

# TEAC

## SERVICE MANUAL

# DV-M5000

### DVD Multi Player



#### NOTES

- PC board shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. they must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.

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# 1 SAFETY INFORMATION

## SAFETY INFORMATION

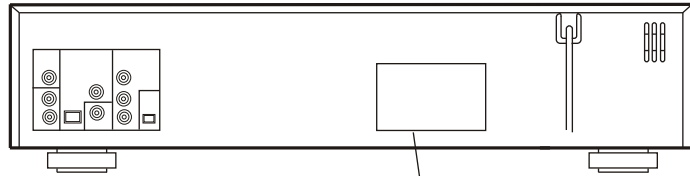
This product has been designed and manufactured according to FDA regulations "title 21, CFR, chapter 1, subchapter J, based on the Radiation Control for Health and Safety Act of 1968" and is classified as class 1 laser product. There is not hazardous invisible laser radiation during operation because invisible laser radiation emitted inside of this product is completely confined in the protective housings. The label required in this regulation is shown ①.

**• CAUTION**

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

DO NOT REMOVE THE PROTECTIVE HOUSING USING SCREWDRIVER.

IF THIS PRODUCT DEVELOPS TROUBLE, MAKE A CONTACT WITH OUR SERVICE MAN, AND DO NOT USE THE PRODUCT AT A TROUBLED STATE.



**Optical pickup:**  
Type : KHM-230AAA  
Manufacturer : SONY Corporation  
Laser output : Less than 0.7 mW on the objective lens  
Wavelength : 760 -800 nm (CD), 640-660nm (DVD)

①

**CERTIFICATION**  
THIS PRODUCT COMPLIES WITH THE  
RULES 21 CFR SUBCHAPTER J APPLI-  
CABLE AT DATE OF MANUFACTURE

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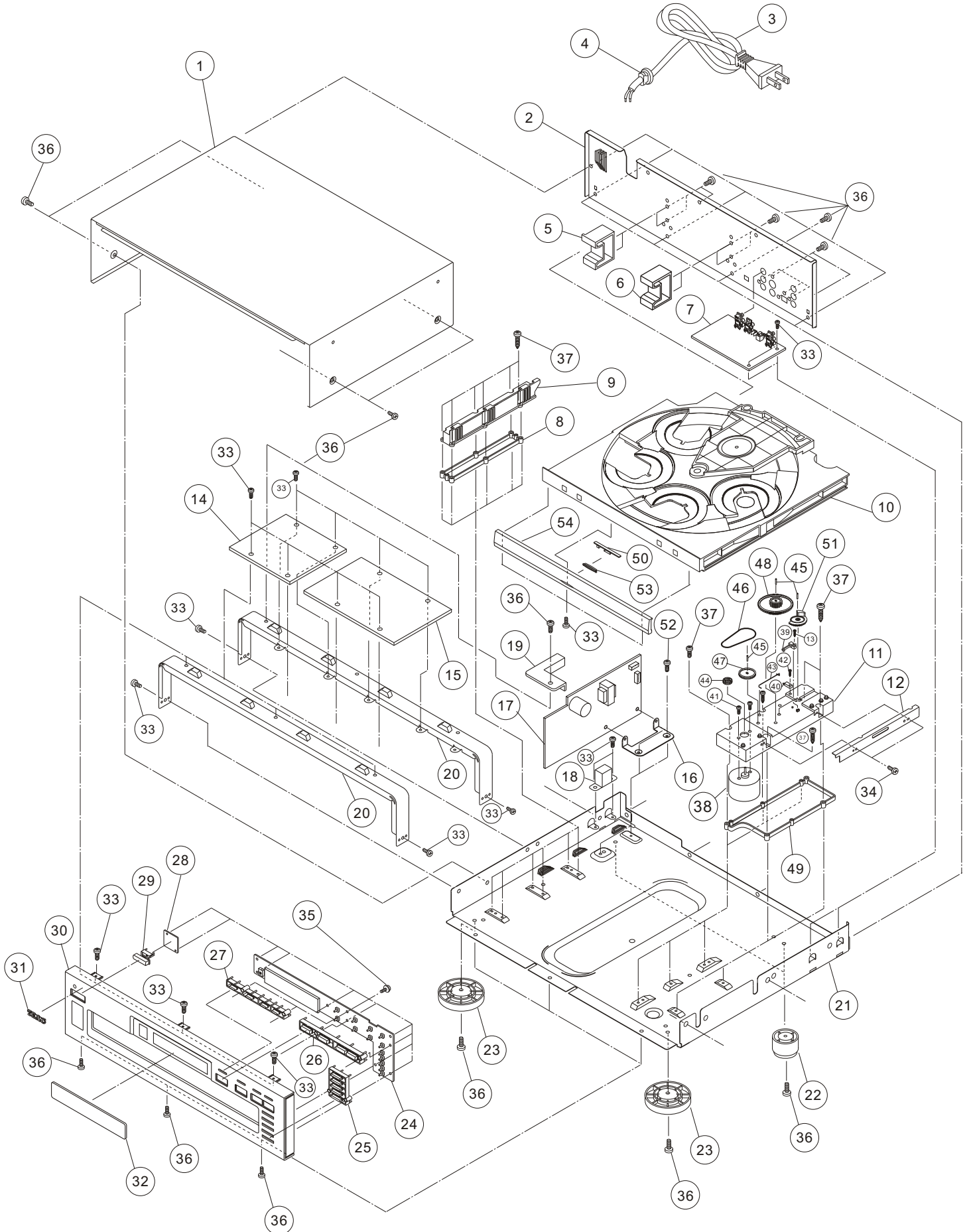
TEAC CORPORATION  
3-7-3, NAKA-CHO, MUSASHINO-SHI, TOKYO, JAPAN  
MANUFACTURED : \_\_\_\_\_

## 2 SPECIFICATIONS

<b>System:</b>	5-discs DVD/VCD/MP-3/CD/CD-R/CD-RW Changer
<b>Frequency Response :</b>	20 -18 kHz
<b>Harmonic Distortion :</b>	Less than 0.02%(1kHz)
<b>S/N Ratio (IHF-A):</b>	More than 98db
<b>Channel Separation:</b>	85 db
<b>Laser picker (wavelength):</b>	<b>DVD :</b> 640 - 660nm <b>CD :</b> 760 - 800nm <b>Laser power :</b> CLASS II
<b>Error Correction:</b>	CIRC
<b>Digital Filter :</b>	8 times oversampling
<b>D/A Converter :</b>	64fs Dual Delta Sigma converter
<b>Output :</b>	<b>Video output:</b> 1 - RCA jack <b>S-Video output:</b> 1 - Sterminal
<b>Component Video Output :</b>	3 RCA jacks
<b>Digital Output :</b>	Optical 1 - Optical (TOS) terminal Coaxial 1 - Pin (RCA) jack
<b>Power Source :</b>	AC 100 -240V , 50/60Hz
<b>Power Consumption :</b>	15 watts
<b>Dimension (W xH x D):</b>	435 x 124x 382 mm
<b>Weight:</b>	6.2 Kg (13-5/8lbs)
<b>Supplied Accessories :</b>	RCA cable (for audio)x1 RCA Videocable x1 Remote Control unit x1

- Improvements may result in changes the specifications and features.
- Illustrations may differ slightly from production model.

## 3 EXPLODED VIEW AND PARTS LIST



## EXPLODED VIEW-1

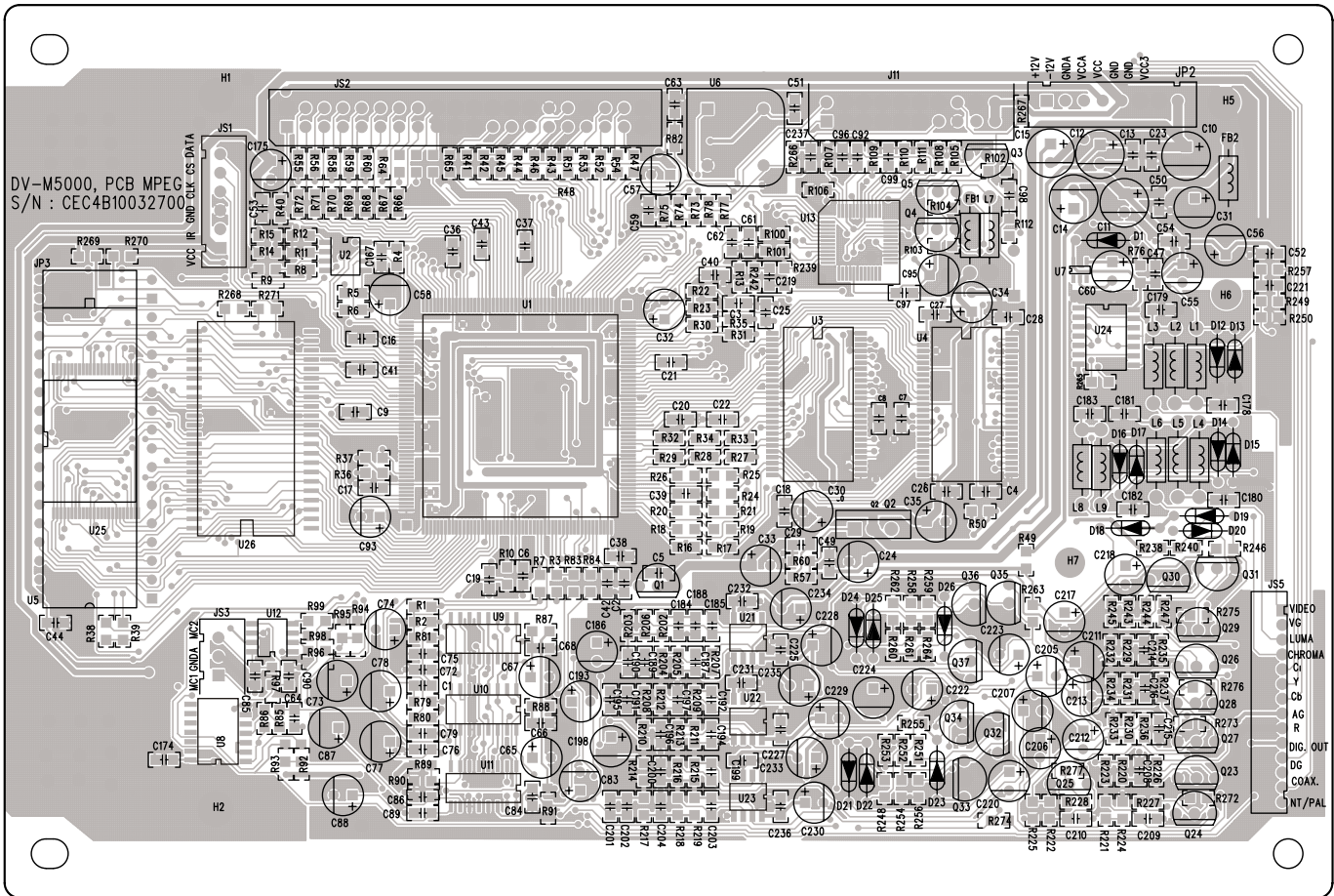
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
1	56-12D1200B1-22	CABINET TOP	
2	61-63M500000-02	PANEL REAR	
3	45-111830105-03	AC CORD SPT-2	
4	56-004000R10-BA	BUSHING	
5	56-724000R00-BA	STOPPER - L	
6	56-724000R10-BA	STOPPER - R	
7	01-DVM500007-00	OUTPUT BOARD ASSY	
8	56-07D250000-BA	BASE LEFT	
9	56-07M5000B0-10	BASE LEFT	
10	56-004000R31-BA	TURNTABLE CHANGER	
11	56-07D250010-BA	BASE RIGHT	
12	61-11D250030-01	BRACKET - MBASE RIGHT	
13	66-532260631-03	SCREW BTTP 2.6X6MC	
14	01-DVM500010-01	SERVO BOARD ASSY	
15	01-DVM500008-02	MPEG BOARD ASSY	
16	61-11M500000-00	BRACKET - EPCB POWER	
17	01-DVM500003-00	SMPS(POWER) BOARD ASSY	
18	61-11RWD2520-00	BRACKET - MSTOPPER	
19	56-07M5004B0-10	PCB BRACKET -E	
20	61-11M500010-00	BRACKET -M TOP	
21	61-19D250000-01	CHASSIS - REV.2	
22	56-000112000-BA	LEG-REAR	
23	56-00D120000-BA	LEG (HOT STAMP)	
24	01-DVM500004-00	DISPLAY BOARD ASSY	
25	56-54M5003F0-10	BUTTON FUNCTION	
26	56-54M5000B0-10	BUTTON PLAY	
27	56-54M5001B0-10	BUTTON DISC	
28	01-DVM500022-00	KEY BOARD ASSY	
29	56-54M5002B0-10	BUTTON POWER	
30	56-04M5000B0-A0	ESCUTCHEON	
31	56-58WD250B0-10	BADGE	
32	56-57M5000200-70	WINDOW	
33	66-522300631-03	SCREW BTTB 3X6MC	
34	66-522300831-03	SCREW BTTB 3X8MC	
35	66-524260831-03	SCREW BTTB 2.6X8MC	
36	66-524300811-03	SCREW BTTB 3X8AB BLK	
37	66-524301431-03	SCREW BTTB 3X14MC	
38	58-444000R10-00	MOTOR 6.0V	
39	41-061100000-07	LEAF SWITCH	
40	41-061100000-F9	LEVER SWITCH	
41	66-220260631-03	SCREW MS/BH 2.6X6	
42	66-522170811-03	SCREW BTTB 1.7X8	
43	61-944000R00-00	SPRING WIRE	
44	56-76D120012-JA	PULLEY MOTOR	
45	61-65D120001-01	PIN GEAR	
46	58-04D120001-00	BELT SQUARE(2)	
47	56-764000R12-JA	PULLEY	
48	56-374000R42-JA	GEAR RETURN	
49	56-07M5001B0-10	BASE RIGHT	
50	01-DVM500005-00	LAMP BOARD ASSY	
51	56-374000R52-JA	GEAR LOAD	
52	66-542400631-00	SCREW TT/TH 4X6	
53	56-32M500060-70	FILTER LED TRAY	
54	56-12M5000B0-10	DECORATION TRAY	

4 PC BOARDS AND PARTS LIST

MPEG BOARD ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	01-DVM50008-02	MPEG BOARD ASSY	
	48-DVM50008-00	MPEG PCB	
D12-D17	15-1S6000000-00	DIODE - 1S60	
D18-D20	15-0001N4148-00	DIODE - 1N4148	
FB1,2	32-335300000-00	FERRITE BEAD 3.5x6x0.8	
JP2	43-9A2501081-00	WAFER 8PINS 180C	
JS1	43-9A2501061-00	WAFER 6PINS 180C	
JS2	43-9A2541401-00	ATAPI WAFER20Px2 180C	
JS5	43-9A2001141-00	WAFER 14 PINS 180C	
L1,4,7	38-310090000-50	INDUCTORS 1UH	
L2	38-318090000-50	INDUCTORS 1.8UH	
L3,6,9	38-306890000-50	INDUCTORS 0.68UH	
L5,8	38-327090000-50	INDUCTORS 2.7UH	
Q29,30	11-8550C0002-00	TR-8550C	
Q23,26,31	11-9014C0001-00	TR-9014C	
U1	16-ES4318F00-00	IC-ES4318F	
U2	16-AT24C02N0-00	IC-AT24C02N-10SC-2.7	
U3,4	16-M12L16161-00	IC-M12L16161A-7T	
U5	16-F29C51004-00	IC-F29C51004T-90PC	
U6	31-127002000-18	CRYSTAL 27.00MHZ	
U7	16-BD4745G00-00	IC-BD4745G	
U8	16-TC74HCU04-00	IC-TC74HCU04AF	
U9	16-CS4340KS0-00	IC-CS4340-KS	
U13	16-CS4955000-00	IC-CS4955-C0	
U21,22	16-NJM4558M0-00	IC-NJM4558M	
U24	16-TC74HC040-00	IC-TC74HC04AF	

MPEG BOARD



# DV-M5000

## DISPLAY BOARD ASSY

REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500004-00	DISPLAY BOARDASSY
	48-DVM500004-01	DISPLAY PCB
CN302	43-9A2001041-00	WAFER 4 PINS 180C
CN306	43-9B2001121-00	WAFER 12PINS 90C
D301-D303	15-1SS133T77-00	DIODE 1SS133-T-77
FL301	13-6DVM50001-33	DISPLAY #HNA-12SM15
IC301	16-TMP87PS01-00	IC-TMP87PS71AT-QFP80
Q301	11-2SA933004-06	TR-2SA933AS-TP
S301-306, S308-314	41-150100001-0D	TACT SWITCHHH=9.5MM
U301	17-51U271X00-18	GP1U27IX
X301	31-180004000-18	CRYSTAL 8.00MHZ

## KEY BOARD ASSY

REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500022-000	KEY BOARD ASSY
	48-DVM500022-00	KEY PCB
D301	13-1SLA370LT-20	LED
CN308	43-9A2001041-00	WAFER 4 PINS 180C
S307	41-150100001-0D	TACT SWITCHHH=9.5MM

## LAMP BOARD ASSY

REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500005-00	LAMP BOARD ASSY
	48-DVM500005-00	LAMP PCB
CN309	43-9A2001021-00	WAFER 2 PINS 180C
L301	54-010615300-00	PILOT LAMP #4Q

## OUTPUT BOARD ASSY

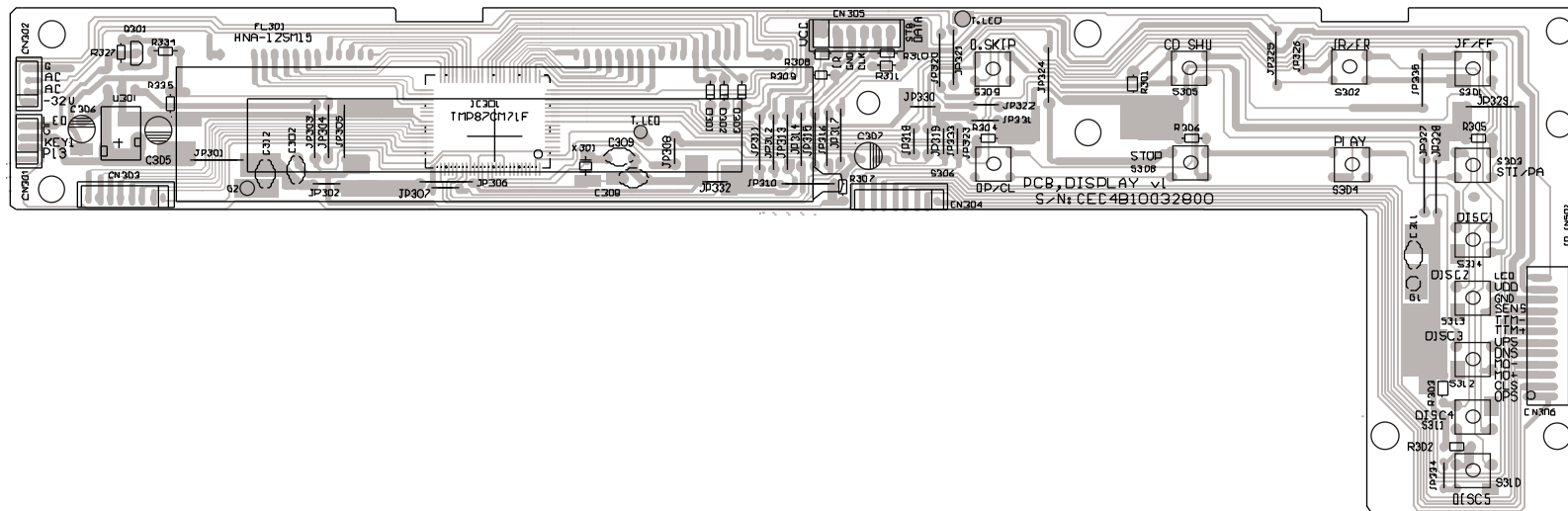
REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500007-00	OUTPUT BOARD ASSY
	48-DVM500007-01	OUTPUT PCB
CN501	43-9A2001141-00	WAFER 14 PINS 180C
CN504	43-9B1001101-00	WAFER 10 PINS 90C
CN503	43-9B2001061-00	WAFER 6 PINS 90C
CN502	43-9B2001121-00	WAFER 12 PINS 90C
CN505	43-9B2501021-00	WAFER 2 PINS 90C
IC301,302	16-TA7291S00-02	IC-TA7291S
JK501	43-433050200-03	RCA JACK 3P
JK502	43-432105000-03	DIN+RCA JACK
JK503	17-7F32T0000-18	CONVERTOR #GP1F32T
JK504	43-433050300-03	RCA JACK 3P
Q501	11-2SD1936T2-00	TR-2SD1936T
Q502	11-2SB764E02-03	TR-2SB764-E
SW501	41-131212808-03	SLIDE SWITCH

## CONNECTOR BOARD ASSY

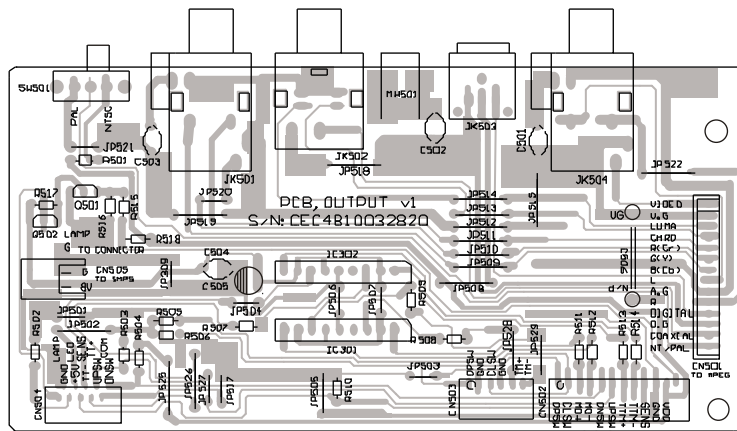
REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500006-00	CONNECTOR BOARD ASSY
	48-DVM500006-00	CONNECTOR PCB
CN601,605	43-9B2001061-00	WAFER 6 PINS 90C
CN602	43-9B2001031-00	WAFER 3 PINS 90C
CN603	43-9B2001051-00	WAFER 5 PINS 90C
CN604	43-9B1001101-00	WAFER 10 PINS 90C
CN606	43-9B2001021-00	WAFER 2 PINS 90C
CN608,609	43-9B1002251-00	WAFER 25 PINS 90C



## DISPLAY BOARD



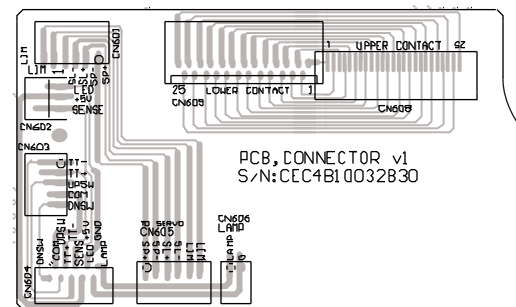
## OUTPUT BOARD



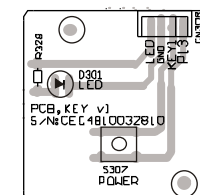
## LAMP BOARD



## CONNECTOR BOARD



## KEY BOARD



# DV-M5000

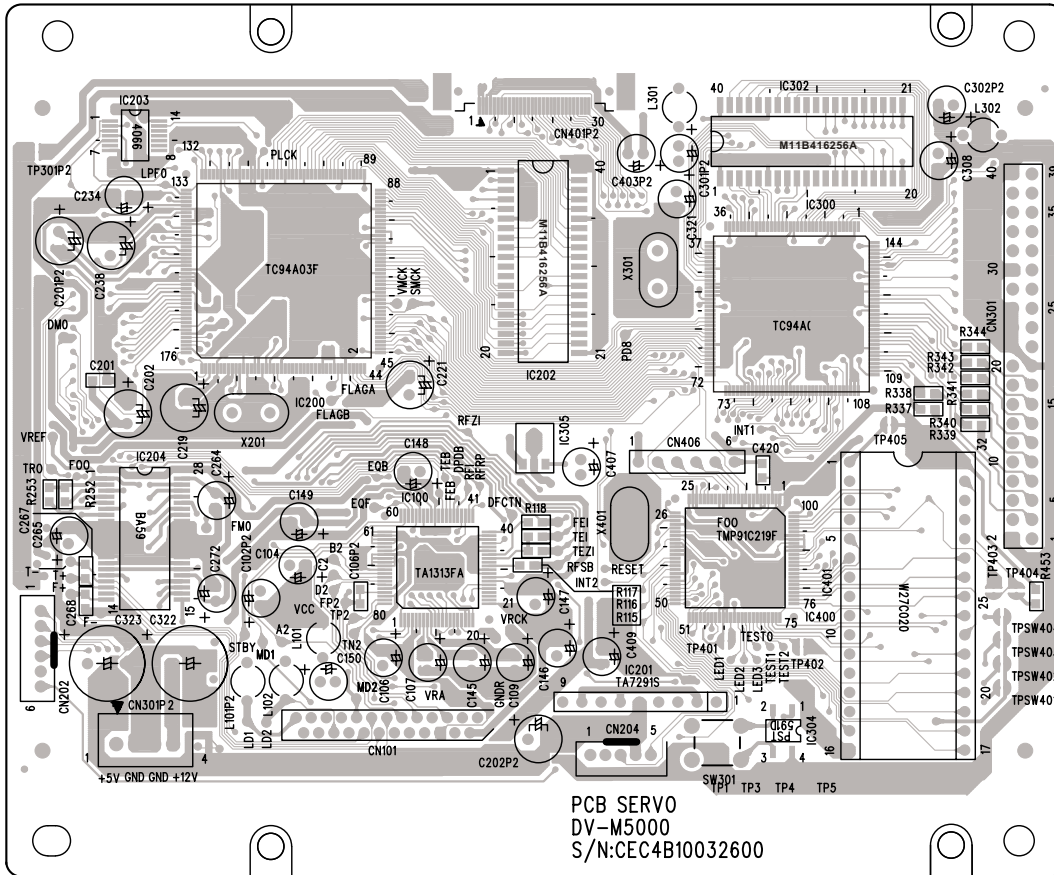
## SERVO BOARD ASSY (TOP)

REF. NO	PARTS NO.	DESCRIPTION
	01-DVM500010-01	SERVO BOARD ASSY
	48-DVM500010-00	SERVO PCB
	61-48DVM5000-00	HEAT SINK
CN202	43-9A2001061-00	WAFER 6PINS 180C
CN301	43-9A2541401-00	ATAPI WAFER 20Px2 180C
CN301P2	43-9A2501041-00	WAFER 4 PINS 180C
IC100	16-TA1313FA0-00	IC-TA1313FA-LQFP80
IC200	16-TC94A03F0-00	IC-TC94A03F-LQFP176
IC202,302	16-M11B41600-00	IC-M11B416256A-35J
IC203	16-TC4066BFT-00	IC-TC4066BFT
IC204	16-BA5983FM0-00	IC-BA5983FM
IC300	16-TC94A05F0-00	IC-TC94A05F-LQFP144
IC304	16-PST591D00-00	IC-PST591DMT
IC305	16-TA76431F0-00	IC-TA76431F
IC400	16-TMP91C219-00	IC-TMP91C219F-LQFP100
IC401	16-F29C51001-00	IC-F29C51001T-90PC
L101,101P2,102	38-304700004-41	CHOKO COIL 47UH
L301,302	38-304780004-41	CHOKO COIL 4.7UH
X201	31-122582000-18	CRYSTAL 22.580MHZ
X301	31-350005000-18	CER-RESONATOR ZTA50M
X401	31-120002000-18	CRYSTAL 20.00MHZ

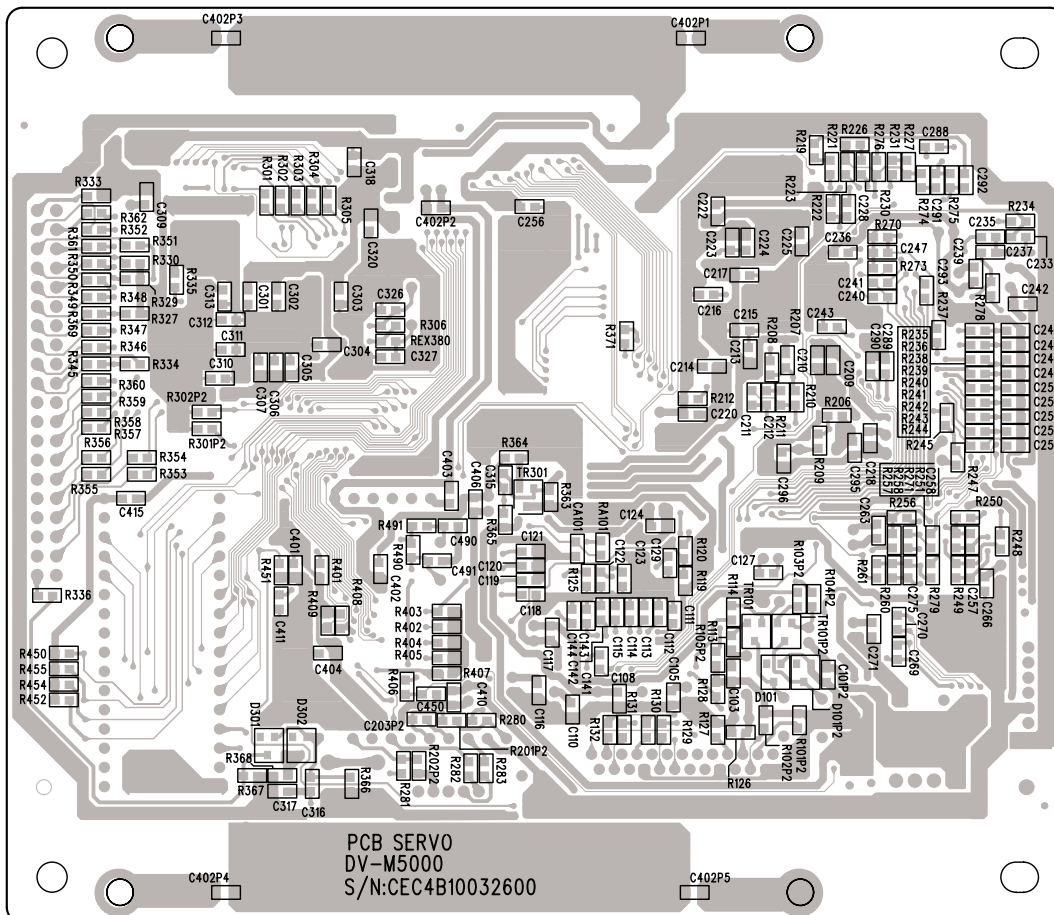
## SERVO BOARD ASSY (BOTTOM)

REF. NO	PARTS NO.	DESCRIPTION
CN101	43-9B1001251-00	WAFER 25 PINS (F.F.C)90C
D301,302	15-1SS344000-06	DIODE - 1SS344(SMT)
TR101, TR101P2	11-2SA129800-04	TR - 2SA1298Y(SMT)
TR301	11-2SC3265Y0-04	TR - 2SC3265Y(SMT)

SERVO BOARD - TOP



SERVO BOARD - BOTTOM

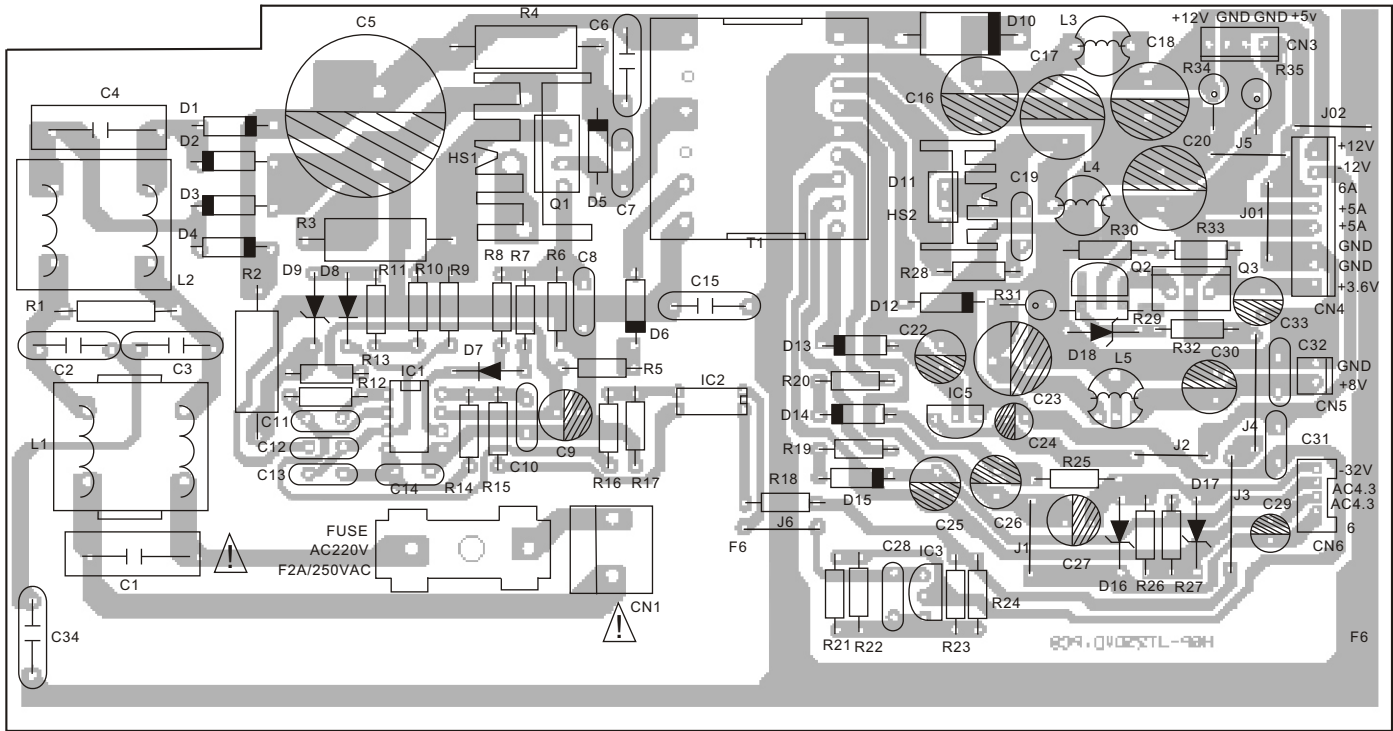


# DV-M5000

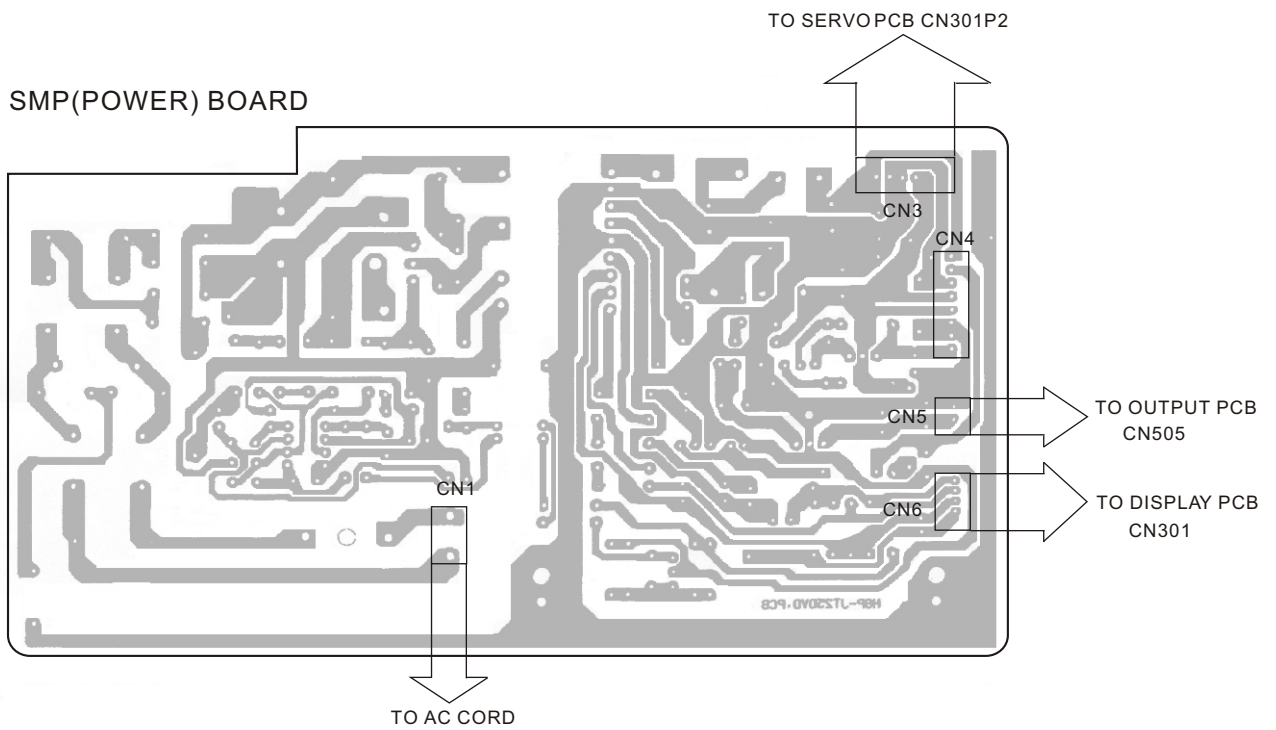
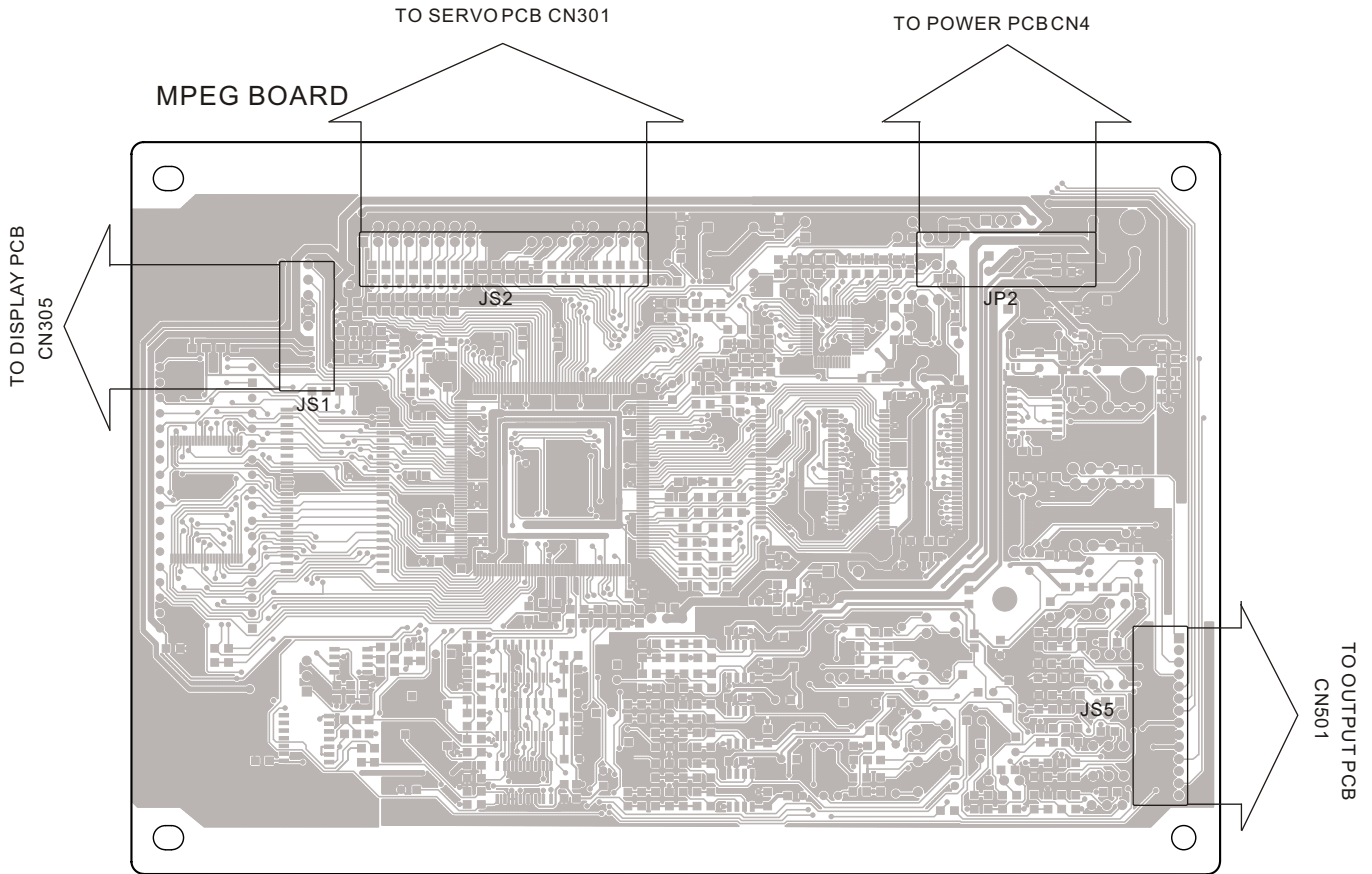
## SMP(POWER) BOARD ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	01-DVM50003-00	SMP(POWER) BOARD ASSY	
		SMP(POWER) PCB	
C1,4	⚠	C.CAP -104-275VAC	
C2,3	⚠	C.CAP -102-400VAC-B	
C15	⚠	C.CAP - 222-400VAC-E	
C5	⚠	E. CAP 47uF 400V-M	
C17	⚠	E. CAP 2200UF 10V-M	
C20	⚠	E. CAP 1000UF 10V-M	
CN1	⚠	WAFER 3 PINS - 3.96MM	
CN3		WAFER 4 PINS -2.54MM	
CN4		WAFER 8 PINS -2.54MM	
CN5		WAFER 2 PINS -2.54MM	
CN6		WAFER 4 PINS -2.0MM	
D1,2,3,4	⚠	DIODE - 1N4007	
D5	⚠	DIODE - 1U08	
D6,13		DIODE - FR102	
D7,8		DIODE - 1N4148	
D9		DIODE - 1N4751	
D10		DIODE - 31DQ10	
D11		DIODE - F10KQ40	
D12		DIODE - 21DQ06	
D14		DIODE - FR104	
D15		DIODE - FR102	
D16		DIODE - 1N4753	
D17		DIODE - 5.6V	
D18		DIODE - 2.3V	
FUSE	⚠	CIS2A250V	
IC1		IC - UC3842B	
IC2	⚠	IC - SFH615A	
IC3		IC - TL413C(W431)	
IC5		IC - 79L12	
L1	⚠	L1487(R7KB)	
L2	⚠	FT2030(R7KB)	
L3,5		D6X10(R1KB) - 4.5UH	
L4		D5X20(R1KB) - 3.5UH	
Q1		TR - IRFBC30G	
Q2		TR - 9013G	
Q3		TR - 3DD3852(DA1913)	
R2	⚠	R-2W 120K -5%	
R3	⚠	R-2W 1.0 -5%	
R4	⚠	R-2W 47K -5%	
T1	⚠	TRANSFORMER EDT28(NC2H)	

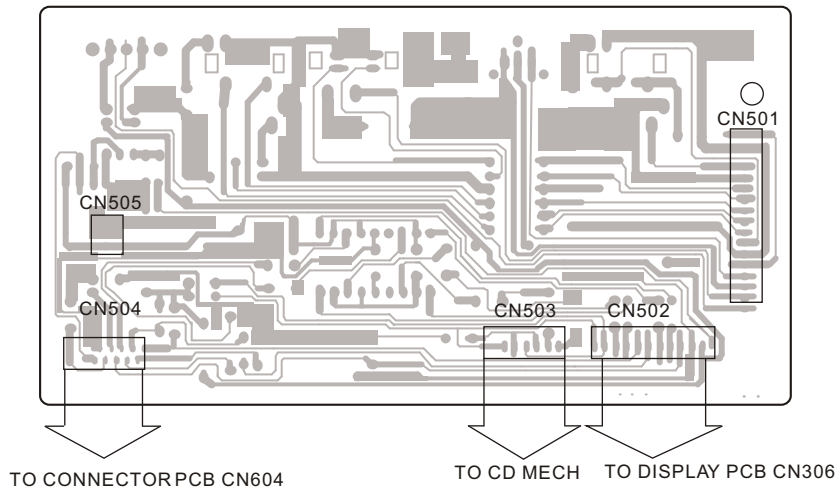
SMP(POWER) BOARD



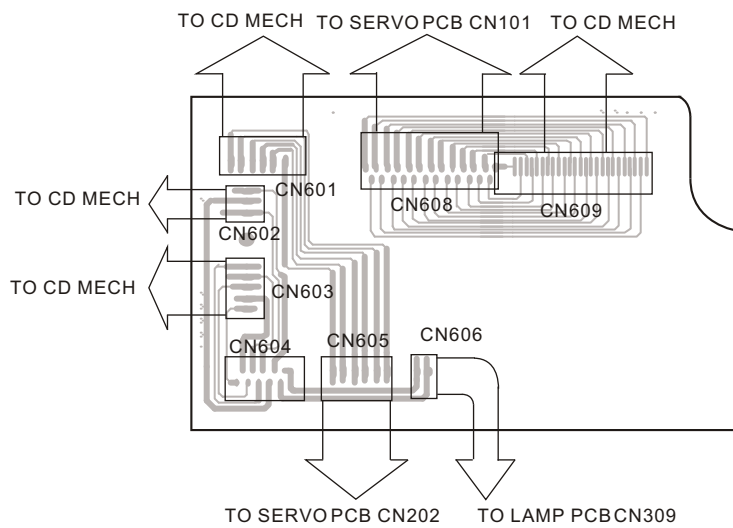
5 WIRING DIAGRAM



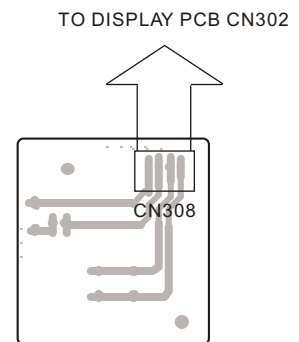
OUTPUT BOARD



CONNECTOR BOARD



KEY BOARD



# DV-M5000

## 6 INCLUDED ACCESSORIES

### INCLUDED ACCESSORIES

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	77-14D120000-01	WARRANTY CARD	
	77-20M500000-02	INSTRUCTION BOOK	
	82-200015030-00	PLUG CORD RCA 1P	
	01-1DVM50000-00	REMOTE CONTROL	



# DV-M5000

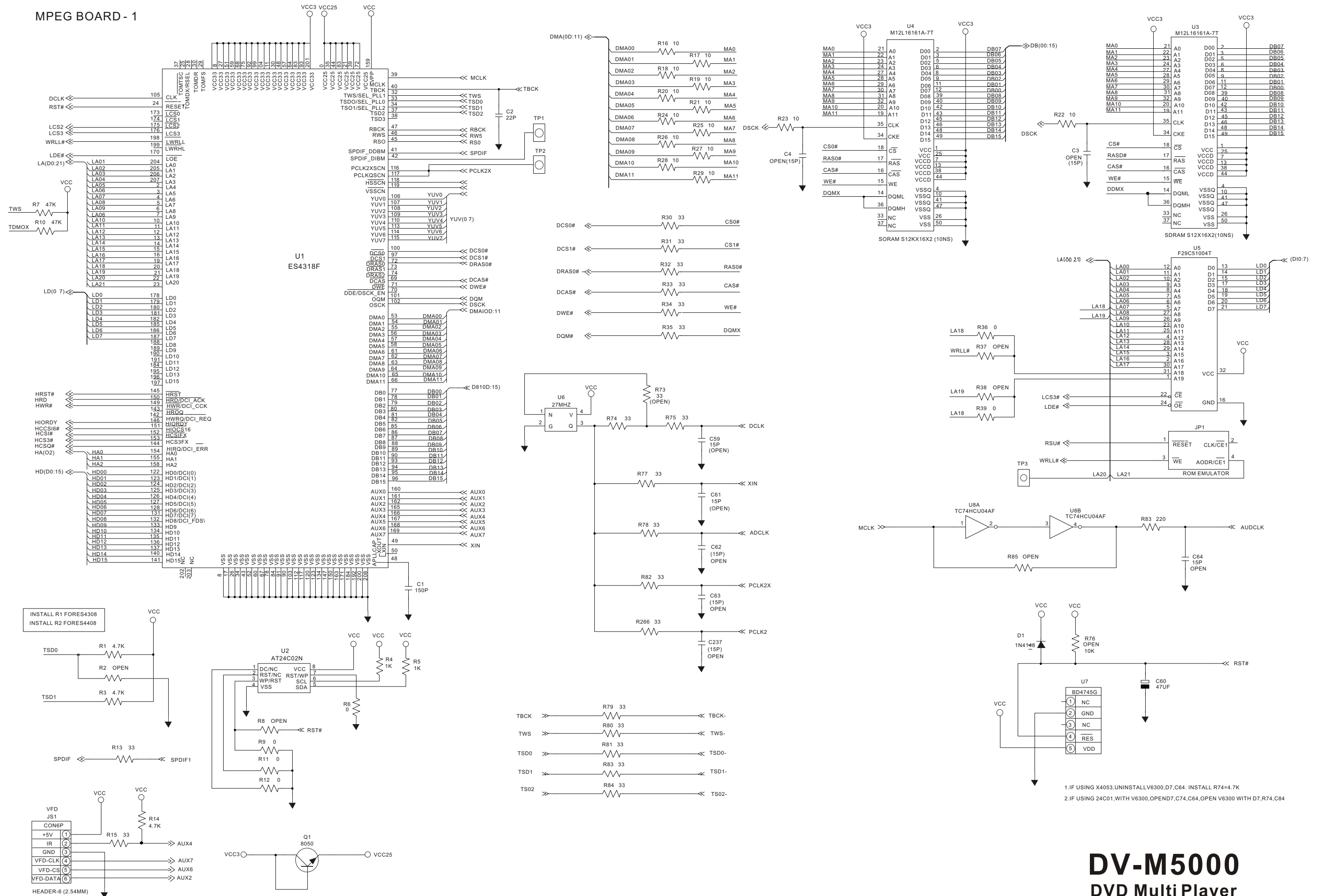
# TEAC

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TEAC MEXICO, S.A.De C.V.	Campeños 184, Col. Granjas Esmeralda, 09810, Mexico Phone: (525)-581-5500
TEAC UK LIMITED	5 Marlin House, Croxley Business Park, Watford, Hertfordshire, WD188TE, U.K. Phone: 01923-819699
TEAC DEUTSCHLAND GmbH	Bahnstrasse 12, 65205 Wiesbaden-Erbenheim, Germany Phone:0611-71580
TEAC FRANCE S.A.	17, Rue Alexis-de-Tocqueville, CE 00592182 Antony Cedex, France Phone:(1)42.37.01.02
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TEAC BELGIUM NV/SA.	c/o TEAC NEDERLAND BV, Oeverkruid 15, NL-4941 WRaamsdonksveer, Nederland Phone:+31-162-510860
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TEAC AUSTRALIA PTY., LTD.	280 William Street, Melbourne VIC 3000, Australia Phone:(03)9672-2400
A.B.N.	80 005 408 462

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MPEG BOARD - 1

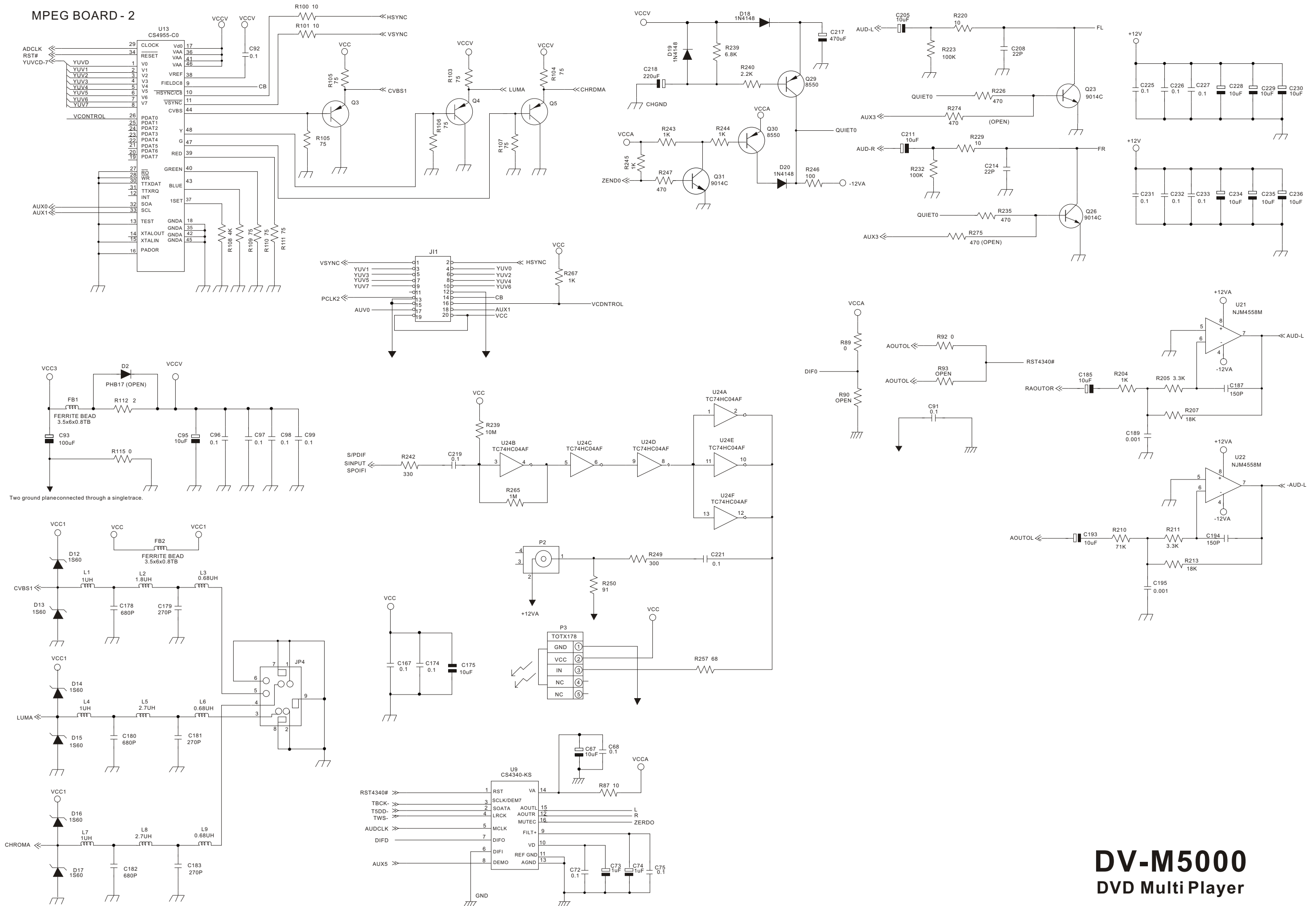


1. IF USING X4053, UNINSTALL V6300, D7, C64. INSTALL R74=4.7K  
 2. IF USING 24C01, WITH V6300, OPEN D7, C74, C64, OPEN V6300 WITH D7, R74, C84

**DV-M5000**  
 DVD Multi Player

SHORT B AND ECURRENT ES4408

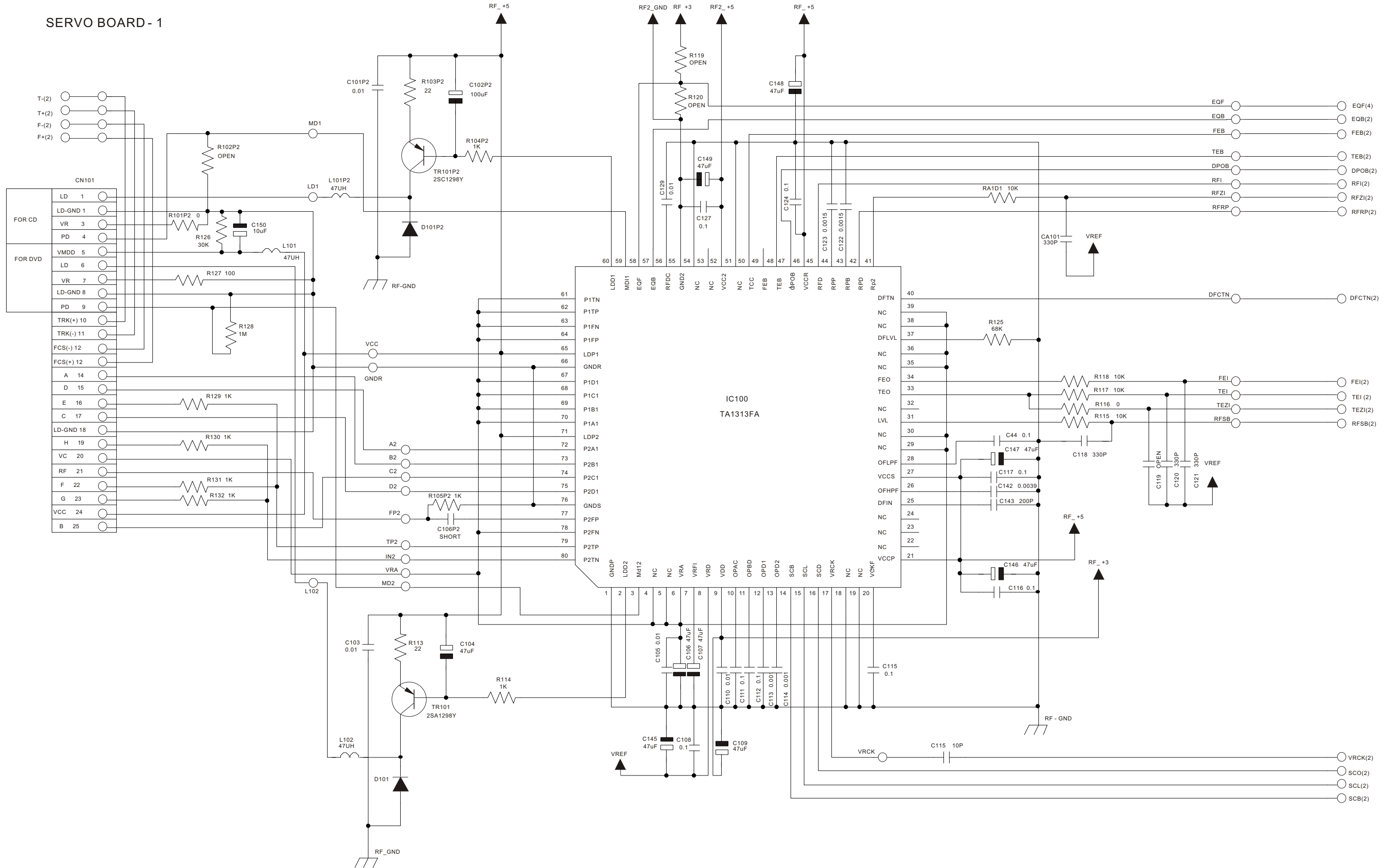
# MPEG BOARD - 2



Two ground planes connected through a single trace.

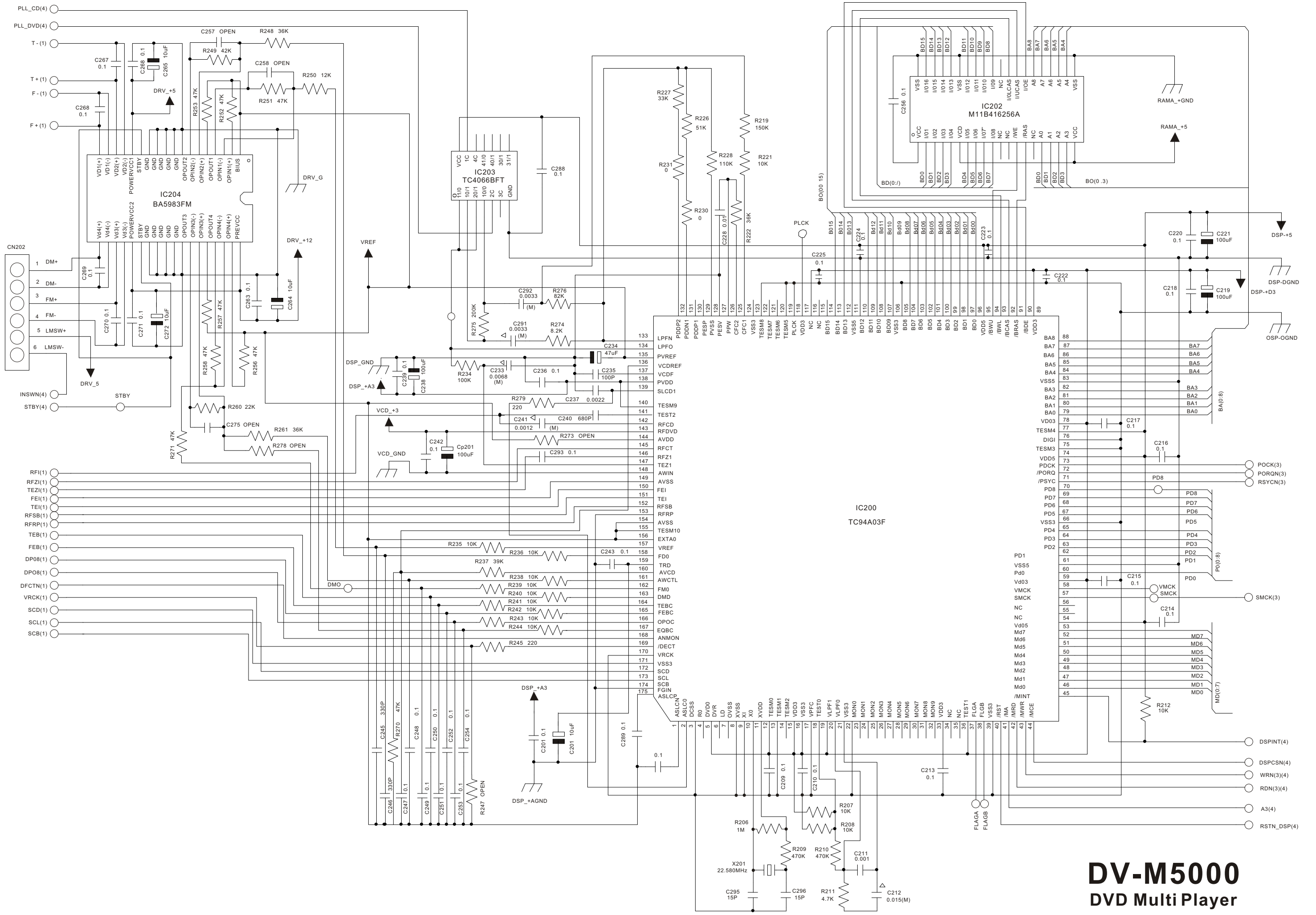
**DV-M5000**  
DVD Multi Player

SERVO BOARD - 1



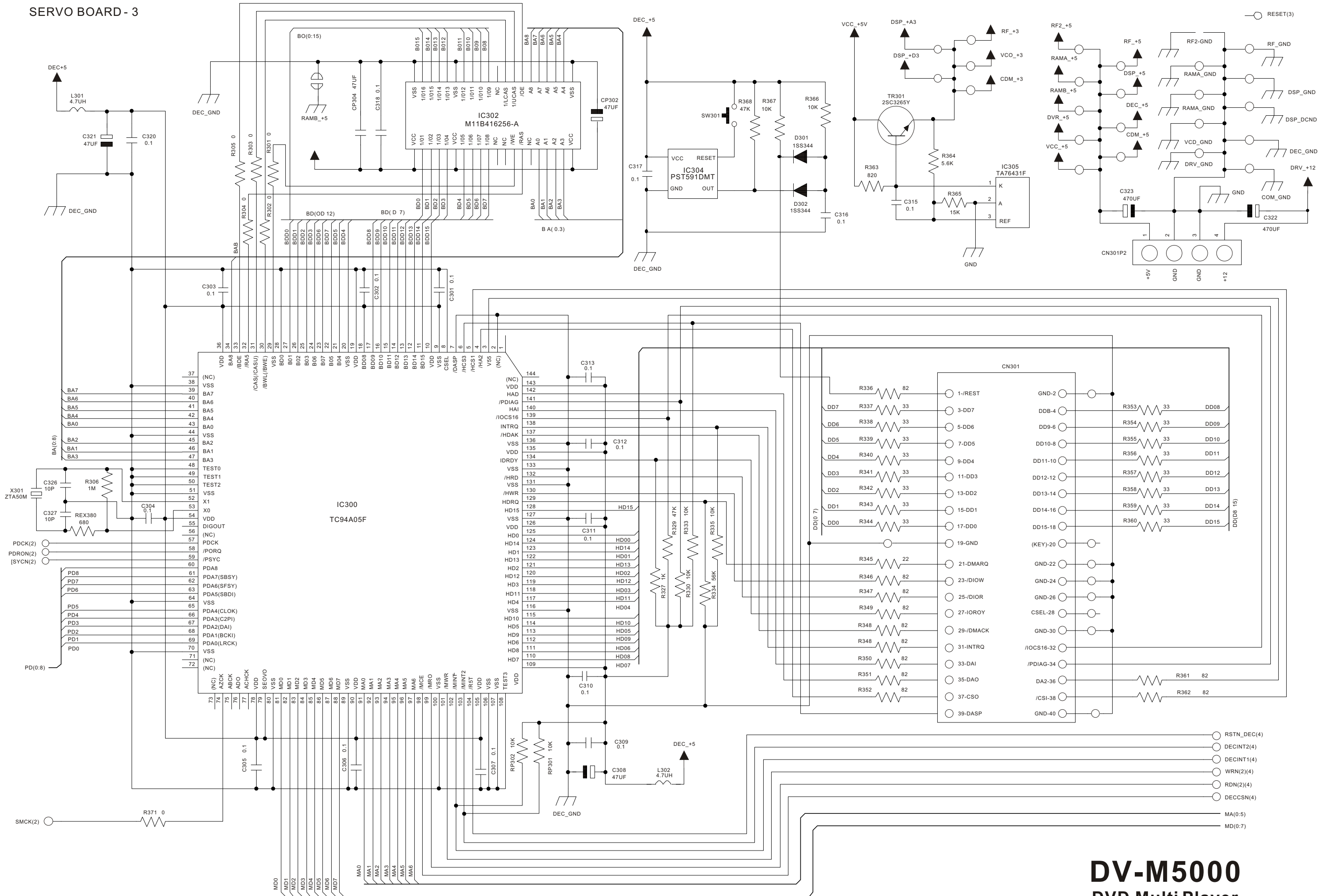
**DV-M5000**  
DVD Multi Player

SERVO BOARD - 2



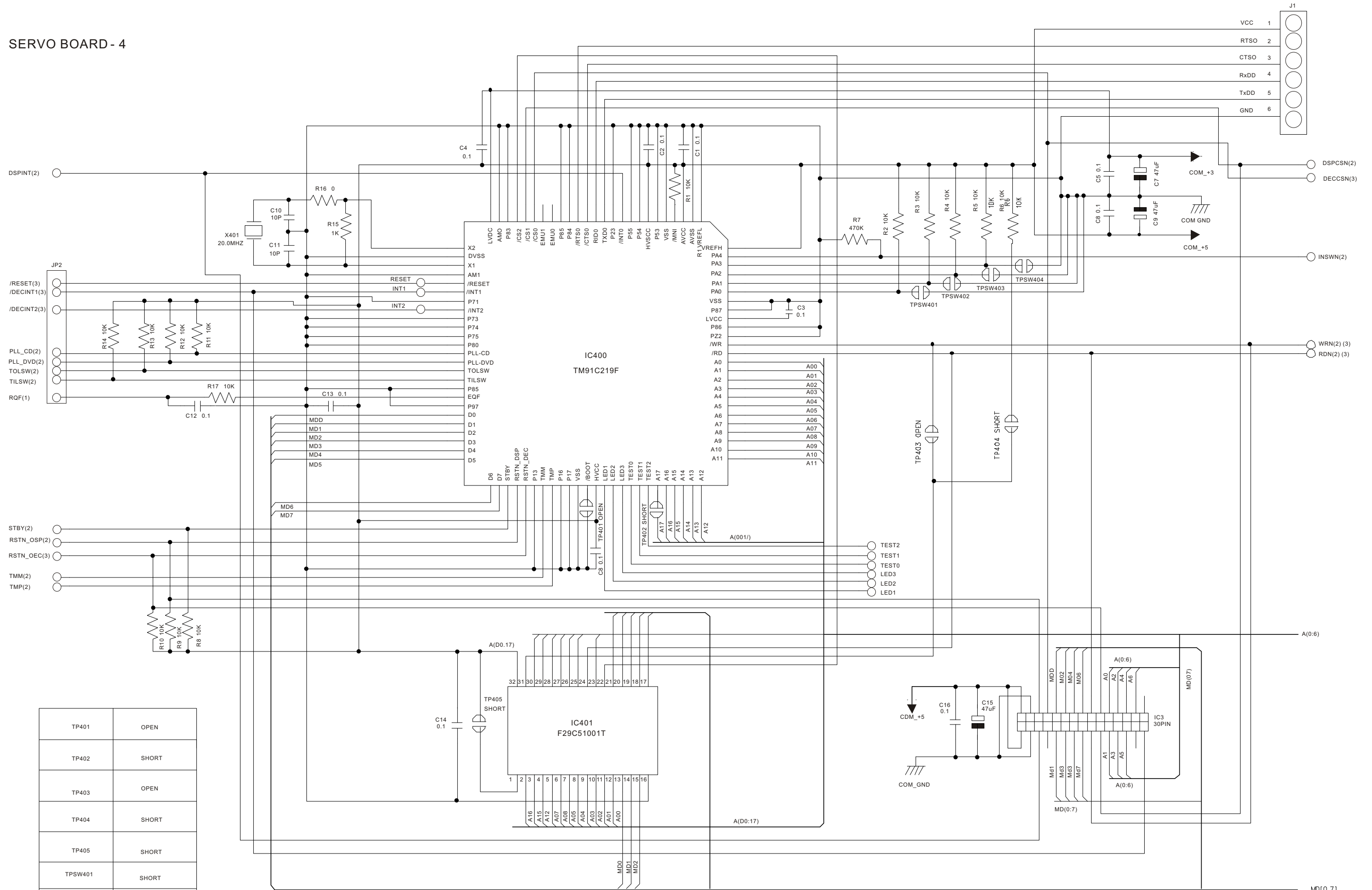
**DV-M5000**  
DVD Multi Player

SERVO BOARD - 3



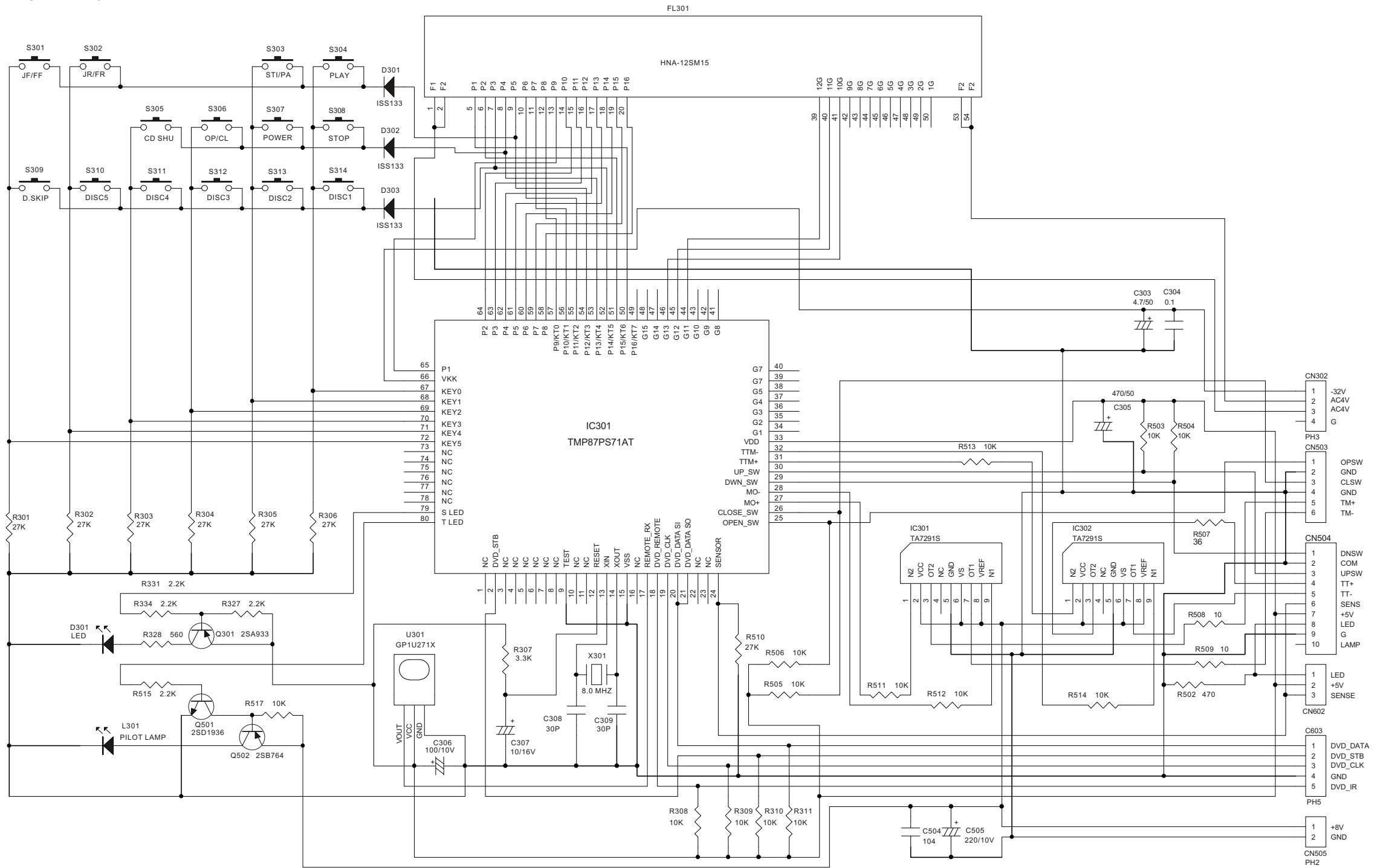
**DV-M5000**  
DVD Multi Player

SERVO BOARD - 4



**DV-M5000**  
DVD Multi Player

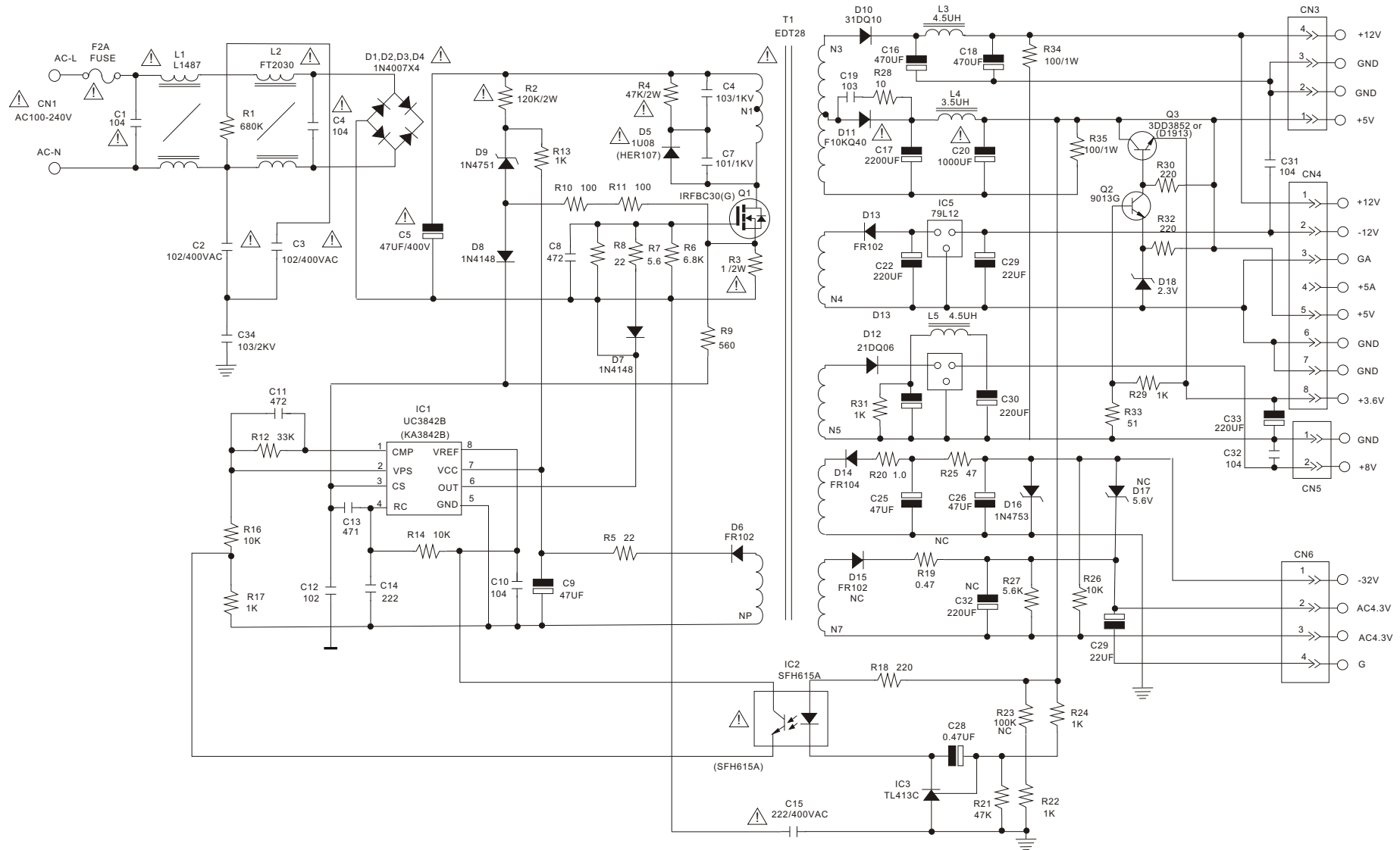
DISPLAY BOARD



**DV-M5000**  
DVD Multi Player



# SMP(POWER) BOARD



**DV-M5000**  
DVD Multi Player