164KR01	20000027001		00467379	19-mei-2020	Contorol data zone	
KR	570061KR01	20047019399	2005-0019725	01169979	23-mei-2023	Compatibility Version information	
KR	580364KR01	20067008524		00703148	29-sep-2024	Recording power shift	
KR	580365KR01	20067008640		00750979	01-okt-2024	Structure of Disc Testing Area	
KR	580365KR02	20067008817		00717706	01-okt-2024	Structure of Disc Testing Area	
KR	580404KR01	20067008523		00769534	29-sep-2024	Write Strategy code	
KR	580556KR01	20077005817		00869270	07-sep-2025	Structure of Disc Testing Area	
KR	580605KR01	20067022551		00832412	29-mrt-2025	Pre-recorded Middle area	
KR	580606KR01	20067022597		00832413	29-mrt-2025	Pre-recorded Lead-out area	

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KR	590278KR01	20067010447		00755422	30-jun-2025	Structure of Disc Testing Area	
KR	590412KR01	20077005112		00872473	01-aug-2025	Pre-recorded information code	
KR	590412KR02	20077005211		00874489	01-aug-2025	Pre-recorded information code	
KR	590501KR01	20067014220		00769626	14-sep-2025	Anchor Point	
KR	590502KR01	20077008128		00871334	14-sep-2025	Layer Jump interval	
KR	590588KR01	20077010798		01084501	12-okt-2025	Layer Jump Recording	
KR	590916KR01	20067027246		00836701	13-jan-2026	Clearance to keep the Recording order	
KR	590920KR01	20077018154		01096552	13-jan-2026	Allocation of Lead-out area with NBCA	
MX	504102MX01	966099		195994	05-dec-2016	Digital data transmitting	
MX	513047MX01	972413		223525	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
MX	570061MX01	PA/a/2004/011864		257628	23-mei-2023	Compatibility Version information	
MY	504102MY01	PI9605068		MY-112856-A	03-dec-2016	Digital data transmitting	
MY	513047MY01	PI97001419		127657	29-dec-2021	Layout of Land Pre-Pit	*grant for Pioneer's share
MY	570061MY01	PI20031968		MY-138596-A	28-mei-2023	Compatibility Version information	
NL-EP	504102EP02	03025667.1	1403869	01403869	05-dec-2016	Digital data transmitting	
RU	513047RU01	97105090		2219595	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
RU	570061RU01	2004138596	2004138596	2308101	23-mei-2023	Compatibility Version information	
SG	504102SG01	9611511-8		79210	04-dec-2016	Digital data transmitting	
SG	513047SG01	9701008-6		47218	29-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
SG	570061SG01	200406798-9		108036	23-mei-2023	Compatibility Version information	
TH	504102TH01	9601004164		9825	02-dec-2016	Digital data transmitting	
TH	513047TH01	036591	30098	33048	31-mrt-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TW	504102TW01	85114966		88955	03-dec-2016	Digital data transmitting	
TW	513047TW01	86103929		158436	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TW	513047TW02	90124439		199333	01-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
TW	533164TW01	89109739		146277	20-mei-2020	Contorol data zone	
TW	570061TW01	92114545		334136	28-mei-2023	Compatibility Version information	
TW	580605TW01	94109736		359413	28-mrt-2025	Pre-recorded Middle area	
TW	580606TW01	94109535		355654	27-mrt-2025	Pre-recorded Lead-out area	

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TW	581253TW01	94117426	27-mei-2005		364756	26-mei-2025	Physical sector layout	
TW	590274TW01	94122534	04-jul-2005		354276	03-jul-2025	Pre-pit data block configuration	
TW	590412TW01	94126334	03-aug-2005		358060	02-aug-2025	Pre-recorded information code	
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	590916TW01	95101337	13-jan-2006		350538	12-jan-2026	Clearance to keep the Recording order	
TW	590920TW01	95100842	10-jan-2006		345778	09-jan-2026	Allocation of Lead-out area with NBCA	
US	484116US01	08/699191	07-nov-1994		05629924	07-nov-2014	Structure of SYNC Codes	
US	503028US02	09/736122	15-dec-2000		06504814	25-jun-2016	Layout of Land Pre-Pit	
US	503031US02	09/846557	27-apr-2001		RE38602	24-jun-2016	Optimum Power Control	
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	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	513047US02	09/533700	23-mrt-2000		06282166	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	533164US01	09/575530	22-mei-2000		06700843	22-mei-2020	Contorol data zone	
US	570061US01	10/446776	29-mei-2003		07301873	29-jun-2024	Compatibility Version information	
US	580364US01	10/573762	29-sep-2004		07636282	29-jan-2027	Recording power shift	
US	580365US02	11/395174	03-apr-2006		07721097	16-sep-2027	Structure of Disc Testing Area	
US	580605US01	10/594499	29-mrt-2005		07933192	13-feb-2027	Pre-recorded Middle area	
US	580606US01	10/594502	29-mrt-2005		07539104	04-apr-2026	Pre-recorded Lead-out area	
US	590274US01	11/631425	30-jun-2005		07929404	13-aug-2028	Pre-pit data block configuration	
US	590412US01	11/659081	01-aug-2005		07768899	22-nov-2027	Pre-recorded information code	
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	

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US	590916US01	11/597899		07697390	29-sep-2027	Clearance to keep the Recording order	
VN	504102VN01	1-1996-90429		1-0001518	04-dec-2016	Digital data transmitting	
VN	513047VN01	1-1997-00249		1-0002045	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share
VN	513047VN02	1-2001-00456		1-0002800	02-apr-2017	Layout of Land Pre-Pit	*grant for Pioneer's share