

## *Essential Philips patents relevant to Blu-ray Disc Player*

<i>COUNTRY</i>	<i>REFERENCE</i>	<i>FILING NR</i>	<i>FILING DATE</i>	<i>PUBLICATION NR</i>	<i>GRANT DATE</i>	<i>GRANT NR</i>	<i>EXPIRY DATE</i>	<i>TITLE</i>
AR	NL000002	P000105550	20-10-2000		31-10-2006	AR026202	20-10-2020	LINKING AREA IN READ-ONLY DISC
AR	NL020067	P030100154	20-01-2003		29-06-2007	AR0381188	20-01-2023	USE OF SAME ECC DECODER FOR
AT	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	E181614	24-12-2013	INTERLAYER CROSSTALK IN MULTI
AT	N 015471	95938001.5	06-12-1995	0745255-A1	23-10-2002	E226750	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
AT	N 014448	94201153.7	27-04-1994	0624000-A3	19-07-2000	E194897	27-04-2014	PARITY PRESERVED CODING N-BI
AT	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	E227490	21-06-2016	TRANSMISSION OF MENUS FOR A
AT	N 017534	00953016.3	05-07-2000		07-01-2009	E 420437	05-07-2020	ONE ECC FOR DIFFERENT DATA
AU	N 015437	96-59089	21-06-1996	96-59089	24-08-2000	719473	21-06-2016	TRANSMISSION OF MENUS FOR A
AU	NL000002	00-79194	12-10-2000	00-79194	04-11-2004	775190	12-10-2020	LINKING AREA IN READ-ONLY DISC
AU	NL020067	02-353342	12-12-2002	2002353342	01-11-2007	2002353342	12-12-2022	USE OF SAME ECC DECODER FOR
AU	N 017534	00-65620	05-07-2000	00-65620	06-01-2005	776531	05-07-2020	ONE ECC FOR DIFFERENT DATA
AZ	NL000002	200100684	12-10-2000		27-02-2003	003197	12-10-2020	LINKING AREA IN READ-ONLY DISC
AZ	N 017534	200100345	05-07-2000		27-02-2003	003166	05-07-2020	ONE ECC FOR DIFFERENT DATA
BE	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
BG	NL000002	105628	12-10-2000		05-02-2007	65076	12-10-2020	LINKING AREA IN READ-ONLY DISC
BG	N 017534	105319	05-07-2000		18-08-2006	65000	05-07-2020	ONE ECC FOR DIFFERENT DATA
BR	N 015437	PI9606458.7	21-06-1996	PI9606776	25-02-2009	PI-9606458-7	21-06-2016	TRANSMISSION OF MENUS FOR A
BR	N 015776	PI9702078.8	07-02-1997	PI9702078	25-02-2009	PI9702078.8	07-02-2017	DVD - RAM RANDOM SHIFT
BY	NL000002	200100684	12-10-2000		27-02-2003	003197	12-10-2020	LINKING AREA IN READ-ONLY DISC
BY	N 017534	200100345	05-07-2000		27-02-2003	003166	05-07-2020	ONE ECC FOR DIFFERENT DATA
CA	NL000002	2355338	12-10-2000		26-01-2010	2355338	12-10-2020	LINKING AREA IN READ-ONLY DISC
CH	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
CN	NL000002	00803933.X	12-10-2000	1340189-A	05-09-2007	100336113	12-10-2020	LINKING AREA IN READ-ONLY DISC

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CN	N 015471	95192103.7	06-12-1995	1144011-A	24-12-2003	95192103.7	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
CN	N 015437	96190970.6	21-06-1996	1164947-A	27-11-2002	96190970.6	21-06-2016	TRANSMISSION OF MENUS FOR A
CN	N 014351	93121735.0	31-12-1993	1090668-A	14-01-2004	93121735.0	31-12-2013	INTERLAYER CROSSTALK IN MULTI
CN	N 015776	97190319.0	07-02-1997	1188558-A	03-09-2008	ZL97190319.0	07-02-2017	DVD - RAM RANDOM SHIFT
CN	NL010727	02800697.6	14-03-2002	1459109-A	20-09-2006	02800697.6	14-03-2022	ISOLATED BIT SYNC
CN	NL020067	02827357.5	12-12-2002	1615591-A	08-04-2009	02827357.5	12-12-2022	USE OF SAME ECC DECODER FOR
CN	NL010191	02800696.8	14-03-2002	1459111-A	03-12-2008	02800696.8	14-03-2022	WOBBLE FOR DVR
CN	N 017534	00801396.9	05-07-2000	1354880-A	04-04-2007	00801396.9	05-07-2020	ONE ECC FOR DIFFERENT DATA
DE	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	69723165.8	07-02-2017	DVD - RAM RANDOM SHIFT
DE	N 015471	95938001.5	06-12-1995	0745255-A1	23-10-2002	69528636.6	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
DE	N 017534	00953016.3	05-07-2000		07-01-2009	60041318.7	05-07-2020	ONE ECC FOR DIFFERENT DATA
DE	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	69624674.0	21-06-2016	TRANSMISSION OF MENUS FOR A
DE	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	69325437.8	24-12-2013	INTERLAYER CROSSTALK IN MULTI
DE	N 016849	98959114.4	28-12-1998		26-07-2006	69835345.5	28-12-2018	ERROR FROM WELL PROTECTED T
DE	N 014448	94201153.7	27-04-1994	0624000-A3	19-07-2000	69425298.0	27-04-2014	PARITY PRESERVED CODING N-BI
DK	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
EA	NL000002	200100684	12-10-2000	200100684	27-02-2003	003197	12-10-2020	LINKING AREA IN READ-ONLY DISC
EA	N 017534	200100345	05-07-2000	200100345	27-02-2003	003166	05-07-2020	ONE ECC FOR DIFFERENT DATA
EE	NL000002	P200100332	12-10-2000	4	08-09-2009	05207	12-10-2020	LINKING AREA IN READ-ONLY DISC
EP	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	0605924	24-12-2013	INTERLAYER CROSSTALK IN MULTI
EP	N 015471	95938001.5	06-12-1995	0745255-A1	23-10-2002	0745255	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
EP	N 016849	98959114.4	28-12-1998	0965175-A1	26-07-2006	0965175	28-12-2018	ERROR FROM WELL PROTECTED T
EP	N 017534	00953016.3	05-07-2000	1114418-A1	07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
EP	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	0821828	07-02-2017	DVD - RAM RANDOM SHIFT
EP	N 014448	94201153.7	27-04-1994	0624000-A3	19-07-2000	0624000	27-04-2014	PARITY PRESERVED CODING N-BI

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EP	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
ES	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
ES	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	2184863	21-06-2016	TRANSMISSION OF MENUS FOR A
ES	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	0821828	07-02-2017	DVD - RAM RANDOM SHIFT
FI	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
FR	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
FR	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	0605924	24-12-2013	INTERLAYER CROSSTALK IN MULTI
FR	N 015471	95938001.5	06-12-1995	0745255-A1	23-10-2002	0745255	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
FR	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
FR	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	0821828	07-02-2017	DVD - RAM RANDOM SHIFT
FR	N 016849	98959114.4	28-12-1998		26-07-2006	0965175	28-12-2018	ERROR FROM WELL PROTECTED T
FR	N 014448	94201153.7	27-04-1994	0624000-A3	19-07-2000	0624000	27-04-2014	PARITY PRESERVED CODING N-BI
GB	N 015471	95938001.5	06-12-1995	0745255-A1	23-10-2002	0745255	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
GB	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	0821828	07-02-2017	DVD - RAM RANDOM SHIFT
GB	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	0605924	24-12-2013	INTERLAYER CROSSTALK IN MULTI
GB	N 014448	94201153.7	27-04-1994	0624000-A3	19-07-2000	0624000	27-04-2014	PARITY PRESERVED CODING N-BI
GB	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
GB	N 016849	98959114.4	28-12-1998		26-07-2006	0965175	28-12-2018	ERROR FROM WELL PROTECTED T
GB	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
GR	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
HK	N 017534	01109055.2	05-07-2000	1039675-A	26-06-2009	HK1039675	05-07-2020	ONE ECC FOR DIFFERENT DATA
HK	N 014351	98114078.9	24-12-1993	1012766-A	19-01-2001	HK1012766	23-12-2013	INTERLAYER CROSSTALK IN MULTI
HU	NL000002	P0105233	12-10-2000	P0105233			12-10-2020	LINKING AREA IN READ-ONLY DISC
HU	N 017534	P0103944	05-07-2000		27-12-2005	224792	05-07-2020	ONE ECC FOR DIFFERENT DATA
HU	N 015776	P9901480	07-02-1997				07-02-2017	DVD - RAM RANDOM SHIFT

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ID	N 015776	P-970413	13-02-1997	017848-A	28-04-2004	ID0013245	13-02-2011	DVD - RAM RANDOM SHIFT
ID	NL000002	W-0101317	12-10-2000	030247-A	14-06-2006	0017615	12-10-2020	LINKING AREA IN READ-ONLY DISC
ID	N 017534	W-0100587	05-07-2000	029.404 A	29-06-2007	ID0019506	05-07-2020	ONE ECC FOR DIFFERENT DATA
IE	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
IL	N 017534	141932	05-07-2000		06-10-2006	141932	05-07-2020	ONE ECC FOR DIFFERENT DATA
IN	NL010191	IN/PCT/02/01878	14-03-2002		25-06-2009	235139	14-03-2022	WOBBLE FOR DVR
IN	NL000002	IN/PCT/01/00844	12-10-2000		14-08-2006	201831	12-10-2020	LINKING AREA IN READ-ONLY DISC
IT	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
IT	N 015776	97901214.3	07-02-1997	0821828-A1	02-07-2003	0821828	07-02-2017	DVD - RAM RANDOM SHIFT
IT	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	0605924	24-12-2013	INTERLAYER CROSSTALK IN MULTI
IT	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
JP	N 014448	94-93412	02-05-1994	95-50588	05-04-2002	3294936	02-05-2014	PARITY PRESERVED CODING N-BI
JP	N 014351	93-350276	28-12-1993	94-267110			28-12-2013	INTERLAYER CROSSTALK IN MULTI
JP	N 016849	99-534714	28-12-1998	01-515642	15-05-2009	4308922	28-12-2018	ERROR FROM WELL PROTECTED T
JP	N 015776	97-529148	07-02-1997	99-504461	07-03-2008	4090501	07-02-2017	DVD - RAM RANDOM SHIFT
JP	NL020067	03-561106	12-12-2002	05-515687	21-03-2008	4098245	12-12-2022	USE OF SAME ECC DECODER FOR
KR	NL010191	10-2002-7015227	14-03-2002		12-01-2009	10-0879311	14-03-2022	WOBBLE FOR DVR
KR	N 015156	96-704513	12-12-1995		19-05-2005	0491771	12-12-2015	DVB SUBTITLING
KR	NL000002	10-2001-7007727	12-10-2000	01-0089651	21-09-2007	10-0762804	12-10-2020	LINKING AREA IN READ-ONLY DISC
KR	N 014351	94-144	04-01-1994		14-02-2001	289018	04-01-2014	INTERLAYER CROSSTALK IN MULTI
KR	N 017534	10-2001-7003156	05-07-2000	10-2001-0079792	22-03-2007	10-0701257	05-07-2020	ONE ECC FOR DIFFERENT DATA
KR	N 015776	97-707294	07-02-1997		27-04-2005	0487680	07-02-2017	DVD - RAM RANDOM SHIFT
KR	N 015437	97-701309	21-06-1996	10-1997-0705900	29-06-2004	439453	21-06-2016	TRANSMISSION OF MENUS FOR A
KR	N 015471	96-704517	06-12-1995	97-0701413	24-10-2003	404530	06-12-2015	TOC'S FOR MULTILAYER OPTICAL
KR	N 016849	10-1999-7007933	28-12-1998	00-75855	04-07-2006	10-0599225	28-12-2018	ERROR FROM WELL PROTECTED T

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LU	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
MX	NL000002	01006280	12-10-2000		18-03-2005	226819	12-10-2020	LINKING AREA IN READ-ONLY DISC
MX	N 017534	002575	05-07-2000		07-01-2008	252991	05-07-2020	ONE ECC FOR DIFFERENT DATA
MY	NL000002	PI20004903	18-10-2000		31-07-2006	125357	31-07-2021	LINKING AREA IN READ-ONLY DISC
MY	NL010191	PI20020934	14-03-2002		30-05-2008	MY-135544-A	30-05-2023	WOBBLE FOR DVR
MY	N 015437	PI9602703	01-07-1996		31-01-2005	MY-118676-A	31-01-2020	TRANSMISSION OF MENUS FOR A
MY	N 015776	PI9700546	14-02-1997		30-08-2004	MY-117846-A	30-08-2019	DVD - RAM RANDOM SHIFT
NL	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
NZ	NL000002	512433	12-10-2000		09-06-2003	512433	12-10-2020	LINKING AREA IN READ-ONLY DISC
PL	N 015776	P322824	07-02-1997	P322824	03-06-2002	184577	07-02-2017	DVD - RAM RANDOM SHIFT
PT	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
RU	NL000002	200100684	12-10-2000		27-02-2003	003197	12-10-2020	LINKING AREA IN READ-ONLY DISC
RU	N 017534	200100345	05-07-2000		27-02-2003	003166	05-07-2020	ONE ECC FOR DIFFERENT DATA
SE	N 014351	93203684.1	24-12-1993	0605924-A3	23-06-1999	0605924	24-12-2013	INTERLAYER CROSSTALK IN MULTI
SE	N 015437	96916275.9	21-06-1996	0787407-A1	06-11-2002	0787407	21-06-2016	TRANSMISSION OF MENUS FOR A
SE	N 017534	00953016.3	05-07-2000		07-01-2009	1114418	05-07-2020	ONE ECC FOR DIFFERENT DATA
SG	N 017534	200101416.6	05-07-2000		27-01-2006	79598	05-07-2020	ONE ECC FOR DIFFERENT DATA
SG	N 014351	9607095.8	24-12-1993	0048111	28-12-2001	48111	24-12-2013	INTERLAYER CROSSTALK IN MULTI
SG	N 015776	9705144.5	07-02-1997		16-11-1999	46833	07-02-2017	DVD - RAM RANDOM SHIFT
TR	N 017534	01-00710	05-07-2000		21-07-2005	TR-2001-0071	05-07-2020	ONE ECC FOR DIFFERENT DATA
TW	NL000002	089124264	16-11-2000		26-04-2004	NI-193757	15-11-2020	LINKING AREA IN READ-ONLY DISC
TW	N 014351	83101489	22-02-1994		31-12-1994	67573	22-02-2014	INTERLAYER CROSSTALK IN MULTI
TW	N 015776	85106262	27-05-1996		29-10-1997	87771	27-05-2016	DVD - RAM RANDOM SHIFT
TW	NL020067	091132388	01-11-2002	200303526	21-06-2006	I257085	01-11-2022	USE OF SAME ECC DECODER FOR
TW	NL010191	091104689	13-03-2002		21-03-2005	I229854	13-03-2022	WOBBLE FOR DVR

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TW	N 016849	88100894	21-01-1999		03-05-2001	124993	21-01-2019	ERROR FROM WELL PROTECTED T
UA	NL000002	2001075185	12-10-2000		16-05-2005	72907	12-10-2020	LINKING AREA IN READ-ONLY DISC
US	NL020067 A	11/681953	05-03-2007	2007-0162830-A1	16-06-2009	7549110	16-06-2026	USE OF SAME ECC DECODER FOR
US	NL010721	10/268418	10-10-2002	2003-0090977-A1	19-09-2006	7110332	04-01-2025	RLL MODULATED WOBBLE FOR PI
US	NL010273	10/131776	24-04-2002	2003-0007440-A1	26-09-2006	7113467	11-10-2023	WOBBLE PERIOD FOR BD RECORD
US	N 014351	08/175331	29-12-1993		23-04-1996	5511057	29-12-2013	INTERLAYER CROSSTALK IN MULTI
US	NL010191	10/257691	14-03-2002		01-08-2006	7085209	07-05-2023	WOBBLE FOR DVR
US	NL020067	10/501824	12-12-2002	2005-0034047-A1	03-04-2007	7200795	26-03-2023	USE OF SAME ECC DECODER FOR
US	N 014351 W	08/791097	23-01-1997		26-01-1999	5864530	29-12-2013	INTERLAYER CROSSTALK IN MULTI
US	N 014351 X	09/159994	24-09-1998		15-02-2000	6026069	29-12-2013	INTERLAYER CROSSTALK IN MULTI
US	NL000002	09/691336	18-10-2000		30-09-2003	6628584	25-10-2021	LINKING AREA IN READ-ONLY DISC
US	N 014448	08/223875	06-04-1994		19-12-1995	5477222	06-04-2014	PARITY PRESERVED CODING N-BI
US	N 017534	09/786102	05-07-2000		13-02-2007	7178083	29-05-2024	ONE ECC FOR DIFFERENT DATA
US	N 015437	08/674517	02-07-1996		31-12-2002	6502241	02-07-2016	TRANSMISSION OF MENUS FOR A
US	N 016849	09/218560	22-12-1998		23-04-2002	6378100	22-12-2018	ERROR FROM WELL PROTECTED T
US	N 015471	08/573850	18-12-1995		09-04-2002	6370102	18-12-2015	TOC'S FOR MULTILAYER OPTICAL
US	N 015471 A	10/083330	22-10-2001	2002-0101811-A1	16-09-2003	6621786	18-12-2015	TOC'S FOR MULTILAYER OPTICAL
US	N 015471 B	10/614411	07-07-2003	2004-0095879-A1	24-04-2007	7209431	18-12-2015	TOC'S FOR MULTILAYER OPTICAL
US	Q 098023	09/320812	27-05-1999		17-12-2002	6496541	27-05-2019	(1,7) PP + RMTR CHANNEL CODE F
US	N 015776 A	09/619071	19-07-2000		22-10-2002	6469968	14-02-2017	DVD - RAM RANDOM SHIFT
US	N 015776	08/800633	14-02-1997		05-09-2000	6115340	14-02-2017	DVD - RAM RANDOM SHIFT
VN	N 015776	S19970933	07-02-1997		15-08-2001	2271	07-02-2017	DVD - RAM RANDOM SHIFT
VN	N 017534	1-2001-00232	05-07-2000		18-01-2005	4747	05-07-2020	ONE ECC FOR DIFFERENT DATA