

Annex A4 to the DVD Video Disc and DVD ROM Disc Patent License Agreement

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
AR	Block format error interleaving	N 014752AR	331070	1995-Feb-17		2001-Nov-21	255358	2016-Nov-21	
AR	Disc size on disc	N 015093AR	334224	1995-Nov-14		2001-Oct-31	AR000131	2015-Nov-14	
AR	EFM+ channel coding	N 014746AR	331023	1995-Feb-15		2000-Jul-27	254412	2015-Jul-27	
AR	Subtitle runlength compression	B 033973AR	P960101256	1996-Feb-02		2003-Dec-18	AR001077	2016-Feb-02	
AT	Layer number info on disc	N 015471AT	95938001.5	1995-Dec-06	0745255-A1	2002-Oct-23	E226750	2015-Dec-06	
AT	DC control for EFM+	N 015452AT	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	E201527	2016-Aug-26	
AT	EFM+ channel coding	N 014746AT	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	E173110	2015-Feb-01	
AT	Interlayer crosstalk for Multilayer	N 014351AT	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	E181614	2013-Dec-24	
AT	Multilayer with spherical aberration control	N 014986AT	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	E253767	2015-Aug-16	
AT	Subtitle runlength compression	B 033973AT	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	E191600	2016-Jan-26	
AT	Subtitle compression (region/subregion)	N 015156AT	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	E188327	2015-Dec-12	
AT	Disc size on disc	N 015093AT	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	E192878	2015-Oct-31	
AT	Path control system for multi-version (1)	N 015424AT	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	E252760	2016-Aug-02	Yes
AT	Block format error interleaving	N 014752AT	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	E195033	2015-Feb-14	
AT	Mastering write strategy	N 014950AT	94203621.1	1994-Dec-14	0660314-A1	2000-Dec-27	E198386	2014-Dec-14	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
AT	Data structure indicator in sector header	N 015087AT	95934799.8	1995-Nov-08	0740832-B1	2000-Jun-07	E193782	2015-Nov-08	
AT	Subtitle duration	N 015395AT	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	E213113	2016-Jul-12	
AU	DC control for EFM+	N 015452AU	96-66667	1996-Aug-26		1999-Jul-15	703791	2016-Aug-26	
AU	Subtitle compression (region/subregion)	N 015156AU	96-45040	1995-Dec-12	199645040	1999-May-20	701684	2015-Dec-12	
AU	Block format error interleaving	N 014752AU	95-15449	1995-Feb-14	95-15449	1998-Jul-09	689203	2015-Feb-14	
AU	Disc size on disc	N 015093AU	95-36720	1995-Oct-31		1999-Feb-25	698869	2015-Oct-31	
AU	Data structure indicator in sector header	N 015087AU	95-37081	1995-Nov-08	95-37081	1998-Aug-13	690751	2015-Nov-08	
AU	EFM+ channel coding	N 014746AU	95-14240	1995-Feb-01	95-14240	1998-Nov-05	692822	2015-Feb-01	
AU	Path control system for multi-version (1)	N 015424AU	96-66304	1996-Aug-02	96-66304	2000-Apr-20	714628	2016-Aug-02	Yes
AU	Subtitle runlength compression	B 033973AU	96-43985	1996-Jan-26	96-43985	1998-Dec-03	695626	2016-Jan-26	
BE	Subtitle runlength compression	B 033973BE	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
BE	Block format error interleaving	N 014752BE	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
BE	Subtitle compression (region/subregion)	N 015156BE	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
BE	Subtitle duration	N 015395BE	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
BE	Disc size on disc	N 015093BE	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
BE	DC control for EFM+	N 015452BE	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
BE	Data structure indicator in sector header	N 015087BE	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
BE	EFM+ channel coding	N 014746BE	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
BG	Disc size on disc	N 015093BG	100723	1995-Oct-31		1999-Jul-30	62105	2015-Oct-31	
BG	EFM+ channel coding	N 014746BG	100774	1995-Feb-01		1999-Jul-21	62106	2015-Feb-01	
BR	Path control system for multi-version (1)	N 015424BR	PI9606567.2	1996-Aug-02	PI9606567.2	2009-Jul-28	PI9606567-2	2016-Aug-02	Yes
BR	EFM+ channel coding	N 014746BR	PI9506787.6	1995-Feb-01	PI9506787.6	2001-Aug-07	PI9506787.6	2015-Feb-01	
BR	Subtitle compression (region/subregion)	N 015156BR	PI9506773.6	1995-Dec-12	PI9506773.6	2003-Oct-14	PI9506773.6	2015-Dec-12	
BR	Subtitle runlength compression	B 033973BR	PI9605110.8	1996-Jan-26	PI9605110.8	2002-Aug-06	PI9605110.8	2016-Jan-26	
BR	EFM+ channel coding	N 014746BRB	PI9510741.0	1995-Feb-01		2004-Apr-27	PI9510741.0	2015-Feb-01	
BR	Subtitle compression (region/subregion)	N 015156BRA	PI9510769.0	1995-Dec-12		2004-Aug-31	PI9510769	2015-Dec-12	
BR	Disc size on disc	N 015093BR	PI9506626.8	1995-Oct-31	PI9506626.8	2004-Feb-17	PI9506626.8	2015-Oct-31	
BR	EFM+ channel coding	N 014746BRA	PI9510740.1	1995-Feb-01	PI9510740.1	2009-Mar-10	PI9510740-1	2015-Feb-01	
BW	DC control for EFM+	N 015452BW	98-00063	1998-Apr-22		1999-Dec-01	BW/P/99/00022	2018-Apr-22	
BW	Block format error interleaving	N 014752BW	98-00046	1998-Apr-21		1999-Dec-01	BW/P99/00023	2018-Apr-21	
BW	EFM+ channel coding	N 014746BW	98-00054	1998-Apr-22		1999-Dec-01	BW/P/99/00014	2018-Apr-22	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
CA	EFM+ channel coding	N 014746CA	2183355	1995-Feb-01		2006-May-30	2183355	2015-Feb-01	
CA	Subtitle duration	N 015395CA	2200335	1996-Jul-12				2016-Jul-12	
CA	EFM+ channel coding	N 014746CAA	2456968	1995-Feb-01		2005-Jan-25	2456968	2015-Feb-01	
CA	Path control system for multi-version (1)	N 015424CA	2200346	1996-Aug-02		2007-Sep-11	2200346	2016-Aug-02	Yes
CA	DC control for EFM+	N 015452CA	2205565	1996-Aug-26		2007-Jan-09	2205565	2016-Aug-26	
CA	Subtitle compression (region/subregion)	N 015156CA	2183257	1995-Dec-12		2011-Aug-02	2183257	2015-Dec-12	
CA	Block format error interleaving	N 014752CA	2160572	1995-Feb-14		2003-Dec-16	2160572	2015-Feb-14	
CA	Subtitle runlength compression	B 033973CA	2187018	1996-Jan-26	2187018	2005-Oct-18	2187018	2016-Jan-26	
CA	Data structure indicator in sector header	N 015087CA	2181460	1995-Nov-08		2005-Apr-26	2181460	2015-Nov-08	
CH	Block format error interleaving	N 014752CH	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
CH	EFM+ channel coding	N 014746CH	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
CH	Data structure indicator in sector header	N 015087CH	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
CH	Subtitle compression (region/subregion)	N 015156CH	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
CH	Subtitle duration	N 015395CH	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
CH	Disc size on disc	N 015093CH	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
CN	Block format error interleaving	N 014752CN4	200610093455.8	1995-Feb-14	101083105-A			2015-Feb-14	
CN	Block format error interleaving	N 014752CNA	02122058.1	1995-Feb-14	1389867-A	2008-Apr-09	02122058.1	2015-Feb-14	
CN	Mastering write strategy	N 014950CN	94120798.6	1994-Dec-23	1119323-A	2002-Jul-10	94120798.6	2014-Dec-23	
CN	Subtitle runlength compression	B 033973CN	96190224.8	1996-Jan-26	1148927-A	2004-Dec-22	96190224.8	2016-Jan-26	
CN	Subtitle duration	N 015395CNA	200410069653.1	1996-Jul-12	1574942-A	2007-Jul-11	200410069653.1	2016-Jul-12	
CN	Subtitle duration	N 015395CN3	200610084733.3	1996-Jul-12	1878280-A	2010-Oct-13	200610084733.3	2016-Jul-12	
CN	Block format error interleaving	N 014752CN3	200610095942.8	1995-Feb-14	101093701A			2015-Feb-14	
CN	Layer number info on disc	N 015471CN	95192103.7	1995-Dec-06	1144011-A	2003-Dec-24	95192103.7	2015-Dec-06	
CN	Path control system for multi-version (1)	N 015424CN	96190862.9	1996-Aug-02	1492432-A	2004-Jun-23	96190862.9	2016-Aug-02	Yes
CN	EFM+ channel coding	N 014746CNA	200310102653.2	1995-Feb-01	1722283-A	2010-Apr-28	200310102653.2	2015-Feb-01	
CN	DC control for EFM+	N 015452CN3	200610101665.7	1996-Aug-26	1909097A	2011-Mar-02	200610101665.7	2016-Aug-26	
CN	Subtitle duration	N 015395CN	96190772.X	1996-Jul-12	1163688-A	2004-Dec-08	96190772.X	2016-Jul-12	
CN	Data structure indicator in sector header	N 015087CNA	200310123905.X	1995-Nov-08	1534663-A	2007-May-02	200310123905.X	2015-Nov-08	
CN	DC control for EFM+	N 015452CNA	02160474.6	1996-Aug-26	1516175-A	2007-Aug-08	02160474.6	2016-Aug-26	
CN	Path control system for multi-version (1)	N 015424CNB	02130440.8	1996-Aug-02		2007-Aug-08	02130440.8	2016-Aug-02	
CN	EFM+ channel coding	N 014746CN3	200910117965.8	1995-Feb-01	101547009A			2015-Feb-01	
CN	EFM+ channel coding	N 014746CN4	200910117964.3	1995-Feb-01	101546567-A			2015-Feb-01	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
CN	Interlayer crosstalk for Multilayer	N 014351CN	93121735.0	1993-Dec-31	1090668-A	2004-Jan-14	93121735.0	2013-Dec-31	
CN	Multilayer with spherical aberration control	N 014986CN	95190979.7	1995-Aug-16	1136357-A	2002-Apr-17	95190979.7	2015-Aug-16	
CN	Disc size on disc	N 015093CN	95191258.5	1995-Oct-31	1138917-A	2002-Dec-25	95191258.5	2015-Oct-31	
CN	Block format error interleaving	N 014752CN	95190261.X	1995-Feb-14	1125994-A	2004-Jun-09	95190261.X	2015-Feb-14	
CN	Path control system for multi-version (1)	N 015424CNC	200310117962.7	1996-Aug-02	1516166-A	2009-Mar-20	200310117962.7	2016-Aug-02	
CN	DC control for EFM+	N 015452CN	96191244.8	1996-Aug-26	1166225-A	2004-Apr-14	96191244.8	2016-Aug-26	
CZ	EFM+ channel coding	N 014746CZ	96-PV2389	1995-Feb-01		2002-Aug-01	290751	2015-Feb-01	
CZ	Disc size on disc	N 015093CZ	96-PV2044	1995-Oct-31		2001-Jun-18	288682	2015-Oct-31	
CZ	Multilayer with spherical aberration control	N 014986CZ	96-PV1174	1995-Aug-16		2001-Dec-14	289539	2015-Aug-16	
CZ	Subtitle runlength compression	B 033973CZ	96-PV2885	1996-Jan-26		2001-Dec-10	289508	2016-Jan-26	
CZ	Path control system for multi-version (1)	N 015424CZ	97-PV1028	1996-Aug-02		2005-May-10	295317	2016-Aug-02	Yes
DE	Disc size on disc	N 015093DE	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	69516845.2	2015-Oct-31	
DE	Interlayer crosstalk for Multilayer	N 014351DE	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	69325437.8	2013-Dec-24	
DE	Multilayer with spherical aberration control	N 014986DE	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	69532072.6	2015-Aug-16	
DE	Subtitle duration	N 015395DE	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	69619091.5	2016-Jul-12	
DE	Block format error interleaving	N 014752DE	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	69518126.2	2015-Feb-14	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
DE	DC-free channel code	N 014789DE	95910709.5	1995-Mar-21	0702827-A1	2001-Sep-26	69522880.3	2015-Mar-21	
DE	Mastering write strategy	N 014950DE	94203621.1	1994-Dec-14	0660314-A1	2000-Dec-27	69426482.2	2014-Dec-14	
DE	Path control system for multi-version (1)	N 015424DE	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	69630436.8	2016-Aug-02	Yes
DE	Subtitle runlength compression	B 033973DE	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	69607529.6	2016-Jan-26	
DE	Data structure indicator in sector header	N 015087DE	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	69517413.4	2015-Nov-08	
DE	EFM+ channel coding	N 014746DE	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	69505794.4	2015-Feb-01	
DE	Subtitle compression (region/subregion)	N 015156DE	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	69514212.7	2015-Dec-12	
DE	DC control for EFM+	N 015452DE	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	69612955.8	2016-Aug-26	
DE	Layer number info on disc	N 015471DE	95938001.5	1995-Dec-06	0745255-A1	2002-Oct-23	69528636.6	2015-Dec-06	
DK	Subtitle compression (region/subregion)	N 015156DK	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
DK	Data structure indicator in sector header	N 015087DK	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
DK	EFM+ channel coding	N 014746DK	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
DK	Subtitle duration	N 015395DK	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
DK	Block format error interleaving	N 014752DK	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
ES	Disc size on disc	N 015093ES	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
ES	DC control for EFM+	N 015452ES	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
ES	Subtitle duration	N 015395ES	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
ES	Block format error interleaving	N 014752ES	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	2150551	2015-Feb-14	
ES	Path control system for multi-version (1)	N 015424ES	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	0784848	2016-Aug-02	Yes
ES	Subtitle runlength compression	B 033973ES	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	2145991	2016-Jan-26	
ES	Subtitle compression (region/subregion)	N 015156ES	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	2143092	2015-Dec-12	
ES	EFM+ channel coding	N 014746ES	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	2126877	2015-Feb-01	
ES	Data structure indicator in sector header	N 015087ES	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
FI	EFM+ channel coding	N 014746FI2	20060169	1995-Feb-01		2010-Dec-31	121558	2015-Feb-01	
FI	EFM+ channel coding	N 014746FI	963151	1995-Feb-01		2006-Aug-31	117311	2015-Feb-01	
FI	Subtitle duration	N 015395FI	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
FI	EFM+ channel coding	N 014746FI3	20060170	1995-Feb-01		2010-Oct-15	121357	2015-Feb-01	
FR	Multilayer with spherical aberration control	N 014986FR	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	0729629	2015-Aug-16	
FR	Data structure indicator in sector header	N 015087FR	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
FR	Interlayer crosstalk for Multilayer	N 014351FR	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	0605924	2013-Dec-24	
FR	Path control system for multi-version (1)	N 015424FR	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	0784848	2016-Aug-02	Yes
FR	DC control for EFM+	N 015452FR	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
FR	Layer number info on disc	N 015471FR	95938001.5	1995-Dec-06	0745255-A1	2002-Oct-23	0745255	2015-Dec-06	
FR	Block format error interleaving	N 014752FR	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
FR	Subtitle compression (region/subregion)	N 015156FR	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
FR	EFM+ channel coding	N 014746FR	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
FR	DC-free channel code	N 014789FR	95910709.5	1995-Mar-21	0702827-A1	2001-Sep-26	0702827	2015-Mar-21	
FR	Mastering write strategy	N 014950FR	94203621.1	1994-Dec-14	0660314-A1	2000-Dec-27	0660314	2014-Dec-14	
FR	Subtitle duration	N 015395FR	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
FR	Subtitle runlength compression	B 033973FR	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
FR	Disc size on disc	N 015093FR	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
GB	Mastering write strategy	N 014950GB	94203621.1	1994-Dec-14	0660314-A1	2000-Dec-27	0660314	2014-Dec-14	
GB	DC control for EFM+	N 015452GB	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
GB	Layer number info on disc	N 015471GB	95938001.5	1995-Dec-06	0745255-A1	2002-Oct-23	0745255	2015-Dec-06	
GB	Subtitle duration	N 015395GB	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
GB	Disc size on disc	N 015093GB	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
GB	DC-free channel code	N 014789GB	95910709.5	1995-Mar-21	0702827-A1	2001-Sep-26	0702827	2015-Mar-21	
GB	Multilayer with spherical aberration control	N 014986GB	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	0729629	2015-Aug-16	
GB	Path control system for multi-version (1)	N 015424GB	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	0784848	2016-Aug-02	Yes
GB	EFM+ channel coding	N 014746GB	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
GB	Data structure indicator in sector header	N 015087GB	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
GB	Interlayer crosstalk for Multilayer	N 014351GB	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	0605924	2013-Dec-24	
GB	Subtitle runlength compression	B 033973GB	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
GB	Block format error interleaving	N 014752GB	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
GB	Subtitle compression (region/subregion)	N 015156GB	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
GR	EFM+ channel coding	N 014746GR	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
GR	Subtitle compression (region/subregion)	N 015156GR	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
GR	Subtitle runlength compression	B 033973GR	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
GR	Subtitle duration	N 015395GR	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
GR	Disc size on disc	N 015093GR	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
GR	Block format error interleaving	N 014752GR	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
GR	DC control for EFM+	N 015452GR	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
GR	Data structure indicator in sector header	N 015087GR	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
HK	EFM+ channel coding	N 014746HK	98114079.8	1995-Feb-01	1012767-B1	2000-Mar-31	HK1012767	2015-Feb-01	
HK	Disc size on disc	N 015093HK	98114948.7	1995-Oct-31	1013722-A	2000-Nov-24	HK1013722	2015-Oct-31	
HK	Block format error interleaving	N 014752HK	98114633.7	1995-Feb-14	1013358-A	2001-Mar-02	HK1013358	2015-Feb-14	
HK	DC control for EFM+	N 015452HK	98103966.7	1996-Aug-26	1004699-A	2004-Dec-17	HK1004699	2016-Aug-26	
HK	DC-free channel code	N 014789HK	98114634.6	1995-Mar-21	1013359-A	2002-Apr-12	HK1013359	2015-Mar-21	
HK	Multilayer with spherical aberration control	N 014986HK	98114664.9	1995-Aug-16	1013366-A	2004-Jul-09	HK1013366	2015-Aug-16	
HK	Data structure indicator in sector header	N 015087HK	98114932.5	1995-Nov-08	1013719-A	2001-Mar-23	HK1013719	2015-Nov-08	
HK	Interlayer crosstalk for Multilayer	N 014351HK	98114078.9	1993-Dec-24	1012766-A	2001-Jan-19	HK1012766	2013-Dec-24	
HK	Path control system for multi-version (1)	N 015424HK1	04108380.7	2004-Oct-26	1067445	2008-Jan-18	HK1067445	2024-Oct-26	
HK	Subtitle runlength compression	B 033973HK	98114635.5	1996-Jan-26	1013385-A	2000-Nov-24	HK1013385	2016-Jan-26	
HU	DC control for EFM+	N 015452HU	P9801354	1996-Aug-26		2002-Jul-23	221391	2016-Aug-26	
HU	EFM+ channel coding	N 014746HU	P9602247	1995-Feb-01		2002-May-16	221085	2015-Feb-01	
HU	Disc size on disc	N 015093HU	P9601955	1995-Oct-31		2002-Jun-12	221214	2015-Oct-31	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
HU	Subtitle runlength compression	B 033973HU	P9602710	1996-Jan-26				2016-Jan-26	
ID	DC control for EFM+	N 015452ID	P-962496	1996-Sep-02	016.164A	2000-Aug-16	ID0005386	2016-Sep-02	
ID	Block format error interleaving	N 014752ID	P-950251	1995-Feb-16		2004-Aug-19	ID0010921	2015-Feb-16	
ID	Block format error interleaving	N 014752IDA	P00200400402	1995-Feb-16	042897-A	2006-Nov-28	ID0018422	2015-Feb-16	
ID	Subtitle runlength compression	B 033973ID	P-960281	1996-Feb-05	UNKNOWN	2001-Jul-25	ID0006497	2016-Feb-05	
ID	EFM+ channel coding	N 014746ID	P-950245	1995-Feb-15		2000-Jul-20	ID0005313	2015-Feb-15	
ID	Subtitle duration	N 015395ID	P-962077	1996-Jul-22		2002-Dec-17	ID0009413	2016-Jul-22	
IE	Subtitle compression (region/subregion)	N 015156IE	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
IE	Data structure indicator in sector header	N 015087IE	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
IE	EFM+ channel coding	N 014746IE	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
IE	Block format error interleaving	N 014752IE	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
IE	DC control for EFM+	N 015452IE	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
IL	DC control for EFM+	N 015452IL	120740	1996-Aug-26		2000-Oct-27	120740	2016-Aug-26	
IL	Subtitle runlength compression	B 033973IL	117028	1996-Feb-04		1999-Oct-28	117028	2016-Feb-04	
IN	DC control for EFM+	N 015452IN	1530/CAL/96	1996-Aug-28		2004-May-28	191592	2016-Aug-28	
IN	EFM+ channel coding	N 014746INC	312/MAS/99	1995-Feb-13		2008-Mar-31	218255	2015-Feb-13	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
IN	Block format error interleaving	N 014752INA	505/MAS/99	1995-Feb-14		2005-Dec-12	193791	2015-Feb-14	
IN	DC control for EFM+	N 015452INA	80/KOL/2003	1996-Aug-28				2016-Aug-28	
IN	Subtitle runlength compression	B 033973IN	159/CAL/96	1996-Jan-31		2002-Oct-04	187262	2016-Jan-31	
IT	Subtitle duration	N 015395IT	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
IT	Disc size on disc	N 015093IT	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
IT	DC-free channel code	N 014789IT	95910709.5	1995-Mar-21	0702827-A1	2001-Sep-26	0702827	2015-Mar-21	
IT	Multilayer with spherical aberration control	N 014986IT	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	0729629	2015-Aug-16	
IT	DC control for EFM+	N 015452IT	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
IT	Block format error interleaving	N 014752IT	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
IT	EFM+ channel coding	N 014746IT	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
IT	Subtitle compression (region/subregion)	N 015156IT	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
IT	Path control system for multi-version (1)	N 015424IT	96925986.0	1996-Aug-02	0784848-A1	2003-Oct-22	0784848	2016-Aug-02	Yes
IT	Data structure indicator in sector header	N 015087IT	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
IT	Interlayer crosstalk for Multilayer	N 014351IT	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	0605924	2013-Dec-24	
IT	Subtitle runlength compression	B 033973IT	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
JP	Layer number info on disc	N 015471JP3	08-127432	1995-Dec-06	08-287861	2011-Jul-22	4787290	2015-Dec-06	
JP	Subtitle duration	N 015395JP	97-506485	1996-Jul-12	98-507607	2010-Jan-22	4442929	2016-Jul-12	
JP	EFM+ channel coding	N 014746JP3	05-203695	1995-Feb-01	06-024356	2006-Dec-15	3892020	2015-Feb-01	
JP	Data structure indicator in sector header	N 015087JP	96-516712	1995-Nov-08	97-507947	2006-Sep-08	3850031	2015-Nov-08	
JP	Layer number info on disc	N 015471JP2	06-202175	1995-Dec-06	07-018694			2015-Dec-06	
JP	Multilayer with spherical abberation control	N 014986JP	96-507906	1995-Aug-16	02-515157			2015-Aug-16	
JP	Subtitle compression (region/subregion)	N 015156JP2	06-127068	1995-Dec-12	06-287951	2009-Aug-14	4358838	2015-Dec-12	
JP	Path control system for multi-version (1)	N 015424JP2	04-274237	1996-Aug-01	05-044506			2016-Aug-01	
JP	Interlayer crosstalk for Multilayer	N 014351JP	93-350276	1993-Dec-28	94-267110			2013-Dec-28	
JP	Subtitle compression (region/subregion)	N 015156JP	96-518541	1995-Dec-12	97-509552	2007-Feb-23	3918033	2015-Dec-12	
JP	DC control for EFM+	N 015452JP	97-511019	1996-Aug-26	98-508456	2005-Dec-22	3754080	2016-Aug-26	
JP	DC control for EFM+	N 015452JP2	05-276620	1996-Aug-26	06-087127	2007-Apr-20	3946230	2016-Aug-26	
JP	Multilayer with spherical abberation control	N 014986JP2	06-249657	1995-Aug-16	07-018728			2015-Aug-16	
JP	Mastering write strategy	N 014950JP	94-336413	1994-Dec-22	95-320308	2005-Jul-29	3703515	2014-Dec-22	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
JP	Subtitle duration	N 015395JP2	07-029641	1996-Jul-12	07-228576	2010-Jan-22	4443578	2016-Jul-12	
JP	Block format error interleaving	N 014752JPA	04-348053	1995-Feb-14	05-129222	2007-Sep-21	4014595	2015-Feb-14	
JP	Path control system for multi-version (1)	N 015424JP	96-203966	1996-Aug-01	97-106631	2004-Nov-19	3617201	2016-Aug-01	
JP	Layer number info on disc	N 015471JP	96-519640	1995-Dec-06	97-509776			2015-Dec-06	
JP	Layer number info on disc	N 015471JP4	09-269115	1995-Dec-06		2011-Jul-22	4787353	2015-Dec-06	
JP	Subtitle compression (region/subregion)	N 015156JP4	10-197229	1995-Dec-12		2011-Sep-22	4829373	2015-Dec-12	
JP	Data structure indicator in sector header	N 015087JP2	06-156822	1995-Nov-08	06-277931	2008-Oct-17	4201802	2015-Nov-08	
JP	DC-free channel code	N 014789JP	95-525542	1995-Mar-21	96-511405	2003-Aug-29	3467276	2015-Mar-21	
JP	Subtitle runlength compression	B 033973JP	96-524103	1996-Jan-26	98-500273	2005-Jun-17	3688297	2016-Jan-26	
JP	Subtitle compression (region/subregion)	N 015156JP3	07-264491	1995-Dec-12	08-079325	2011-Jan-07	4658107	2015-Dec-12	
JP	EFM+ channel coding	N 014746JP	95-521693	1995-Feb-01	97-512392	2003-Mar-14	3408256	2015-Feb-01	
JP	Mastering write strategy	N 014950JP2	05-152186	1994-Dec-22	05-327457			2014-Dec-22	
KR	Subtitle compression (region/subregion)	N 015156KR	96-704513	1995-Dec-12		2005-May-19	0491771	2015-Dec-12	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
KR	Subtitle runlength compression	B 033973KR	10-1996-0705635	1996-Jan-26	97-0702672	2003-Oct-24	404526	2016-Jan-26	
KR	EFM+ channel coding	N 014746KRA	10-2003-7004922	2003-Apr-07	10-2004-0004394	2005-Jan-11	0467125	2015-Feb-01	
KR	Path control system for multi-version (1)	N 015424KR	10-1997-0701581	1996-Aug-02	10-1997-0705817	2005-Nov-25	0532784	2016-Aug-02	Yes
KR	Data structure indicator in sector header	N 015087KR	96-704010	1995-Nov-08		2003-Jun-09	388370	2015-Nov-08	
KR	DC-free channel code	N 014789KR	95-705575	1995-Mar-21	10-1996-0702930	2005-Nov-14	10-0529807	2015-Mar-21	
KR	Multilayer with spherical abberation control	N 014986KRA	10-2002-7016178	2002-Nov-28		2003-May-14	0385382	2015-Aug-16	
KR	Interlayer crosstalk for Multilayer	N 014351KR	94-144	1994-Jan-04		2001-Feb-14	289018	2014-Jan-04	
KR	DC control for EFM+	N 015452KR	97-702860	1996-Aug-26	10-1997-0707543	2005-May-02	0488634	2016-Aug-26	
KR	Multilayer with spherical abberation control	N 014986KRB	10-2002-7016179	2002-Nov-28		2003-May-14	0385381	2015-Aug-16	
KR	Mastering write strategy	N 014950KR	1994-0037014	1994-Dec-24	95-0020435	2003-Aug-29	0397686	2014-Dec-24	
KR	Block format error interleaving	N 014752KR	95-704556	1995-Feb-14	96-0702152	2002-Nov-28	0364332	2015-Feb-14	
KR	Multilayer with spherical abberation control	N 014986KR	96-702076	1995-Aug-16	10-1996-0706161	2004-May-19	0433600	2015-Aug-16	
KR	Path control system for multi-version (1)	N 015424KR2	10-2005-7006280	1996-Aug-02	10-2005-0049542	2006-Apr-27	10-0576537	2016-Aug-02	
KR	Disc size on disc	N 015093KR	96-703818	1995-Oct-31	97-0700906	2003-Dec-01	410711	2015-Oct-31	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
KR	Subtitle duration	N 015395KR	97-701801	1996-Jul-12	10-1997-0706689	2004-Aug-06	0444637	2016-Jul-12	
KR	Layer number info on disc	N 015471KR	96-704517	1995-Dec-06	97-0701413	2003-Oct-24	404530	2015-Dec-06	
KR	EFM+ channel coding	N 014746KR	96-704550	1995-Feb-01	10-1997-0701388	2005-Mar-08	0477168	2015-Feb-01	
LU	Subtitle compression (region/subregion)	N 015156LU	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
LU	Block format error interleaving	N 014752LU	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
LU	Data structure indicator in sector header	N 015087LU	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
LU	EFM+ channel coding	N 014746LU	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
MC	Block format error interleaving	N 014752MC	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
MC	Data structure indicator in sector header	N 015087MC	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
MC	EFM+ channel coding	N 014746MC	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
MC	Subtitle compression (region/subregion)	N 015156MC	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
MX	EFM+ channel coding	N 014746MX	9603394	1995-Feb-01		1998-Jul-28	189493	2015-Feb-01	
MX	Data structure indicator in sector header	N 015087MX	962808	1995-Nov-08		2001-Dec-17	205654	2015-Nov-08	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
MX	DC control for EFM+	N 015452MX	973161	1996-Aug-26		2003-Oct-06	216755	2016-Aug-26	
MX	Path control system for multi-version (1)	N 015424MX	972223	1996-Aug-02		2008-Jun-18	237821	2016-Aug-02	Yes
MX	Subtitle duration	N 015395MX	1997/002108	1996-Jul-12		2003-May-02	214263	2016-Jul-12	
MX	Subtitle compression (region/subregion)	N 015156MX	963393	1995-Dec-12		2000-Nov-28	199847	2015-Dec-12	
MY	Multilayer with spherical abberation control	N 014986MYA	PI20014950	1995-Aug-22		2007-Jun-29	MY-130309-A	2022-Jun-29	
MY	EFM+ channel coding	N 014746MY	PI9500357	1995-Feb-14		2001-Apr-30	112136	2016-Apr-30	
MY	Block format error interleaving	N 014752MY	PI9500378	1995-Feb-15		2004-Jun-30	117269	2019-Jun-30	
MY	Multilayer with spherical abberation control	N 014986MY	PI95002480	1995-Aug-22		2006-Jun-30	124229	2021-Jun-30	
MY	DC control for EFM+	N 015452MY	PI9603603	1996-Aug-29		2003-Sep-30	MY-115841-A	2018-Sep-30	
MY	Path control system for multi-version (1)	N 015424MY	PI9603192	1996-Aug-03		2006-Jan-28	121216	2021-Jan-28	Yes
MY	Subtitle duration	N 015395MY	PI9602983	1996-Jul-19		2006-Feb-28	121602	2021-Feb-28	
MY	Multilayer with spherical abberation control	N 014986MYB	PI20014949	1995-Aug-22				2015-Aug-22	
MY	Subtitle runlength compression	B 033973MY	PI9600392	1996-Feb-02		2003-Sep-30	115792	2018-Sep-30	
MY	Subtitle compression (region/subregion)	N 015156MY	PI9503869	1995-Dec-14		2005-Apr-30	119200	2020-Apr-30	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
NL	EFM+ channel coding	N 014746NL	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
NL	Data structure indicator in sector header	N 015087NL	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
NL	Subtitle compression (region/subregion)	N 015156NL	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
NL	Block format error interleaving	N 014752NL	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
NL	Disc size on disc	N 015093NL	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
NL	Subtitle duration	N 015395NL	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
NL	Mastering write strategy	N 014950NL	94203621.1	1994-Dec-14	0660314-A1	2000-Dec-27	0660314	2014-Dec-14	
NL	DC control for EFM+	N 015452NL	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
NO	EFM+ channel coding	N 014746NOB	20043830	1995-Feb-01				2015-Feb-01	
NO	EFM+ channel coding	N 014746NOA	20043831	1995-Feb-01				2015-Feb-01	
NO	EFM+ channel coding	N 014746NO	19963388	1995-Feb-01		2006-Dec-18	322948	2015-Feb-01	
NZ	EFM+ channel coding	N 014746NZ	278137	1995-Feb-01		1997-Jun-23	278137	2015-Feb-01	
PL	Multilayer with spherical aberration control	N 014986PLB	P336670	1995-Aug-16		2000-Aug-14	180647	2015-Aug-16	
PL	Subtitle runlength compression	B 033973PL	P316679	1996-Jan-26		2003-Jun-02	186340	2016-Jan-26	
PL	Disc size on disc	N 015093PLA	P337170	1995-Oct-31		2000-Jul-03	180307	2015-Oct-31	
PL	DC control for EFM+	N 015452PL	P320006	1996-Aug-26		2002-Oct-18	183099	2016-Aug-26	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
PL	EFM+ channel coding	N 014746PL	P319407	1995-Feb-01		2002-Mar-04	192729	2015-Feb-01	
PL	EFM+ channel coding	N 014746PL2	P378756	1995-Feb-01				2015-Feb-01	
PT	DC control for EFM+	N 015452PT	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
PT	EFM+ channel coding	N 014746PT	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
PT	Disc size on disc	N 015093PT	95934262.7	1995-Oct-31	0740831-A1	2000-May-10	0740831	2015-Oct-31	
PT	Subtitle runlength compression	B 033973PT	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
PT	Block format error interleaving	N 014752PT	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
PT	Data structure indicator in sector header	N 015087PT	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
PT	Subtitle duration	N 015395PT	96921025.1	1996-Jul-12	0787404-A1	2002-Feb-06	0787404	2016-Jul-12	
PT	Subtitle compression (region/subregion)	N 015156PT	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
RO	Disc size on disc	N 015093RO	96-01469	1995-Oct-31		1998-Mar-31	113191	2015-Oct-31	
RO	EFM+ channel coding	N 014746ROA	01-00059	1995-Feb-01		2004-Apr-30	119260	2015-Feb-01	
RO	EFM+ channel coding	N 014746RO	96-001653	1995-Feb-01		2004-Mar-30	119099	2015-Feb-01	
RU	Subtitle runlength compression	B 033973RU	9700011	1996-Jan-26		1998-Jun-25	EA000082	2016-Jan-26	
RU	EFM+ channel coding	N 014746RU	96118250	1995-Feb-01	33	2000-Jul-27	2153707	2015-Feb-01	
RU	Disc size on disc	N 015093RU	96116857	1995-Oct-31	96116857	2002-Jul-27	2186427	2015-Oct-31	
RU	DC control for EFM+	N 015452RU	97108582	1996-Aug-26	15	2000-Jul-20	2153200	2016-Aug-26	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
RU	Path control system for multi-version (1)	N 015424RU	97106830	1996-Aug-02	97106830-A	2004-May-10	2228546	2016-Aug-02	Yes
SE	Data structure indicator in sector header	N 015087SE	95934799.8	1995-Nov-08	0740832-A1	2000-Jun-07	0740832	2015-Nov-08	
SE	Multilayer with spherical aberration control	N 014986SE	95927046.3	1995-Aug-16	0729629-A1	2003-Nov-05	0729629	2015-Aug-16	
SE	Interlayer crosstalk for Multilayer	N 014351SE	93203684.1	1993-Dec-24	0605924-A3	1999-Jun-23	0605924	2013-Dec-24	
SE	Subtitle runlength compression	B 033973SE	96900402.7	1996-Jan-26	0754393-A1	2000-Apr-05	0754393	2016-Jan-26	
SE	Subtitle compression (region/subregion)	N 015156SE	95943556.1	1995-Dec-12	0745307-A1	1999-Dec-29	0745307	2015-Dec-12	
SE	Block format error interleaving	N 014752SE	95907127.5	1995-Feb-14	0698270-A1	2000-Jul-26	0698270	2015-Feb-14	
SE	DC control for EFM+	N 015452SE	96926545.3	1996-Aug-26	0789910-A1	2001-May-23	0789910	2016-Aug-26	
SE	EFM+ channel coding	N 014746SE	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	0745254	2015-Feb-01	
SG	Subtitle duration	N 015395SG	9704506.6	1996-Jul-12		2000-Dec-19	45664	2016-Jul-12	
SG	Subtitle runlength compression	B 033973SG	9611564.7	1996-Jan-26		1999-May-25	34670	2016-Jan-26	
SG	Data structure indicator in sector header	N 015087SG	9702180.2	1995-Nov-08		1999-Jun-22	41092	2015-Nov-08	
SG	Block format error interleaving	N 014752SG	9607077.6	1995-Feb-14	0050623-A	2001-Dec-24	50623	2015-Feb-14	
SG	Interlayer crosstalk for Multilayer	N 014351SG	9607095.8	1993-Dec-24	0048111	2001-Dec-28	48111	2013-Dec-24	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
SG	Multilayer with spherical aberration control	N 014986SG	9700759.5	1995-Aug-16		1999-Jun-22	37758	2015-Aug-16	
SG	Path control system for multi-version (1)	N 015424SG	9701248.8	1996-Aug-02		2002-Jan-17	39073	2016-Aug-02	Yes
SG	Disc size on disc	N 015093SG	9703040.7	1995-Oct-31		1999-Feb-22	42670	2015-Oct-31	
SG	DC control for EFM+	N 015452SG	9703300.5	1996-Aug-26		2002-Feb-15	44185	2016-Aug-26	
SG	Path control system for multi-version (1)	N 015424SGA	9904246.7	1996-Aug-02		2004-Sep-30	103807	2016-Aug-02	Yes
SI	EFM+ channel coding	N 014746SI	95905746.4	1995-Feb-01	0745254-A1	1998-Nov-04	9530188	2015-Feb-01	
SK	EFM+ channel coding	N 014746SK	96-PP1051	1995-Feb-01	96-PP1051	2003-Nov-19	283798	2015-Feb-01	
SK	Disc size on disc	N 015093SK	96-PP920	1995-Oct-31		2002-Aug-12	282592	2015-Oct-31	
TH	Path control system for multi-version (1)	N 015424TH2	0701003935	1996-Aug-02	94394			2016-Aug-02	
TH	Path control system for multi-version (1)	N 015424TH	032650	1996-Aug-02		2007-Dec-14	22929	2016-Aug-02	Yes
TR	EFM+ channel coding	N 014746TR	95-0136	1995-Feb-15		2002-Oct-22	29626	2015-Feb-15	
TR	Subtitle runlength compression	B 033973TR	96-00787	1996-Jan-26		2002-May-21	TR1996/00787	2016-Jan-26	
TR	Block format error interleaving	N 014752TR	95-0143	1995-Feb-16		1999-May-03	29401	2015-Feb-16	
TR	Disc size on disc	N 015093TR	95-1446	1995-Nov-17		1997-Dec-22	TR199501446B	2015-Nov-17	
TW	Block format error interleaving	N 014752TW	84101856	1995-Feb-28		1995-Dec-20	73076	2015-Feb-27	
TW	EFM+ channel coding	N 014746TW	84101360	1995-Feb-15		1997-Apr-15	82864	2015-Feb-14	
TW	DC control for EFM+	N 015452TW	85112032	1996-Oct-02		2000-Oct-19	116382	2016-Oct-01	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
TW	Multilayer with spherical aberration control	N 014986TW	84110771	1995-Oct-13		1997-Mar-13	852158	2015-Oct-12	
TW	Data structure indicator in sector header	N 015087TW	84113943	1995-Dec-27		1997-Mar-13	82165	2015-Dec-26	
TW	DC-free channel code	N 014789TW	84101322	1995-Feb-14		1996-Apr-11	75391	2015-Feb-13	
TW	Path control system for multi-version (1)	N 015424TW	85111151	1996-Sep-12		1999-Mar-01	NI-101612	2016-Sep-12	Yes
TW	Mastering write strategy	N 014950TW	84100644	1995-Jan-25		1997-Oct-02	87086	2015-Jan-24	
TW	Subtitle duration	N 015395TW	84108602	1995-Aug-17		1997-Apr-03	82652	2015-Aug-16	
TW	Interlayer crosstalk for Multilayer	N 014351TW	83101489	1994-Feb-22		1994-Dec-31	67573	2014-Feb-21	
TW	Disc size on disc	N 015093TW	84113944	1995-Dec-27		2005-Sep-01	I239004	2015-Dec-26	
UA	EFM+ channel coding	N 014746UA	96083269	1995-Feb-01		2001-Nov-15	42757	2015-Feb-01	
UA	Disc size on disc	N 015093UA	96072883	1995-Oct-31		2001-Oct-15	42015	2015-Oct-31	
US	Disc size on disc	N 015093US	08/558517	1995-Nov-16		2002-May-14	6388962	2015-Nov-16	
US	System for Multilayer optical disc	N 013547USV	08/299861	1994-Sep-01		1997-Oct-14	5677903	2014-Oct-14	
US	Path control system for multi-version (1)	N 015424US	08/692918	1996-Jul-31				2016-Jul-31	Yes
US	EFM+ channel coding	N 014746USA	08/900275	1995-Feb-08		1999-Jul-06	5920272	2015-Feb-08	
US	Interlayer crosstalk for Multilayer	N 014351US	08/175331	1993-Dec-29		1996-Apr-23	5511057	2013-Dec-29	
US	Disc size on disc	N 015093USC	10/134912	2002-Apr-29	2002-0118632-A1	2003-Feb-25	6526005	2015-Nov-16	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
US	Interlayer crosstalk for Multilayer	N 014351USY	09/442959	1999-Nov-18		2011-Apr-19	7929394	2013-Dec-29	
US	System for Multilayer optical disc	N 013547USX	08/861350	1997-May-21		2003-Mar-25	6538978	2012-Apr-18	
US	Block format error interleaving	N 014752US	08/389369	1995-Feb-16		1998-Nov-17	5838696	2015-Feb-16	
US	Video block pointers	N 013409USB	08/563799	1995-Nov-28		1998-Apr-28	5745641	2015-Apr-28	
US	DC-free channel code	N 014789US	08/388865	1995-Feb-15		1997-Jun-24	5642113	2015-Feb-15	
US	Layer number info on disc	N 015471USB	10/614411	2003-Jul-07	2004-0095879-A1	2007-Apr-24	7209431	2015-Dec-18	
US	Data structure indicator in sector header	N 015087US	08/558515	1995-Nov-16		1999-Jul-06	5920874	2015-Nov-16	
US	Subtitle compression (region/subregion)	N 015156USA	10/685245	2003-Oct-14	2004-0075668-A1	2010-Jan-12	7647620	2015-Dec-13	
US	Interlayer crosstalk for Multilayer	N 014351USW	08/791097	1997-Jan-23		1999-Jan-26	5864530	2013-Dec-29	
US	DC control for EFM+	N 015452US	08/706048	1996-Aug-30		1998-Aug-04	5790056	2016-Aug-30	
US	Subtitle runlength compression	B 033973US	08/593963	1996-Jan-30		2001-Oct-09	6301389	2016-Jan-30	
US	EFM+ channel coding	N 014746USK	90/006637	2003-May-09		2009-Oct-13	5696505	2015-Feb-08	
US	Subtitle duration	N 015395USA	10/309588	2002-Dec-04	2003-0117529-A1			2015-Aug-18	
US	Mastering write strategy	N 014950USA	08/755614	1996-Nov-25		1998-Aug-04	5790512	2014-Dec-22	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)

Essential PH Patents relevant to DVD-Video Discs with Dual Information Layer(s)

Country	Title	Reference	Application number	Filing date	Publication number	Grant date	Grant number	Expiry date	Non-assert
US	Subtitle compression (region/subregion)	N 015156US3	13/178636	2003-Oct-14				2015-Dec-13	
VE	Disc size on disc	N 015093VE	95-2032	1995-Nov-17		2002-Oct-04	57442	2015-Nov-17	
VE	DC control for EFM+	N 015452VE	96-1517	1996-Aug-30		2002-Oct-07	57944	2016-Aug-30	
VN	Path control system for multi-version (1)	N 015424VN	S19970341	1996-Aug-02		2002-Nov-04	3136	2016-Aug-02	Yes
VN	DC control for EFM+	N 015452VN	S19970327	1997-Apr-25		2000-Nov-27	1598	2017-Apr-25	
VN	Multilayer with spherical abberation control	N 014986VNA	S19962028T2	1994-Aug-23		1999-Aug-25	948	2014-Aug-23	
VN	Multilayer with spherical abberation control	N 014986VN	S19962028T1	1994-Aug-23		1999-Aug-25	947	2014-Aug-23	
VN	EFM+ channel coding	N 014746VN	S19960099	1996-Aug-13		2000-Oct-25	1407	2016-Aug-13	
ZA	DC control for EFM+	N 015452ZA	967261	1996-Aug-27		1998-May-27	96/7261	2016-Aug-27	
ZA	Disc size on disc	N 015093ZA	959489	1995-Nov-08		1997-Jul-30	95-9489	2015-Nov-08	
ZA	Subtitle runlength compression	B 033973ZA	96-0754	1996-Jan-31		1997-Nov-26	96-0754	2016-Jan-31	
ZA	EFM+ channel coding	N 014746ZA	95-1115	1995-Feb-10		1996-Oct-30	95-1115	2015-Feb-10	
ZA	Block format error interleaving	N 014752ZA	951194	1995-Feb-14		1996-Oct-30	95-1194	2015-Feb-14	

(1) Relevant only to DVD Video Discs having multi path presentation, such as for example multi angle, multi version for different Parental Level or different cut version of movies (Video Specifications v. 1.1, section 2.4.42)