

Service
Service
Service



Service Manual



CONTENTS

Page

1 Technical specifications	2
2 Warnings	2
3 Service hints	3
4 Amendment	3
5 Dismantling instruction and exploded view	4
6 Block- and wiring diagram	6
7 Electrical diagrams and print-layouts	8
Power board	8
Mpeg board	10
Front board	20
MIC board..	22
8 Spare parts list DVD616K/031	24
9 Spare parts list DVD616K/691	28
10 Spare parts list DVD616K/751	32
11 Spare parts list DVD616K/782	36
12 Spare parts list DVD616K/931	40

CLASS 1
LASER PRODUCT

GB 3122 785 12050

© Copyright 2002 Philips Consumer Electronics BPAVC
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise without the prior permission of Philips.

Published by Jianfeng Liu 0263 BPAVC



PHILIPS

1. Technical Specifications

DVD616K/ 031/691/751/782

Specifications

DVD-Video player

Technical specifications DVD 616K

Playback system

- DVD-Video
- Video CD (VCD)
- SVCD
- Picture CD
- MP3-CD¹
- CD (CD-R and CD-RW)¹
- DVD+RW

Optical read-out system

- Laser type Semiconductor AlGaAs
- Numerical Aperture 0.60 (DVD)
- 0.45 (VCD/SVCD/CD)
- Wavelength 650 nm (DVD)
- 780 nm (VCD/SVCD/CD)

DVD disc format

Medium	Optical disc
Diameter	12 cm (8 cm)
Playing time (12cm)	
One layer	2.15 h ²
Dual layer	4 h ²
Two side, single layer	4.30 h ²
Two side, dual layer	8 h ²

TV standard

	PAL	NTSC
Number of lines	50 Hz	60Hz
Playback	625	525

Video format

Digital compression	MPEG 2 for DVD, SVCD MPEG 1 for VCD
DVD	50Hz
Horiz. resolution	720 pixels
Vertical resolution	576 lines
VCD	50Hz
Horiz. resolution	352 pixels
Vertical resolution	288 lines
	240 lines

Video performance

- Video output 1Vpp into 75 ohm
- S-Video output Y: 1Vpp into 75 Ohm
C: 0.3Vpp into 75 Ohm
- Component Video output Y 1Vpp into 75 Ohm
Cr 0.7Vpp into 75 Ohm
Cb 0.7Vpp into 75 Ohm

Audio format

Digital	Mpeg/Dolby Digital/ PCM	Compressed Digital, 16, 20, 24 bits fs, 44.1, 48, 96 kHz
	MP3 (ISO 9660)	24, 32, 56, 64, 96, 128, 256 kbps & variable bit rate fs, 16, 22.05, 24, 32, 44.1, 48 kHz

- Analog sound stereo
- Dolby surround compatible downmix from Dolby Digital multi-channel sound
- 3D sound for virtual 5.1 channel sound on 2 speakers



2. Warnings

GB WARNING

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wristband with resistance. Keep components and tools at this potential.



NL WAARSCHUWING

Alle IC's en vele andere halffgeleiders zijn gevoelig voor elektrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

I AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.



NL Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast. De veiligheidsonderdelen zijn aangeduid met het symbool

I Le norme di sicurezza estigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati. Componenti di sicurezza sono marcati con



F "Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Advarsel !
"Osynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling."

Warning for powersupply on primary side

The primary side of the powersupply including the heatsink carries live mains voltage when the player is connected to the mains even when the player is switched off!

This primary area is not shielded so it is possible to touch copper tracks and/or components when servicing the player. Service personnel have to take precautions to prevent touching this area or components in this area.

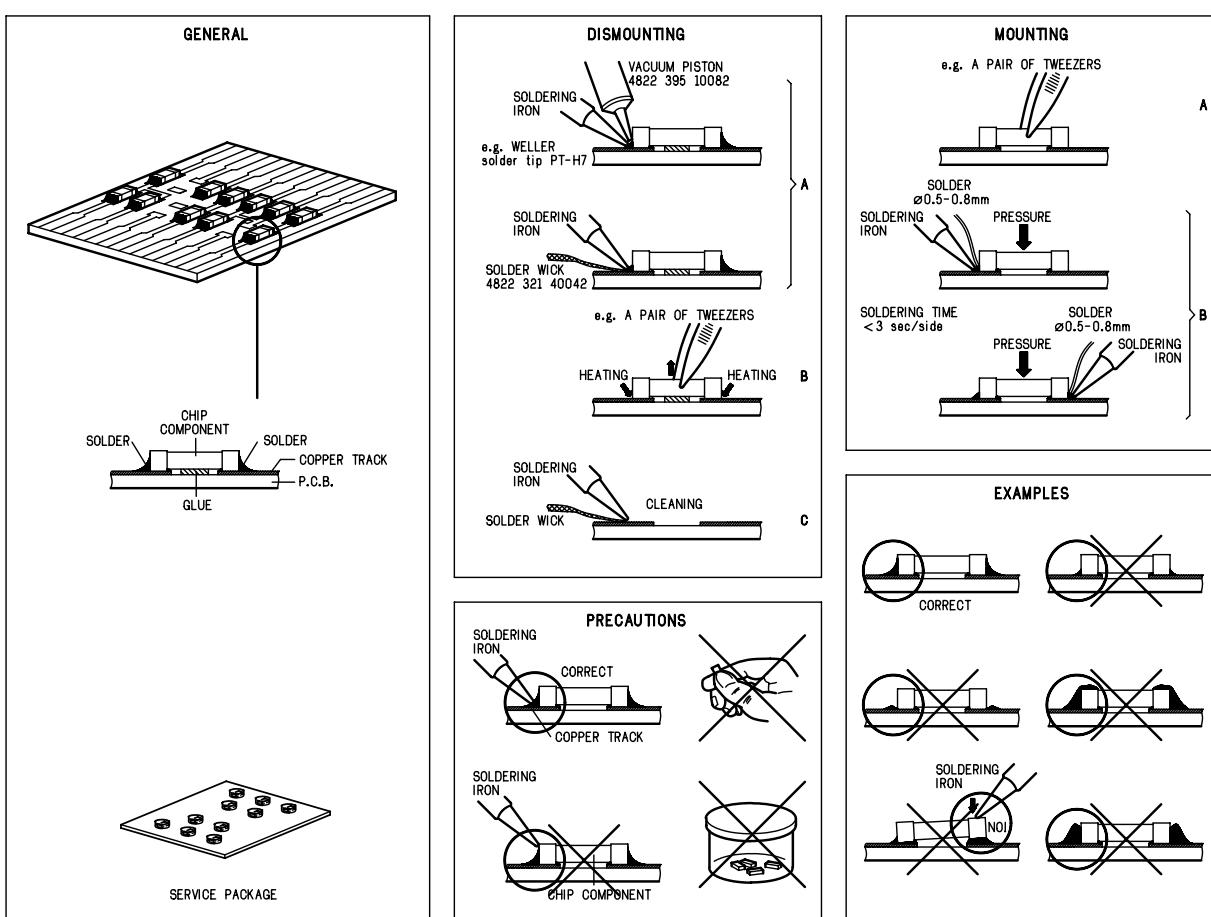
The primary side of the powersupply has been indicated with a stripe-marked printed on the printed wiring board.

¹ Only Applicable for Single session finalised disc.

² Typical playing time for movie with 2 spoken languages and 3 subtitle languages.

3. Service hints

HANDLING CHIP COMPONENTS



SERVICE TOOLS

Test discs

Audio signals disc ----- 4822 397 30184

Torx screwdrivers

Set (straight, T2 to T20) ----- 4822 395 50145

Set (square, T10, T15, T20) ----- 4822 395 50132

4. Revision information

Service manual version: 1.0

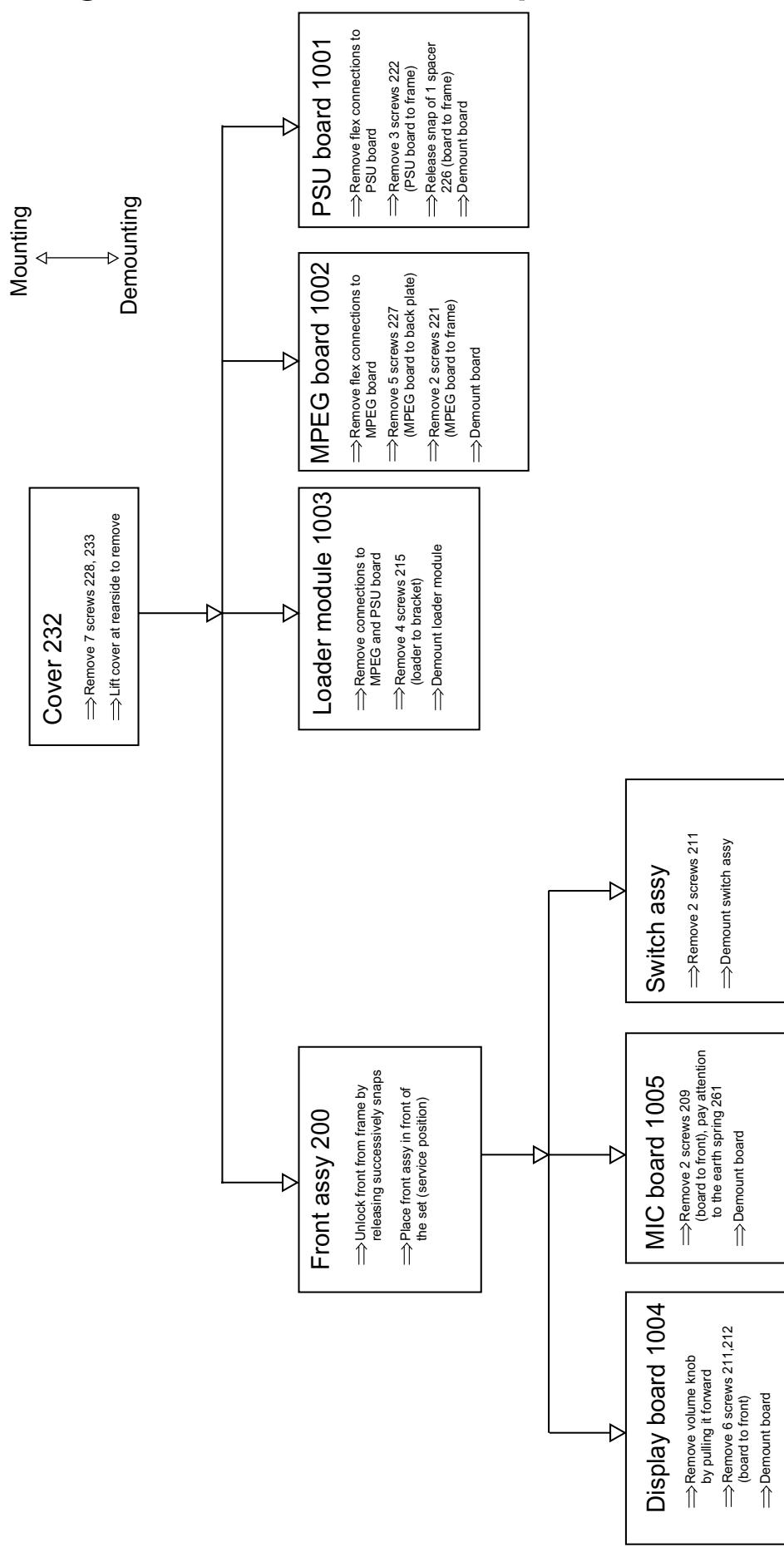
Issue Date : 18th, March, 2002

Revision information: N/A

DISMANTLING INSTRUCTIONS DVD616K/031/691/751/782/931

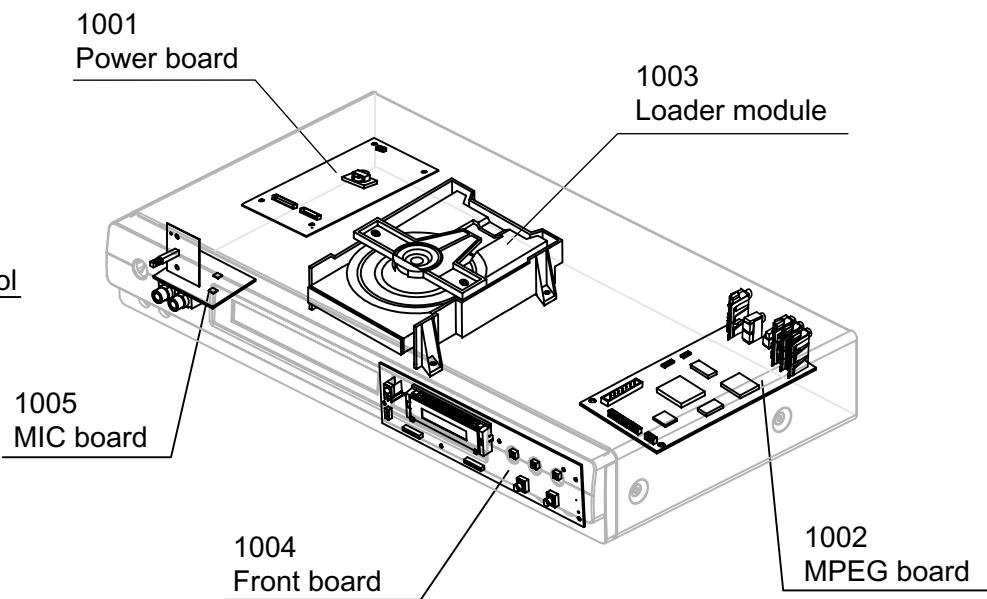
See exploded view for item numbers

5. Dismantling instructions and exploded view



5. Dismantling instructions and exploded view

PCB LOCATION DVD616K/031/691/751/782/931



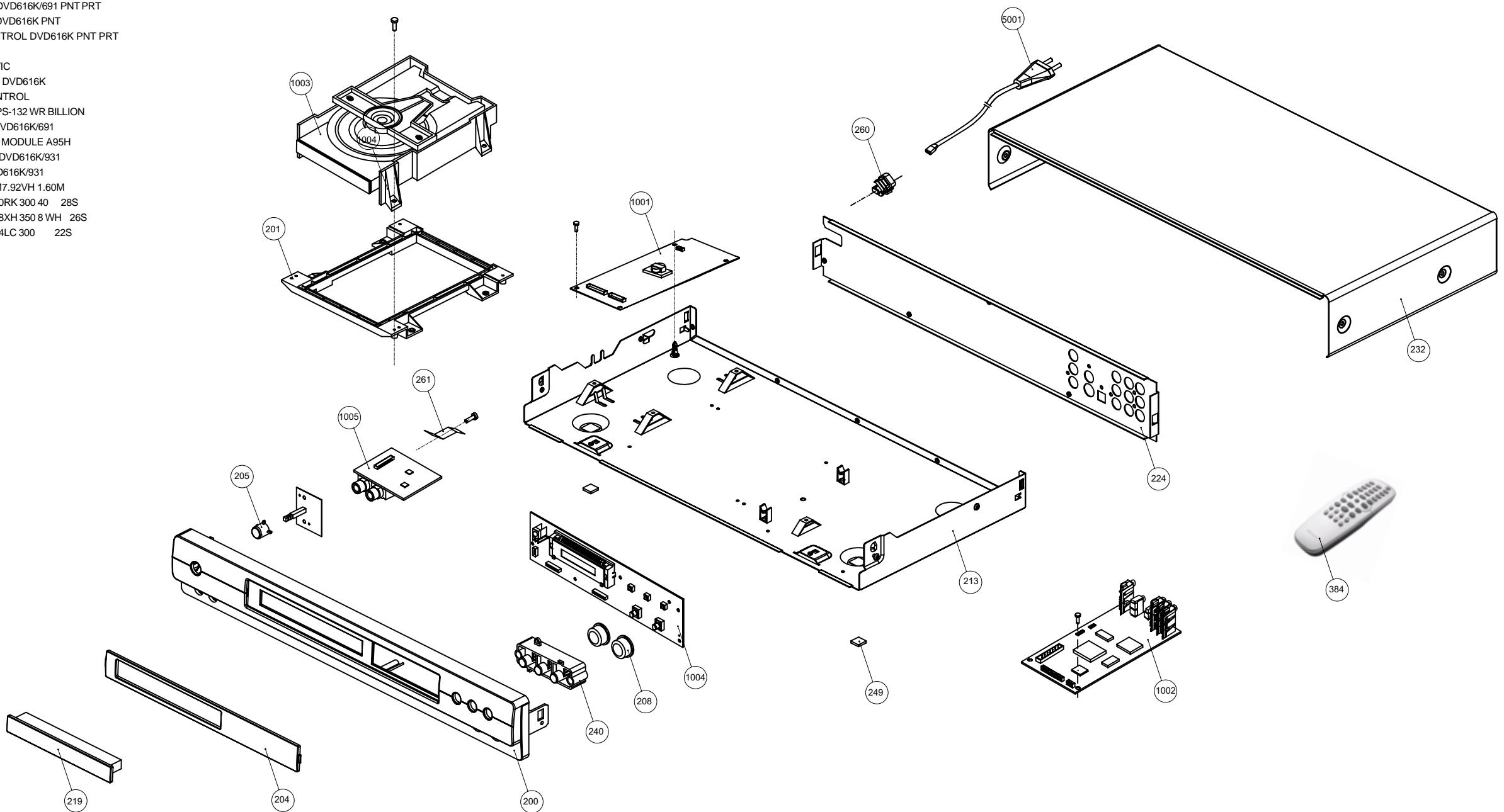
PARTS 12NC LIST

	DVD616k/031	DVD616K/691	DVD616K/751	DVD616K/782	DVD616K/931
1001 PSU board	3141 018 02930	3141 018 02930	3141 018 02930	3141 018 02930	3141 018 02930
1002 MPEG board	3141 018 02810	3141 018 02780	3141 018 02790	3141 018 02800	3141 018 02770
1003 Loader module	3141 018 02660	3141 018 02660	3141 018 02660	3141 018 02660	3141 018 02660
1004 Front board	3141 018 02550	3141 018 02550	3141 018 02550	3141 018 02550	3141 018 02550
1005 Front board	3141 018 02560	3141 018 02560	3141 018 02560	3141 018 02560	3141 018 02560
Remote control	3141 017 90161	3141 017 90161	3141 017 90161	3141 017 90161	3141 017 90171

5. Dismantling instructions and exploded view

MECHANICAL PARTS LIST DVD616K/691

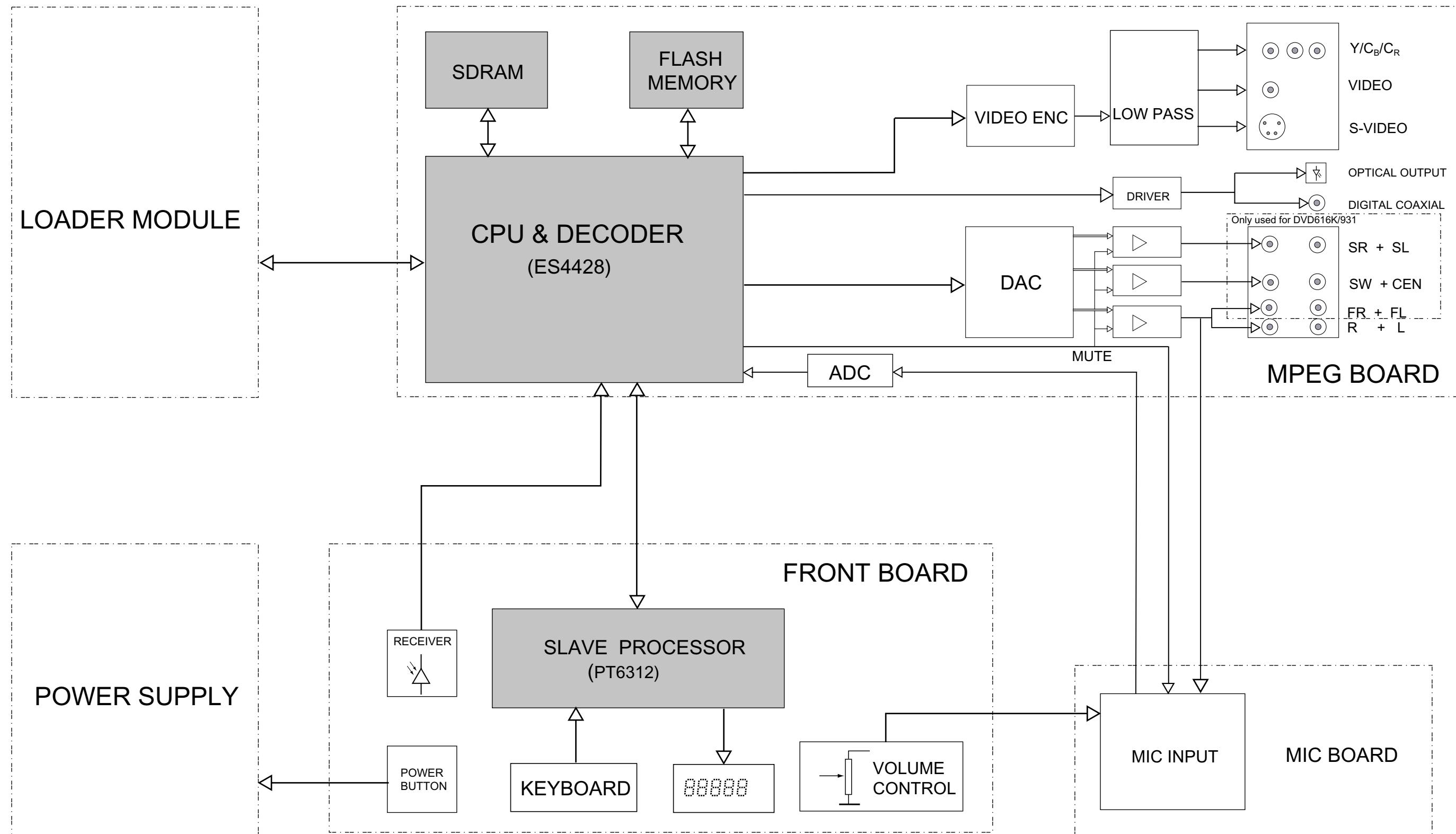
ITEM	CODE NUMBER	DESCRIPTION
200	314101776140	CAB FRONT DVD616K/691 PNT PRT
201	314101424720	BRACKET
204	314101776220	WINDOW DVD616K
205	314101775590	BUTTON POWER DVD616K PNT PRT
208	314101775580	VOLUME KNOB DVD616K PNT
213	314101121300	FRAME DVD616K
219	314101775600	DOOR DVD616K PRT
224	314101775830	BACK PLATE DVD616K/691 PNT PRT
232	314101775610	COVER TOP DVD616K PNT
240	314101775570	BUTTON CONTROL DVD616K PNT PRT
249	313924310080	CUSHION
260	482253260948	BUSH, PLASTIC
261	314101160520	EARTH PLATE DVD616K
384	314101790161	REMOTE CONTROL
1001	314101802930	PBAS PSU 90PS-132 WR BILLION
1002	314101802780	PBAS MPEG DVD616K/691
1003	314101802660	DVD LOADER MODULE A95H
1004	314101802550	PBAS FRONT DVD616K/931
1005	314101802560	PBAS MIC DVD616K/931
5001	314101871300	MAIN CORD M7.92VH 1.60M
8001	314101021160	CWAS 40RK/40RK 300 40 28S
8002	314101021140	CWAS 08XH/08XH 350 8 WH 26S
8003	314101021150	CWAS 04XH/04LC 300 22S



DVD616K/691 EXPLODED VIEW

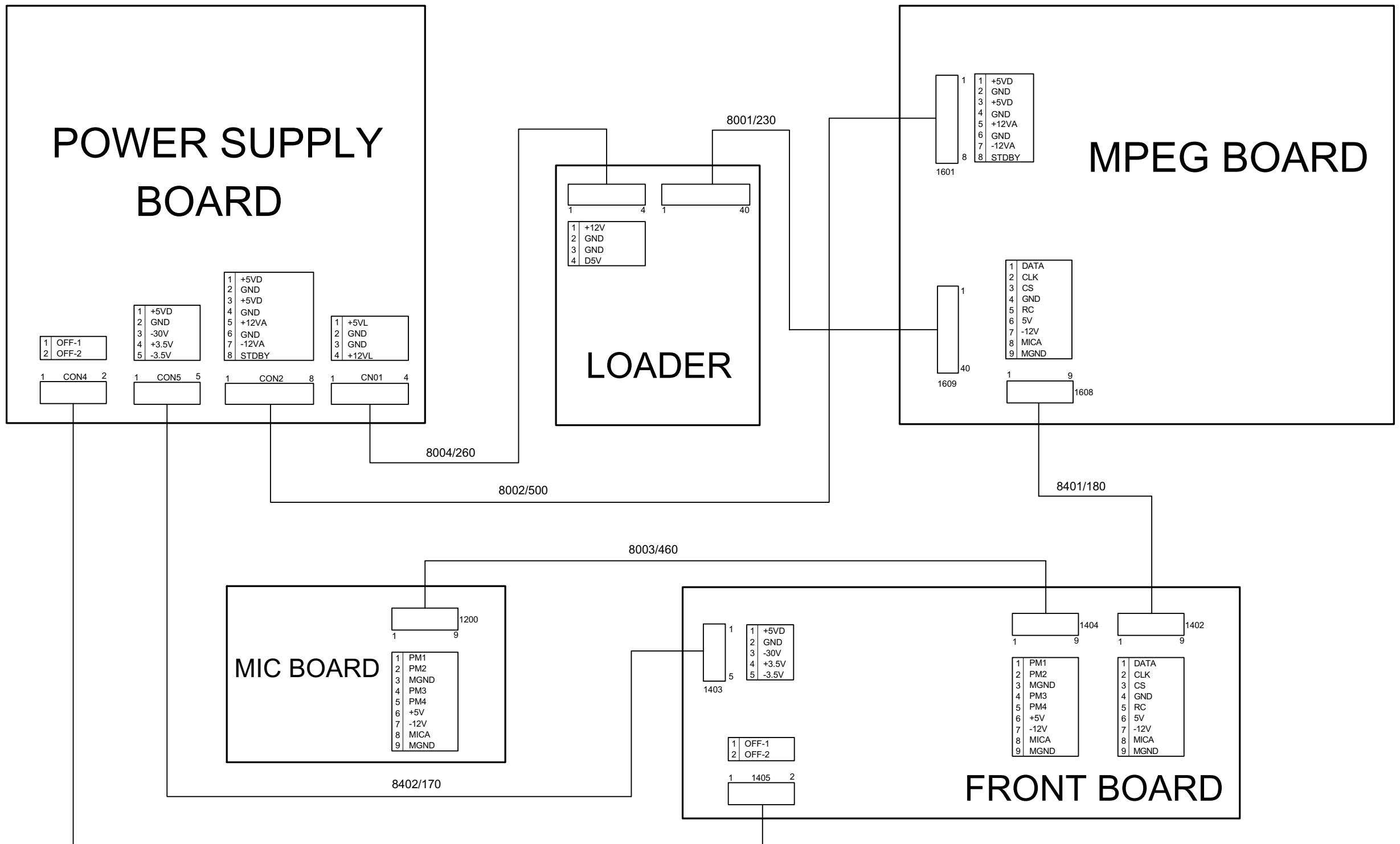
6. Block- and wiring diagram

Block diagram DVD616K/031/691/751/782/931

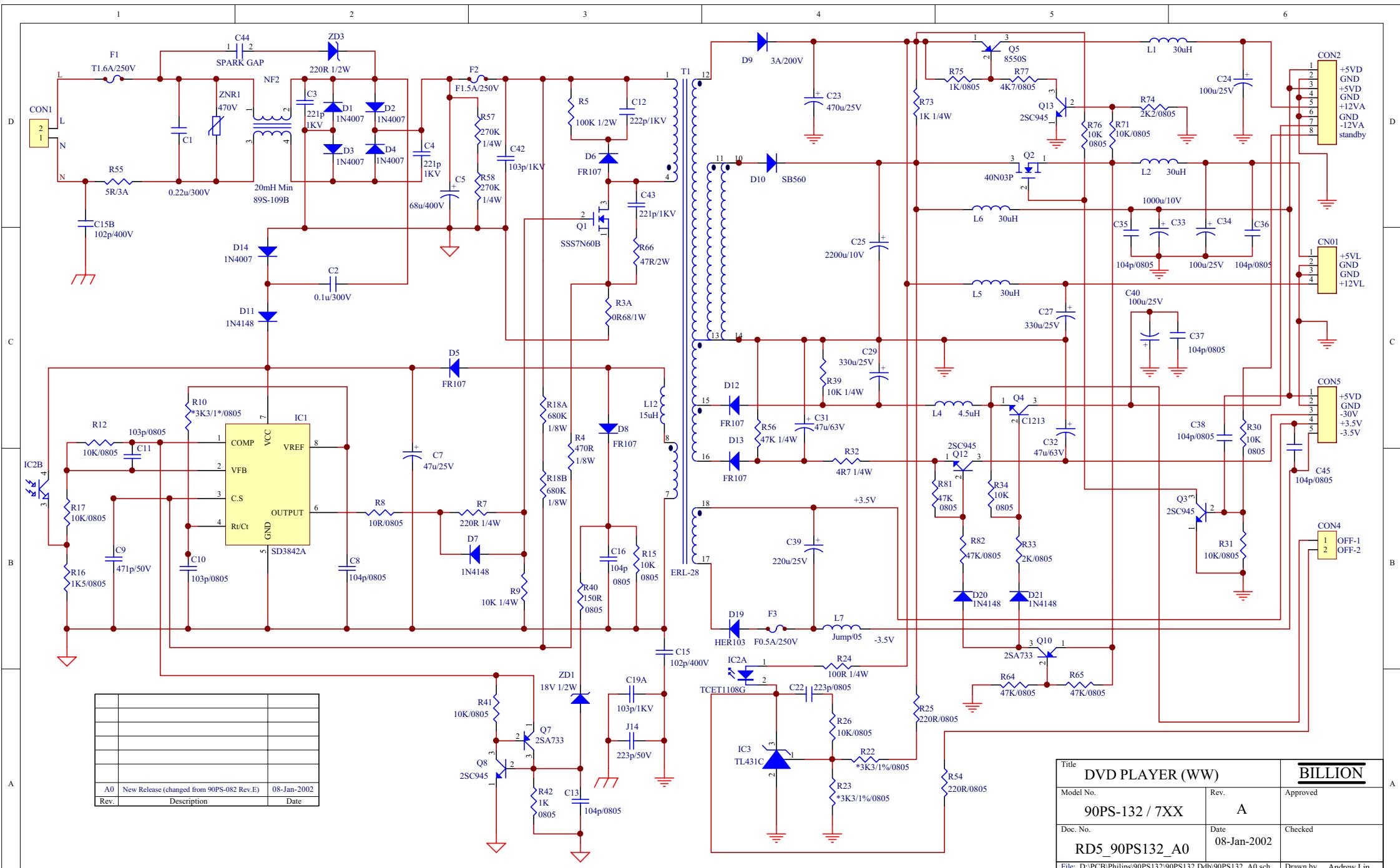


6. Block- and wiring diagram

Wiring diagram DVD616K/031/691/751/782/931

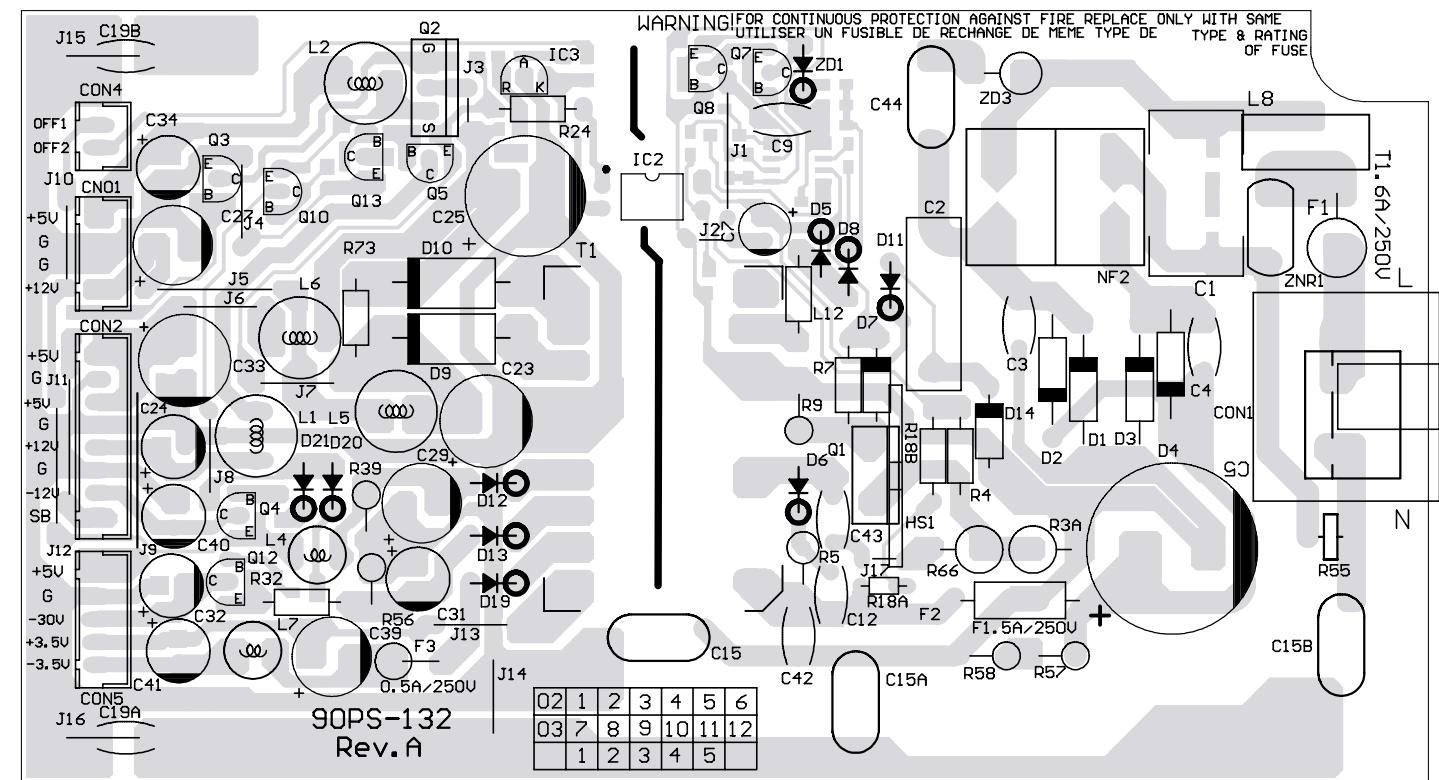


CIRCUIT DIAGRAM

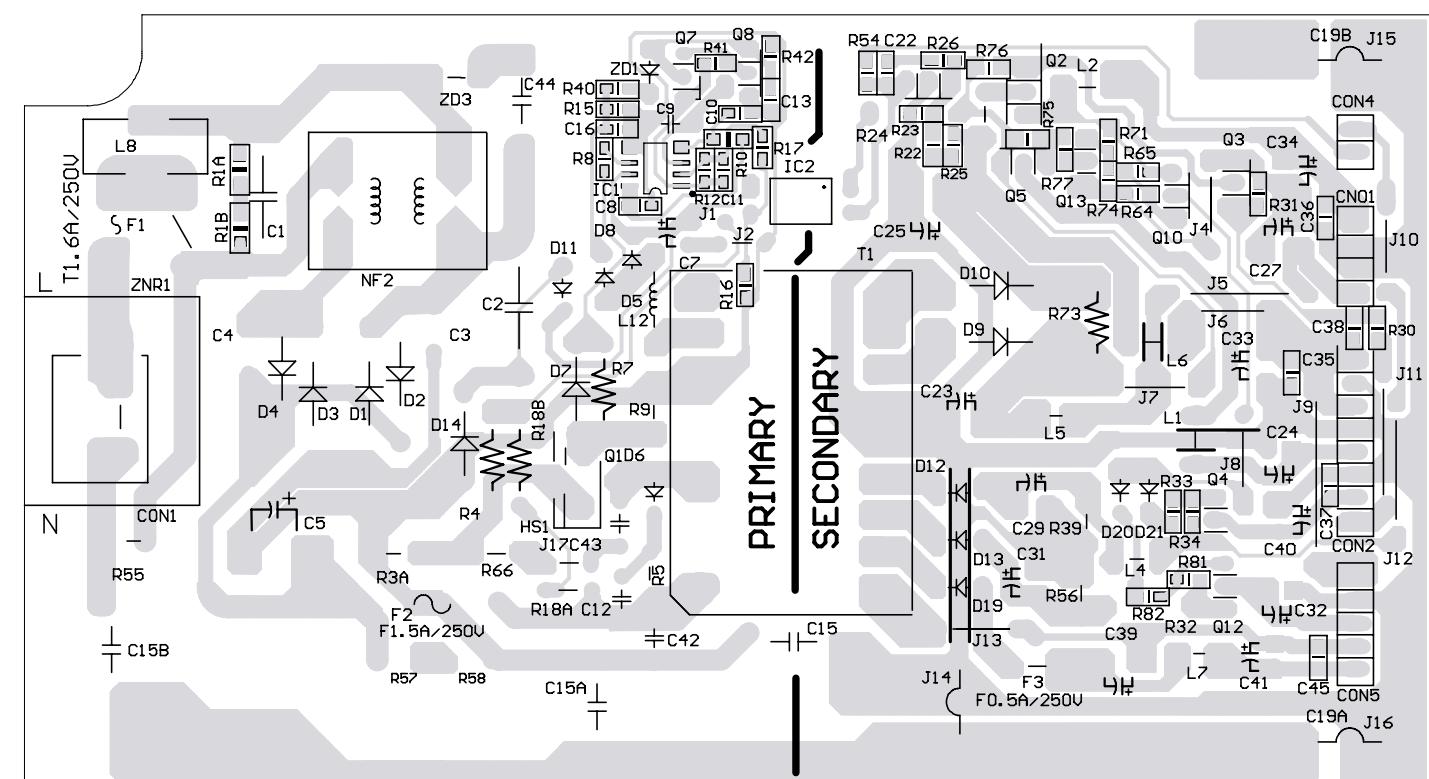


Layout Power supply board DVD616K/031/691/751/782/931

Component side

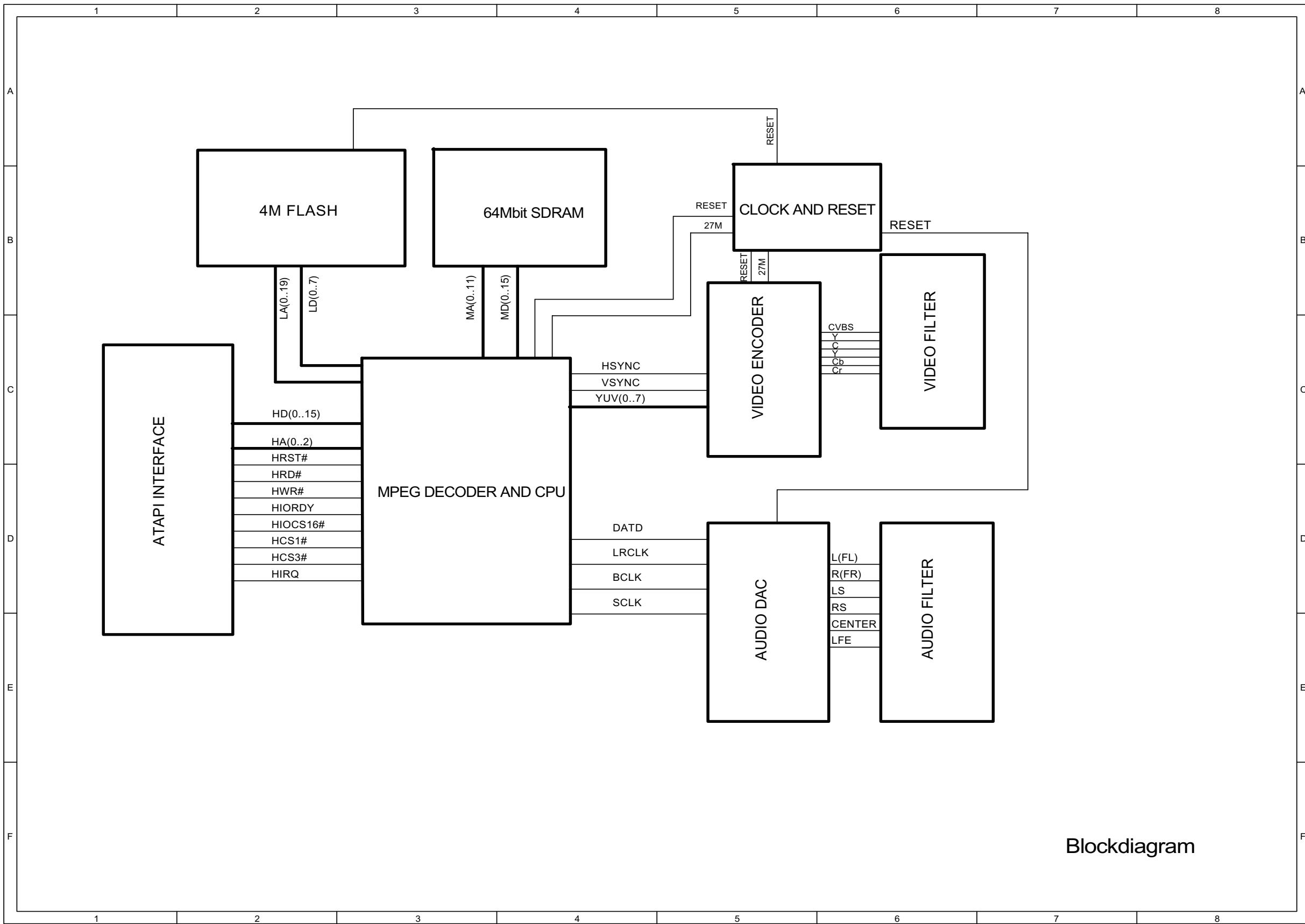


Copper side



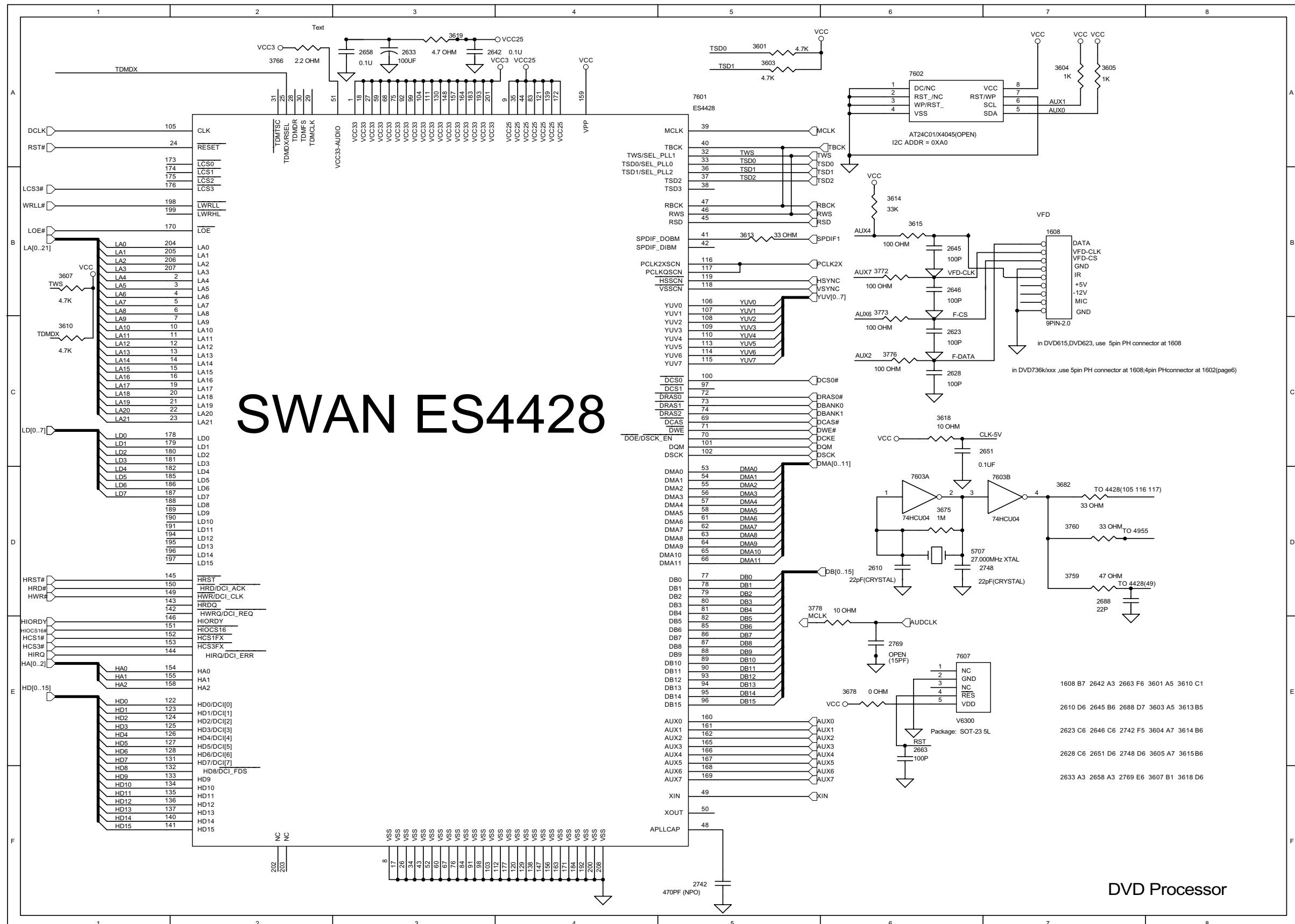
MPEG board DVD616K/031/691/751/782/931

Blockdiagram



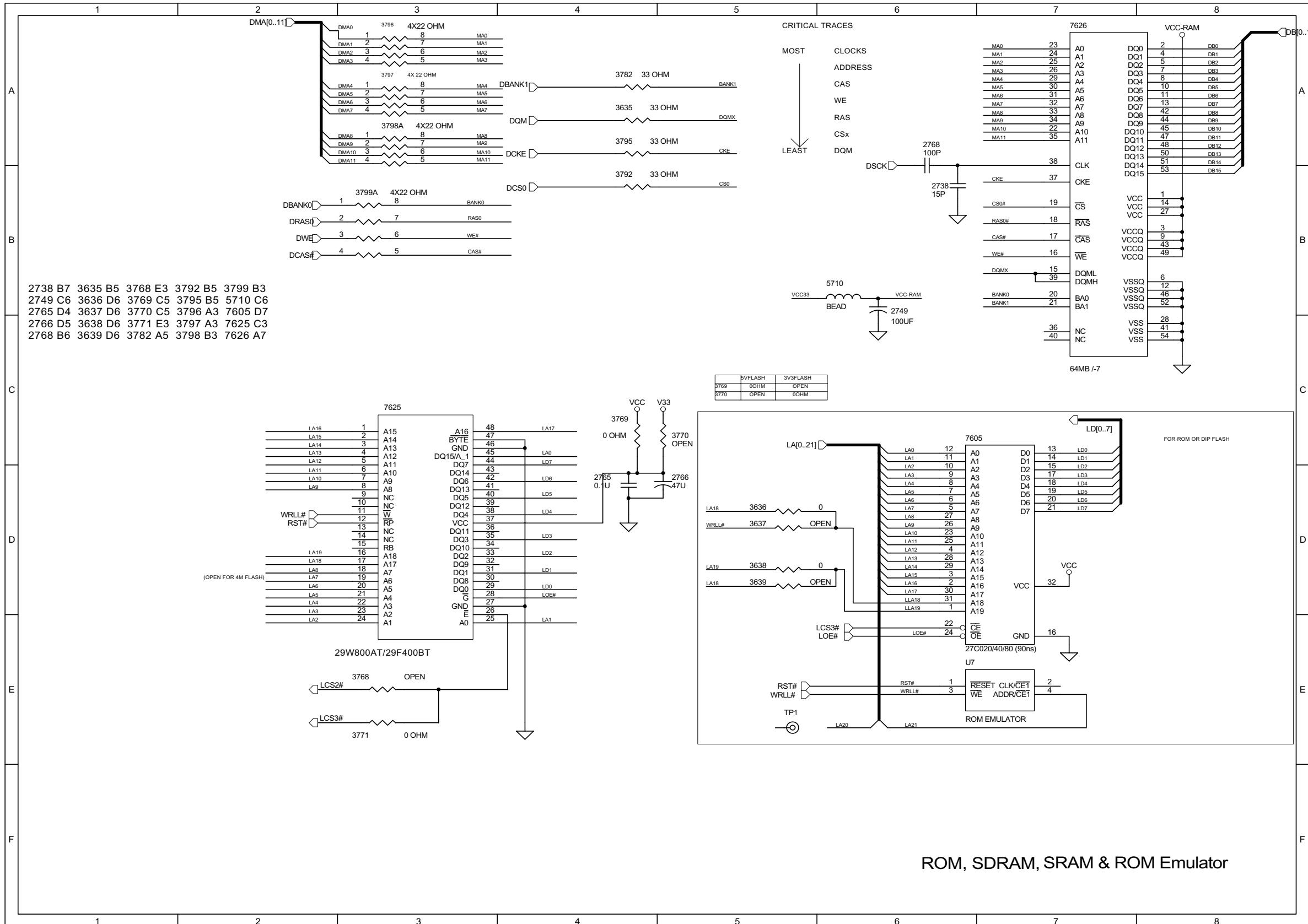
MPEG board DVD616K/031/691/751/782//931

DVD Processor



MPEG board DVD616K/031/691/751/782/931

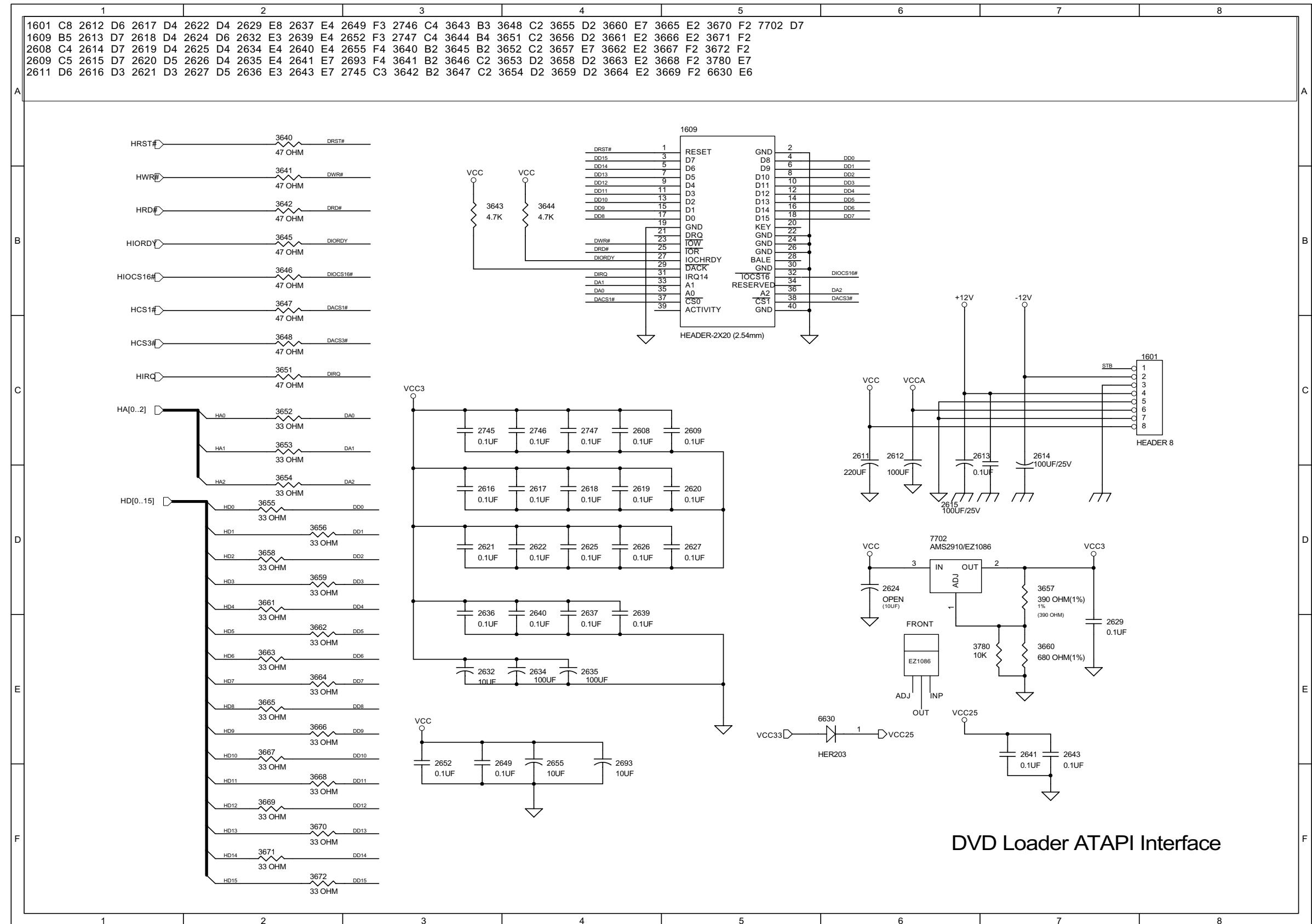
ROM, SDRAM, SRAM & ROM Emulator



ROM, SDRAM, SRAM & ROM Emulator

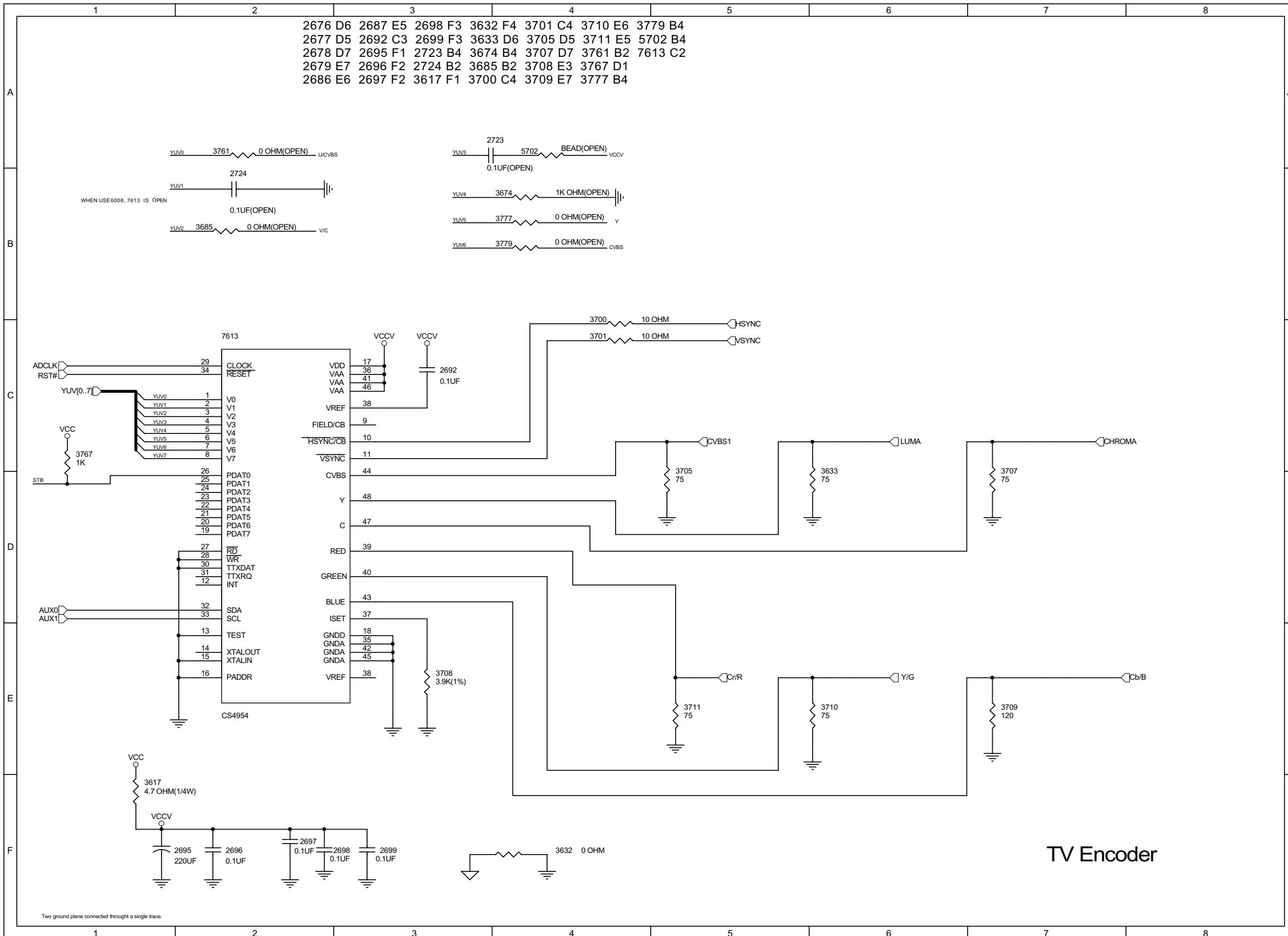
MPEG board DVD616K/031/691/751/782/931

DVD Loader ATAPI Interface



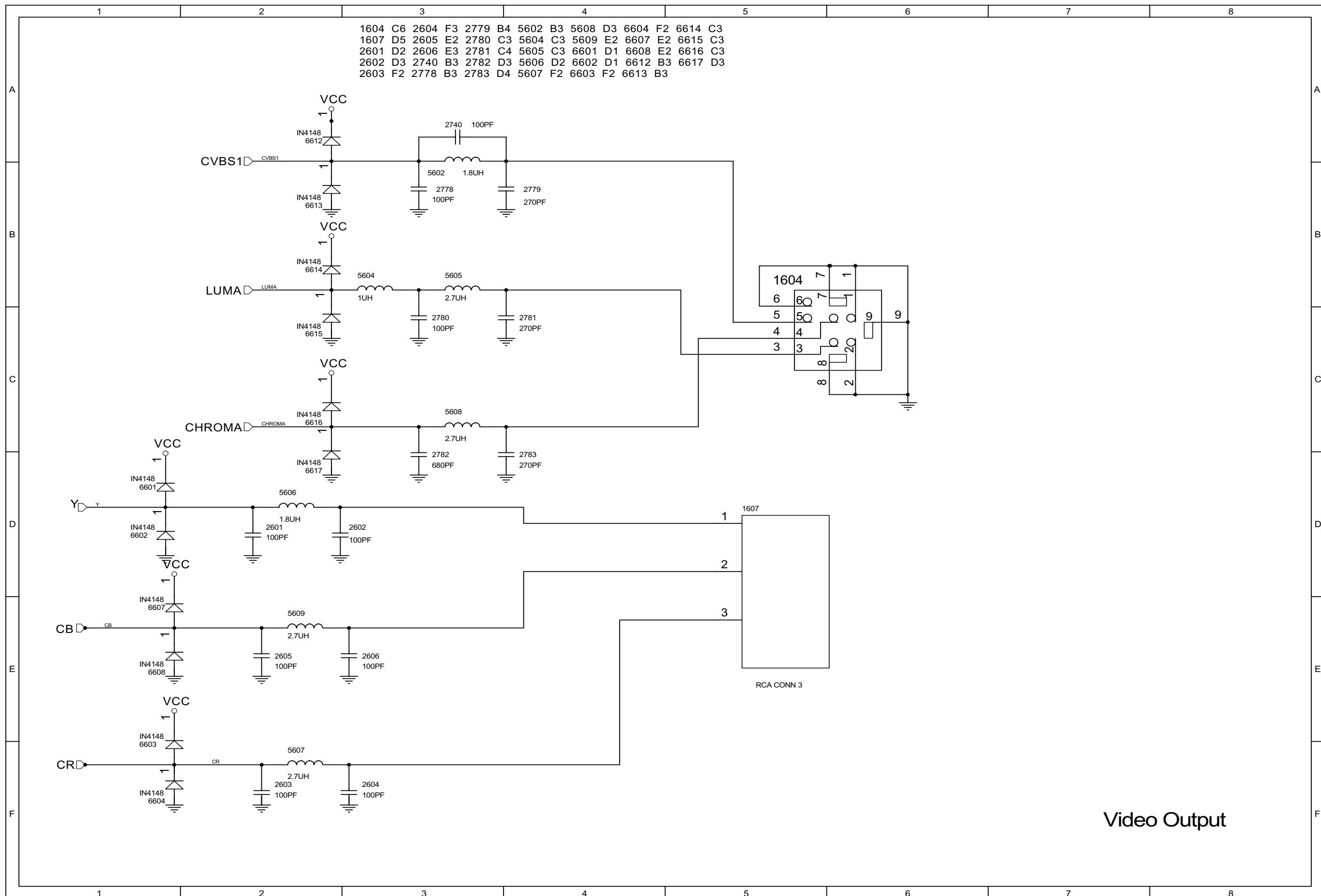
MPEG board DVD616K/031/691/751/782/931

TV Encoder



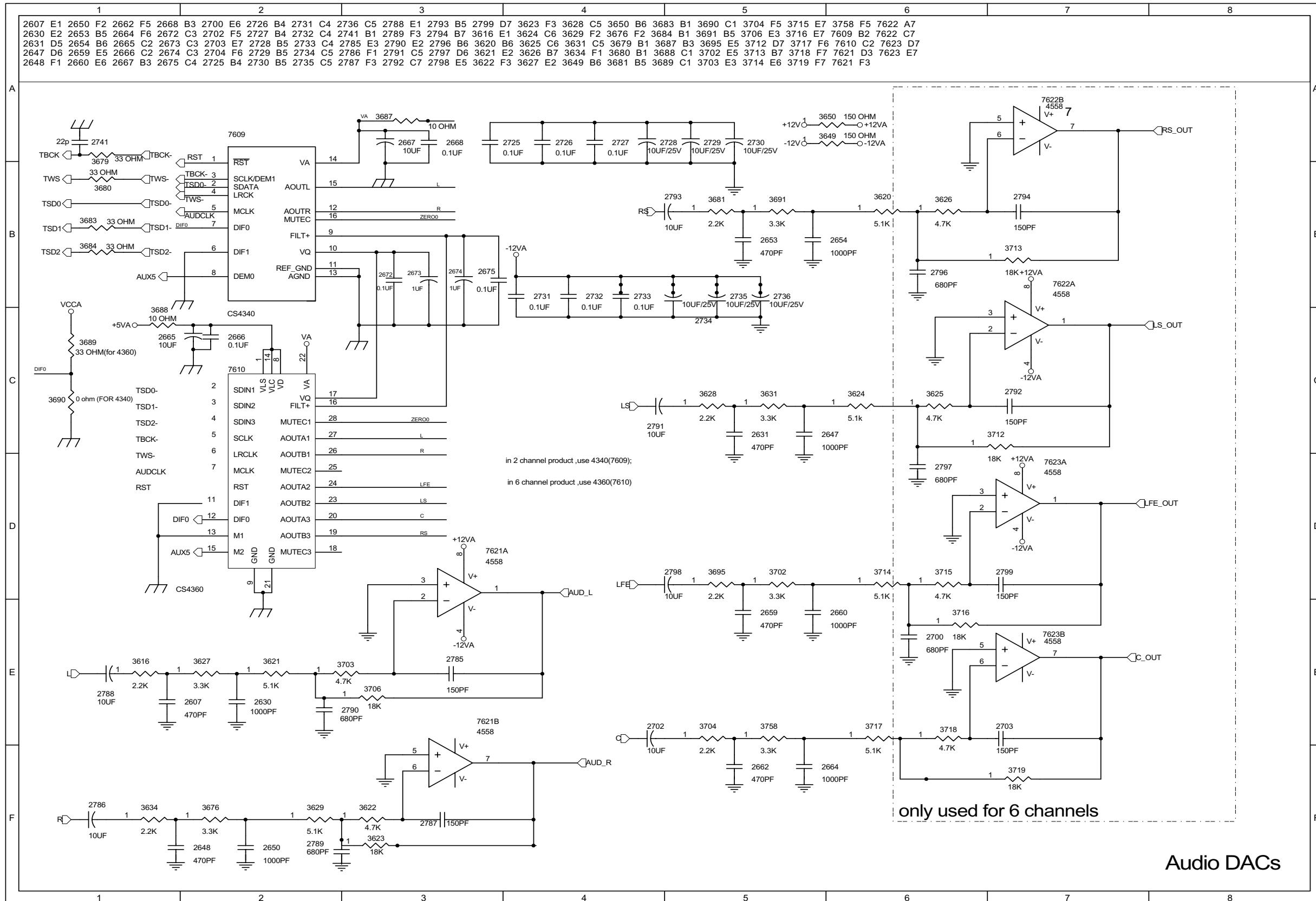
MPEG board DVD616K/031/691/751/782/931

Video Output



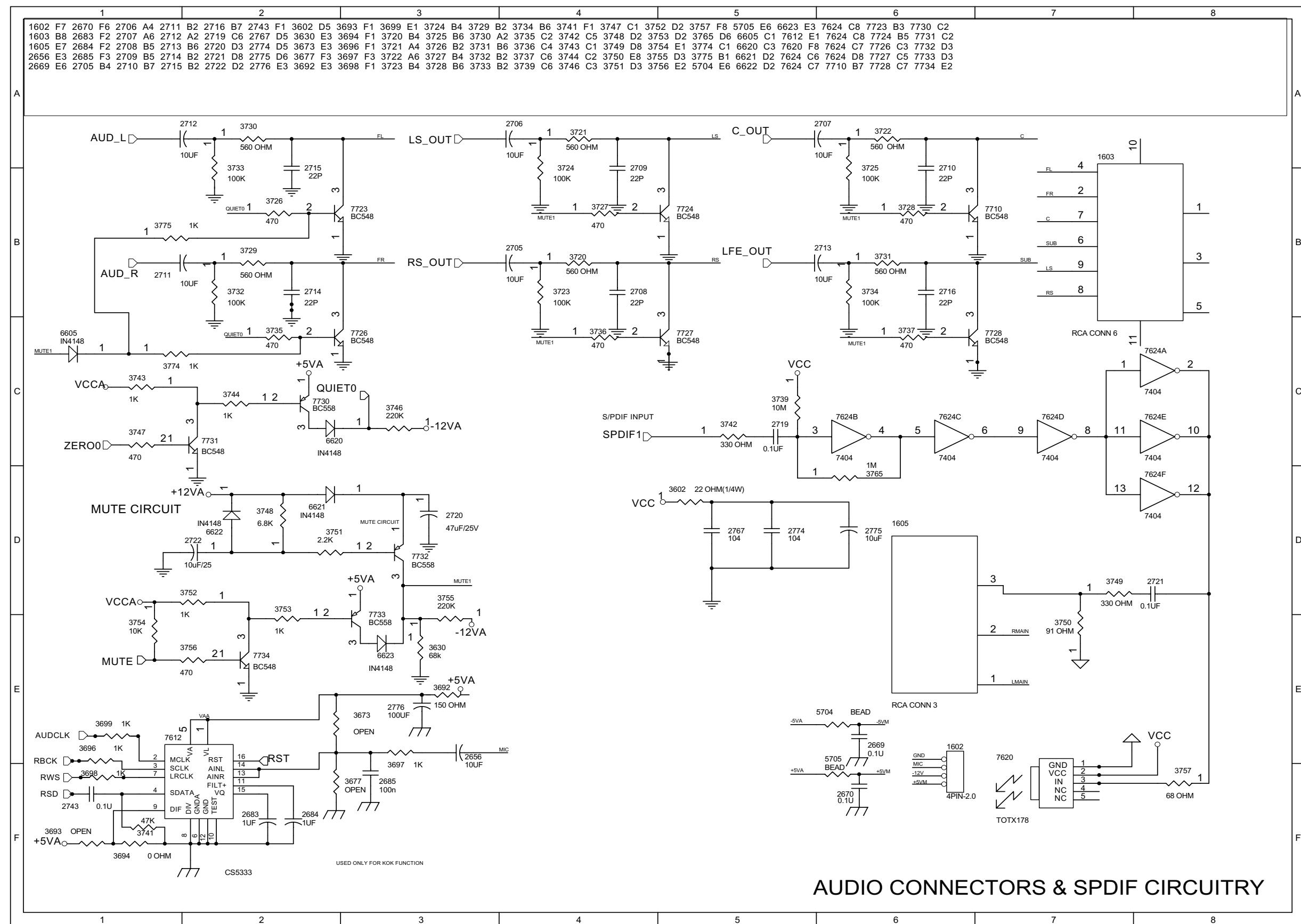
MPEG board DVD616K/031/691/751/782/931

Audio DACs



MPEG board DVD616K/031/691/751/782/931

AUDIO CONNECTORS & SPDIF CIRCUITRY

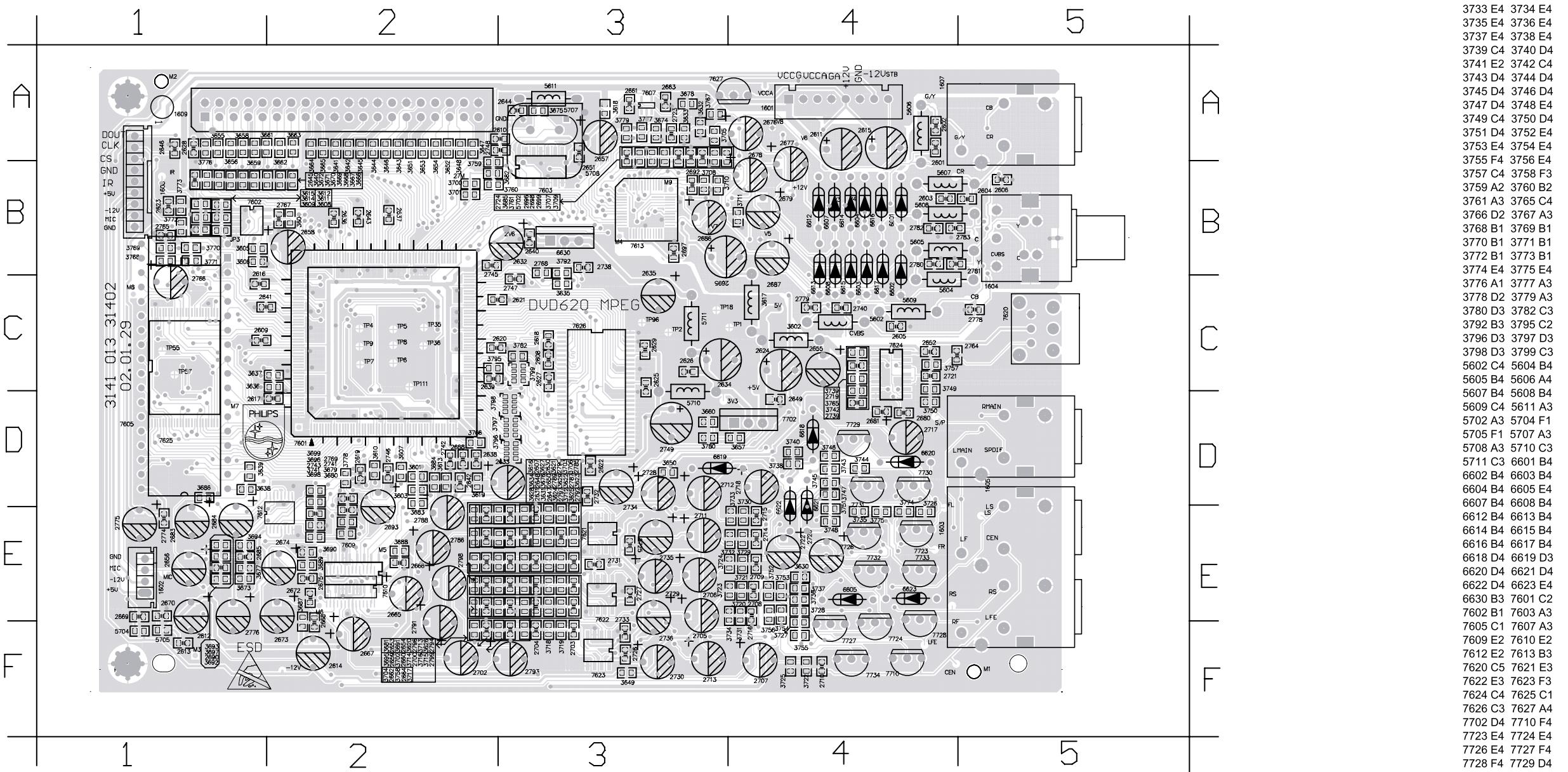


AUDIO CONNECTORS & SPDIF CIRCUITRY

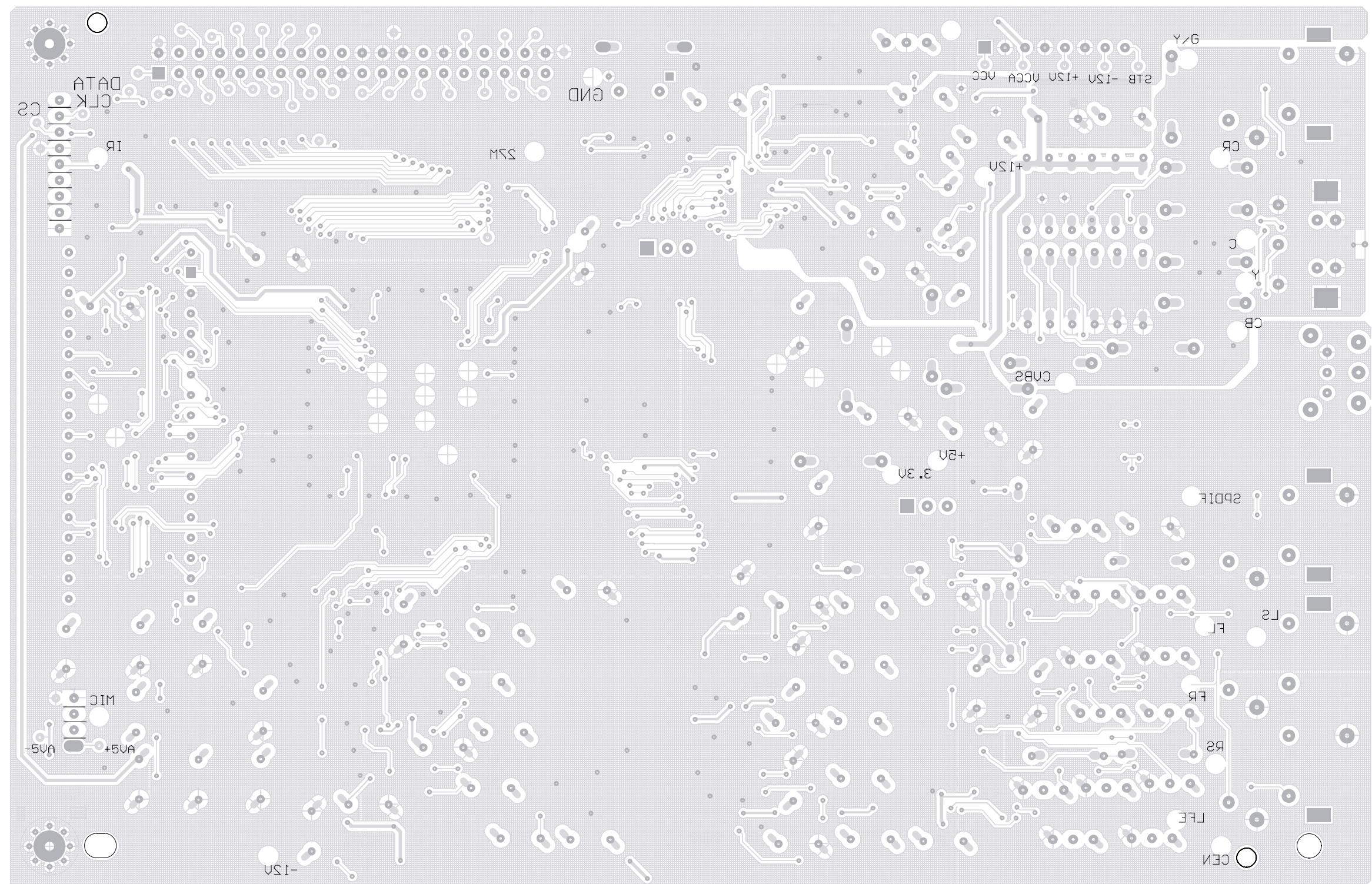
Layout MPEG board (component side) DVD616K/031/691/751/782/931

1601 A4 1607 A5 2603 B4 2608 C3 2613 F1 2618 C3 2623 B1 2633 B3 2638 D2 2643 B2 2648 E2 2653 E2 2658 B2 2663 A3 2668 E2 2674 E2 2679 B4 2685 E1 2692 B3 2698 A3 2704 F3 2709 E4 2714 E4 2719 C4 2724 A3 2729 E3 2734 D32740 C4 2746 D2
 1602 E1 1608 B1 2604 B5 2609 C1 2614 F2 2619 D2 2624 C4 2629 C3 2634 C3 2639 C2 2644 A3 2649 D4 2654 E3 2659 E2 2664 F3 2669 E1 2675 E2 2680 D4 2686 B3 2693 D2 2699 A3 2705 E3 2710 F4 2715 E4 2720 E4 2725 E3 2730 F3 2735 E32741 D2 2747 B3
 1603 E5 1609 A2 2605 C4 2610 A3 2615 A4 2620 C3 2625 C3 2630 E3 2635 C3 2640 B3 2650 E3 2655 C4 2660 E3 2665 E2 2670 E1 2676 A4 2681 D4 2687 B4 2695 D4 2700 E3 2706 E3 2711 E3 2716 E4 2721 C4 2726 F3 2731 E3 2736 E32742 D2 2748 A3
 1604 B5 2601 A4 2606 B5 2611 A4 2616 C1 2621 C3 2626 C3 2631 E2 2636 B2 2641 C1 2646 A1 2651 A3 2656 E1 2661 A3 2666 E2 2672 E2 2677 A4 2683 E1 2688 D2 2696 A3 2702 F2 2707 E4 2712 D3 2717 D4 2722 E4 2727 E3 2732 D3 2738 B32743 E2 2749 D3
 1605 D5 2602 A4 2607 E2 2612 E1 2617 D2 2622 D3 2627 C3 2632 B3 2637 B2 2642 D2 2647 E3 2657 A3 2662 F2 2673 B2 2678 B4 2684 E1 2690 E1 2697 B3 2703 F3 2708 E4 2713 F3 2718 D4 2723 A3 2728 D3 2733 F3 2739 D42745 B2 2764 C5

2765 B1 2774 E1 2780 B4 2786 E2 2791 E2 2797 E3 3603 D2 3608 B1 3613 D2 3618 A3 3623 E3 3628 E2 3633 A3 3638 D1 3643 A2 3648 A2 3653 A2 3658 A1 3663 A2 3668 B1 3673 E1 3678 A3 3683 D2 3688 E2 3693 E1 3698 E2 3703 E3 3708 B33713 E3 3718 F3
 2766 B1 2775 E1 2781 B5 2787 E3 2792 E3 2798 E2 3604 B2 3609 B1 3614 D2 3624 E3 3629 E3 3634 E2 3639 D1 3644 A2 3649 F3 3654 A1 3664 A2 3669 B1 3674 A3 3679 E2 3684 D2 3689 E2 3694 E1 3699 D2 3704 F2 3709 A43714 E3 3719 F3
 2767 B2 2776 E1 2782 B4 2788 E2 2793 F3 2799 E3 3605 B1 3610 D2 3615 B1 3620 E3 3625 E3 3630 E4 3635 C3 3640 B1 3645 A2 3650 D3 3655 A3 3660 D3 3665 A2 3670 B1 3675 A3 3680 E2 3685 A3 3690 E2 3695 E2 3700 B2 3705 A3 3710 B33715 E3 3720 E4
 2768 B3 2778 C5 2783 B5 2789 E3 2794 E3 3601 D2 3606 B1 3611 B1 3616 E2 3621 E3 3626 E3 3631 E3 3636 C2 3641 A2 3646 A2 3651 F2 3656 A1 3661 A1 3666 B2 3671 B1 3676 E3 3681 E2 3686 A1 3691 E3 3696 D2 3701 B2 3706 E3 3711 B43716 E3 3721 E4
 2769 D2 2779 C4 2785 E3 2790 E3 2796 E3 3602 C4 3607 D2 3612 B1 3617 C4 3622 E3 3627 E3 3632 A3 3637 C2 3642 A2 3647 A2 3652 A2 3657 D4 3662 A2 3667 B2 3672 B1 3677 E1 3682 E2 3687 E2 3692 E1 3697 E1 3702 E3 3707 A3 3712 E33717 F3 3722 F4

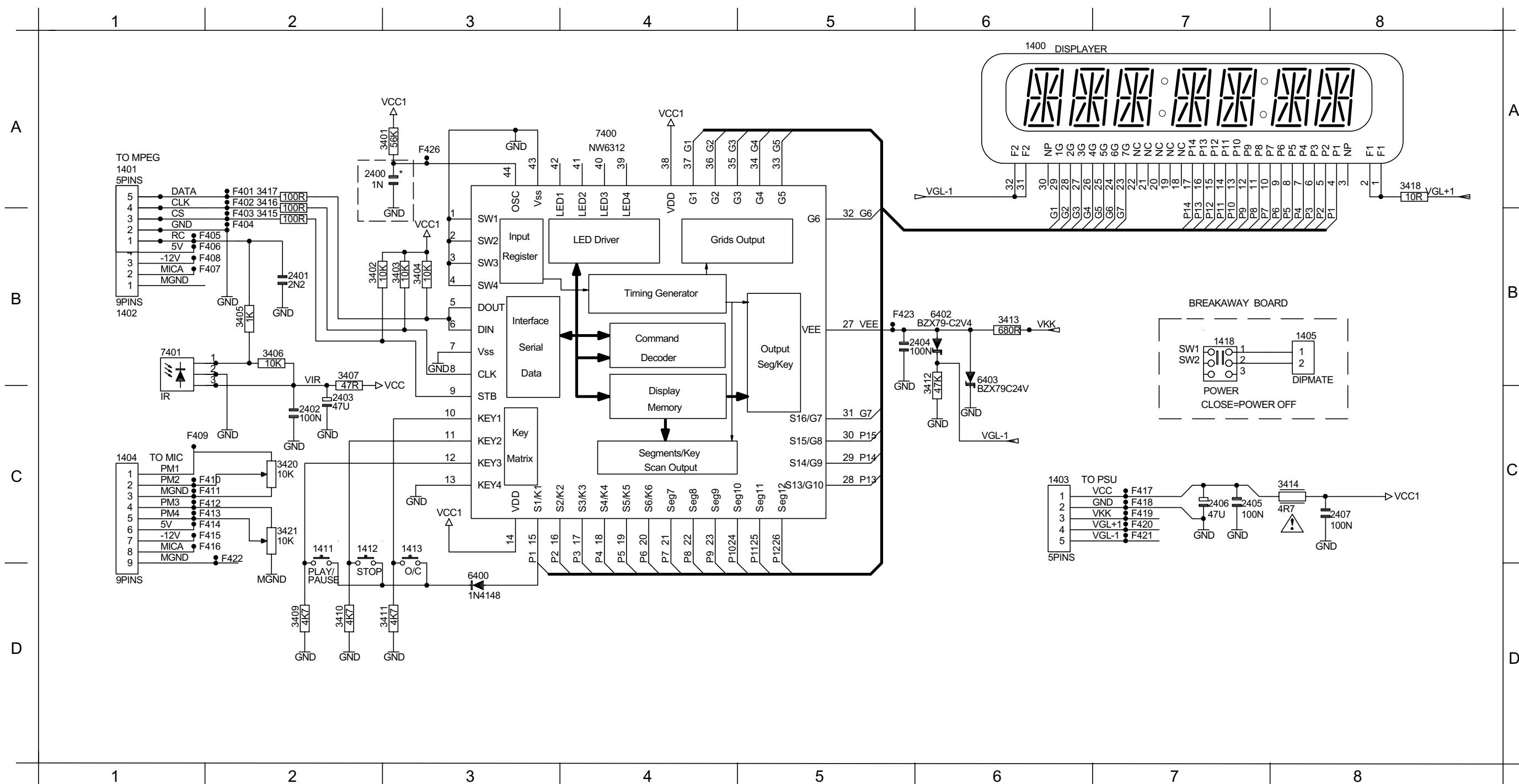


Layout MPEG board (copper side) DVD616K/031/691/751/782/931



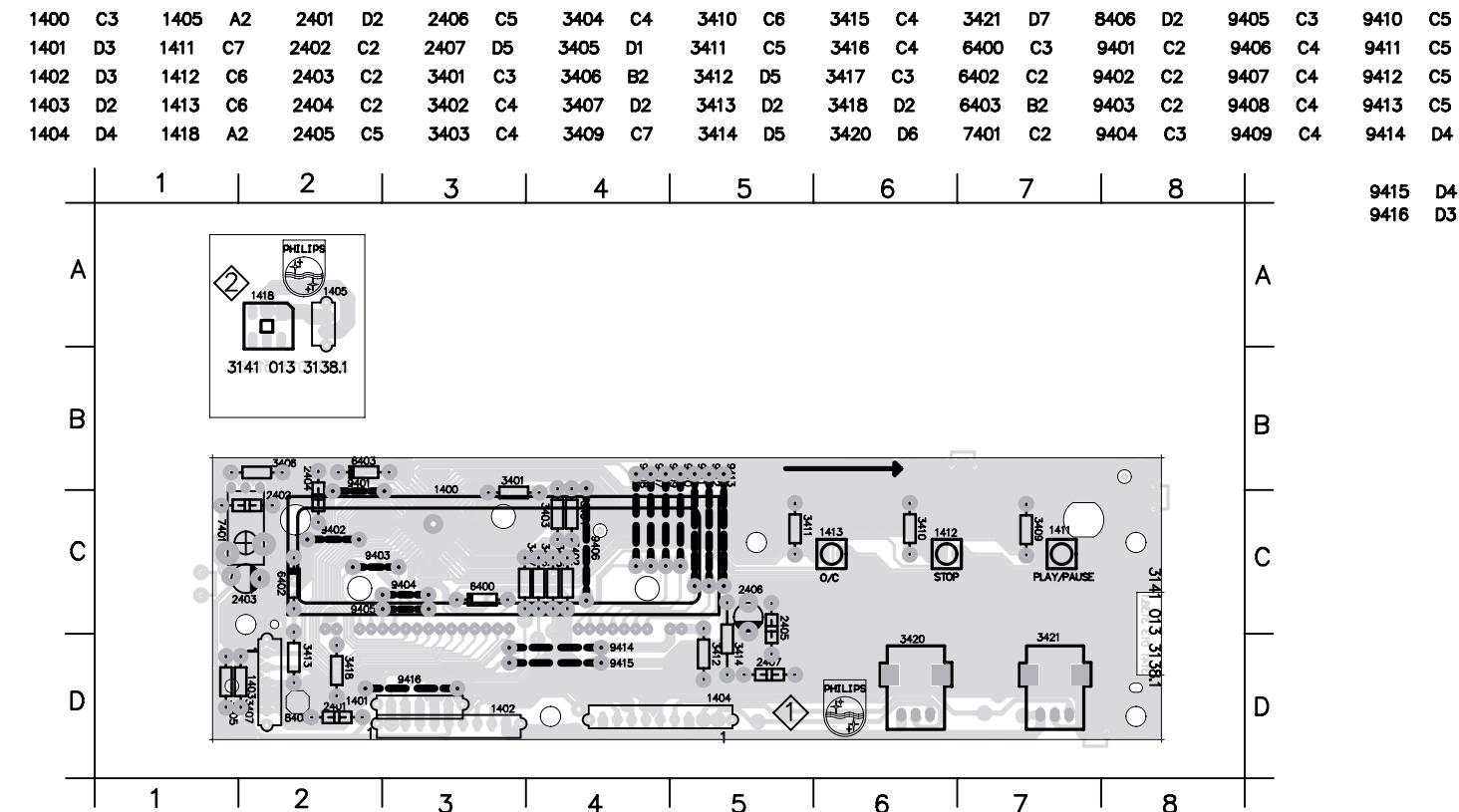
Front board DVD616K/031/691/751782/931

1400	A7	1405	B8	2400	B3	2405	C7	3403	B3	3409	D2	3414	C8	3420	C2	7400	B4	F404	B2	F409	C1	F414	C1	F419	C7	F426	B3
1401	B1	1411	C2	2401	B2	2406	C7	3404	B3	3410	D2	3415	B2	3421	C2	7401	B1	F405	B1	F410	C1	F415	C1	F420	C7		
1402	B1	1412	C2	2402	C2	2407	C8	3405	B2	3411	D3	3416	B2	6400	D3	F401	A2	F406	B1	F411	C1	F416	C1	F421	C7		
1403	C6	1413	C3	2403	C2	3401	A3	3406	B2	3412	B6	3417	B2	6402	B6	F402	A2	F407	B1	F412	C1	F417	C7	F422	C2		
1404	C1	1418	B7	2404	B5	3402	B3	3407	B2	3413	B6	3418	A8	6403	B6	F403	B2	F408	B1	F413	C1	F418	C7	F423	B5		

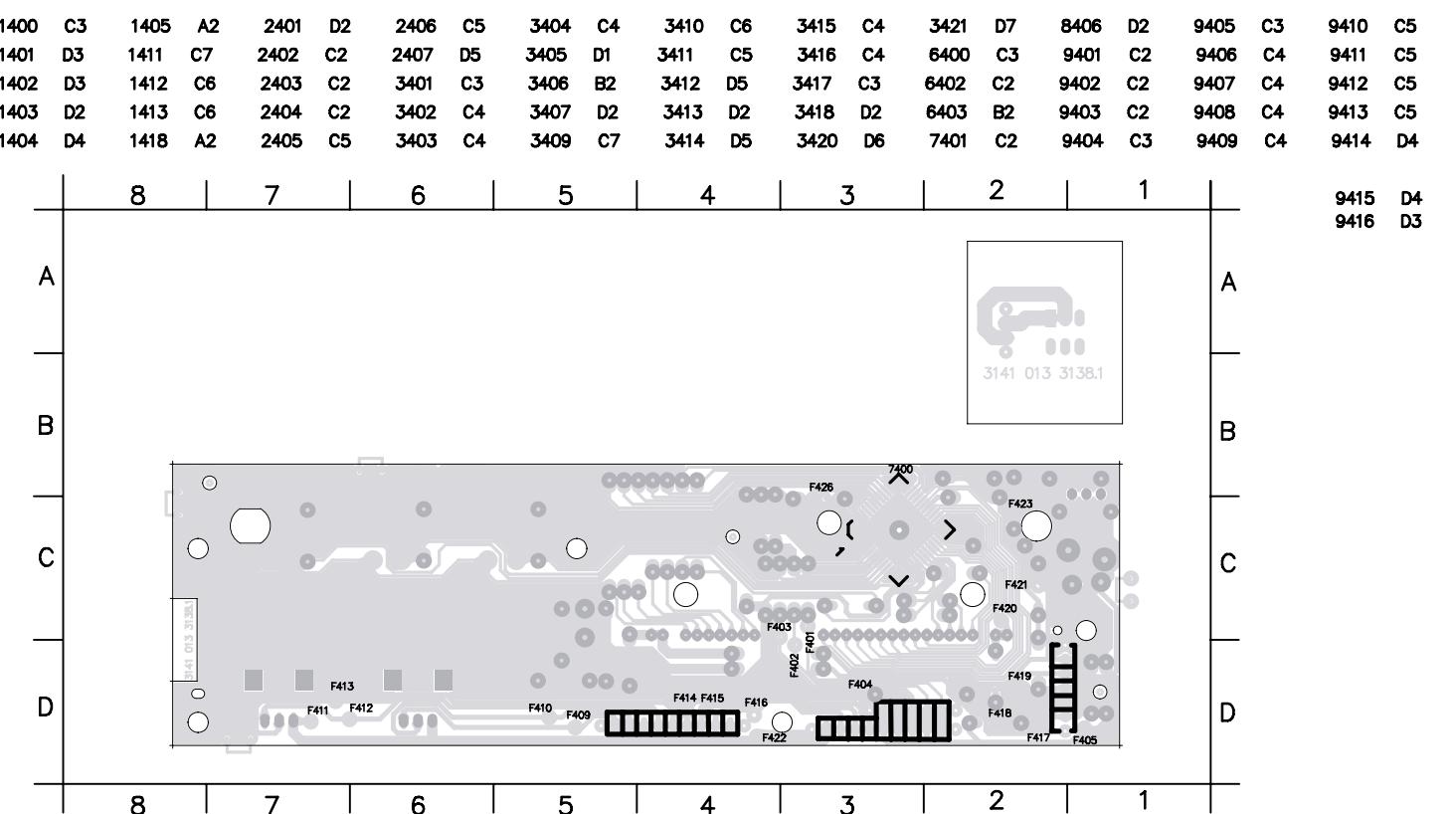


Layout Front board DVD616K/031/691/751/782/931

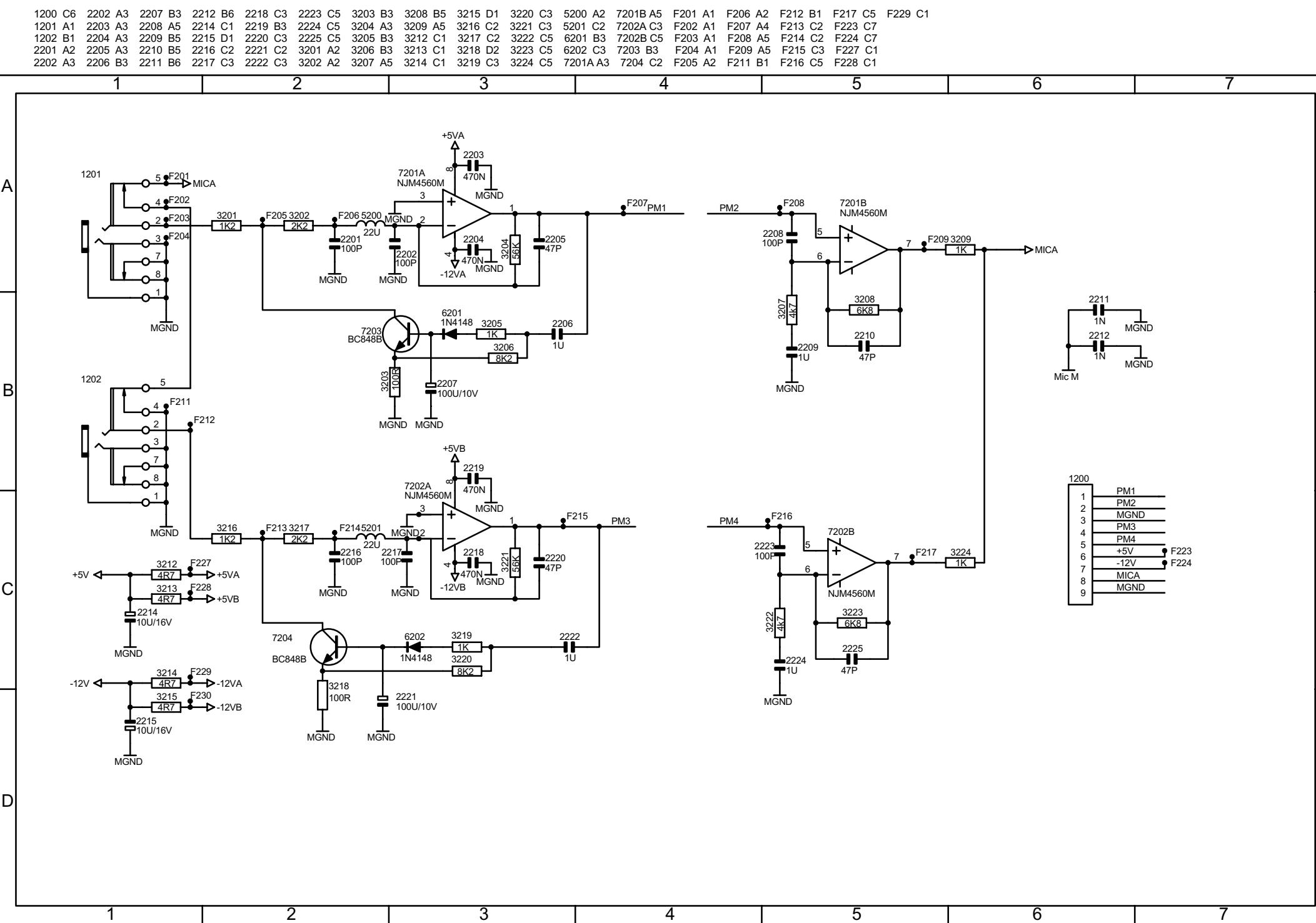
Component side



Copper side

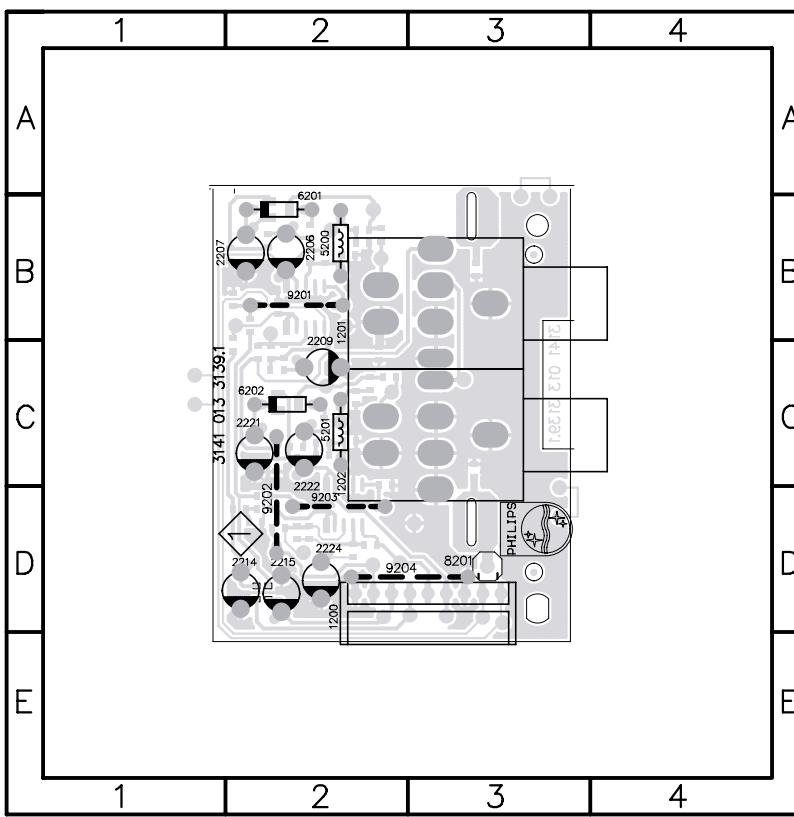


MIC board DVD616K/031/691/751782//931



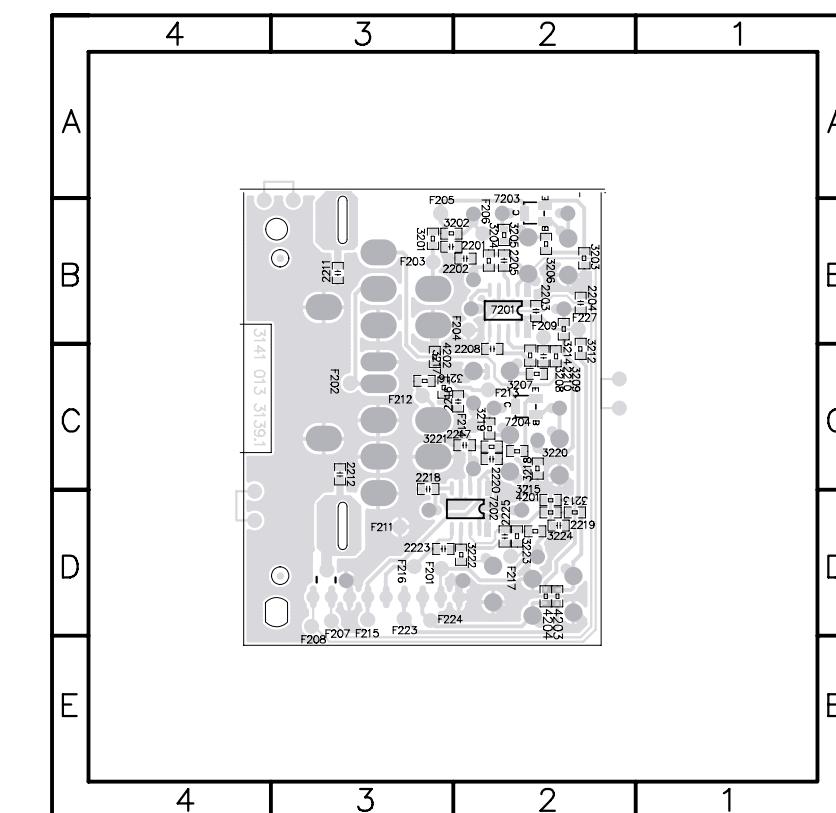
Layout MIC board DVD616K/031/691/751/782/931 (component side)

1200	D3	8201	D3	F212	C2
1201	B3	9201	B2	F213	C2
1202	C3	9202	D2	F214	C2
2206	B2	9203	D2	F215	D3
2207	B2	9204	D3	F216	D2
2209	C2	F201	D2	F217	D2
2214	D2	F202	C3	F223	D3
2215	D2	F203	B2	F224	D2
2221	C2	F204	B2	F227	B2
2222	C2	F205	B2		
2224	D2	F206	B2		
5200	B2	F207	D3		
5201	C2	F208	D3		
6201	B2	F209	B2		
6202	C2	F211	D3		



Layout MIC board DVD730K/031/691/751/782/931(copper side)

1200	D3	8201	D3	F212	C2
1201	B3	9201	B2	F213	C2
1202	C3	9202	D2	F214	C2
2206	B2	9203	D2	F215	D3
2207	B2	9204	D3	F216	D2
2209	C2	F201	D2	F217	D2
2214	D2	F202	C3	F223	D3
2215	D2	F203	B2	F224	D2
2221	C2	F204	B2	F227	B2
2222	C2	F205	B2		
2224	D2	F206	B2		
5200	B2	F207	D3		
5201	C2	F208	D3		
6201	B2	F209	B2		
6202	C2	F211	D3		



8. Spare parts list DVD616K/031

3782 4822 051 30339	33R00	5%	0,062W	7603 5322 209 11517	PC74HCU04T	2407 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A
3792 4822 051 30339	33R00	5%	0,062W	7605 3141 017 40380	IC M29F400BT PROG DVD616K/031		
3795 4822 051 30339	33R00	5%	0,062W	7607 3141 018 51120	IC SM V6300		
3796 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R			7609 3141 018 51050	IC SM CS4340		
3797 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R			7612 3141 018 51320	IC SM CS5333		
3798 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R			7613 3141 018 51100	IC SM CS4955		
3799 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R			7620 4822 130 10845	GP1F32T		
COILS & CRYSTAL QUARTZ				7621 8241 010 45120	IC SMD NJM4560		
5602 4822 157 53302	1UH			7624 5322 209 11517	PC74HCU04T		
5604 4822 157 53302	1UH			7626 3141 018 51280	IC SM 48LC4M16A2 (MICRON)		
5605 4822 157 11868	2.7UH 5%			7702 3141 018 51290	IC REGULATOR LD1117V (ST)		
5606 2422 535 94163	IND FXD LAL02 A 1U8 PM5 T			7723 8241 010 05161	TRATBC548C		
5607 4822 157 11868	2.7UH 5%			7726 8241 010 05161	TRATBC548C		
5608 4822 157 11868	2.7UH 5%			7729 4822 130 42231	BC557C		
5609 4822 157 11868	2.7UH 5%			7730 4822 130 42231	BC557C		
5704 3141 018 20410	IND SMD BEAD EMI A 4S2			7731 8241 010 05161	TRATBC548C		
5705 3141 018 20410	IND SMD BEAD EMI A 4S2			7733 4822 130 42231	BC557C		
5707 3141 018 80600	CRYSTAL QUARTZ 27M FUNDAMENTAL			7734 8241 010 05161	TRATBC548C		
5710 8241 010 40420	LEADED FERRITE BEADS			FRONT BOARD 3141 018 02550			
5711 8241 010 40420	LEADED FERRITE BEADS			MISCELLANEOUS			
DIODES				1400 3141 010 50220	VFD 20-0704N (ZEC)		
6601 4822 130 30621	1N4148			1402 2422 025 04858	CON BM V 9P F 2.50 DIPMATE B		
6602 4822 130 30621	1N4148			1403 4822 265 30735	5 PINS		
6603 4822 130 30621	1N4148			1404 2422 025 04858	CON BM V 9P F 2.50 DIPMATE B		
6604 4822 130 30621	1N4148			1405 2422 025 04849	CON BMT 2P		
6605 4822 130 30621	1N4148			1411 4822 276 13114	SWITCH, PUSH BUTTON		
6607 4822 130 30621	1N4148			1412 4822 276 13114	SWITCH, PUSH BUTTON		
6608 4822 130 30621	1N4148			1413 4822 276 13114	SWITCH, PUSH BUTTON		
6612 4822 130 30621	1N4148			1418 2422 128 02939	SWI PUSH 2P 100MA 30V SPEC12 B		
6613 4822 130 30621	1N4148			8401 3141 010 21030	CWAS 09PH/09OP 140 9 WH 26S		
6614 4822 130 30621	1N4148			8403 3141 010 21110	CWAS 09EH/09OP 340 9 WH 26S		
6615 4822 130 30621	1N4148			8404 3141 010 21050	CWAS 05XH/05OP 330 5 WH 26S		
6616 4822 130 30621	1N4148			8405 3141 010 21130	CWAS 02XH/02OP 140 2 WH 26S		
6617 4822 130 30621	1N4148			8406 3141 010 20250	CWAS 01 SPA/01 OP 110 BK 24F T		
CAPACITORS				MIC BOARD 3141 018 02560			
2401 4822 126 12339	2,2NF10% Y5R			MISCELLANEOUS			
2402 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A			1200 2422 025 06354	CON BM H 09P M 2.50 EH B		
2403 4822 124 40433	47UF20% 25V			1201 3141 010 30280	SOC MPHONE H 1P F 6.3 SIL B		
2404 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A			1202 3141 010 30280	SOC MPHONE H 1P F 6.3 SIL B		
2405 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A			CAPACITORS			
2406 4822 124 40433	47UF20% 25V			2201 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R		
7601 3141 018 51080	IC SM ES4428			2202 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R		
6630 3141 018 51150	DIO REC HER203			2203 2238 246 59858	CER2 0603 Y5V 10V 470N P8020 R		
TRANSISTORS & INTEGRATED CIRCUITS							

8. Spare parts list DVD616K/031

2204 2238 246 59858	CER2 0603 Y5V 10V 470N P8020 R
2205 4822 126 11785	CER1 0603 NP0 50V 47P PM5
2206 4822 124 23053	1UF20% 63V
2207 4822 124 41584	100UF 20% 10V
2208 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R
2209 4822 124 23053	1UF20% 63V
2210 4822 126 11785	CER1 0603 NP0 50V 47P PM5
2211 2238 586 15623	CER2 0603 X7R 50V 1N PM10 R
2212 2238 586 15623	CER2 0603 X7R 50V 1N PM10 R
2214 4822 124 11947	10UF 20% 16V
2215 4822 124 11947	10UF 20% 16V
2216 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R
2217 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R
2218 2238 246 59858	CER2 0603 Y5V 10V 470N P8020 R
2219 2238 246 59858	CER2 0603 Y5V 10V 470N P8020 R
2220 4822 126 11785	CER1 0603 NP0 50V 47P PM5
2221 4822 124 41584	100UF 20% 10V
2222 4822 124 23053	1UF20% 63V
2223 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R
2224 4822 124 23053	1UF20% 63V
2225 4822 126 11785	CER1 0603 NP0 50V 47P PM5

3224 4822 051 30102	1K00 5% 0,062W
4201 4822 051 30008	0R00 JUMPER
4202 4822 051 30008	0R00 JUMPER
4203 4822 051 30008	0R00 JUMPER
4204 4822 051 30008	0R00 JUMPER

COILS & CRYSTAL QUARTZ

5200 4822 157 11235	22UH LANO2TB220J PM5 A
5201 4822 157 11235	22UH LANO2TB220J PM5 A

DIODES

6201 4822 130 30621	1N4148
6202 4822 130 30621	1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201 8241 010 45120	IC SMD NJM4560
7202 8241 010 45120	IC SMD NJM4560
7203 5322 130 60159	BC846B
7204 5322 130 60159	BC846B

RESISTORS

3201 4822 117 11817	1K2 1% 1/16W
3202 4822 051 30222	2K20 5% 0,062W
3203 4822 051 30101	100R00 5% 0,062W
3204 4822 051 30563	56K00 5% 0,062W
3205 4822 051 30102	1K00 5% 0,062W
3206 4822 117 12902	8K2 1% 0,063W 0603
3207 4822 051 30472	4K70 5% 0,062W
3208 5322 117 13053	6K8 1% 0,063W 0603 RC22H
3209 4822 051 30102	1K00 5% 0,062W
3212 4822 117 13608	4,7R 5% 0603 0,0016W
3213 4822 117 13608	4,7R 5% 0603 0,0016W
3214 4822 117 13608	4,7R 5% 0603 0,0016W
3215 4822 117 13608	4,7R 5% 0603 0,0016W
3216 4822 117 11817	1K2 1% 1/16W
3217 4822 051 30222	2K20 5% 0,062W
3218 4822 051 30101	100R00 5% 0,062W
3219 4822 051 30102	1K00 5% 0,062W
3220 4822 117 12902	8K2 1% 0,063W 0603
3221 4822 051 30563	56K00 5% 0,062W
3222 4822 051 30472	4K70 5% 0,062W
3223 5322 117 13053	6K8 1% 0,063W 0603 RC22H

9. Spare parts list DVD616K/691

2205 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2206 4822 124 23053 1UF20% 63V
 2207 4822 124 41584 100UF 20% 10V
 2208 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2209 4822 124 23053 1UF20% 63V
 2210 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2211 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2212 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2214 4822 124 11947 10UF 20% 16V
 2215 4822 124 11947 10UF 20% 16V
 2216 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2217 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2218 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2219 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2220 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2221 4822 124 41584 100UF 20% 10V
 2222 4822 124 23053 1UF20% 63V
 2223 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2224 4822 124 23053 1UF20% 63V
 2225 4822 126 11785 CER1 0603 NP0 50V 47P PM5

RESISTORS

3201 4822 117 11817 1K2 1% 1/16W
 3202 4822 051 30222 2K20 5% 0,062W
 3203 4822 051 30101 100R00 5% 0,062W
 3204 4822 051 30563 56K00 5% 0,062W
 3205 4822 051 30102 1K00 5% 0,062W
 3206 4822 117 12902 8K2 1% 0,063W 0603
 3207 4822 051 30472 4K70 5% 0,062W
 3208 5322 117 13053 6K8 1% 0,063W 0603 RC22H
 3209 4822 051 30102 1K00 5% 0,062W
 3212 4822 117 13608 4,7R 5% 0603 0,0016W
 3213 4822 117 13608 4,7R 5% 0603 0,0016W
 3214 4822 117 13608 4,7R 5% 0603 0,0016W
 3215 4822 117 13608 4,7R 5% 0603 0,0016W
 3216 4822 117 11817 1K2 1% 1/16W
 3217 4822 051 30222 2K20 5% 0,062W
 3218 4822 051 30101 100R00 5% 0,062W
 3219 4822 051 30102 1K00 5% 0,062W
 3220 4822 117 12902 8K2 1% 0,063W 0603
 3221 4822 051 30563 56K00 5% 0,062W
 3222 4822 051 30472 4K70 5% 0,062W
 3223 5322 117 13053 6K8 1% 0,063W 0603 RC22H
 3224 4822 051 30102 1K00 5% 0,062W
 4201 4822 051 30008 0R00 JUMPER

4202 4822 051 30008 0R00 JUMPER
 4203 4822 051 30008 0R00 JUMPER
 4204 4822 051 30008 0R00 JUMPER

COILS & CRYSTAL QUARTZ

5200 4822 157 11235 22UH LANO2TB220J PM5 A
 5201 4822 157 11235 22UH LANO2TB220J PM5 A

DIODES

6201 4822 130 30621 1N4148
 6202 4822 130 30621 1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201 8241 010 45120 IC SMD NJM4560
 7202 8241 010 45120 IC SMD NJM4560
 7203 5322 130 60159 BC846B
 7204 5322 130 60159 BC846B

10. Spare parts list DVD616K/751

3782 4822 051 30339	33R00 5% 0,062W	7601 3141 018 51080 IC SM ES4428	2405 2020 561 90365 CER2 TUB Y5V 50V 100N P8020 A
3792 4822 051 30339	33R00 5% 0,062W	7603 5322 209 11517 PC74HCU04T	2406 4822 124 40433 47UF20% 25V
3795 4822 051 30339	33R00 5% 0,062W	7605 3141 017 40360 IC M29F400BT PROG DVD616K/751	2407 2020 561 90365 CER2 TUB Y5V 50V 100N P8020 A
3796 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R	7607 3141 018 51120 IC SM V6300	
3797 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R	7609 3141 018 51050 IC SM CS4340	
3798 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R	7612 3141 018 51320 IC SM CS5333	
3799 2120 108 94042	RST NETW SM RAC16 4X22R PM5 R	7613 3141 018 51100 IC SM CS4955	
COILS & CRYSTAL QUARTZ		7620 4822 130 10845 GP1F32T	
5602 4822 157 53302	1UH	7621 8241 010 45120 IC SMD NJM4560	
5604 4822 157 53302	1UH	7624 5322 209 11517 PC74HCU04T	
5605 4822 157 11868	2.7UH 5%	7626 3141 018 51280 IC SM 48LC4M16A2 (MICRON)	
5606 2422 535 94163	IND FXD LAL02 A 1U8 PM5 T	7702 3141 018 51290 IC REGULATOR LD1117V (ST)	
5607 4822 157 11868	2.7UH 5%	7723 8241 010 05161 TRATBC548C	
5608 4822 157 11868	2.7UH 5%	7726 8241 010 05161 TRATBC548C	
5609 4822 157 11868	2.7UH 5%	7729 4822 130 42231 BC557C	
5704 3141 018 20410	IND SMD BEAD EMI A 4S2	7730 4822 130 42231 BC557C	
5705 3141 018 20410	IND SMD BEAD EMI A 4S2	7731 8241 010 05161 TRATBC548C	
5707 3141 018 80600	CRYSTAL QUARTZ 27M FUNDAMENTAL	7733 4822 130 42231 BC557C	
5710 8241 010 40420	LEADED FERRITE BEADS	7734 8241 010 05161 TRATBC548C	
5711 8241 010 40420	LEADED FERRITE BEADS		
FRONT BOARD 3141 018 02550			
MISCELLANEOUS			
6601 4822 130 30621	1N4148	1400 3141 010 50220 VFD 20-0704N (ZEC)	
6602 4822 130 30621	1N4148	1402 2422 025 04858 CON BM V 9P F 2.50 DIPMATE B	
6603 4822 130 30621	1N4148	1403 4822 265 30735 5 PINS	
6604 4822 130 30621	1N4148	1404 2422 025 04858 CON BM V 9P F 2.50 DIPMATE B	
6605 4822 130 30621	1N4148	1405 2422 025 04849 CON BMT 2P	
6607 4822 130 30621	1N4148	1411 4822 276 13114 SWITCH, PUSH BUTTON	
6608 4822 130 30621	1N4148	1412 4822 276 13114 SWITCH, PUSH BUTTON	
6612 4822 130 30621	1N4148	1413 4822 276 13114 SWITCH, PUSH BUTTON	
6613 4822 130 30621	1N4148	1418 2422 128 02939 SWI PUSH 2P 100MA 30V SPEC12 B	
6614 4822 130 30621	1N4148	8401 3141 010 21030 CWAS 09PH/09OP 140 9 WH 26S	
6615 4822 130 30621	1N4148	8403 3141 010 21110 CWAS 09EH/09OP 340 9 WH 26S	
6616 4822 130 30621	1N4148	8404 3141 010 21050 CWAS 05XH/05OP 330 5 WH 26S	
6617 4822 130 30621	1N4148	8405 3141 010 21130 CWAS 02XH/02OP 140 2 WH 26S	
6618 4822 130 30621	1N4148	8406 3141 010 20250 CWAS 01 SPA/01 OP 110 BK 24F TO	
CAPACITORS			
2401 4822 126 12339	2,2NF10% Y5R		
2402 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A		
2403 4822 124 40433	47UF20% 25V		
2404 2020 561 90365	CER2 TUB Y5V 50V 100N P8020 A		
TRANSISTORS & INTEGRATED CIRCUITS		RESISTORS	
6620 4822 130 30621	1N4148	3401 4822 116 52291 56K 5% 0,5W	
6623 4822 130 30621	1N4148	3402 4822 050 21003 10K00 1% 0,6W	
6630 3141 018 51150	DIO REC HER203	3403 4822 050 21003 10K00 1% 0,6W	
DIODES		3404 4822 050 21003 10K00 1% 0,6W	
6400 4822 130 30621	1N4148	3405 4822 050 21002 1K00 1% 0,6W	
6402 4822 130 31253	BZX79-C2V4	3406 4822 050 21003 10K00 1% 0,6W	
6403 4822 130 34398	BZX79-B24	3407 4822 116 52195 47E 5% 0,5W	
TRANSISTORS & INTEGRATED CIRCUITS			
7400 8241 010 40440	IC PT6312 QFP44		
7401 8241 010 45320	HEG836-16GP		
MIC BOARD 3141 018 02560		MISCELLANEOUS	
CAPACITORS			
1200 2422 025 06354	CON BM H 09P M 2.50 EH B		
1201 3141 010 30280	SOC MPHONE H 1P F 6.3 SIL B		
1202 3141 010 30280	SOC MPHONE H 1P F 6.3 SIL B		

10. Spare parts list DVD616K/751

2201 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2202 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2203 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2204 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2205 4822 126 11785 CER1 0603 NPO 50V 47P PM5
 2206 4822 124 23053 1UF20% 63V
 2207 4822 124 41584 100UF 20% 10V
 2208 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2209 4822 124 23053 1UF20% 63V
 2210 4822 126 11785 CER1 0603 NPO 50V 47P PM5
 2211 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2212 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2214 4822 124 11947 10UF 20% 16V
 2215 4822 124 11947 10UF 20% 16V
 2216 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2217 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2218 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2219 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2220 4822 126 11785 CER1 0603 NPO 50V 47P PM5
 2221 4822 124 41584 100UF 20% 10V
 2222 4822 124 23053 1UF20% 63V
 2223 2020 552 94427 CER1 0603 NPO 50V 100P PM5 R
 2224 4822 124 23053 1UF20% 63V
 2225 4822 126 11785 CER1 0603 NPO 50V 47P PM5

RESISTORS

3201 4822 117 11817 1K2 1% 1/16W
 3202 4822 051 30222 2K20 5% 0,062W
 3203 4822 051 30101 100R00 5% 0,062W
 3204 4822 051 30563 56K00 5% 0,062W
 3205 4822 051 30102 1K00 5% 0,062W
 3206 4822 117 12902 8K2 1% 0,063W 0603
 3207 4822 051 30472 4K70 5% 0,062W
 3208 5322 117 13053 6K8 1% 0,063W 0603 RC22H
 3209 4822 051 30102 1K00 5% 0,062W
 3212 4822 117 13608 4,7R 5% 0603 0,0016W
 3213 4822 117 13608 4,7R 5% 0603 0,0016W
 3214 4822 117 13608 4,7R 5% 0603 0,0016W
 3215 4822 117 13608 4,7R 5% 0603 0,0016W
 3216 4822 117 11817 1K2 1% 1/16W
 3217 4822 051 30222 2K20 5% 0,062W
 3218 4822 051 30101 100R00 5% 0,062W
 3219 4822 051 30102 1K00 5% 0,062W
 3220 4822 117 12902 8K2 1% 0,063W 0603
 3221 4822 051 30563 56K00 5% 0,062W

3222 4822 051 30472 4K70 5% 0,062W
 3223 5322 117 13053 6K8 1% 0,063W 0603 RC22H
 3224 4822 051 30102 1K00 5% 0,062W
 4201 4822 051 30008 0R00 JUMPER
 4202 4822 051 30008 0R00 JUMPER
 4203 4822 051 30008 0R00 JUMPER
 4204 4822 051 30008 0R00 JUMPER

COILS & CRYSTAL QUARTZ

5200 4822 157 11235 22UH LANO2TB220J PM5 A
 5201 4822 157 11235 22UH LANO2TB220J PM5 A

DIODES

6201 4822 130 30621 1N4148
 6202 4822 130 30621 1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201 8241 010 45120 IC SMD NJM4560
 7202 8241 010 45120 IC SMD NJM4560
 7203 5322 130 60159 BC846B
 7204 5322 130 60159 BC846B

11. Spare parts list DVD616K/782

2204 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2205 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2206 4822 124 23053 1UF20% 63V
 2207 4822 124 41584 100UF 20% 10V
 2208 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2209 4822 124 23053 1UF20% 63V
 2210 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2211 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2212 2238 586 15623 CER2 0603 X7R 50V 1N PM10 R
 2214 4822 124 11947 10UF 20% 16V
 2215 4822 124 11947 10UF 20% 16V
 2216 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2217 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2218 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2219 2238 246 59858 CER2 0603 Y5V 10V 470N P8020 R
 2220 4822 126 11785 CER1 0603 NP0 50V 47P PM5
 2221 4822 124 41584 100UF 20% 10V
 2222 4822 124 23053 1UF20% 63V
 2223 2020 552 94427 CER1 0603 NP0 50V 100P PM5 R
 2224 4822 124 23053 1UF20% 63V
 2225 4822 126 11785 CER1 0603 NP0 50V 47P PM5

RESISTORS

3201 4822 117 11817 1K2 1% 1/16W
 3202 4822 051 30222 2K20 5% 0,062W
 3203 4822 051 30101 100R00 5% 0,062W
 3204 4822 051 30563 56K00 5% 0,062W
 3205 4822 051 30102 1K00 5% 0,062W
 3206 4822 117 12902 8K2 1% 0,063W 0603
 3207 4822 051 30472 4K70 5% 0,062W
 3208 5322 117 13053 6K8 1% 0,063W 0603 RC22H
 3209 4822 051 30102 1K00 5% 0,062W
 3212 4822 117 13608 4,7R 5% 0603 0,0016W
 3213 4822 117 13608 4,7R 5% 0603 0,0016W
 3214 4822 117 13608 4,7R 5% 0603 0,0016W
 3215 4822 117 13608 4,7R 5% 0603 0,0016W
 3216 4822 117 11817 1K2 1% 1/16W
 3217 4822 051 30222 2K20 5% 0,062W
 3218 4822 051 30101 100R00 5% 0,062W
 3219 4822 051 30102 1K00 5% 0,062W
 3220 4822 117 12902 8K2 1% 0,063W 0603
 3221 4822 051 30563 56K00 5% 0,062W
 3222 4822 051 30472 4K70 5% 0,062W
 3223 5322 117 13053 6K8 1% 0,063W 0603 RC22H

3224 4822 051 30102 1K00 5% 0,062W
 4201 4822 051 30008 0R00 JUMPER
 4202 4822 051 30008 0R00 JUMPER
 4203 4822 051 30008 0R00 JUMPER
 4204 4822 051 30008 0R00 JUMPER

COILS & CRYSTAL QUARTZ

5200 4822 157 11235 22UH LANO2TB220J PM5 A
 5201 4822 157 11235 22UH LANO2TB220J PM5 A

DIODES

6201 4822 130 30621 1N4148
 6202 4822 130 30621 1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201 8241 010 45120 IC SMD NJM4560
 7202 8241 010 45120 IC SMD NJM4560
 7203 5322 130 60159 BC846B
 7204 5322 130 60159 BC846B

12. Spare parts list DVD616K/931

2720 4822 124 81021	100UF20% 16V	2791 4822 124 11947	10UF 20% 16V	3639 4822 051 30008	0R00 JUMPER
2721 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R	2792 4822 122 33753	150PF 5%NP0 50V	3640 4822 051 30479	47R00 5% 0,062W
2722 4822 124 11947	10UF 20% 16V	2793 4822 124 11947	10UF 20% 16V	3641 4822 051 30479	47R00 5% 0,062W
2725 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R	2794 4822 122 33753	150PF 5%NP0 50V	3642 4822 051 30479	47R00 5% 0,062W
2726 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R	2796 3198 016 36810	CER1 0603 NP0 25V 680P COL R	3643 4822 051 30472	4K70 5% 0,062W
2727 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R	2797 3198 016 36810	CER1 0603 NP0 25V 680P COL R	3644 4822 051 30472	4K70 5% 0,062W
2728 4822 124 40248	10UF20% 63V	2798 4822 124 11947	10UF 20% 16V	3645 4822 051 30479	47R00 5% 0,062W
2729 4822 124 11947	10UF 20% 16V	2799 4822 122 33753	150PF 5%NP0 50V	3646 4822 051 30479	47R00 5% 0,062W
2730 4822 124 11947	10UF 20% 16V			3647 4822 051 30479	47R00 5% 0,062W
2731 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3648 4822 051 30479	47R00 5% 0,062W
2732 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3649 4822 051 30151	150R00 5% 0,062W
2733 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3650 4822 051 30151	150R00 5% 0,062W
2734 4822 124 40248	10UF20% 63V			3651 4822 051 30479	47R00 5% 0,062W
2735 4822 124 11947	10UF 20% 16V			3652 4822 051 30339	33R00 5% 0,062W
2736 4822 124 11947	10UF 20% 16V			3653 4822 051 30339	33R00 5% 0,062W
2738 4822 122 33752	15PF 5%NP0 50V			3654 4822 051 30339	33R00 5% 0,062W
2740 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R			3655 4822 051 30339	33R00 5% 0,062W
2741 9965 000 05913	22PF +-2% 50V			3656 4822 051 30339	33R00 5% 0,062W
2742 4822 126 13881	470PF 5% 50V			3657 5322 117 13062	390R 1% 0.063W 0603 RC22H
2743 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3658 4822 051 30339	33R00 5% 0,062W
2745 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3659 4822 051 30339	33R00 5% 0,062W
2746 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3660 4822 051 30681	680R00 5% 0,062W
2747 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3661 4822 051 30339	33R00 5% 0,062W
2748 9965 000 05913	22PF +-2% 50V			3662 4822 051 30339	33R00 5% 0,062W
2749 4822 124 11947	10UF 20% 16V			3663 4822 051 30339	33R00 5% 0,062W
2765 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3664 4822 051 30339	33R00 5% 0,062W
2766 4822 124 81021	100UF20% 16V			3665 4822 051 30339	33R00 5% 0,062W
2767 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3666 4822 051 30339	33R00 5% 0,062W
2768 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R			3667 4822 051 30339	33R00 5% 0,062W
2774 2222 586 18812	CER2 0603 X7R 50V 100N PM10 R			3668 4822 051 30339	33R00 5% 0,062W
2775 4822 124 11947	10UF 20% 16V			3669 4822 051 30339	33R00 5% 0,062W
2776 4822 124 81021	100UF20% 16V			3670 4822 051 30339	33R00 5% 0,062W
2778 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R			3671 4822 051 30339	33R00 5% 0,062W
2779 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R			3672 4822 051 30339	33R00 5% 0,062W
2780 2020 552 94427	CER1 0603 NP0 50V 100P PM5 R			3675 4822 051 30105	1M00 5% 0,062W
2781 4822 126 14506	270PF 5% 50V 0603 NP0			3676 4822 051 30332	3K30 5% 0,062W
2782 3198 016 36810	CER1 0603 NP0 25V 680P COL R			3678 4822 051 30008	0R00 JUMPER
2783 4822 126 14506	270PF 5% 50V 0603 NP0			3679 4822 051 30339	33R00 5% 0,062W
2785 4822 122 33753	150PF 5%NP0 50V			3680 4822 051 30339	33R00 5% 0,062W
2786 4822 124 11947	10UF 20% 16V			3681 4822 051 30222	2K20 5% 0,062W
2787 4822 122 33753	150PF 5%NP0 50V			3682 4822 051 30339	33R00 5% 0,062W
2788 4822 124 11947	10UF 20% 16V			3683 4822 051 30339	33R00 5% 0,062W
2789 5322 126 11578	1NF 10% X7R 50V 0603			3684 4822 051 30339	33R00 5% 0,062W
2790 5322 126 11578	1NF 10% X7R 50V 0603			3687 4822 051 30109	10R00 5% 0,062W
		3637 4822 051 30008	0R00 JUMPER	3688 4822 051 30109	10R00 5% 0,062W

12. Spare parts list DVD616K/931

3223 5322 117 13053 6K8 1% 0.063W 0603 RC22H

3224 4822 051 30102 1K00 5% 0,062W

4201 4822 051 30008 0R00 JUMPER

4202 4822 051 30008 0R00 JUMPER

4203 4822 051 30008 0R00 JUMPER

4204 4822 051 30008 0R00 JUMPER

COILS & CRYSTAL QUARTZ

5200 4822 157 11235 22UH LANO2TB220J PM5 A

5201 4822 157 11235 22UH LANO2TB220J PM5 A

DIODES

6201 4822 130 30621 1N4148

6202 4822 130 30621 1N4148

TRANSISTORS & INTEGRATED CIRCUITS

7201 8241 010 45120 IC SMD NJM4560

7202 8241 010 45120 IC SMD NJM4560

7203 5322 130 60159 BC846B

7204 5322 130 60159 BC846B



DVD Video Player Owner's Manual

DVD616K



Let's make things better.



PHILIPS



General Information

Since it is usual for DVD movies to be released at different times in different regions of the world, all players have region codes and discs can have an optional region code. If you load a disc of a different region code to your player, you will see the region code notice on the screen. The disc will not playback, and should be unloaded.



The region code for Singapore is 3.



The region code for Australia is 4.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

Laser safety

This unit employs a laser. Due to possible eye injury, only a qualified service person should remove the cover or attempt to service this device.

**USE OF CONTROLS OR
ADJUSTMENTS OR PERFORMANCE OF
PROCEDURES OTHER THAN THOSE
SPECIFIED HEREIN MAY RESULT IN
HAZARDOUS RADIATION EXPOSURE.**

LASER

Type	Semiconductor laser GaAlAs
Wave length	650 nm (DVD) 780 nm (VCD/CD)
Output Power	7 mW (DVD) 10 mW (VCD/CD)
Beam divergence	60 degree

CAUTION

VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM

**CAUTION
(WARNING LOCATION: ON THE
BACKPLATE OF SET)**
**NEVER MAKE OR CHANGE
CONNECTIONS WITH THE POWER
SWITCHED ON.**

For Customer Use:

Read carefully the information located at the rear panel of your DVD VIDEO player and enter below the Serial No. Retain this information for future reference.

Model No. DVD VIDEO

Serial No. _____

Important Note:

Due to the numerous versions of new CD-Audio copy protection or enhanced CD-Audio protection recently available on certain discs, Philips is unable to guarantee that this DVD player is fully compatible with such new discs. Should you have difficulty playing any such CD-Audio discs, kindly refer them to your CD-Audio disc retailer.



Contents

Introduction

Environmental Information	4
Supplied accessories	4
Safety Information	4
Symbols Used in this booklet	4

Functional overview

Front panel	5
Rear panel	5
Remote control	6

Preparation

Basic Connection	7
Connecting to a TV	7
Connecting to Optional Equipment	8
Conecting to a Audio System	8
Inserting batteries into the Remote Control	9
Using the Remote control	9
NTSC/PAL Conversion	9
Switching On	10

Operation

Basic Playback	10
General Operation	10
Video control during playback	10
Audio control during playback	11
Repeat	11
Repeat A-B	11
5 disc Resume	11
OSD (On-Screen Display)	12
Title Selection	12
Chapter Selection	12
Time Search	12
Zoom	12
Special DVD Features	12
Playing a title	12
Playing a chapter	12
Camera Angle	12
Changing the audio language	12
Subtitles	12
Special VCD & SVCD Features	13
Playback Control (PBC)	13
Preview function	13

Picture CD & MP3 CD Playback

Function introduction.....	14
Auto playback	14
Selection playback	14
Preview playback	14
Playback with multi-angles	14
Playback Speed Control	14
Zoom picture	14

KARAOKE

General operation	15
General setup	15
Karaoke learning and language learning function	15

Setup menu

Basic operation	16
General setup menu	16
Disc lock	16
VFD DIM.....	16
Program	16
OSD language	17
Screen saver	17
Speaker setup page	17
DOWNMIX mode	17
D.R.C	17

SPDIF setup

SPDIF OUT setup	18
LPCM 96K mode	18

Video Output setup

Video output	19
TV display	19

TV type

Smart Picture	20
----------------------------	----

Video Mode

Personal Picture Setting	20
--------------------------------	----

Preferences setup

Audio language	21
Subtitle language	21
Disc menu language	21
Password	21
Parental control	22
Default setup...	22
Smart Navigator	22

Specifications

Specifications	23
----------------------	----

Maintenance

Maintenance	23
-------------------	----

Troubleshooting

Troubleshooting	24
-----------------------	----



Introduction

Thank you for purchasing this Philips DVD player. This Owner's Manual explains the basic operation of this DVD player.

Environmental Information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

Your DVD player consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Supplied accessories

- DVD-Video player
- Remote control with Batteries
- Audio cable
- Video cable
- Owner's Manual

Safety Information

- Before operating the DVD player, check that the operating voltage indicated on the typeplate is identical with the voltage of your local power supply. If not, please consult your dealer.
- Place the DVD player on a flat, hard and stable surface.
- There must be sufficient room in front of the player for the drawer to be opened.
- In cabinet, allow about 2.5cm (1 inch) of free space all around the player for adequate ventilation.
- Do not expose your player to extreme of temperature or humidity.
- If the DVD player is brought directly from a cold to a warm location, or is placed in a very damp

room, moisture may condense on the lens of the disc unit inside the DVD player. Should this occur, the DVD player would not operate normally.

Leave the power on for about one hour with no disc in the DVD player until normal playback is possible.

- The mechanical parts of the set contain self-lubricating bearings and must not be oiled or lubricated.
- When the DVD player is switched to Standby mode, it is still consuming some power. To disconnect the system from the power supply completely, remove the AC power plug from the wall socket.

Symbols Used in this Booklet

The below symbols appear in some headings and notes with the following meanings:

	- Description refers to playback of DVD-video discs
	- Description refers to playback of Video CDs
	- Description refers to playback of Audio CDs
	- Description refers to playback of Super VCDs

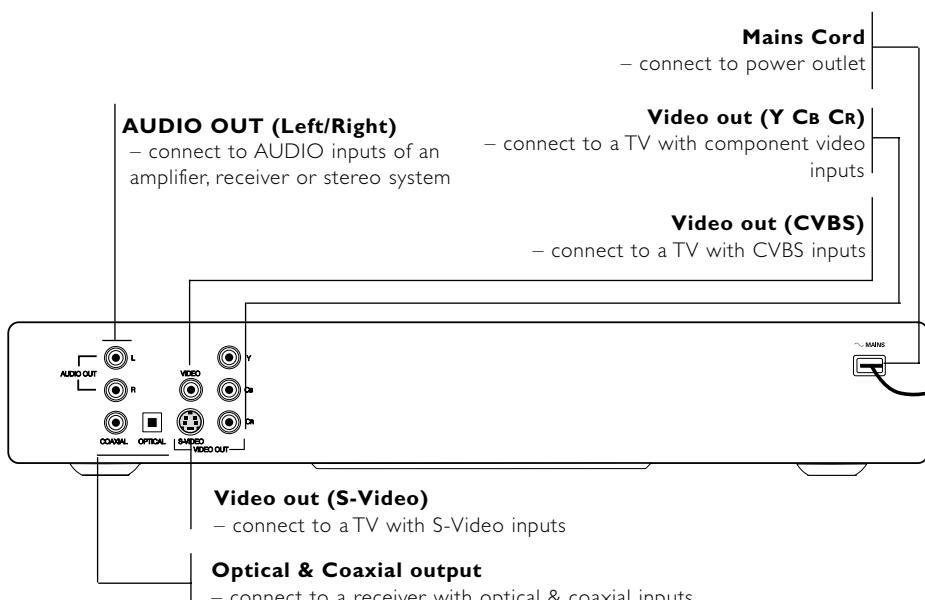
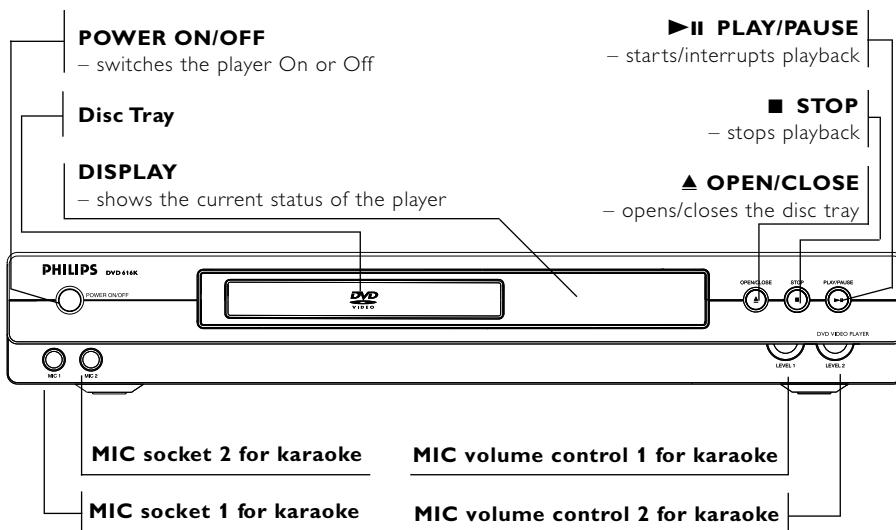
Helpful Hints!

- **Some DVD video discs require specific or allow only limited functions during playback.**



Functional Overview

Front and Rear Panels

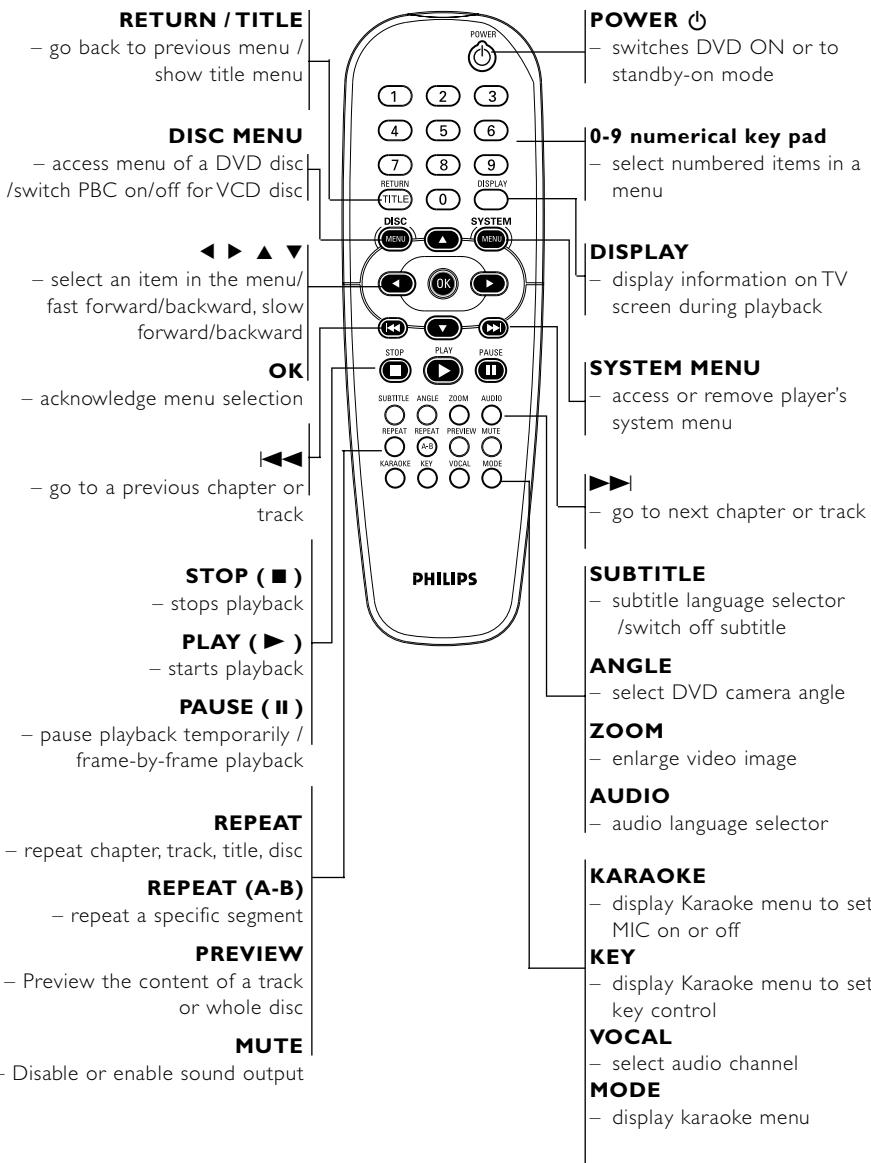


Caution: Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.



Functional Overview

Remote Control



Note:

Press digit "1" for about 2 seconds to OPEN or CLOSE disc tray.



Preparation

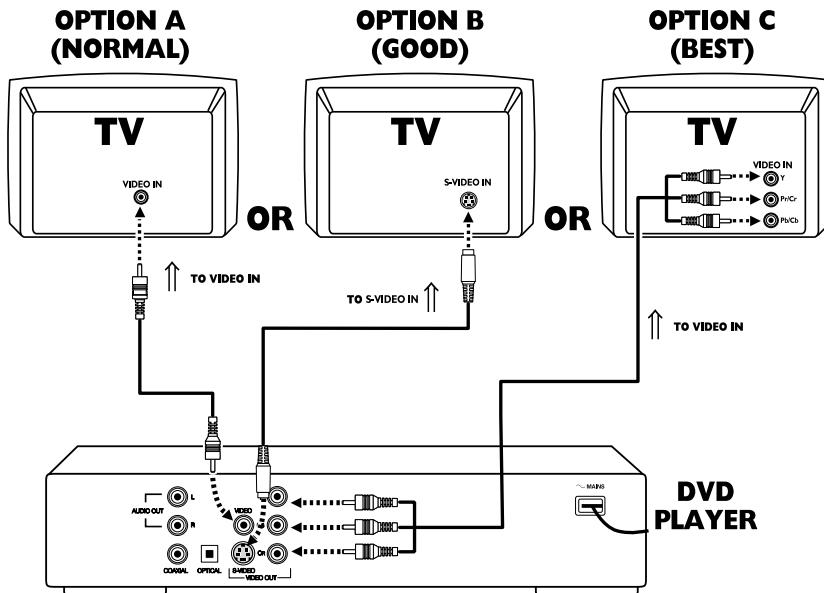
Basic Connections

- Please refer to the instruction books of your TV, VCR, Stereo System or other devices as necessary to make the best connections.

- Make one of the following connections, depending on the capabilities of your existing equipment.

The following guidelines are options for the best picture and sound quality available on your DVD player.

Video Connections



Connecting to a TV

If your TV has a CVBS Video input connector,

- Connect the CVBS VIDEO OUT on the DVD player to the CVBS VIDEO IN (cable supplied).

If your TV has a S-Video input connector,

- Connect the S-Video OUT on the DVD player to the S-Video IN (not supplied).

If your TV has a Component video (Y/Cb/Cr)input connector,

- Connect the Y/CB/CR VIDEO OUT on the DVD player to the corresponding connector on the TV using the component video cable (not supplied).

Caution: Do not connect the component video and S-Video output at the same time as only one can be active at any time (refer to chapter "Video Out Setup").

Warning!

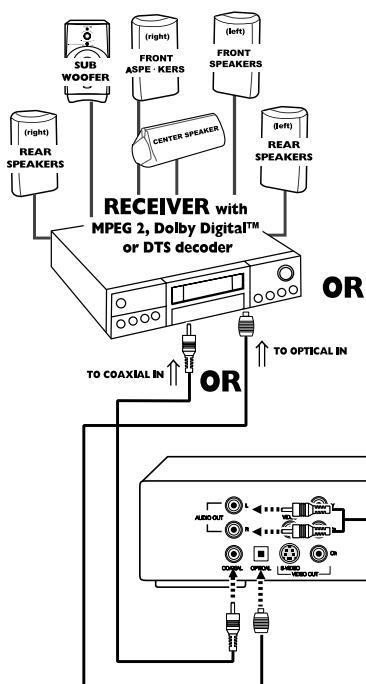
- Never make or change connections with the power switched on.
- Connect the DVD player directly to your TV, instead of eg. a VCR, to avoid distortion because DVD video discs are copy protected.
- Do not connect the DVD player AUDIO OUT to PHONO IN of your player.



Preparation

Sound

- 1 Digital audio connections provide the clearest sound. Connect one of the DVD player's DIGITAL AUDIO OUT (COAXIAL or OPTICAL) to your amplifier or receiver.
- 2 If digital connections are not possible, connect the DVD player's red and white AUDIO OUT to your amplifier, receiver, stereo or TV.

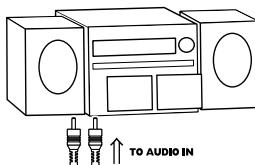


Connecting to a Audio System

- 1 You can also listen to the sound of audio CDs and DVD video discs by connecting to an optional stereo system.
- 2 Connect the Left and Right AUDIO OUT on the DVD player to the Left and Right AUDIO IN on the stereo system.

Audio Connections

AUDIO SYSTEM



DVD PLAYER

Connecting to Optional Equipment

- A digital component with a built-in MPEG 2, Dolby Digital™ or DTS decoder allows you to enjoy the surround sound while producing the effect of being in a movie theater or a concert hall.

**If your receiver has a Dolby Digital™, MPEG 2 or DTS decoder,
Connect to A/V receiver with digital coaxial or optical cable**

- Connect the DIGITAL COAXIAL AUDIO OUT of the DVD player to the corresponding input on the receiver using the normal audio or video cable supplied.

Notes:

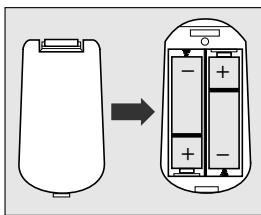
- If the audio format of the digital output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.
- To set the audio format of the current DVD in the Setup Menu, refer to the chapter [Setup Menu].



Preparation

Inserting batteries into the Remote Control

- 1 Open the battery cover.
- 2 Insert batteries with the correct polarity as indicated by the + and - symbols inside the battery compartment.
- 3 Close the cover.



CAUTION!

- Remove batteries if they are exhausted or not to be used for a long time.
- Do not use old and new or different types of batteries in combination.
- Batteries contain chemical substances, so they should be disposed off properly and kept away from children.

Using the Remote Control

- Direct the remote control at the remote sensor of the DVD player.
- Do not drop or give the remote control a shock.
- Do not leave the remote control near extremely hot or humid place.
- Do not spill water or put anything wet on the remote control.

NTSC/PAL Conversion

This player is equipped with a NTSC/PAL conversion feature to convert the video output of the disc to match your TV system. The conversions supported are as below:

Type	Format	Output format		
		Selected mode	NTSC	PAL
DVD	NTSC	NTSC	NTSC	NTSC
	PAL	PAL	PAL	PAL
VCD	NTSC	NTSC	PAL	NTSC
	PAL	PAL	PAL	PAL

Notes:

- AUTO can only be selected when using a TV that has both the NTSC and PAL systems.
- Slight picture distortions may occur due to this conversion. This is normal. Thus, the AUTO format is most suitable for the best picture quality.



Preparation

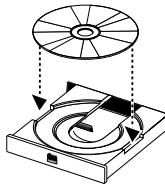
Switching On

- 1 Switch on the TV and DVD player.
- 2 Set the TV to the correct Video IN channel. (eg. EXT1, EXT2, AV1, AV2, AUDIO/VIDEO, etc. Please refer to to your TV owner's manual for detail)
→ The player display lights and the default screen appears on the TV.
- 3 If you are using an external equipment (eg. audio system or receiver), turn them on and select the appropriate input source that was used to connect to the DVD player output. Refer to the equipment owner's manual for detail.

Operation

Basic Playback

- 1 Press POWER ON/OFF on the front panel.
- 2 Press OPEN/CLOSE on the front panel to open disc loading tray.
- 3 Place the chosen disc in the tray, with the label facing up.
- 4 Press OPEN/CLOSE again to close the tray.
→ After recognizing this disc the player begin to playback automatically.



Notes:

- DVDs may have a region code. Your player will not play discs that have a region code different from the region code of your player.
- If 'Disc Lock' is set to ON and the disc inserted is not authorized, the 4-digit code must be entered and/or the disc must be authorized (see 'Disc Lock').

General operation

Video control during playback

STOP

- 1 You can resume the play from the point at which you stopped last time, if you just press the STOP key once. It will start from the beginning if you press the STOP key twice to stop playback.

PAUSE/STEP

- 1 To get a still picture, press PAUSE key during playback.
- 2 To step forward to the next frame picture, press PAUSE key again.
- 3 To resume normal playback, press PLAY.

SEARCH

- 1 To search the contents in fast speed, press the ▶ or ◀ for fast forward/backward searching.
- 2 Press the ▲ or ▼ again to increase the speed for searching.
- 3 Press PLAY to return to the normal playback.



Operation

Slow Motion



- 1 To get slow motion effect during playback, press ▲ or ▼.
- 2 Press ▲ or ▼ again to get different playback forward/backward speed.
- 3 Press PLAY to return to the normal play back.

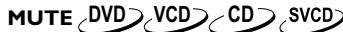


- 1 To get slow motion effect during playback, press ▲.
- 2 Press ▲ again to get different playback forward speed.
- 3 Press the PLAY key to return to the normal play back.

NOTE:

-The SLOW BACKWARD function is not available for the Super VCD/VCD/CD disc.

Audio control during playback



- 1 Press the MUTE key to disable the sound output.
- 2 Press the MUTE key again to remove the mute.

SURROUND SOUND



The DVD player can reproduce virtual surround sound effect.

- 1 Press the Display key on the remote control.
- 2 Press ▲ ▾ to highlight 3D option.
- 3 Press ▲ ▾ to switch it on or off.

Audio channel selection



- 1 SVCD has two stereo audio channels which are used for playing karaoke or the audio language selection. (for instance, you can choose one channel for only the music background of the song while you play the karaoke.)
- 2 Press the AUDIO key on the remote control to select the audio channel you want.
- 3 VCD has only one stereo audio channel, you can select mono left audio channel or mono right audio channel by pressing the AUDIO key on the remote control.

Repeat



Repeat chapter/title/disc

- To repeat the current chapter; press REPEAT.
- To repeat the current title, press REPEAT a second time.
- To exit Repeat mode, press REPEAT again.



Repeat track/disc

- To repeat the current track, press REPEAT.
- To repeat the entire disc, press REPEAT a second time.
- To exit Repeat mode, press REPEAT again.

Repeat A-B



DVD-Video Discs: repeat a sequence in a title

Video and Audio CDs: repeat a sequence in a track

- 1 Press REPEAT A-B at your chosen starting point.
- 2 Press REPEAT A-B again at your chosen end point.
- 3 To exit the sequence, press REPEAT A-B.

5 Disc Resume



This player can resume the playback of last 5 discs, which should be unload at stop mode.

- 1 Load one disc, which is one of last 5 discs.
- 2 Press PLAY when DVD player is recognizing the disc. if the information of this disc has been stored in the memory of DVD player, it will be played back from the point you stopped last time.



Operation

OSD (On-Screen Display)



This function will provide some information about your playing disc on the screen.

- Press DISPLAY key on the remote control.

Title Selection

- 1 Press **◀▶** to highlight option Title number.
- 2 Press **▲▼** to change the title number.
→ DVD player will playback selected title.

Chapter Selection

- 1 Press **◀▶** to highlight option chapter number.
- 2 Press **▲▼** to change the chapter number.
→ DVD player will playback selected chapter.

Time Search

- Press **◀▶** to highlight time display area.
For DVD discs:
→ CC means total time has been played in current chapter. CR means the remainder time of current chapter. TC means total time has been played in current title. TR means the remainder time of current title.
For SuperVCD or VCD disc
→ DC means the time has been played back of the disc. DR means the time is remainder of the disc. TC means the time has been played back of current track. TR means the time is remainder of current track.
- Press the **◀▶** keys to highlight the item TIME and you can play from any point of the disc.
→ Enter hours, minutes and seconds from left to right in the time edit box using remote control numerical key pad. (e.g. 0:34:27)
→ Press the OK key to confirm it.

Zoom



The Zoom function allows you to enlarge the video image.

- 1 Press the ZOOM key to activate the function.
→ Use the **▲▼◀▶** key to view the rest part of the zoomed picture.
→ Playback will continue.
- 2 Press the ZOOM key again to return to the original size.

NOTE: This function is NOT available for PAL DVD discs or some DVD discs.

Special DVD Features



Playing a title

A DVD disc may have one or more titles. This depends on the content (a movie, video clips, a drama series, etc) on the disc.

- After you load a disc, information about the content shows on the screen waiting for your selection. Likewise, you can press the TITLE key on the remote control to turn back to the title menu during playback.
→ Press the appropriate numerical key or **▲▼◀▶** keys on the remote control to highlight your selection.
→ Press the OK key to confirm it.

Playing a chapter



When you have selected a title, it may include one or more chapters.

- To watch another chapter during playback, press DISC MENU key to turn back to the chapter menu (If disc has chapter menu).
→ Press the appropriate numerical key or **▲▼◀▶** keys on the remote control to highlight your selection.
→ Press the OK key to confirm.
→ After a chapter has been selected, you also can press the **◀▶** or **▶▶** key to make a change.

Camera Angle



Some discs contain scenes which have been shot simultaneously from various angles. This DVD player allows you to select the desired camera angle.

- Press the ANGLE key on your remote control.
NOTE: The function is available for the DVD discs which have recorded several angles movie.

Changing the audio language



- Press **AUDIO** repeatedly to select the different languages.

NOTE: The function is activated, only if the DVD disc is recorded with multi-languages audio tracks.

Subtitles



- Press **SUBTITLE** repeatedly to select the different subtitles.
- Press **SUBTITLE** for about 2 seconds to switch subtitle on or off.

NOTE: The function is activated, only if the DVD disc or SuperVCD disc is recorded with multi-subtitles.



Operation

Special VCD & SVCD Features

Playback Control (PBC)

PBC function allows you to enter the index menu which is used to select a track after loading the SVCD or VCD disc.

If you want to activate the function,

- 1 Press the DISC MENU key on the remote control to set the PBC On.
→ Pay attention to the hint on the screen.
- 2 Use the **◀◀** or **▶▶** key to select your chosen.
→ If the items of the index menus are numbered, press the appropriate numerical key on the remote control.
→ press the OK key to confirm.
- 3 Press the RETURN key to enter the index menu during the play back.

NOTE:

- The content of the index menu depends on the disc. Please refer to the disc's instruction for detail.
- If the disc doesn't include the PBC information, this function will have no effect.

If you want to skip the index menu and playback directly from the beginning,

- 1 press the DISC MENU key on the remote control to switch off the function.
→ For the karaoke discs, even if PBC function is off, you still can use the **◀◀** or **▶▶** key to select the track you like.

Preview function

At STOP mode, press the PREVIEW key to enter previewing menu.



← shown as the left

1 Disc introduction

Select this function, DVD player will play back every track for few seconds with full screen to obtain summary of the content of the disc.

- Press the numerical key 1.
- Press OK key to confirm.
- Press STOP key to quit previewing.

2 Disc preview

This function will minify the picture of one track enough to display every nine of these tracks on the full screen which will help you to preview a disc.



- Press the numerical key 2.
- Press OK key to confirm.
- Select other tracks beyond this page by pressing the **◀◀** or **▶▶** key.
- Press the numerical keys to choose the preferred track.
- Press the OK key to confirm.

3 Track preview

This function is used to divided a single track into nine parts and display them on the full screen which will help you to preview the selected track.



- Press the numerical key 3.
- Press the OK key to confirm.
- Preview other tracks, press the **◀◀** or **▶▶** key.
- Press numerical key to choose the starting point.
- Press the OK key to playback from starting point.

4 Quit preview function

- Press the numerical key 4.
- Press the OK key to exit.



Picture CD & MP3 CD Playback

Function introduction

This player can playback JPEG format pictures and MP3 files as well as being specially compatible with Kodak Photo CD.

Picture CD containing JPEG format pictures with file extinctions of 'JPG'. The CD can be burned on every computer; and pictures maybe from digital camera or scanner. If the customers prefer, they may make this CD become a Digital Album.

For playing this Digital Album (picture CD) conveniently, our DVD player can

- Auto playback of pictures on disc one at a time.
- Display a preferred picture.
- Zoom the picture.
- Rotate the picture.
- Flip the picture vertically or horizontally.
- Playback speed control.
- Album and track selection.
- Repeat (disc / album / track / picture).
- Nested directory levels supported to 8 levels.
- Maximum album numbers possible is 32.
- Maximum MP3 Tracks Programmable is 96.
- Maximum Number of Tracks is 999.

Basic playback

- 1 Without any disc inserted and "NO DISC" is shown on set, press the SYSTEM MENU key to open the setup menu.
- 2 Press the ▲ ▼ key to highlight the PREFERENCE item.
- 3 Press OK to open the PREFERENCE menu.
- 4 Press the ▲ ▼ to highlight the SMART NAV menu.
- 5 Press OK to open the menu.
- 6 Press the ► key to enter the menu.
- 7 Press the ▲ ▼ key to highlight the NO MENU or WITH MENU item.
 - NO MENU: playback all images in sequence automatically, and MP3 musics will be played prior to pictures.
 - WITH MENU: playback images in the selected folder.
- 8 Press the OK key to confirm your selection.

Special functions during playback:

Auto playback

After you open one picture, the player can playback each file in sequence automatically.

Selection playback

- 1 Press the numerical key to select your favourite file directly.
- 2 In the JPEG playback menu, press the ◀▶▲▼ key to select the folder you want and press the OK to open it.
- 3 Press the ◀▶▲▼ key to highlight your favourite file and press the OK key to confirm.

Preview function

- 1 Press the PREVIEW key at the STOP mode. You will see nine pieces of minified pictures on the screen.
- 2 Press the ►► or ◀◀ key to display the next or the previous nine-picture-preview.
- 3 Press the ◀▶▲▼ key to highlight one of them and press the OK to display.

Playback with multi-angles

- When displaying one picture on TV screen
- Press the ◀▶▲▼ key to get different effects.
 - ▲ key: Flip the picture vertically.
 - ▼ key: Flip the picture horizontally.
 - ◀ key: rotate the picture anti-clockwise.

Playback Speed Control

- Press the ► key to adjust the playback speed.

Zoom picture

- Press the ZOOM key to display the picture with different scales.
- Press the ◀▶▲▼ key to view the rest of the zoomed picture.

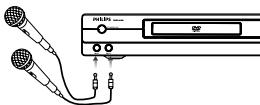
Note:

If you want to switch between MP3 musics and pictures during automatical playback, please press a valid number as shown on the TV screen after the DVD player indexed the MP3 musics and pictures found in the loaded disc.

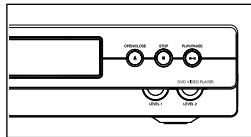


KARAOKE

General operation of karaoke function



- 1 Connect microphone to MIC1 or MIC2 or to both sockets. Be sure the player has been properly connected to your TV or audio system.
- 2 Press KARAOKE on the remote control to display karaoke menu.
→ karaoke menu appears on TV screen, and the option 'MIC' is highlighted.
● Press ▲ ▼ to switch on karaoke function.
- 3 Load a karaoke disc and press PLAY to playback.
- 4 Turn on the microphone which is connected with the DVD player and you can enjoy the Karaoke immediately.



- To adjust the volume of microphone, turn the knob LEVEL1 or LEVEL2 on the right of front panel.
- 5 Press KARAOKE on the remote control to display karaoke menu.
→ karaoke menu appears on TV screen, and the option 'MIC' is highlighted.
● Press ▲ ▼ to switch off karaoke function.

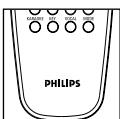
NOTE: Please set the option DOWNMIX to LT/RT, VSS or STEREO before switching on Karaoke function.

General setup of karaoke function

Press MODE to display karaoke menu (Karaoke menu will disappear if you do not press any key in a minute).

KEY CONTROL

- 1 Press ▲ ▶ to highlight the option KEY.
- 2 Press ▲ ▼ to adjust the pitch to adopt your voice.



Volume

- 1 Press ▲ ▶ to highlight the option VOLUME.
- 2 Press ▲ ▼ to adjust the VOLUME to adopt your voice.

ECHO

- 1 Press ▲ ▶ to highlight the option ECHO.
- 2 Press ▲ ▼ to adjust the echo level.

Audio channels option

With this function, you can choose audio channels during karaoke is available.

- 1 Press VOCAL on the remote control to choose STEREO, LEFT VOCAL, RIGHT VOCAL, MONO RIGHT or MONO LEFT .
→ MONO RIGHT & MONO LEFT options can fade out the original vocal.

Karaoke learning and language learning function



- 1 Press MODE to display karaoke menu.
→ Make sure you have set MIC on.
- 2 Press ▲ ▶ to highlight RECORD OFF.
- 3 Press ▲ to set RECORD on.
- 4 Press ▲ again to start recording from the point you prefer.
→ DVD player will record your voice and original karaoke music.
- 5 Press ▲ again to end recording.
→ DVD player will playback the recording three times in total to let you make a comparison.
- 6 Follow the instruction of step4 to step5 to record other sequence.
- 7 Press ▼ to quit Karaoke learning and language learning function.

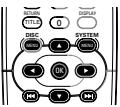
Note: Keeping highlight cursor on RECORD option will allow you to record by pressing ▲ , and ▼ to quit. otherwise pressing ▲ or ▼ will get slow motion effect.



Setup Menu

Basic operations

- 1 Press SYSTEM MENU in the STOP mode to enter the Setup Menu.
- 2 Press the OK key to open the next level submenu or confirm your selection.
- 3 Press the **◀▶** keys to enter the submenu or return to the previous menu.
- 4 Press the **▲▼** keys to highlight the preferred menu.
- 5 Press SYSTEM MENU to quit the setup menu.
→ When you quit the setup menu, the settings will be stored in the player's memory even if the player is switched to power off.



General setup menu

Some settings are needed in this menu. they are: DISC LOCK, PROGRAM, VFD DIM, OSD LANGUAGE and SCREEN SAVER.

Follow the steps below:

- 1 Press the SYSTEM MENU key to enter the setup menu.
- 2 Press the **▲▼** keys to choose the GENERAL SETUP menu.
- 3 Press the OK key to confirm selection.

Disc lock

When the disc is locked, the player will store its typical code into the memory for the future identification. For the next playback, the DVD player will prompt to enter the password.

- 1 Press the **▲▼** keys to highlight the DISC LOCK item in the GENERAL SETUP menu.
- 2 Press the OK key.
- 3 Enter the submenu by pressing the **▶** key.
 - LOCK: Lock the disc being played.
 - UNLOCK: unlock the disc.
- 4 Press the **◀** key to return to the GENERAL SETUP menu.



NOTE:

1. When playback a locked disc, the DVD player will prompt to enter your password or 3308 (default) password.
2. To change the password , refer to the option PASSWORD in the PREFERENCE menu .

Program (not available for DVD discs)

- 1 To choose the PROGRAM item, press the **▲▼** keys.
- 2 Press the **▶** key to move the cursor to the field of the submenu to choose the item ON.
→ ON: Enter the PROGRAM item.
- 3 Press OK to enter the program page.



Input your favorite track

- 1 Enter a valid track number by pressing the numerical keys.
- 2 Press the **◀▶▲▼** keys to move the cursor to the next selected position.
- 3 Repeat the steps above to enter another track number until the whole program is completed.

Exclude a track

- 1 Press the **◀▶▲▼** keys to move the cursor to track you want to exclude.
- 2 Input an invalid track number to cancel this track.



Cancel all tracks

- 1 Press the **◀▶▲▼** keys to move the cursor to the CLEAR button.
- 2 Press OK, all tracks will be cancelled.
- 3 Now you can input your favorite tracks again. Press **◀◀** or **▶▶** to program more tracks.

Playback tracks

- When programing is completed,
- 1 Press the **◀▶▲▼** keys to move the cursor to the PROG button.
 - 2 Press OK.
→ DVD player will playback the selected program under the programed sequence.

Stop the program playback

At the PROGRAM page, when programing is completed,

- 1 Press the **◀▶▲▼** keys to move the cursor to the QUIT button.
- 2 Press the OK key to quit this menu or
- Press the STOP key twice to exit.

VFD Dim

This function is used to adjust the brightness of VFD on the front panel.

- 1 Press the **▲▼** keys to highlight VFD DIM in the GENERAL SETUP menu.
- 2 Press OK.
- 3 Enter the submenu by pressing the **▶** key.



Setup Menu

- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
 - 100: make the VFD brighter than normal.
 - 70: standard brightness
 - 40: make the VFD to dim mode.
 - OFF: switch off the VFD display.
- 5 Press OK to confirm.
- 6 Press the **◀** key to return to the GENERAL SETUP menu.

OSD language

There are two options available for information display on TV screen.

- 1 Press the **▲▼** keys to highlight OSD LANG in the GENERAL SETUP menu.
- 2 Enter the submenu by pressing the **▶** key.
- 3 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
 - ENGLISH: OSD information will be displayed in English.
 - CHINESE: OSD information will be displayed in Chinese.
- 4 Press the OK key to confirm.
- 5 Press the **◀** key to return to the GENERAL SETUP menu.



Screen saver

This function is used to turn on or off the screen saver.

- 1 Press the **▲▼** keys to highlight SCR SAVER in the GENERAL SETUP menu.
- 2 Enter its submenu by pressing the **▶** key.
- 3 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
 - ON: At STOP mode, if nothing is happened within 5~6 minutes, screen saver will turn on.
 - OFF: Screen saver is disable.
- 4 Press OK to confirm.
- 5 Press the **◀** key to return to the GENERAL SETUP menu.



Speaker setup page

This menu contains setup options of your speaker system, such as DOWNMIX, D.R.C.(Dynamic Range Compression),

which gives the setup system to reproduce high quality surround sound.



- 1 Press SYSTEM MENU.
- 2 Press the **▲▼** keys to highlight the SPEAKER SETUP item.
- 3 Press OK to confirm.

DOWNMIX mode

- 1 Press the **▲▼** keys to highlight the DOWNMIX item.
- 2 Enter the submenu by pressing the **▶** key.
- 3 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
 - LT/RT
 - This item will be used only if your DVD player is connected to a Dolby Prologic decoder. Meanwhile, the DVD player can send the output of Dolby Prologic signals.
 - STEREO
 - This item will help to downmix the signal of Dolby Digital into stereo signals directly output from L/R port.
- 4 Press OK.
- 5 Press the **◀** key and return to the SPEAKER SETUP menu.



D.R.C. (Dynamic Range Compression)

DVD player will compress dynamic range of sound effect output, when you do not want to disturb your neighbours and your family during midnight.

- 1 Press the **▲▼** keys to highlight D.R.C..
- 2 Enter the submenu by pressing the **▶** key.
- 3 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
 - ON: Enable D.R.C.
 - OFF: Disable D.R.C.
- 4 Press OK.
- 5 Press the **◀** key to return to the SPEAKER SETUP menu.





Setup Menu

SPDIF setup

In this menu, you can set up digital audio format outputting from coaxial and optical terminals.



- 1 Press SYSTEM MENU to enter the SETUP menu.
- 2 Press the **▲▼** keys to choose the SPDIF SETUP menu.
- 3 Press OK.

NOTE:

SPDIF is the abbreviation of Sony Philips Digital Interface which is a protocol of digital data transferring.

SPDIF OUT setup

- 1 Press the **▲▼** keys to highlight the SPDIF OUT item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Press the **▲▼** keys to highlight the selected item.
→ RAW: Original digital signals output.
→ PCM: Convert to PCM signals to output.
- 5 Press OK.
- 6 Press the **◀** key and return to the SPDIF SETUP menu.



LPCM 96K mode

In this menu, you can set up sampling rate to decode LPCM audio.

- 1 Press the **▲▼** keys to highlight the LPCM 96K item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
→ ON: Detect the loading disc for appropriate sampling rate.
→ OFF: The decoding process is under the sampling rate of 48KHz.
- 5 Press OK.
- 6 Press the **◀** key to return to the SPDIF SETUP menu.





Setup Menu

Video Out Setup

There are items included in VIDEO OUT PAGE menu as TV DISPLAY, VIDEO OUTPUT, TVTYPE BLACK LEVEL,VIDEO MODE, BRIGHTNESS, CONTRAST, SATURATION, HUE.

- 1 Press STOP twice.
- 2 Press SYSTEM MENU to enter its menu.
- 3 Highlight the SETUPVIDEO OUTPUT item by pressing the **▲▼** keys.
- 4 Press OK.

Video output

In this menu, you can select the video output for high quality picture.

- 1 Press the **▲▼** keys to highlight VIDEO OUTPUT in the VIDEO OUTPUT PAGE menu.
- 2 Press the OK key to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to choose an item.
→ S-VIDEO: Video signals will send an output from the S-VIDEO on the rear panel of the DVD player.
→ YCBCR: If your TV set is equipped with Y/CB/CR input, you can choose for high quality picture.
- 5 Press OK.
- 6 Press the **◀** key to return to the SETUP VIDEO OUTPUT menu.

NOTE: Any selection will not influence the signal output of composite video.

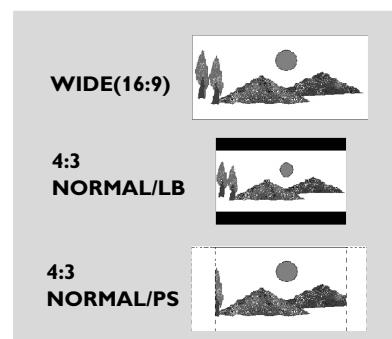
TV display

Select the aspect ratio of the TV to be connected.

WIDE → when you connect a wide-screen TV to the DVD player.

NORMAL/LB → when you connect a normal TV to the DVD player. Displays a wide picture with bands displayed on the upper and lower portions of the TV screen.

NORMAL/PS → when you connect a normal TV to the DVD player. Displays the wide picture on the whole TV screen with a portion automatically cut off.



Setup the item as follows,

- 1 Press the **▲▼** keys to highlight the TV DISPLAY item in the SETUP VIDEO OUTPUT menu.
- 2 Press the OK key.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
- 5 Press OK.
- 6 Press the **◀** key to return to the SETUP VIDEO OUTPUT menu.

TV type

Before viewing the DVD or VCD, ensure that the PAL or NTSC setting of the system matches your TV set.

- 1 Press the **▲▼** keys to highlight TVTYPE in the SETUPVIDEO OUTPUT menu.
- 2 Press OK.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the requisite item.
- 5 Press OK.
- 6 Press the **◀** key to return to the SETUPVIDEO OUTPUT menu.

NOTE: Choosing NTSC item indicates that the player will output by NTSC system. Similarly, you can acquire PAL system by choosing the PAL item. And the item MULTI means video output is depending on the format of DVD or VCD discs.



Setup Menu

Smart Picture function

In this menu, you can personalize your picture setting, colors (brightness, contrast, saturation and hue) can be changed to a fixed set of ideal predefined picture setting(Bright, Standard and Soft) or personal one, to suit various viewing situation.

Video Mode

In this menu, you can choose one picture setting from a fixed set of ideal predefined picture setting(Bright, Standard and Soft).

- 1 Press the **▲▼** keys to highlight VIDEO MODE in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to choose an item.
 - BRIGHT: make the TV screen brighter.
 - STANDARD: select a standard picture setting.
 - SOFT: make the TV screen softer.
 - PERSONAL: apply the setting you set before.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.

Personal Picture Setting

Personal picture setting includes the setup of BLACK LEVEL, BRIGHTNESS, CONTRAST, SATURATION and HUE, with which you can persononize your picture setting.

Black Level

- 1 Press the **▲▼** keys to highlight BLACK LEVEL in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to choose an item.
 - ON: enable smart adjustment of black level.
 - OFF: disable smart adjustment of black level.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.

Brightness

- 1 Press the **▲▼** keys to highlight BRIGHTNESS in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to adjust the brightness level.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.

Contrast

- 1 Press the **▲▼** keys to highlight CONTRAST in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to adjust the contrast level.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.

Saturation

- 1 Press the **▲▼** keys to highlight SATURATION in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to adjust the saturation level.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.

Hue

- 1 Press the **▲▼** keys to highlight HUE in the VIDEO OUT SETUP menu.
- 2 Press OK to open its submenu.
- 3 Press the **▶** key to highlight the item of the submenu.
- 4 Press the **▲▼** keys to adjust the hue level.
- 5 Press OK.
- 6 Press the **◀** key to return to the VIDEO OUTPUT SETUP menu.



Setup Menu

Preferences setup

There are items included in PREFERENCES menu as AUDIO, SUBTITLE, DISC MENU, PARENTAL CONTROL, PASSWORD, DEFAULT and SMART NAV.

- 1 Press the STOP key twice.
- 2 Press SYSTEM MENU to enter its menu.
- 3 Highlight the PREFERENCES item by pressing the **▲▼** keys.
- 4 Press OK to confirm your selection.



Audio language

DVD discs are available for multiple audio languages. Use this item to choose your preferred default audio language.

- 1 Press the **▲▼** keys to highlight the AUDIO item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
- 5 Press OK.
- 6 Press the **◀** key to return to the PREFERENCES menu.



NOTE: Your DVD disc may not include the audio language which you set in the SETUP menu. If so, the player will use other audio language instead.

Subtitle language

DVD discs are available for multi-subtitle language. This item is used to choose default subtitle language.

- 1 Press the **▲▼** keys to highlight the SUBTITLE item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
- 5 Press OK.
- 6 Press the **◀** key to return to the PREFERENCES menu.



NOTE: Your DVD disc may not include the subtitle which you set in the SETUP menu. If so, the player will use other audio language and subtitle instead.

Disc menu language

DVD discs are available for multiple disc menu languages. This item is used to choose default disc menu language.

- 1 Press the **▲▼** keys to highlight the DISC MENU item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
- 5 Press OK.
- 6 Press the **◀** key to return to the PREFERENCES menu.

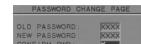


NOTE: If your DVD disc doesn't include disc menu language you have set, the player will use other recorded language instead.

Password

This password is used for the parental control and disc lock. Enter your password when you are required by the DVD player.

- 1 Press the **▲▼** keys to highlight the PASSWORD item.
- 2 Press OK to open its submenu.
- 3 Enter its submenu by pressing the **▶** key.
- 4 Move the cursor by pressing the **▲▼** keys to highlight the selected item.
- 5 Enter the current 4 digit code.
- 6 If successful, the player will prompt for a new one.
- 7 After that, enter the new password again to reconfirm.
- 8 Press the PLAY key to return to the PREFERENCES menu.
→ The new 4 digit code will take effect.



NOTE:

1. You can change the setup of parental control and disc lock with a recognise password being entered.
2. If you forget the password, you can enter the default password 3308 and replace your password after logging on.





Setup Menu

Parental Control DVD

Movies on DVDs may contain scenes not suitable for children. Therefore, discs may contain 'Parental Control' information which applies to the complete disc or to certain scenes on the disc. These scenes are rated from 1 to 8, and alternative, more suitable scenes are available on the disc. Ratings are country dependent. The 'Parental Control' feature allows you to prevent discs from being played by your children or to have certain discs played with alternative scenes.

- VCD, SVCD, CD has no level definition, so parental control function has no effect on those kinds of discs as well as most of illegal DVD discs.
- You can follow the steps below to setup the parental control:
 - 1 Press the **▲▼** keys to highlight the PARENTAL item.
 - 2 Press OK to open its menu.
 - 3 Move to its submenu by pressing the **▶** key.
 - 4 Then use the **▲▼** keys to highlight a rating from 1 to 8 for the disc inserted.
 - 5 Press OK to confirm, then press the **◀** key to return to the PREFERENCES menu.



No Parental Control

Parental Control is not activated. The Disc will be played in full.

- 1 Select NO PARENTAL item.
- 2 Press OK.

Ratings 1 to 8:

The disc contains scenes not suitable for children. If you set a rating for the player, all scenes with the same rating or lower will be played. Higher rated scenes will not be played unless an alternative which has the same rating or lower is available on the disc. If no suitable alternative is found, playback will stop and the 4-digit code has to be entered.

Default setup

If some problems occur during setting DVD, the item DEFAULT is used to reset all items to factory default and all your personal setting will be erased.

- 1 Press the **▲▼** keys to highlight the DEFAULT item.
- 2 Press OK to open its menu.
- 3 Enter its menu by pressing the **▶** key.
- 4 Press OK.



NOTE: When this function is executed, all setups will be reset to factory defaults.

Smart Navigator

In this menu, it contains of the setting when you playback picture CD and MP3 CD.

- 2 Press the **▲▼** key to highlight the PREFERENCE item.
- 3 Press OK to open the PREFERENCE menu.
- 4 Press the **▲▼** to highlight the SMART NAV menu.
- 5 Press OK to open the menu.
- 6 Press **▶** to enter the menu.
- 7 Press **▲▼** to highlight the NO MENU or WITH MENU item.
 - NO MENU: playback all images or MP3 musics in sequence automatically
 - WITH MENU: playback images or MP3 musics in the selected folder.
- 8 Press the OK key to confirm your selection



Specifications

PLAYBACK SYSTEM

DVDVideo
Video CD & SVCD
CD (CD-Recordable and CD-Rewritable)
Picture CD
MP3 CD
CD-R, CD-RW
DVD-R, DVD+RW

VIDEO PERFORMANCE

* CVBS	1Vpp --- 75Ω
* S-VIDEO	Y: 1.00Vpp --- 75Ω C: 0.30Vpp --- 75Ω
* YUV	Y: 1.00Vpp --- 75Ω CR: 0.7Vpp --- 75Ω CB: 0.7Vpp --- 75Ω

AUDIO FORMAT

Digital	Mpeg/ AC-3/ DTS PCM	compressed Digital 16, 20, 24 bits fs, 44.1, 48, 96 kHz
	MP3(ISO 9660)	24, 32, 56, 64, 96, 128, 256 kbps & variable bit rate fs, 16, 22.05, 24, 32, 44.1, 48 kHz
Analog Sound Stereo Dolby Digital multichannel surround sound downmix 2 channels.		

AUDIO PERFORMANCE

DA Converter	24bit
Signal-Noise (1KHz)	90dB
Dynamic range(1KHz)	80dB
DVD	fs 96 kHz 4Hz- 44kHz fs 48 kHz 4Hz-22kHz
SVCD	fs 48 kHz 4Hz-22kHz fs 44.1 kHz 4Hz-20kHz
VCD/CD	fs 44.1 kHz 4Hz- 20 kHz

TV STANDARD (PAL/50Hz) (NTSC/60Hz)

Number of lines	625	525
Playback	Multistandard	(PAL/NTSC)

CONNECTIONS

YUV Video Output	Cinch
S-Video Output	Mini DIN 4-pins
Video Output	Cinch
Audio Output(L+R)	Cinch
Digital Output	1 coaxial / optical IEC958 for CDDA / LPCM/ MPEG1 IEC1937 for MPEG 2, Dolby Digital and DTS

CABINET

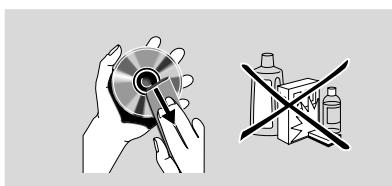
Dimensions (w x d x h)	435 x 235 x 71 mm
Weight	Approximately 2.5 Kg

Specifications subject to change without prior notice

Maintenance

Cleaning the Cabinet

- Use a soft cloth slightly moistened with a mild detergent solution. Do not use a solution containing alcohol, spirits, ammonia or abrasives.



Cleaning Discs

- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the center out. Do not wipe in a circular motion.
- Do not use solvents such as benzine, thinner, commercially available cleaners, or antistatic spray intended for analog records.



Troubleshooting

WARNING

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer or service center.

Problem	Solution
No power	<ul style="list-style-type: none">– Check if the AC power cord is properly connected.
No picture	<ul style="list-style-type: none">– Check if the TV is switched on.– Check the video connection.
Distorted picture	<ul style="list-style-type: none">– The disc is badly scratched or dirty.– Sometimes a small amount of picture distortion may appear. This is not a malfunction.
Completely distorted picture or black/white picture with DVD or Video CD	<ul style="list-style-type: none">– Make sure the NTSC/PAL setting at the DVD player matches the video signal of your television. (See NTSC/PAL Conversion)
No sound or distorted sound	<ul style="list-style-type: none">– Adjust the volume.– Check that the speakers are connected correctly.
No audio at digital output	<ul style="list-style-type: none">– Check the digital connections.– Check the settings menu to make sure the digital output is set to ALL or PCM.– Check if the audio format of the selected audio language matches your receiver capabilities.
Disc can't be played	<ul style="list-style-type: none">– Ensure the disc label is facing up.– Check if the disc is defective by trying another disc.
No return to start-up screen when disc is removed	<ul style="list-style-type: none">– Reset the unit by switching the player off, then on again.
The player does not respond to the remote control	<ul style="list-style-type: none">– Aim the remote control directly at the sensor on the front of the player.– Reduce the distance to the player.– Replace the batteries in the remote control.– Insert the batteries with their polarities (+/- signs) as indicated.
Buttons do not work	<ul style="list-style-type: none">– In order to completely reset the player, unplug the AC cord from the AC outlet.
Player does not respond to some operating commands during playback.	<ul style="list-style-type: none">– Operations may not be permitted by the disc. Refer to the instructions of the disc.
DVD Video player cannot read CDs/DVDs	<ul style="list-style-type: none">– Use a commonly available cleaning CD/DVD to clean the lens before sending the DVD Video player for repair.



DVD616K IFU for /751

3141 016 18911



Meet Philips at the Internet
<http://www.philips.com>

DVD616K



3141 016 18911



The products and services described herein
are not necessarily available in all countries
Due to continuous product improvements this
document is subject to change without notice.

