

## Annex A3 to the DVD-Video Disc and DVD-ROM Disc Patent License Agreement

### Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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	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
DE-EP	504041EP01	96304936.6	04-jul-1996	0752705A2	69633365.1	04-jul-2016	Time map
DE-EP	504055EP01	96110987.3	08-jul-1996	0753854	69633540.9	08-jul-2016	Seamless playback control
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	504163EP01	97302312.0	03-apr-1997	1280153	69719582.1	03-apr-2017	Stream availability
DE-EP	504163EP02	02021306.2	20-sep-2002		69740287.8	03-apr-2017	Stream availability
DE-EP	504163EP03	02021307.0	20-sep-2002	1267348	69740268.1	03-apr-2017	User operation restriction
DE-EP	504164EP01	97301572.0	10-mrt-1997		69718225.8	10-mrt-2017	Access restriction control
DE-EP	504165EP01	97301817.9	18-mrt-1997		69716154.4	18-mrt-2017	Still picture playback control
DE-EP	504165EP02	02005308.8	13-mrt-2002	1223580	69738785.2	18-mrt-2017	Still picture playback control
DE-EP	504166EP01	97301340.2	27-feb-1997		69740026.3	27-feb-2017	Separation of PCI and DSI
DE-EP	504167EP01	97301536.5	07-mrt-1997		69725365.1	07-mrt-2017	2 types of VOBUs
DE-EP	504168EP01	97301915.1	21-mrt-1997		69708179.6	21-mrt-2017	VOBU search information
DE-EP	504168EP02	01106403.7	21-mrt-2001		69736846.7	21-mrt-2017	VOBU search information
DE-EP	504169EP01	97301880.7	20-mrt-1997		69715492.0	20-mrt-2017	VOBU search information
DE-EP	504171EP01	97301652.0	12-mrt-1997		69718365.3	12-mrt-2017	Parental control
DE-EP	504171EP02	02015687.3	18-jul-2002	1258886	69737245.6	12-mrt-2017	Parental control
DE-EP	504174EP01	97301613.2	11-mrt-1997		69718538.9	11-mrt-2017	VOB ID, Cell ID
DE-EP	504175EP01	97301858.3	19-mrt-1997		69715495.5	19-mrt-2017	Text information
DE-EP	504175EP02	02009368.8	06-mei-2002	1229539	69739488.3	19-mrt-2017	Text information
DE-EP	504176EP01	97301756.9	17-mrt-1997		69708181.8	17-mrt-2017	Time search map
DE-EP	504179EP01	97302258.5	02-apr-1997		69734222.0	02-apr-2017	Highlight PTS
DE-EP	504180EP01	97301857.5	19-mrt-1997		69725638.3	19-mrt-2017	Seamless playback
DE-EP	504180EP02	03012296.4	12-jun-2003	1347454	69738258.3	19-mrt-2017	Seamless playback

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
DE-EP	504181EP01	97302338.5	04-apr-1997	1310957	69722701.4	04-apr-2017	Audio frame alignment
DE-EP	504181EP02	03001306.4	23-jan-2003	1310957	69739676.2	04-apr-2017	Audio frame alignment
DE-EP	504182EP01	97301490.5	05-mrt-1997		69715704.0	05-mrt-2017	Audio frame number
DE-EP	504182EP02	02007337.5	05-apr-2002	1235221	69739630.4	05-mrt-2017	Audio frame number
DE-EP	504184EP01	97301757.7	17-mrt-1997		69718838.8	17-mrt-2017	Attribute information
DE-EP	504184EP02	02021267.6	19-sep-2002	1274080	69740548.6	17-mrt-2017	Attribute information
DE-EP	504186EP01	97301645.4	12-mrt-1997	0797203	69718539.7	12-mrt-2017	First access unit pointer
DE-EP	504188EP01	97301337.8	27-feb-1997		69739836.6	27-feb-2017	Minimum readout rate
DE-EP	504189EP01	97301489.7	05-mrt-1997	0795859	69704034.8	05-mrt-2017	Audio frame
FR-EP	504041EP01	96304936.6	04-jul-1996	0752705A2	00752705	04-jul-2016	Time map
FR-EP	504055EP01	96110987.3	08-jul-1996	0753854	00753854	08-jul-2016	Seamless playback control
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	504163EP01	97302312.0	03-apr-1997	1280153	00800164	03-apr-2017	Stream availability
FR-EP	504163EP02	02021306.2	20-sep-2002		01280153	03-apr-2017	Stream availability
FR-EP	504163EP03	02021307.0	20-sep-2002	1267348	01267348	03-apr-2017	User operation restriction
FR-EP	504164EP01	97301572.0	10-mrt-1997		00795869	10-mrt-2017	Access restriction control
FR-EP	504165EP01	97301817.9	18-mrt-1997		00797201	18-mrt-2017	Still picture playback control
FR-EP	504165EP02	02005308.8	13-mrt-2002	1223580	01223580	18-mrt-2017	Still picture playback control
FR-EP	504166EP01	97301340.2	27-feb-1997		00793232	27-feb-2017	Separation of PCI and DSI
FR-EP	504167EP01	97301536.5	07-mrt-1997		00795871	07-mrt-2017	2 types of VOBUs
FR-EP	504168EP02	01106403.7	21-mrt-2001		01120789	21-mrt-2017	VOBU search information
FR-EP	504169EP01	97301880.7	20-mrt-1997		00797206	20-mrt-2017	VOBU search information
FR-EP	504171EP01	97301652.0	12-mrt-1997		00795873	12-mrt-2017	Parental control
FR-EP	504171EP02	02015687.3	18-jul-2002	1258886	01258886	12-mrt-2017	Parental control
FR-EP	504174EP01	97301613.2	11-mrt-1997		00795872	11-mrt-2017	VOB ID, Cell ID
FR-EP	504175EP01	97301858.3	19-mrt-1997		00798723	19-mrt-2017	Text information
FR-EP	504175EP02	02009368.8	06-mei-2002	1229539	01229539	19-mrt-2017	Text information

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
FR-EP	504179EP01	97302258.5	02-apr-1997		00800174	02-apr-2017	Highlight PTS
FR-EP	504180EP01	97301857.5	19-mrt-1997		00798722	19-mrt-2017	Seamless playback
FR-EP	504180EP02	03012296.4	12-jun-2003	1347454	01347454	19-mrt-2017	Seamless playback
FR-EP	504181EP01	97302338.5	04-apr-1997	1310957	00801392	04-apr-2017	Audio frame alignment
FR-EP	504181EP02	03001306.4	23-jan-2003	1310957	01310957	04-apr-2017	Audio frame alignment
FR-EP	504182EP01	97301490.5	05-mrt-1997		00795870	05-mrt-2017	Audio frame number
FR-EP	504182EP02	02007337.5	05-apr-2002	1235221	01235221	05-mrt-2017	Audio frame number
FR-EP	504184EP01	97301757.7	17-mrt-1997		00797205	17-mrt-2017	Attribute information
FR-EP	504184EP02	02021267.6	19-sep-2002	1274080	01274080	17-mrt-2017	Attribute information
FR-EP	504186EP01	97301645.4	12-mrt-1997	0797203	00797203	12-mrt-2017	First access unit pointer
FR-EP	504188EP01	97301337.8	27-feb-1997		00793233	27-feb-2017	Minimum readout rate
FR-EP	504189EP01	97301489.7	05-mrt-1997	0795859	00795859	05-mrt-2017	Audio frame
GB-EP	504041EP01	96304936.6	04-jul-1996	0752705A2	00752705	04-jul-2016	Time map
GB-EP	504055EP01	96110987.3	08-jul-1996	0753854	00753854	08-jul-2016	Seamless playback control
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	504163EP01	97302312.0	03-apr-1997	1280153	00800164	03-apr-2017	Stream availability
GB-EP	504163EP02	02021306.2	20-sep-2002		01280153	03-apr-2017	Stream availability
GB-EP	504163EP03	02021307.0	20-sep-2002	1267348	01267348	03-apr-2017	User operation restriction
GB-EP	504164EP01	97301572.0	10-mrt-1997		00795869	10-mrt-2017	Access restriction control
GB-EP	504165EP01	97301817.9	18-mrt-1997		00797201	18-mrt-2017	Still picture playback control
GB-EP	504165EP02	02005308.8	13-mrt-2002	1223580	01223580	18-mrt-2017	Still picture playback control
GB-EP	504166EP01	97301340.2	27-feb-1997		00793232	27-feb-2017	Separation of PCI and DSI
GB-EP	504167EP01	97301536.5	07-mrt-1997		00795871	07-mrt-2017	2 types of VOBUs
GB-EP	504168EP01	97301915.1	21-mrt-1997		00797200	21-mrt-2017	VOBU search information
GB-EP	504168EP02	01106403.7	21-mrt-2001		01120789	21-mrt-2017	VOBU search information
GB-EP	504169EP01	97301880.7	20-mrt-1997		00797206	20-mrt-2017	VOBU search information
GB-EP	504171EP01	97301652.0	12-mrt-1997		00795873	12-mrt-2017	Parental control

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
GB-EP	504171EP02	02015687.3	18-jul-2002	1258886	01258886	12-mrt-2017	Parental control
GB-EP	504174EP01	97301613.2	11-mrt-1997		00795872	11-mrt-2017	VOB ID, Cell ID
GB-EP	504175EP01	97301858.3	19-mrt-1997		00798723	19-mrt-2017	Text information
GB-EP	504175EP02	02009368.8	06-mei-2002	1229539	01229539	19-mrt-2017	Text information
GB-EP	504176EP01	97301756.9	17-mrt-1997		00797204	17-mrt-2017	Time search map
GB-EP	504179EP01	97302258.5	02-apr-1997		00800174	02-apr-2017	Highlight PTS
GB-EP	504180EP01	97301857.5	19-mrt-1997		00798722	19-mrt-2017	Seamless playback
GB-EP	504180EP02	03012296.4	12-jun-2003	1347454	01347454	19-mrt-2017	Seamless playback
GB-EP	504181EP01	97302338.5	04-apr-1997	1310957	00801392	04-apr-2017	Audio frame alignment
GB-EP	504181EP02	03001306.4	23-jan-2003	1310957	01310957	04-apr-2017	Audio frame alignment
GB-EP	504182EP01	97301490.5	05-mrt-1997		00795870	05-mrt-2017	Audio frame number
GB-EP	504182EP02	02007337.5	05-apr-2002	1235221	01235221	05-mrt-2017	Audio frame number
GB-EP	504184EP01	97301757.7	17-mrt-1997		00797205	17-mrt-2017	Attribute information
GB-EP	504184EP02	02021267.6	19-sep-2002	1274080	01274080	17-mrt-2017	Attribute information
GB-EP	504186EP01	97301645.4	12-mrt-1997	0797203	00797203	12-mrt-2017	First access unit pointer
GB-EP	504188EP01	97301337.8	27-feb-1997		00793233	27-feb-2017	Minimum readout rate
GB-EP	504189EP01	97301489.7	05-mrt-1997	0795859	00795859	05-mrt-2017	Audio frame
HK	504102HK02	04106418.7	26-aug-2004		1063685	05-dec-2016	Digital data transmitting
HK	504163HK01	03100319.1	14-jan-2003	1048560	HK1048560	03-apr-2017	Stream availabilty
HK	504163HK02	03105116.5	15-jul-2003		HK1053006	03-apr-2017	Stream availabilty
HK	504165HK01	03100031.8	02-jan-2003	1048558	1048558	18-mrt-2017	Still picture playback control
HK	504171HK01	03100318.2	14-jan-2003	1048559	1048559	12-mrt-2017	Parental control
HK	504175HK01	03100507.3	21-jan-2003		1049402	19-mrt-2017	Text information
HK	504180HK01	03107297.2	10-okt-2003	1055348	1055348	19-mrt-2017	Seamless playback
HK	504182HK01	02109380.7	28-dec-2002	1048557	1048557	05-mrt-2017	Audio frame number
ID	504102ID01	P-963596	05-dec-1996		0005541	05-dec-2016	Digital data transmitting
IN	504102IN01	2183/MAS/1996	04-dec-1996		194873	04-dec-2016	Digital data transmitting
JP	504041JP01	1995170913	06-jul-1995	1997023404	04018166	06-jul-2015	Time map
JP	504046JP01	1995169103	04-jul-1995	1997023403	03701051	04-jul-2015	Cell elapse time information

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
JP	504046JP02	2002180843	21-jun-2002	2003006985	04164295	04-jul-2015	Cell elapse time information
JP	504050JP02	2004303303	18-okt-2004	2005093061	04170280	04-jul-2015	Audio channel contents information
JP	504054JP01	1995177782	13-jul-1995	1997037199	03645006	13-jul-2015	Sub-picture contents inforamtion
JP	504102JP01	1995316420	05-dec-1995	1997162857	03394127	05-dec-2015	Digital data transmitting
JP	504163JP01	1996082932	04-apr-1996	1997274776	04059355	04-apr-2016	User operation restriction
JP	504163JP02	2002322268	06-nov-2002	2003203433	04000047	04-apr-2016	Stream availabilty
JP	504164JP03	2009068747	19-mrt-2009	2009199715	04551476	15-mrt-2016	Access restriction control
JP	504165JP01	1996061471	18-mrt-1996	1997261584	03729920	18-mrt-2016	Still picture playback control
JP	504165JP02	2002156155	29-mei-2002	2003046957	03730190	18-mrt-2016	Still picture playback control
JP	504165JP03	2002156156	29-mei-2002	2003068055	03730191	18-mrt-2016	Still picture playback control
JP	504167JP01	1996059837	15-mrt-1996	1997252450	03824699	15-mrt-2016	2 types of VOBUs
JP	504167JP02	2006135810	15-mei-2006	2006304326	04142063	15-mrt-2016	2 types of VOBUs
JP	504168JP01	1996066405	22-mrt-1996	1997259542	03938605	22-mrt-2016	VOBU search information
JP	504168JP02	2006135819	15-mei-2006	2006269069	04343918	22-mrt-2016	VOBU search information
JP	504169JP01	1996066403	22-mrt-1996	1997259541	04012585	22-mrt-2016	VOBU search information
JP	504170JP01	1996062324	19-mrt-1996	1997259527	03717585	19-mrt-2016	Video information recorded on a multilayer disc
JP	504170JP03	2001371492	05-dec-2001	2002170339	03499854	19-mrt-2016	Video information recorded on a multilayer disc
JP	504171JP01	1996059834	15-mrt-1996	1997251760	03816571	15-mrt-2016	Parental control
JP	504171JP02	2005273127	21-sep-2005	2006059526	04072547	15-mrt-2016	Parental control
JP	504175JP01	1996068730	25-mrt-1996	1997265765	03698805	25-mrt-2016	Text information
JP	504176JP01	1996061470	18-mrt-1996	1997251763	03761623	18-mrt-2016	Time search map
JP	504177JP02	2002310532	25-okt-2002	2003187531	03519724	22-mrt-2016	Multichannel audio contents information
JP	504177JP03	2003113374	17-apr-2003	2003331532	03785154	22-mrt-2016	Multichannel audio contents information
JP	504178JP01	1996066406	22-mrt-1996	1997259507	03728344	22-mrt-2016	Sub-picture display control
JP	504178JP02	2002320640	05-nov-2002	2003204526	03816865	22-mrt-2016	Sub-picture display control
JP	504178JP03	2006125084	28-apr-2006	2006304318	04197708	22-mrt-2016	Sub-picture display control
JP	504179JP02	2003197545	16-jul-2003	2004047081	03756496	05-apr-2016	Highlight PTS
JP	504180JP01	1996063590	19-mrt-1996	1997259573	03778985	19-mrt-2016	Seamless playback
JP	504180JP02	2005304051	19-okt-2005	2006092731	04044113	19-mrt-2016	Seamless playback

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
JP	504182JP01	1996059836	15-mrt-1996	1997252449	03480777	15-mrt-2016	Audio frame number
JP	504182JP02	2002314257	29-okt-2002	2003187530	03480845	15-mrt-2016	Audio frame number
JP	504185JP01	1996066404	22-mrt-1996	1997259506	03696327	22-mrt-2016	Cell contents information
JP	504186JP01	1996061473	18-mrt-1996	1997251762	03748936	18-mrt-2016	First access unit pointer
JP	504187JP01	1996061472	18-mrt-1996	1997251723	03969762	18-mrt-2016	24 bit data alignment
JP	504187JP02	2005351144	05-dec-2005	2006079828	04077005	18-mrt-2016	24 bit data alignment
JP	504188JP01	1996041943	28-feb-1996	1997231677	04112644	28-feb-2016	Minimum readout rate
JP	504188JP02	2001400061	28-dec-2001	2002237150	04112857	28-feb-2016	Minimum readout rate
JP	504189JP01	1996059835	15-mrt-1996	1997251717	03816572	15-mrt-2016	Audio frame
KR	504102KR01	62001/96	05-dec-1996	97-56160	00329456	05-dec-2016	Digital data transmitting
MX	504102MX01	966099	05-dec-1996		195994	05-dec-2016	Digital data transmitting
MY	504102MY01	PI9605068	03-dec-1996		MY-112856-A	03-dec-2016	Digital data transmitting
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
SG	504102SG01	9611511-8	04-dec-1996		79210	04-dec-2016	Digital data transmitting
TH	504102TH01	9601004164	02-dec-1996		9825	02-dec-2016	Digital data transmitting
TW	504102TW01	85114966	04-dec-1996		88955	03-dec-2016	Digital data transmitting
US	484116US01	08/699191	07-nov-1994		05629924	07-nov-2014	Structure of SYNC Codes
US	504040US01	08/670533	27-jun-1996		05886965	27-jun-2016	Cell contents
US	504041US01	08/675016	03-jul-1996		05892983	03-jul-2016	Time map
US	504041US02	09/244778	05-feb-1999		06085267	03-jul-2016	Time map
US	504055US02	09/088379	02-jun-1998		06160951	09-jul-2016	Seamless playback control
US	504102US02	10/785864	25-feb-2004		RE40312	03-dec-2016	Digital data transmitting
US	504163US01	08/834806	03-apr-1997		06215952	03-apr-2017	User operation restriction
US	504163US02	09/731653	08-dec-2000	2004-0071444	07035529	24-aug-2019	User operation restriction
US	504164US01	08/816941	14-mrt-1997		06085021	14-mrt-2017	Access restriction control
US	504165US01	08/819012	17-mrt-1997		06157769	17-mrt-2017	Still picture playback control
US	504165US02	09/639887	17-aug-2000		06501903	17-mrt-2017	Still picture playback control

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
US	504165US03	10/156393	29-mei-2002	2002-0176695	07242848	01-feb-2020	Still picture playback control
US	504166US01	08/806459	26-feb-1997		06006004	26-feb-2017	Separation of PCI and DSI
US	504166US02	09/404765	24-sep-1999		06253018	26-feb-2017	Separation of PCI and DSI
US	504166US03	09/780384	12-feb-2001		06396997	26-feb-2017	Highlight information
US	504166US04	10/101333	20-mrt-2002	2002-0141735	07095951	27-jan-2018	Highlight information
US	504167US01	08/816686	13-mrt-1997		06148138	13-mrt-2017	2 types of VOBUs
US	504168US01	08/822457	21-mrt-1997		06212330	21-mrt-2017	VOBU search information
US	504169US02	10/273568	23-okt-2002		RE38849	21-mrt-2017	VOBU search information
US	504170US02	10/606831	27-jun-2003	2004-0095812	07295762	26-apr-2017	Video information recorded on a multilayer disc
US	504171US01	08/816889	13-mrt-1997		05933569	13-mrt-2017	Parental control
US	504171US02	09/226105	07-jan-1999	409251760	06122434	13-mrt-2017	Parental control
US	504174US02	10/091221	28-feb-2002		RE38569	13-mrt-2017	VOB ID, Cell ID
US	504175US01	08/825560	20-mrt-1997		05889746	20-mrt-2017	Text information
US	504175US03	10/152036	22-mei-2002	2004-0136281	RE39110	20-mrt-2017	Text information
US	504176US01	08/822157	17-mrt-1997		06091674	17-mrt-2017	Time search map
US	504176US02	09/247870	11-feb-1999	409251763	06108281	17-mrt-2017	Time search map
US	504179US01	08/831716	01-apr-1997		06088506	01-apr-2017	Highlight PTS
US	504179US02	09/440290	15-nov-1999		06266478	01-apr-2017	Highlight PTS
US	504179US03	09/862457	23-mei-2001	2001-0051040	06567612	01-apr-2017	Highlight PTS
US	504180US01	08/820256	18-mrt-1997		05966352	18-mrt-2017	Seamless playback
US	504181US01	08/833476	07-apr-1997		05936925	07-apr-2017	Audio frame alignment
US	504181US02	09/263850	08-mrt-1999	409282849	06034942	07-apr-2017	Audio frame alignment
US	504182US01	08/812882	06-mrt-1997		06108486	06-mrt-2017	Audio frame number
US	504184US01	08/820257	18-mrt-1997		06104684	18-mrt-2017	Attribute information
US	504184US02	09/559971	28-apr-2000		06757483	18-mrt-2017	Attribute information
US	504184US03	10/858268	02-jun-2004		07840117	09-jul-2022	Attribute information
US	504185US01	08/821920	21-mrt-1997		05742569	21-mrt-2017	Cell contents information
US	504186US01	08/819861	17-mrt-1997		05805537	17-mrt-2017	First access unit pointer
US	504187US01	08/819011	17-mrt-1997		06014495	17-mrt-2017	24 bit data alignment

Essential Pioneer Patents relevant to DVD-Video Discs with Single Information Layer(s)

<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>
US	504187US02	09/452889	02-dec-1999		06778761	17-mrt-2017	24 bit data alignment
US	504188US01	08/806458	26-feb-1997		06236804	26-feb-2017	Minimum readout rate
US	504189US01	08/815184	11-mrt-1997		05960152	11-mrt-2017	Audio frame
US	504189US02	09/332867	15-jun-1999		06597861	11-mrt-2017	Audio frame
VN	504102VN01	1-1996-90429	04-dec-1996		1-0001518	04-dec-2016	Digital data transmitting